



Transport Management & Accessibility Plan

Stage 1 Westlink, Mamre Road Precinct

59-63 Abbots Road & 290-308 Aldington Road, Kemps Creek

19/10/2022P1323r06



info@asongroup.com.au

+61 2 9083 6601

Suite 17.02, Level 17,

1 Castlereagh Street,

Sydney, NSW 2000

Document Control

Project No	1323
Project	ESR Westlink Stage, Abbots Road, Kemps Creek
Client	ESR Developments (Australia) Pty Ltd
File Reference	1323r06v2 TMAP Stage 1 Westlink, Issue

Revision History

Revision No.	Date	Details	Author	Approved by
-	25/08/2022	Draft	M. Abdullah	R. Butler-Madden
I	31/08/2022	Issue	M. Abdullah	R. Butler-Madden
I	17/10/2022	Issue	M. Abdullah	R. Butler-Madden

This document has been prepared for the sole use of the Client and for a specific purpose, as expressly stated in the document. Ason Group does not accept any responsibility for any use of or reliance on the contents on this report by any third party. This document has been prepared based on the Client's description of its requirements, information provided by the Client and other third parties.

contents

Glossary

1	Introduction	1
1.1	Overview	1
1.2	Mamre Road Precinct Road Network Requirements	1
1.3	Assessment Objectives	2
1.4	Secretary's Environmental Assessment Requirements	2
1.5	Reference Documents	4
2	The Proposal	5
2.1	Overview	5
3	The Existing Site	7
3.1	Location	7
3.2	Current Site Land Usage	7
3.3	Site Access	7
3.4	The Existing Road Network	9
4	Mamre Road Precinct Rezoning	11
4.1	Strategic Context	11
4.2	Mamre Road Upgrade	13
4.3	Mamre Road Development Control Plan	17
4.4	Public Transport	19
5	Traffic Impact Assessment	23
5.1	Assessment Methodology	23
5.2	Proposed Traffic Generation Assessment	23
5.3	Proposal Traffic Generation	24
5.4	Traffic Assessment – Ultimate Road Network	25
5.5	Interim Modelling Assessment	25
6	Transport Assessment	31
6.1	Journey to Work Data Analysis	31
6.2	Measures to Reduce Private Vehicle Use	32
7	Parking Assessment	34
7.1	Car Parking	34
7.2	Parking Requirements & Provision	34
7.3	Bicycle Parking	35
	Access Parking and Servicing Design	37
7.4	Design Standards	37
7.5	Design Vehicles	37
7.6	Access Driveways	37

7.7	Parking Areas	38
7.8	Service Areas	38
8	Conclusions	39

contents continued

Figures

Figure 1: Proposed Stage 1 Masterplan	6
Figure 2: Site Location & Road Hierarchy	8
Figure 3: Mamre Road Precinct Structure Plan	12
Figure 4: Mamre Road Upgrade	14
Figure 5: Abbots Road / Mamre Road - Currently Proposed Ultimate Intersection	15
Figure 6: Approved Bakers Lane / Mamre Road Intersection	16
Figure 7: Approved Mamre Road / Aspect Industrial Estate Intersection	17
Figure 8: DCP Precinct Road Network	18
Figure 9: MRP DCP Typical Local Industrial Road	19
Figure 10: Public & Active Transport Network	20
Figure 11: BWSEA Cycle Routes	22
Figure 12: 2026 Interim Modelling Assessment Road Network	26
Figure 13: Travel Mode Share	31
Figure 14: 2026 Development Traffic Flows, AM Peak	4
Figure 15: 2026 Development Traffic Flows, PM Peak	5

Tables

Table 1: Department of Planning, Industry & Environment SEARs	2
Table 2: Site Description	7
Table 3: Key Road Network	9
Table 4: 2018 Mamre Road Traffic Flows	10
Table 5: TfNSW Agreed Trip Rates	23
Table 6: Surveyed Trip Rates – Warehouse Development	24
Table 7: Stage 1 Traffic Generation	24
Table 8: Scenario 1 – key intersection SIDRA results	27
Table 9: Scenario 2 – key intersection SIDRA results	28
Table 10: Estate Wide Trip Generation for scenario 1 & 2	28
Table 11: Trip Generation Comparison	29
Table 12: Site Travel Mode Targets & Person One-way Trips by 2026	33
Table 13: DCP Parking Rates	34
Table 14: Car Parking Requirements & Proposed Provision	34
Table 15: MRP DCP Cycle Parking Rates	35
Table 16: Bicycle Parking Requirements & Provision	36
Table 17: End-of-Trip Parking Rates	36

APPENDICES

- Appendix A. Hourly Traffic Generation**
- Appendix B. Development Traffic Flows**
- Appendix C. Framework Sustainable Travel Plan**
- Appendix D. Swept Path Analysis**
- Appendix E. Draft Construction Traffic Management Plan**

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
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TfNSW	Transport for New South Wales
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 ESR Developments (Australia) Pty Ltd (ESR) to prepare a Transport Management & Accessibility Plan (TMAP) in relation to the State Significant Development (SSD) for the Westlink (the Estate, SSD-9138102). The Estate is located at 59-63 Abbotts Road & 290-308 Aldington Road, Kemps Creek (the Site).

The Site is within the Mamre Road Precinct (MRP), which was rezoned in June 2020 for primarily industrial uses. The Department of Planning and Environment (DPE) adopted a precinct-wide Development Control Plan on the 19 November 2021 (herein referred to as the MRP DCP).

The SSD proposed development seeks consent for Stage 1 of the Estate, which includes Warehouses 1 and 4, plus delivery of the internal road network connections, as per the MRP DCP, as well as the associated earthworks and subdivision of land (the Proposal). A detailed description of the SSD is in the Environmental Impact Statement (EIS) which this TMAP accompanies, prepared by Ethos Urban.

1.2 Mamre Road Precinct Road Network Requirements

1.2.1 Strategic Road Network Requirements

The background traffic modelling to identify the required road network layout to facilitate the development of the MRP, was finalised in late 2021. The results of this modelling assessment have underpinned the road network layout detailed within the MRP DCP and considered the traffic growth associated within the wider Western Sydney area.

Ason Group worked with DPE and Transport for New South Wales (TfNSW) collectively, to deliver this assessment (herein referred to as the MRP modelling assessment).

Therefore, a key purpose of this report is to ensure that the Proposal remains consistent with the assumptions that have informed the MRP modelling assessment, which was undertaken for the future assessment years of 2031 and 2036.

As such, the key forecast year for assessment of the Proposal is 2026.

1.2.2 Interim Intersection Requirements

While the MRP DCP identifies the ultimate road network (by 2036), no staging strategy has been identified which allows for the initial stages of development in the interim period prior to delivery of the ultimate road network.

Therefore, the Land Owners Group East (LOG-E), represented by ESR, Fife Kemps Creek and Frasers Property Australia, are proposing upgrades to the Aldington Road and Abbotts Road corridor as well as the Mamre Road / Abbotts Road intersection.

Ason Group has worked on behalf of LOG-E to deliver the modelling assessment of the interim road network which forms part of the relevant applications currently under consideration by DPE (see Section 5.5). The

scope of this modelling was discussed with TfNSW and DPE, and the results have been documented separately within the following report:

- Ason Group, *P1815 – Mamre Road Precinct – LOG East – Revised Modelling*, P1815m02_v2 MRP_LOG East 2026 Revised Modelling, 17 June 2022 (LOG-E Modelling Memo).

TfNSW have now endorsed this modelling assessment.

The upgrades are currently proposed as part of the SSD process and will be delivered through a joint Voluntary Planning Agreement (VPA) between LOG-E and Council for Aldington Road and Abbots Road and DPE for the Mamre Road / Abbots Road intersection.

1.3 Assessment Objectives

The key objectives of this SSDA TMAP are as follows:

- To establish that the development of the Site further to the Proposal is compliant and consistent with the relevant access, traffic and parking requirements.
- To establish that the trip generation of the Proposal can appropriately be accommodated by interim upgrades to the local road network.
- To demonstrate that there is an appropriate and sustainable provision of car parking across the Site.
- To demonstrate that the proposed access driveways, internal roads, car parks and service facilities can provide a design compliant with the relevant Australian Standards.

1.4 Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs) were issued by the NSW Department of Planning, Industry & Environmental (DPIE) in September 2020 regarding the Proposal and include both general DPE SEARs and more specific TfNSW SEARs.

The DPE SEARs relating to transport issues are outlined in **Table 1** below, Ason Group has provided a summary response to each SEAR, and reference to the section of this TMAP providing a more detailed analysis of each SEAR.

TABLE 1: DEPARTMENT OF PLANNING, INDUSTRY & ENVIRONMENT SEARS

SEAR	Response Summary	Section
details of all traffic types and volumes likely to be generated during construction and operation, including a description of haul routes. Traffic flows are to be shown diagrammatically to a level of detail sufficient for easy interpretation.	Operational traffic flows have been determined at the key intersections of Mamre Road & Bakers Lane and Mamre Road & Abbots Road in clear figures. Construction traffic flows cannot be determined at this time; however, anticipated the anticipated construction vehicle mix, Site	5

	access provisions and potential haul routes have been clearly identified (Appendix E).	
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 Aldington Road for the duration of the works because traffic growth in this area is expected to increase more quickly than standard growth rates.	Refer to LOG-E Modelling Memo for the assessment year of 2026. As detailed in Section 5, the Proposal is consistent with the assumptions made within the MRP modelling assessment.	5
detailing how the proposed development connects to adjoining sites to facilitate their future development for their intended purposes.	The Proposal provides the road connections in a manner consistent to that shown by the MRP DCP.	5 Architectural Plan Set
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 to detailed architectural plans.	N/A
detailed plans of the site access and proposed layout of the internal road and pedestrian network and parking on site in accordance with the relevant Australian Standards and Council's DCP.	Refer to detailed architectural plans.	N/A
swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site.	Refer to Appendix D	Appendix D
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 to Section and Appendix C	Appendix C
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 proposed development	Refer to Section 4.4 and 6	4.4, 6
measures to integrate the development with the existing/future public transport network.	Refer to Section 6 and Appendix C	4.4, 6
Consultation	A consultation meeting was conducted with the TfNSW assessment team on 22 nd January 2021. Further, ongoing consultation with TfNSW and DPE has been undertaken in regard to the modelling assessments undertaken.	N/A

1.5 Reference Documents

As discussed, the Site lies with the MRP; as such, Ason Group has referenced the MRP DCP as it provides the overarching controls for the Site and the wider Precinct:

- DPE, *Western Sydney Employment Area, Mamre Road precinct, Development Control Plan*, November 2021 (MRP DCP).

Further to the above, the Site lies within the Penrith City Council Local Government Area (LGA); as such, Ason Group has referenced the following key Council controls in preparing this TMAP:

- Penrith City Council Local Environmental Plan 2010 (Penrith LEP).
- Penrith City Council Development Control Plan 2014 (Penrith DCP).

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

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

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

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

2 The Proposal

2.1 Overview

A detailed description of the SSD Proposal is included in the Environmental Impact Statement (EIS) which this TMAP accompanies. In summary, the application relates to the construction of an industrial estate with associated hardstand and parking. The following summarises key aspects of the Proposal for which approval is being sought:

- Stage 1 Masterplan inclusive of 2 warehouse developments, detention basin and internal roads, including connection Abbots Road;
- Demolition and clearing of all existing built form structures and existing vegetation, subdivision of land;
- Construction of 2 industrial warehouse buildings comprising:
 - A total warehouse Gross Floor Area (GFA) of 78,906m² (including battery charging chamber GFA of 850m²)
 - A total ancillary and dock office GFA of 2,736m²
 - Provision of 381 parking spaces
 - Associated site landscaping
 - 1 x detention basin

The proposed Masterplan (prepared by Nettletontribe Architects) is shown in **Figure 1**.

Access to the Site will be provided by the extension of Abbots Road. Included within the VPA offer ESR and LOG-E have put forward to Council is the signalisation of the Abbots Road / Aldington Road intersection.



Figure 1: Proposed Stage 1 Masterplan

3 The Existing Site

3.1 Location

The Site is comprised of 3 separate allotments (refer to **Table 2**) and is legally described as Lots 13, 12 and 11 in DP253503. The Site is located approximately 4km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 12km south-east of the Penrith CBD and 40km west of the Sydney CBD. It is located at 290-308 Aldington Road, 59-62 Abbots Road, and 63 Abbots Road. The land is approximately 320,000m² in area and is irregular in shape.

The Site is shown in its sub-regional context in **Figure 2**, as well as the broader MRP area in which it lies.

TABLE 2: SITE DESCRIPTION

Address	Title	Area (m ²)
290-308 Aldington Road	Lot 13 / DP253503	104,700
59-62 Abbots Road	Lot 12 / DP253503	104,900
63 Abbots Road	Lot 11 / DP253503	110,200

3.2 Current Site Land Usage

The Site currently provides for a number of rural residential properties, as well as for small scale agricultural industries businesses. The properties along the length of Aldington and Abbots Roads can be categorised in this manner.

3.3 Site Access

The Site currently has access points onto Aldington Road and Abbots Road through various access driveways into existing properties. Abbots Road connects with Mamre Road to the west of the Site, and to the north, by way of Aldington Road and Bakers Lane. From Mamre Road, access is available north to the M4 Motorway, Great Western Highway, Lenore Drive and M7 Motorway; and south to Elizabeth Drive, the M7 Motorway and the future M12 Motorway.

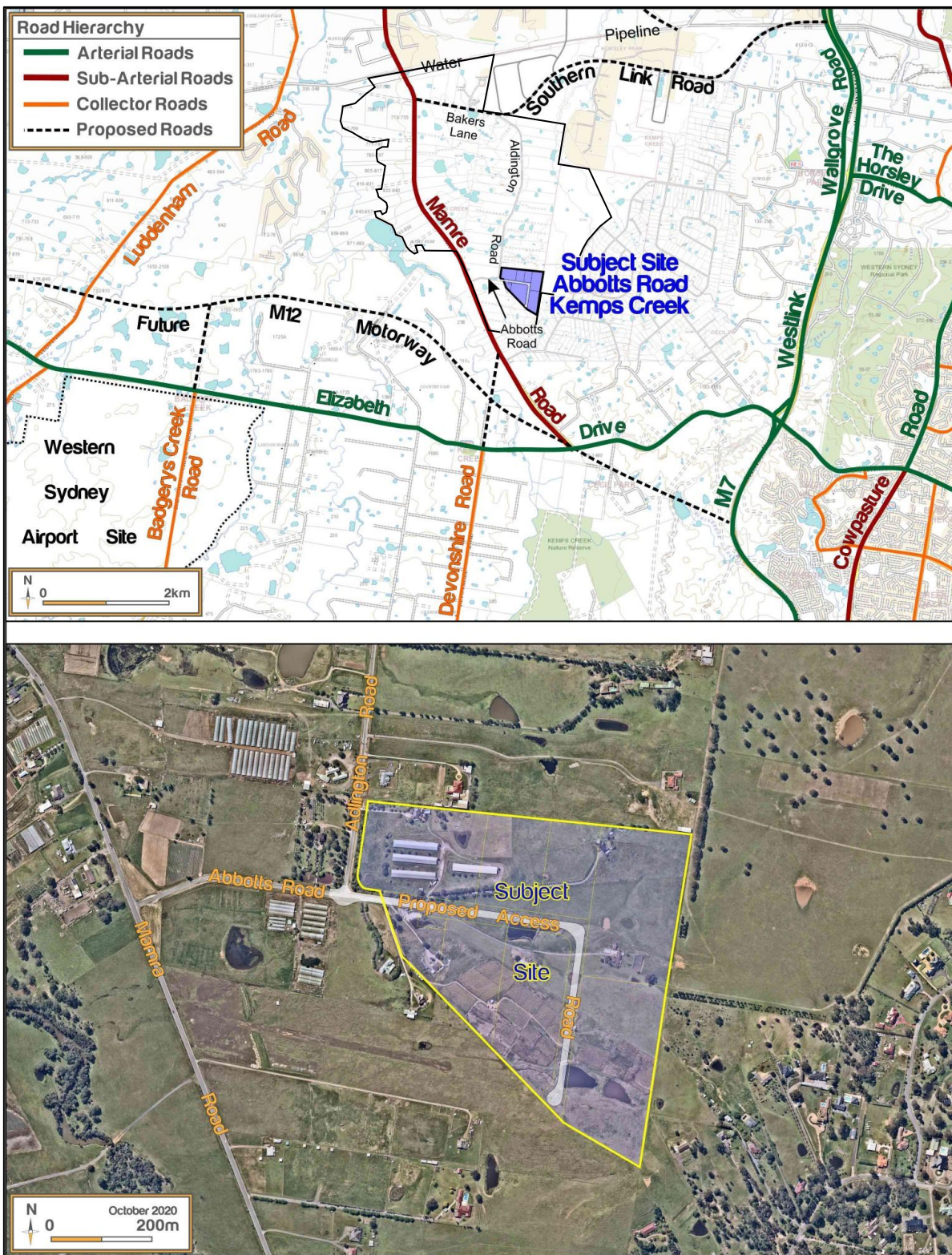





Figure 2: Site Location & Road Hierarchy

3.4 The Existing Road Network

3.4.1 Key Roads

The existing road network providing access to the Site is shown in **Figure 2**, and detailed further below:

TABLE 3: KEY ROAD NETWORK

Road	Description	Typical Road Characteristics
Mamre Road	An arterial road which runs north-south between the Great Western Highway and M4, and Elizabeth Drive respectively. In the vicinity of the Site, Mamre Road has a posted speed limit of 80km/h.	
Aldington Road	A local access that runs north-south (to the east of Mamre Road) and currently provides access for a number of rural residential properties. It connects with Bakers Lane to the north and Abbotts Road to the south. It provides 1 traffic lane in each direction and has a posted speed limit of 80km/h.	
Abbotts Road	A local access road that runs east-west connecting to Mamre Road (to the east of Mamre Road) and currently provides access for a number of rural residential properties. Abbotts Road provides 1 traffic lane in each direction and has a posted speed limit of 60km/h,	

3.4.2 Existing Traffic Flows

Ason Group conducted AM and PM peak period traffic surveys in Mamre Road south of Bakers Lane in 2018; based on the minimum number of traffic generating developments in the vicinity of the Site, these flows provide a good representation of current traffic flows in Mamre Road west of the Site.

The results of the surveys are shown in **Table 4**.

TABLE 4: 2018 MAMRE ROAD TRAFFIC FLOWS

Peak Period	Total Volumes	Directional Volumes
AM	1,391	NB: 782 vph
		SB: 609 vph
PM	1,541	NB: 678 vph
		SB: 863 vph

4 Mamre Road Precinct Rezoning

4.1 Strategic Context

4.1.1 Strategic Policies

In June 2020, the NSW Government rezoned MRP from rural uses to IN1 General Industrial. In summary, the rezoning sought to:

- Responds to the demand for industrial land in Western Sydney, as well as the future freight, logistics and industrial needs of Greater Sydney.
- Facilitates the NSW Government's vision for the Western Parkland City.
- Facilitate the delivery of a 30-minute city as detailed in the Western City District Plan.

The rezoning provides for approximately 850 hectares of industrial land with an approximate capacity of 17,000 jobs, and the creation of new environmental conservation areas and public open space.

The Mamre Road Precinct Structure Plan (the MRP Structure Plan) is shown in **Figure 3**.

4.1.2 Key Infrastructure

- **Mamre Road:** Mamre Road provides the central north-west access corridor to/through the MRP.
- **Southern Link Road:** The SLR is a proposed east-west link from Wallgrove Road to Mamre Road, connecting the MRP to the existing Western Sydney Employment Area (WSEA) lands.
- **Future Internal Roads:** The internal network for the MRP is detailed within the MRP DCP.

The design of the Proposal provides for full integration with the future internal MRP road network.

- **Active & Public Transport:** As discussed further below, there is very little active transport infrastructure within the MRP at this time.

The future primary active transport corridor is expected to be designed around Mamre Road itself, with the shared paths along its full length.

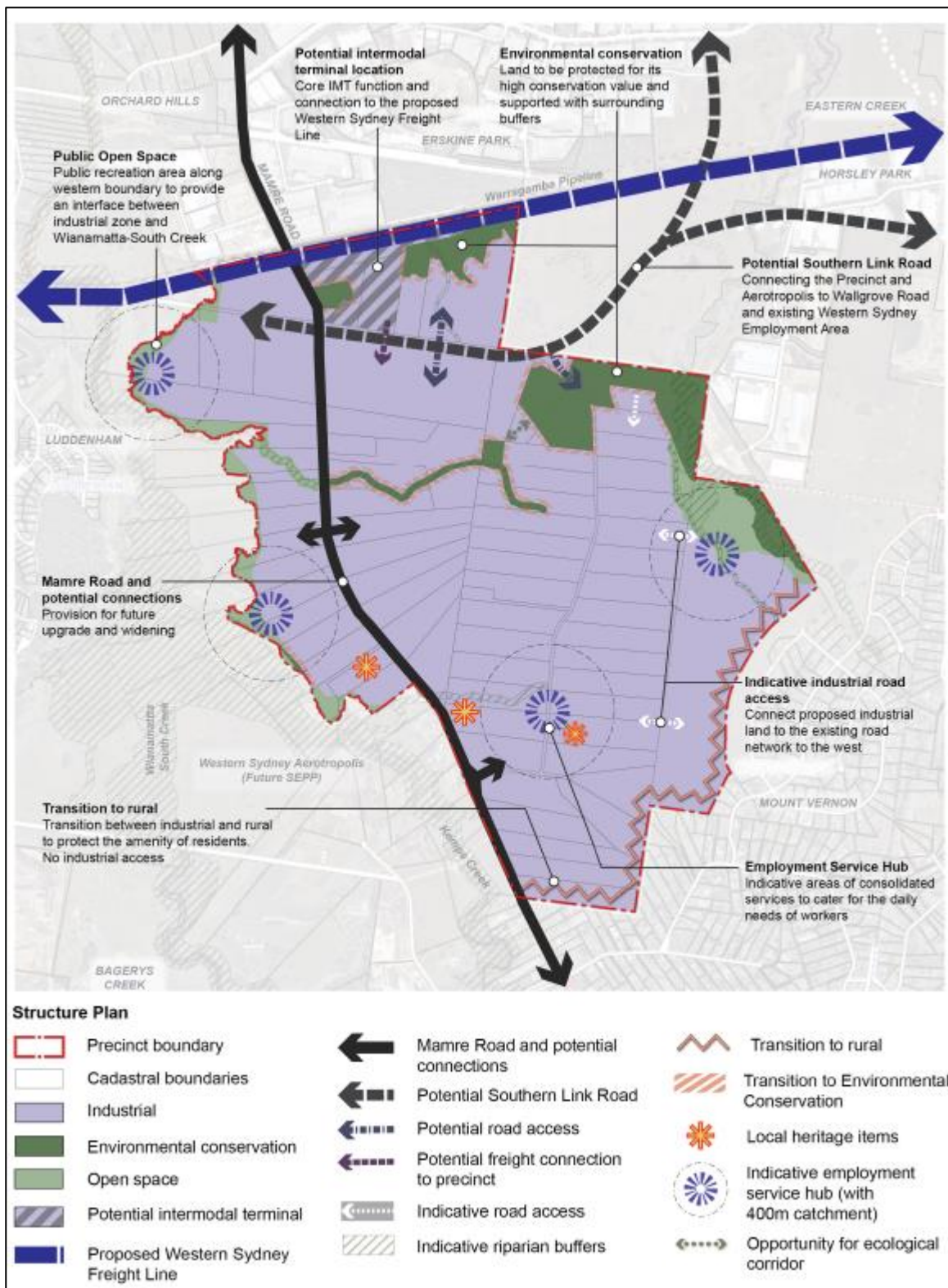


Figure 3: Mamre Road Precinct Structure Plan

Source: NSW Government

4.2 Mamre Road Upgrade

4.2.1 Overview

The MR Upgrade Report details the proposed MR Upgrade (the MR Upgrade) between the M4 Motorway and Kerrs Road (south of the Site, and north of Elizabeth Drive). The objectives of the MR Upgrade – which essentially mirror those of the broader MRP Rezoning Paper - are stated as:

- Meeting the future transport demand associated with the Western Sydney Priority Growth Area and the Western Sydney Airport at Badgerys Creek;
- Reducing future road transport costs by improving corridor performance;
- Improving liveability and sustainability and support economic growth and productivity by providing road capacity for projected freight and general traffic volumes;
- Improving road safety in line with the NSW Road Safety Strategy;
- Improving quality of service, sustainability and liveability by providing facilities for walking and cycling and future public transport needs;
- Delivering good urban design outcomes; and
- Minimising environmental and community impacts.

4.2.2 Mamre Road Upgrade Design Components

The MR Upgrade provides the following key infrastructure proposals:

- **A typical cross section that includes:**
 - 2 traffic lanes in each direction with a wide central median between the M4 Motorway and Kerrs Road;
 - Provisions for the central median to provide third traffic lane in each direction to meet growing demand; and
 - Shared bicycle and pedestrian paths to promote active transport.
- **New or upgraded intersections.**

The broader MR Upgrade proposal (per the MR Upgrade Report) is shown in **Figure 4**.

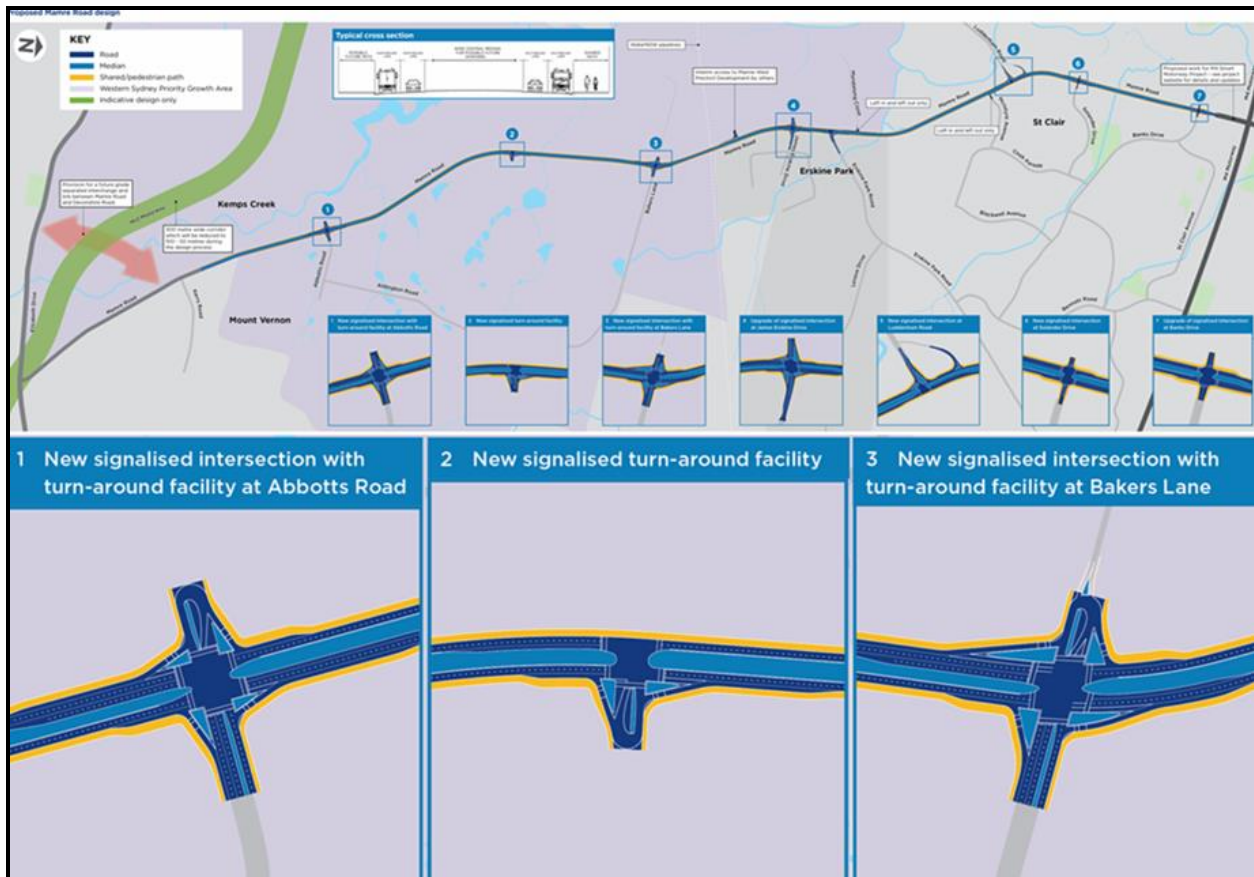


Figure 4: Mamre Road Upgrade

Source: Mamre Road Upgrade Report¹

4.2.3 Abbotts Road & Bakers Lane Intersection Upgrades

The ultimate future signalised intersection capacity requirements at the Abbotts Road and Bakers Lane intersections with Mamre Road have been identified as part of the MRP modelling assessment process.

While the capacity requirements have been determined as part of the MRP modelling assessment for the future years of 2031 and 2036 (which has been confirmed as part of the finalisation of the MRP DCP), it is not currently understood what the finalised design will be.

As such, the LOG-E, represented by ESR, Fife Kemp's Creek and Frasers Property Australia, are proposing a staged upgrade to the intersection. The approval of the upgrade will form part of the initial SSD consent to be provided of the 3 land owners (expected to be either the subject SSD or SSD 10479²). A letter of offer was submitted by the LOG-E jointly to upgrade the intersection, with the intent to go on exhibition in late-2022.

Acquisition of land is currently being facilitated by ESR to support the ultimate road upgrade per TfNSW's directive for the ultimate road network to be delivered. The ultimate intersection developed is shown by **Figure 5**. The intersection will be delivered collectively by the LOG-E.

¹ <https://roads-waterways.transport.nsw.gov.au/projects/01documents/mamre-road-upgrade/mamre-road-community-update-2017-11.pdf>

² <https://www.planningportal.nsw.gov.au/major-projects/project/10376>

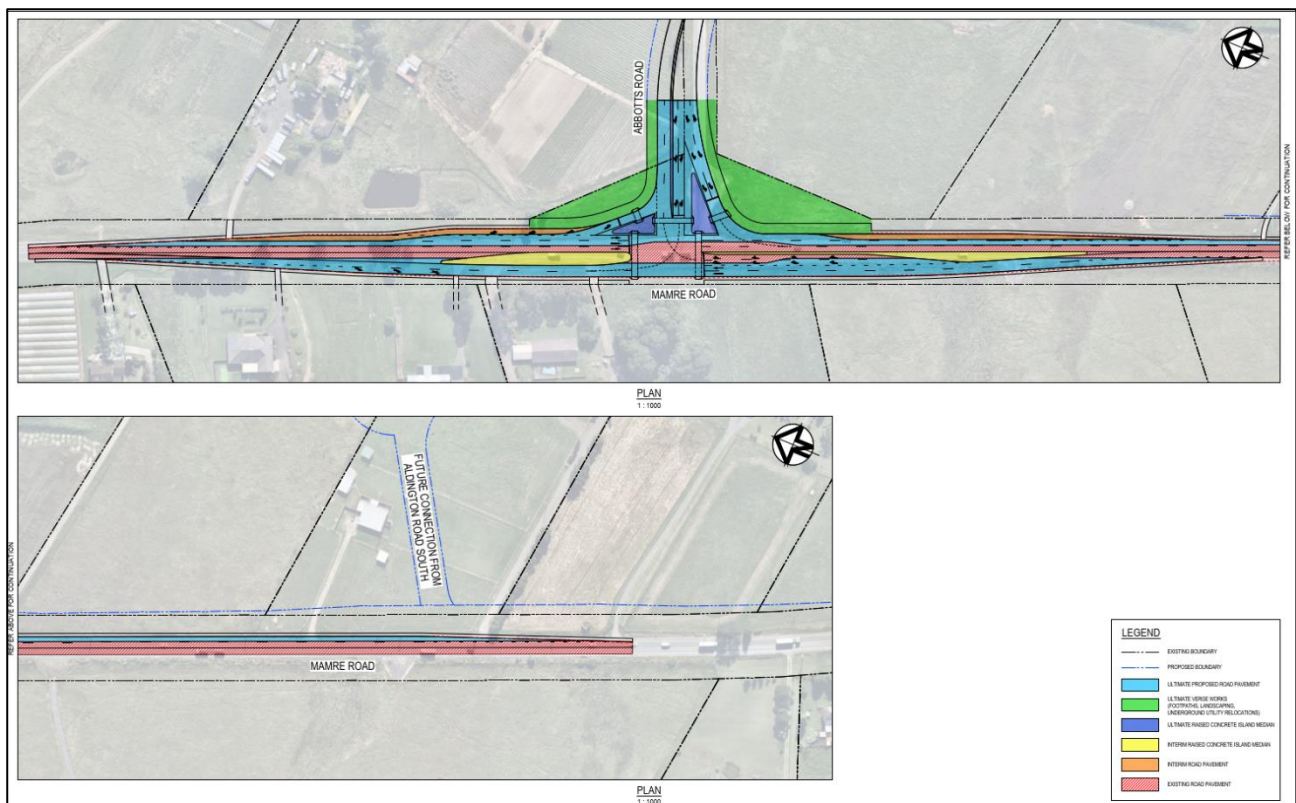


Figure 5: Abbots Road / Mamre Road - Currently Proposed Ultimate Intersection

Further to the upgrades planned to Mamre Road / Abbots Road, the approved development located at 657-769 Mamre Road (SSD 9522³) includes a requirement to upgrade the Mamre Road / Bakers Lane intersection by 2025, in advance of the delivery of the ultimate intersection. It is noted that this will form a key intersection for the MRP, with the future SLR planned to be provided along the current alignment of Bakers Lane.

The approved intersection design, to be delivered by 2025, is reproduced in **Figure 6**.

³ <https://www.planningportal.nsw.gov.au/major-projects/project/10376>

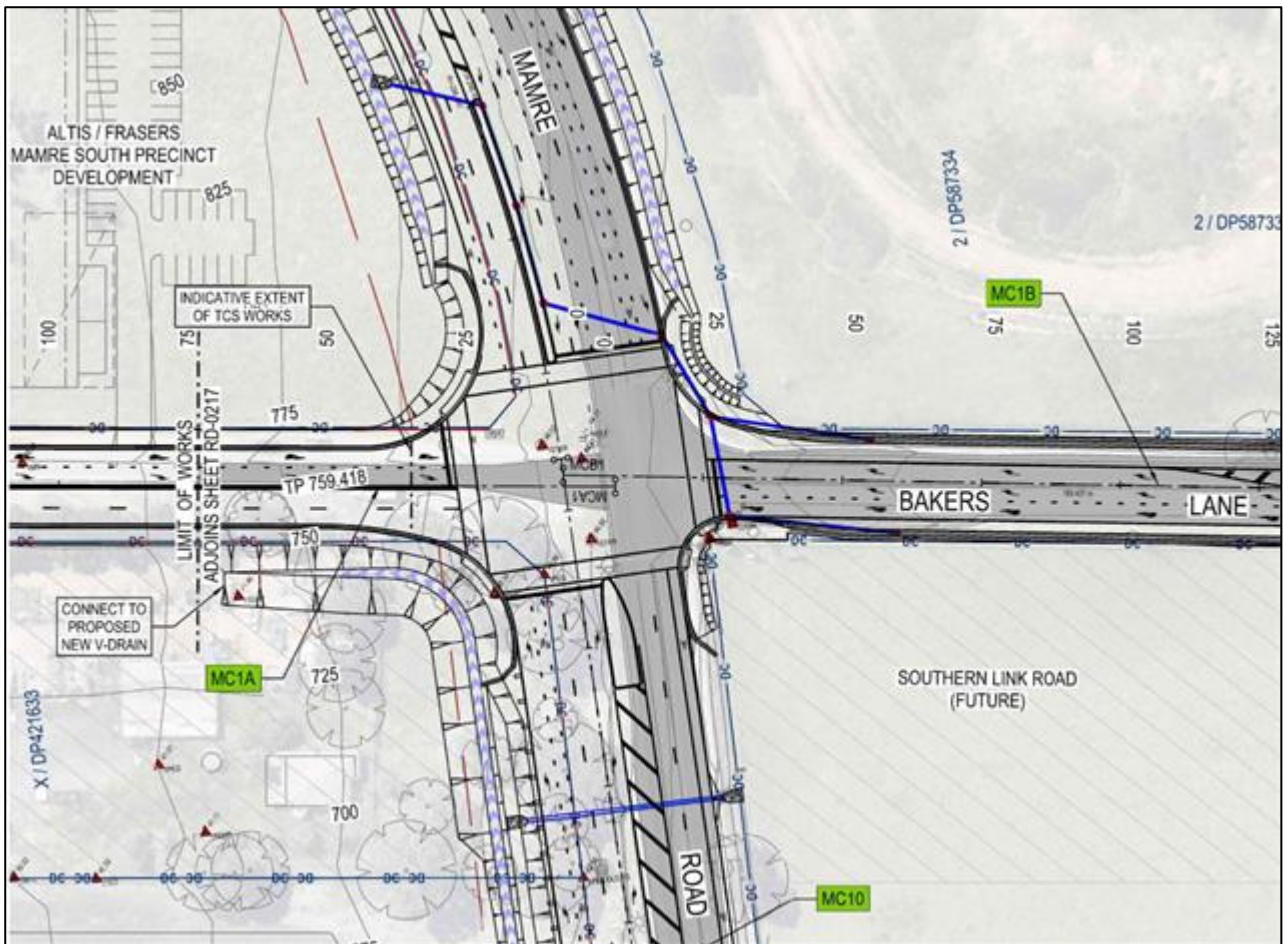


Figure 6: Approved Bakers Lane / Mamre Road Intersection

4.2.4 Mamre Road / Aspect Industrial Estate Approved Intersection

Further to the above, a new signalised intersection is to be delivered as part of the approved SSD-10448⁴ located at Lots 54 - 58 in DP 259135, on Mamre Road. The intersection relates intersection 2 of the Mamre Road Upgrade (Figure 4). The approved intersection is shown by **Figure 7** and will provide a key access to the internal MRP road network.

⁴ <https://www.planningportal.nsw.gov.au/major-projects/projects/aspect-industrial-estate>

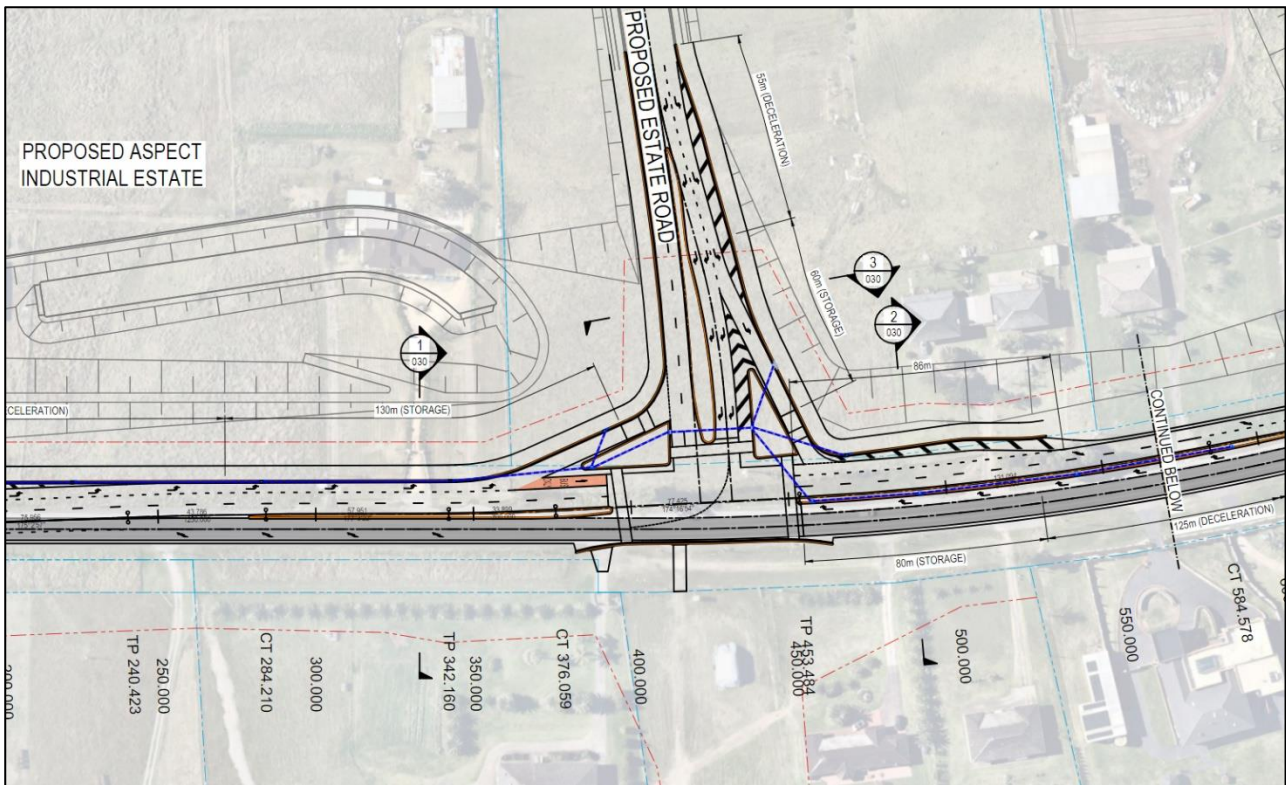


Figure 7: Approved Mamre Road / Aspect Industrial Estate Intersection

4.3 Mamre Road Development Control Plan

The finalised MRP DCP provides for the planning controls for future development in the MRP including building design controls, the road network and parking requirements. The road network outlined within the MRP DCP is shown by **Figure 8**, which provides context to the configuration of MRP roads and confirms a north-south connection and a west-east through the Site as a local industrial road.

The requirements for the local industrial road typologies, as per the MRP DCP, are shown by **Figure 9**.

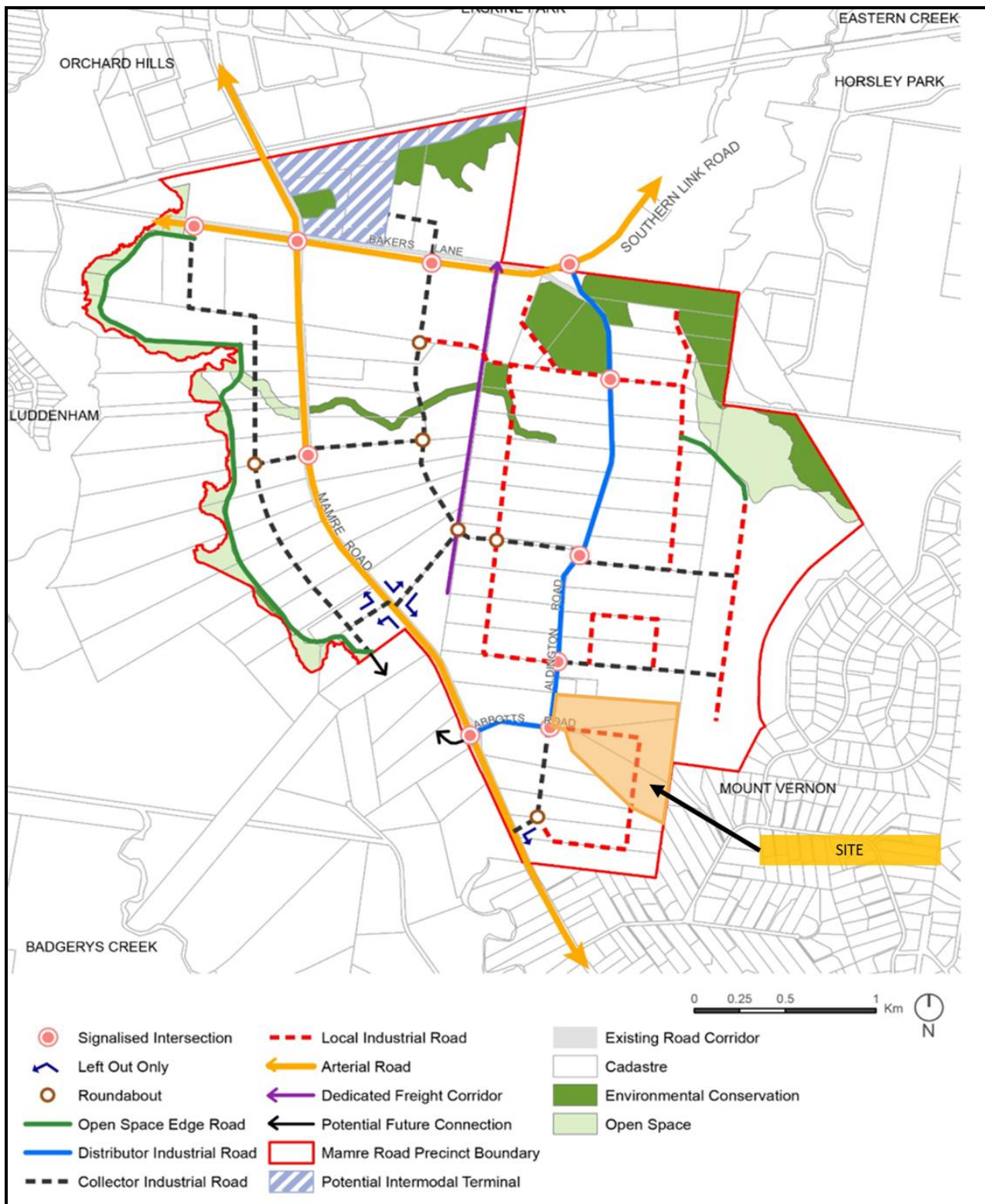


Figure 8: DCP Precinct Road Network

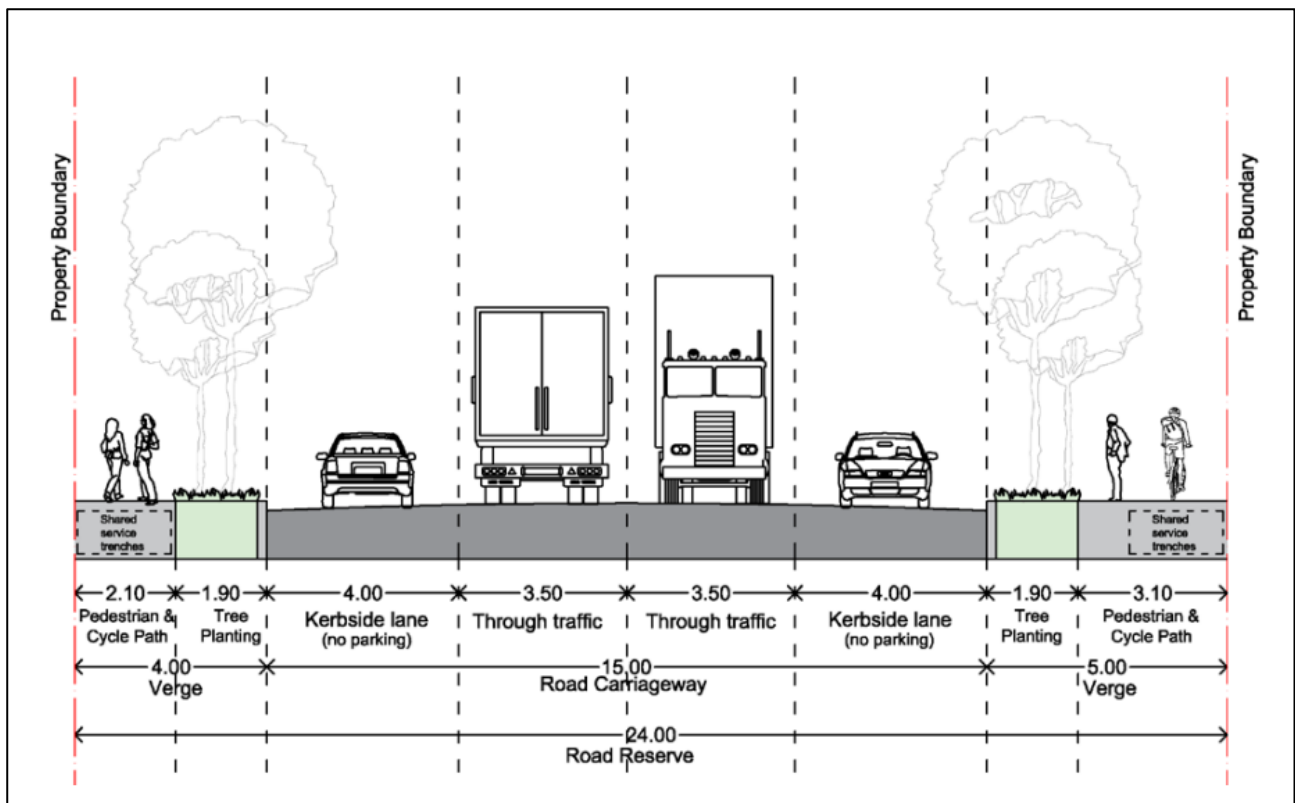


Figure 9: MRP DCP Typical Local Industrial Road

Source: Mamre Road Precinct DCP 2021

4.4 Public Transport

4.4.1 Future Public Transport Opportunities

To achieve strategic objectives of reducing vehicle trips, it is important that people are provided the opportunity to use public transport. The MRP currently lacks connectivity to public transport therefore, in the first instance, this requires improved connectivity to the broader area.

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.

Further to the bus connectivity, it is noted that the closest train station to the Site is currently some 10km away. However, the Metro Western Sydney Airport will provide 23km 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 10**. 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.

It is noted that the 779-bus route has recently been extended from a route that terminated at James Erskine Drive to connect with the Amazon Fulfilment Centre on Emporium Avenue. This route provides a key connection to the St Mary's railway station and to the broader transport network. In addition, the future Metro stations proposed to west of the MRP improve connectivity with interconnecting services.

Finally, the internal MRP road network will provide for heavy vehicle movements and, as such, would also be bus capable. Therefore, there are many opportunities to provide improved bus services; Mamre Road provides a significant opportunity to provide sub-regional services, as well as possible services within the MRP itself will maximise the number of sites that lie within 400m of a viable bus service. **Figure 10** demonstrates the future, potential bus routes for the internal MRP and public transport options, alongside the existing routes.

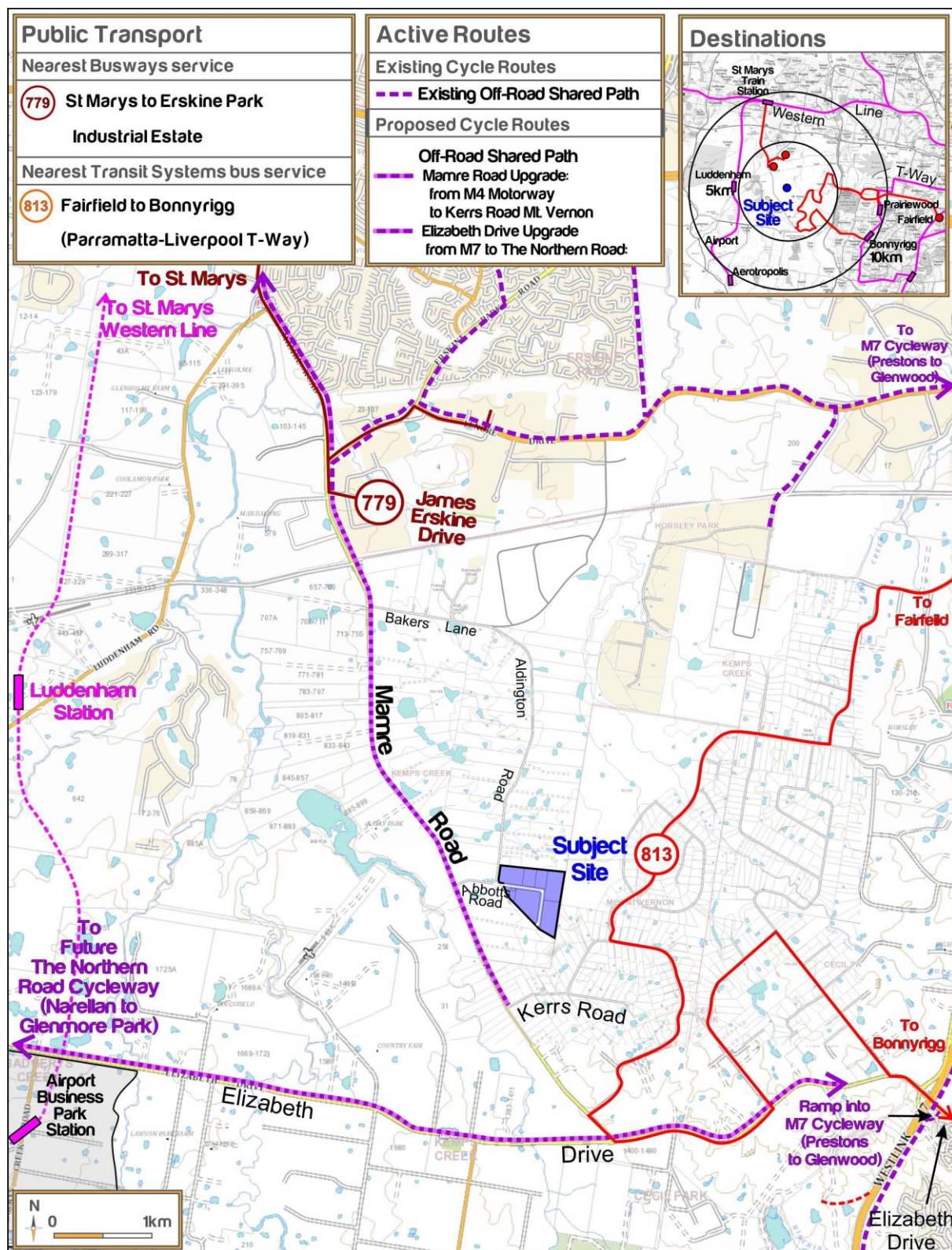


Figure 10: Public & Active Transport Network

4.4.2 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 with the MRP.

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.

Key active transport routes identified in the BWSEA Structure Plan are shown in **Figure 11** noting again that the Mamre Road upgrade Project will provide shared paths along at least one side of the road for its entire length.

Further, the MRP 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.

4.4.3 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 MRP 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.

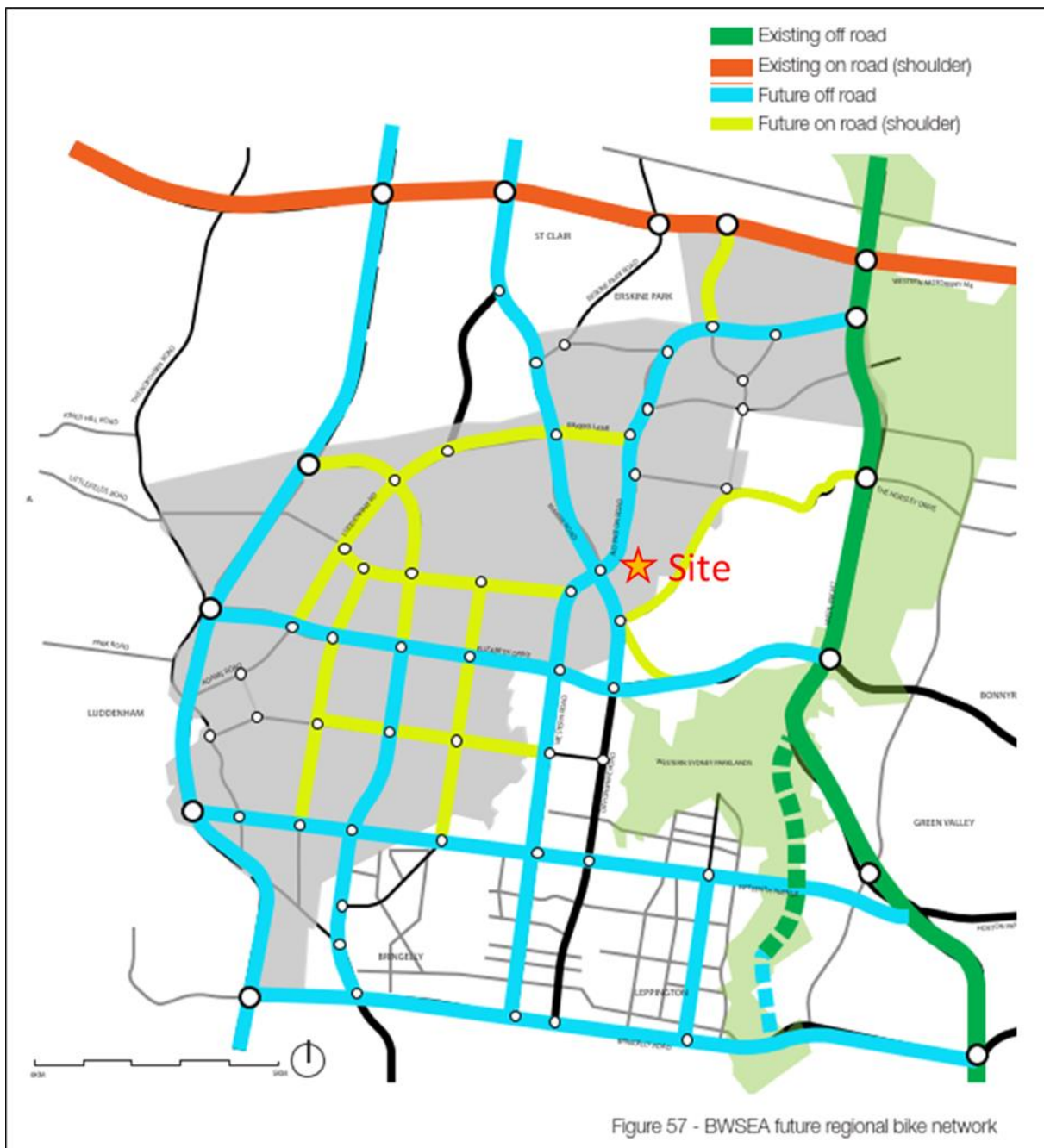


Figure 11: BWSEA Cycle Routes

Source: BWSEA Structure

5 Traffic Impact Assessment

5.1 Assessment Methodology

As discussed, the road layout detailed within the MRP DCP network has been informed by the MRP modelling assessment. Accordingly, the traffic generation impact assessment for the Proposal has considered the following separately:

- The wider MRP modelling assessment in relation to the Ultimate MRP DCP road network, of which development of the Site was considered (see Section 5.5); and
- The MRP DCP does not provide for a staging strategy. As such, the operation of the road network in 2026 (i.e. the “interim” scenario”) has been considered.

It is noted that the 2026 traffic assessment for the Site has been through an iterative process undertaken through the assessment and RFI process and, as such, the modelling assessment has been revised numerous times. Reference to previous revisions of this report should be made for earlier modelling assessments.

As discussed, the results of the most recently undertaken modelling assessment undertaken by Ason Group for LOG-E has been submitted separately to DPE and TfNSW and is detailed in the LOG-E Modelling Memo. The key results of this assessment are summarised below. It is worthy of note that the methodology for the modelling assessment was presented to, and agreed, with TfNSW prior to its commencement. Further, the assessment has now been endorsed by TfNSW.

5.2 Proposed Traffic Generation Assessment

5.2.1 TfNSW MRP Trip Rates

For the MRP modelling assessment, TfNSW provided Ason Group with trip rates for adoption, as shown by **Table 5**.

The purpose of these trip rates were to provide for some consideration to a range of uses that may be permissible under the current IN1 General Industrial land zoning.

TABLE 5: TFNSW AGREED TRIP RATES

Time Period	Rate per 100m ²
Daily Trips	2.91
Local Road AM Peak (7am – 8am)	0.23
Local Road PM Peak (4pm – 5pm)	0.24
Site Maximum Generation Rate (All Vehicles)	0.26
Site Maximum Generation Rate (Heavy Vehicles)	0.07

5.2.2 Surveyed Trip Rates

It is however noted that Ason Group conducted a number of surveys of industrial warehouses in the WSEA for the purposes of the MRP modelling assessment, including:

- Mirvac Calibre
- Huntingwood Drive
- Eastern Creek Drive
- Roussell Road
- First Estate; and
- Sarah Andrews Close

The average trip generation rate for general warehousing developments found by the surveys are summarised in **Table 6** below.

While adoption of conservative rates is deemed appropriate for strategic level assessment, where limited information is known on the ultimate development, it is noted that the Proposal has been designed with the intent for general warehouses and logistics uses. Therefore, adoption of a rate more aligned with the actual use of the Site is considered appropriate.

TABLE 6: SURVEYED TRIP RATES – WAREHOUSE DEVELOPMENT

Time Period	Rate per 100m ²
Daily Trips	2.31
Local Road AM Peak (7am – 8am)	0.17
Local Road PM Peak (4pm – 5pm)	0.15

5.3 Proposal Traffic Generation

Further to the adoption of the above trip rates, **Table 7** provides a summary of the Site's traffic generation further to the Stage 1 Proposal.

A breakdown of the Site's daily traffic profile based on the TfNSW trip rate and significant survey data available, is shown in **Appendix A**. It is noted that there are minor differences between the peak hour volumes reported in Table 7 and those reported in Appendix A further to minor rounding changes.

TABLE 7: STAGE 1 TRAFFIC GENERATION

Time Period	GFA	Rate per 100m ²	Trips	Rate per 100m ²	Trips
Daily	81,642	2.91	2,376	2.31	1,886
AM Peak		0.23	188	0.17	139
PM Peak		0.24	196	0.15	122

5.4 Traffic Assessment – Ultimate Road Network

With regard to the ultimate road layout and intersection configuration, it is notable that development of the Site was considered within the MRP modelling assessment.

It is understood that the assumptions that underpinned this modelling assessment was as follows:

- The majority of land use will take the form of a large format industrial warehousing.
- The land was separated into smaller land parcels for the purposes of identifying any constraints which will impact the developable GFA.
- The sub-precinct in which the Site lies was assumed to be able to accommodate a GFA which represented 55% of the total site area; and
- Trips rates adopted (detailed in **Table 5**), included a level of conservatism to allow for more intensive uses that may be located in the MRP, which are permissible under the land use zoning.

Of particular note to the Proposal is the assumption that 55% of the Site area represented developable GFA. With a Site area of 320,258m², this equates to a GFA of 176,142m².

Recognising that the current Proposal is seeking a GFA of 81,642m², it is clear that the Proposal is significantly within the thresholds previously assessed as part of the MRP modelling assessment.

It is clear that the Proposal is within the thresholds of developable GFA that was assessed for the MRP Modelling assessment, with the other Lots to be subject to future applications and assessment. The assessment undertaken for the MRP DCP has already determined the road layout and intersection capacity requirements for the assessment years of 2031 and 2036, on the basis of a precinct-wide cumulative assessment. As such, further assessment of the Proposal with consideration to the ultimate road network, is not deemed necessary.

5.5 Interim Modelling Assessment

The road network which was adopted for the LOG-E modelling assessment (reported in the LOG-E Modelling Memo), forms part of the relevant applications currently under consideration by DPE, as shown in **Figure 12**.

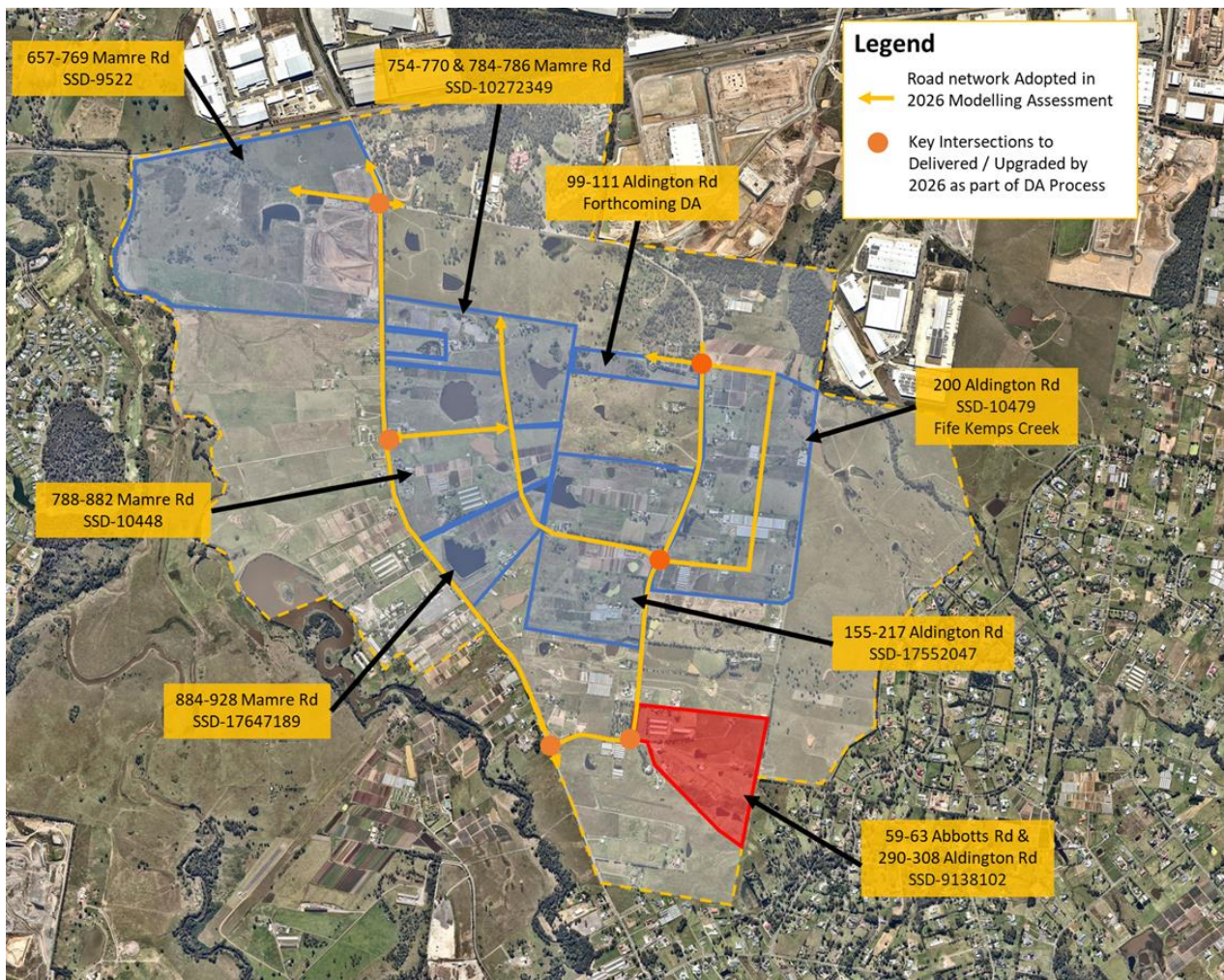


Figure 12: 2026 Interim Modelling Assessment Road Network

With reference to the modelling assessment documented in the LOG-E Modelling Memo, two scenarios were established for the 2026 network. Of note, it was assumed that the level of development delivered would equate to 50 hectares per annum, or 1,291,584m² of GFA.

Of relevance to the project Site, SIDRA intersection results of the following three key intersections are summarized below for the two scenarios respectively:

- Mamre Road / Bakers Lane
- Mamre Road / Abbots Road
- Aldington Road / Abbots Road

5.5.1 Scenario 1

Scenario 1 assessed the road network as currently proposed by the relevant SSDs, shown by Figure 12. This included the upgrade of the Mamre Road intersections with Abbots Road and Bakers Lane (as discussed in Section 4.2.3). The scenario included:

- Approximately 990,215m² of the total GFA within the MRP;
- Trips rates as provided by TfNSW (Table 5).
- The road network as currently proposed. That is, completely consistent with either the current SSD applications, approved intersection layouts or current VPA offers.
- Internal MRP road network assumed to be delivered by 2026.

A summary of the modelling results for three key intersections, as considered relevant for this assessment, under scenario 1 are provided in **Table 8**.

TABLE 8: SCENARIO 1 – KEY INTERSECTION SIDRA RESULTS

Intersection	Control	AM		PM	
		DOS	LOS	DOS	LOS
Mamre Road / Bakers Lane	Signal	0.86	D	0.87	D
Mamre Road / Abbots Road	Signal	0.39	A	0.63	A
Aldington Road / Abbots Road	Signal	0.13	B	0.30	B

The modelling demonstrates that all intersections and movements (as demonstrated in Table 8 above and in the overall network) operate within the thresholds set by TfNSW. As such, it is concluded that network scenario 1 is able to accommodate approximately 990,215m² of development within the MRP whilst maintaining acceptable level of performance.

As discussed, ESR form part of the landowners that are proposing road upgrades to facilitate development of the respective sites. Notably, the GFA being sought as part of this application is some 81,000m², which represents 8% of the GFA assessed in the LOG-E Modelling Memo.

5.5.2 Scenario 2

A second modelling scenario was also undertaken to identify the additional GFA that could be achieved with additional upgrades to the Mamre Road / Bakers Lane intersection. The scenario included:

- 1,291,584m² of the total GFA within the Precinct;
- The road network as adopted for Scenario 1 with the following additional upgrade:
 - Widening of Mamre Road to four lanes (2 northbound and 2 southbound) between Bakers Lane and the Aspect Industrial Estate access intersection.
 - Additional upgrades to the Mamre Road / Bakers Lane intersection, including:
 - North Approach – additional short through lane and dedicated left slip lane
 - East Approach – Dedicated left slip lane
 - West approach – Dedicated left slip lane
 - South approach – additional short through lane, dedicated left slip lane and additional departure lane

A summary of the modelling results for the three key intersections under scenario 2 are provided in **Table 9**.

TABLE 9: SCENARIO 2 – KEY INTERSECTION SIDRA RESULTS

Intersection	Control	AM		PM	
		DOS	LOS	DOS	LOS
Mamre Road / Bakers Lane	Signal	0.90	C	0.87	D
Mamre Road / Abbots Road	Signal	0.48	A	0.84	B
Aldington Road / Abbots Road	Signal	0.21	B	0.46	B

The modelling demonstrates that all intersections and movements (as demonstrated in Table 9 above) operate within the thresholds set by TfNSW under Scenario 2.

As such, it can be concluded that network scenario 2 is able to accommodate approximately 1,291,584m² of development within the Precinct whilst maintaining acceptable level of performance. The GFA being sought as part of this application represents 6% of the GFA assessed in the LOG-E Modelling Memo.

5.5.3 Trip Rate Comparison

The assessment detailed in the LOG-E Modelling Memo has established the volume of trips that the road network can accommodate (**Table 10**).

TABLE 10: ESTATE WIDE TRIP GENERATION FOR SCENARIO 1 & 2

Scenario	GFA (m ²)	Period	TfNSW Agreed Trip Rate (per 100m ²)	Trips
Scenario 1	990,215	AM	0.23	2,277
		PM	0.24	2,377
		Daily	2.91	28,815
Scenario 2	1,291,584	AM	0.23	2,971
		PM	0.24	3,100
		Daily	2.91	37,585

It should be noted that the assessment was based on adoption of the TfNSW provided trip rates. However, it is noted that these trip rates provided a level of conservatism to allow for other uses permissible on the Site. While this is suitable for strategic level assessment, it is noted that the current Proposal has been developed with specific users in mind, which are warehouse and logistics businesses.

Therefore, it is deemed entirely appropriate to adopt the surveyed trip rates, with the sites included in the survey being of a similar nature to the uses that will occupy Warehouses 1 and 4.

Considering the total trips identified as being achievable by the modelling assessment, a comparison of the total GFA achievable has been undertaken. This comparison has been assessed for the PM peak (being the most critical); and is on the basis of the trip rate provided by TfNSW, alongside the surveyed trip rates for

Scenario 1 (i.e., the current network proposed to be delivered as part of the relevant SSDs) and is provided in **Table: 11**.

TABLE: 11 TRIP GENERATION COMPARISON

Source	PM Permissible Trips	Daily Trip Rate (per 100m ²)	GFA (m ²)
TfNSW Provided	2,377	0.24	990,215
Surveyed		0.17	1,397,951
		Difference	+407,736

It is noted that an increase of the total development GFA of 407,736m² can be achieved by applying the surveyed trip rate, accommodating a total 1,397,951m² GFA in the MRP by 2026. This level of GFA is generally consistent with the anticipated take up rate of 50 hectares per annum.

Therefore it is evident that the interim road network which is to be delivered as part of the relevant SSDs is appropriate to accommodate the forecast traffic generation associated with the Proposal, as well as neighbouring developments, until such a time that the ultimate road network is delivered.

5.5.4 Summary

The assessment has found that, on the basis of adoption of the surveyed trip rates, the proposed 2026 road network can accommodate up to 990,215m² of GFA, or 28,815 daily vehicle movements. This is generally consistent with the anticipated GFA that will be delivered by 2026 (based on a forecast take up of 50 hectares per annum). The LOG-E Modelling Memo found that on this basis, the 2026 planned road network would operate satisfactorily.

Notably, of the acceptable MRP development trips established, the traffic generation associated with the Proposal (Table 7) represents 8% of the total acceptable traffic generation for the MRP in the peak hours, for the Stage 1 Proposal.

The application of Ason Group surveyed trip rates is considered appropriate on the basis that:

- Ason Group surveyed trip rates are established having regard for completed or approved developments within Western Sydney Employment Area (WSEA) and the approved and operational intermodals at Moorebank and Enfield respectively. These developments are largely General Warehousing which have similar trip generation characteristics as the SSDs currently proposed within the MRP and are all located within the WSEA.
- The adoption of the more conservative trip rates as agreed with TfNSW is more appropriate for precinct planning. However, the current tenant enquiries and agreements already executed, it is evident that the development to be delivered aligns with general warehouse and logistics uses. As such, the application of the surveyed rate is appropriate.
- With reference to the recently approved development located at 788-882 Mamre Road, Kemps Creek (SSD-10448⁵), item D3 of Condition of Consent requires an Operational Traffic Monitoring Program to “verify light and heavy vehicle traffic numbers against the predictions in the ADR prior to commencement of operation of Building 1 or 3 and for a period of 12 months of operation”.

⁵ <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10448%2120220531T074512.635%20GMT>

It is expected that any approved development within the MRP would be subject to similar Conditions, including the Site. As such, the operation of the road network, and the trip generation associated with the development, will be monitored as a result. Through the monitoring process, changes can be made as necessary to mitigate any potential unacceptable impacts associated with the development.

It is therefore concluded that the development is acceptable from a traffic generation perspective.

6 Transport Assessment

6.1 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) 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 13**.

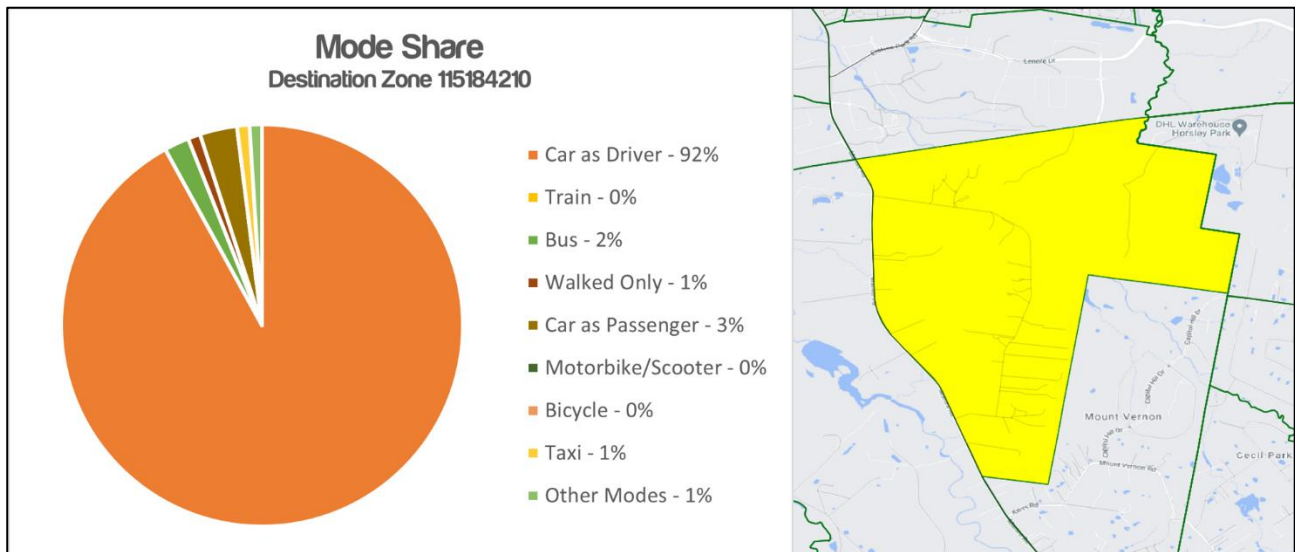


Figure 13: Travel Mode Share

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 i.e. car-pooling.

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, the existing census data is reflective of existing travel patterns of industrial development.

6.2 Measures to Reduce Private Vehicle Use

6.2.1 Delivering the Vision of the Aerotropolis

The MRP forms one of the initial precincts of the Aerotropolis (although not included within SEPP WSA), the background studies provide some 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.

6.2.2 Implementation at Subject Site

A Framework Sustainable Travel Plan (FSTP) has been prepared that will inform future site-specific travel plans, expected to be implemented for each of the warehouse sites within the Estate (refer to **Appendix C**). 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.

6.2.3 Future Travel Patterns

The FSTP within **Appendix C** has identified an initial 5-year target for reducing travel by private vehicle on the Site.

These will be subject to review, prior to finalisation of any travel plan. Nevertheless, **Table 12** presents the relevant mode share details and the results of the application of these target percentages to the Proposal.

With regards to understanding the number of employees on the Site, at this stage in the development it is not clear how many employees the Site would accommodate. However, to inform this assessment, the surveys undertaken for the MRP modelling assessment found that warehousing has a typical staff density of 255 employees per 100m².

On the basis of a GFA of 81,642m², the Site could therefore accommodate up to 320 employees.

TABLE 12: SITE TRAVEL MODE TARGETS & PERSON ONE-WAY TRIPS BY 2026

Travel Mode	Mode Share Target	Daily
Car as driver	88%	282
Car as passenger	3%	10
Train	0%	0
Bus	4%	13
Walked only	1%	3
Motorbike/Scooter	1%	3
Bicycle	1%	3
Taxi	1%	3
Other Modes	1%	3

The analysis indicates that 13 persons would use bus to access the Estate during peak hours, or 26 trips when accounting for arrivals and departures.

While these targets are not set, and while the bus services for the MRP are still being planned, it is not anticipated that this level of public transport travel would not be able to be accommodated. It would be recommended to try to exceed the level of bus travel to the Estate; however, this would be subject to the implementation of appropriate services, which would be facilitated by TfNSW as the MRP develops and becomes better connected to the wider network.

7 Parking Assessment

7.1 Car Parking

7.1.1 Precinct Parking Rates

Parking rates from the MRP DCP have been adopted to assess the parking requirements of the Proposal. The requirements are provided within **Table 13**.

TABLE 13: DCP PARKING RATES

Land Use	Minimum Parking Rate
Warehouse	1 space per 300m ² or 1 space per 4 employees, whichever is the greater.
Factory	1 space per 200m ² of gross floor area or 1 space per 2 employees, whichever is the greater
Office	1 space per 40m ²
Neighbourhood Shops	1 space per 40m ²

7.2 Parking Requirements & Provision

Table 14 details the requirements for Proposal, based on the parking rates detailed above.

TABLE 14: CAR PARKING REQUIREMENTS & PROPOSED PROVISION

Lot	Land Use	GFA (m ²)	Requirement	Proposed
1	Warehouse	62,121	207	300
	Office	1,736	43	
	Sub Total	63,857	250	
4	Warehouse	16,785	56	81
	Office	1,000	25	
	Sub Total	17,785	81	
Total	-	81,642	331	381

As per **Table 14**, the Proposal requires 331 parking spaces, and 381 parking spaces are provided. Therefore, the Proposal provides full compliance with the required rates.

7.2.1 Accessible Parking

The MRP DCP provides the following in regard to accessible parking:

Accessible parking should be in accordance with the Access to Premises Standards, Building Code of Australia and AS2890.

In this regard, 1 accessible parking spaces are to be provided per every 100 spaces. The Proposal provides 3 accessible spaces associated with Warehouse 1; and 2 are provided for Warehouse 4, achieving compliance.

It is expected that compliance with the controls would form a suitable Condition of Consent.

7.2.2 Electric Vehicle Parking

Section 4.6.1(8) of the MRP DCP notes the following:

Parking areas should incorporate dedicated parking bays for electric vehicle charging

However, it does not provide for guidance on the specific number of bays. Therefore, it is proposed that a total of 2 spaces per warehouse will be designated as electric vehicle charging bays.

7.3 Bicycle Parking

Bicycle parking rates from the MRP DCP have been adopted to assess the parking requirements of the Proposal.

The requirements of the MRP DCP are provided within **Table 15**.

TABLE 15: MRP DCP CYCLE PARKING RATES	
Land Use	Minimum Parking Rate
Warehouse	1 space per 1000m ² of gross floor area of industrial activities (over 2000m ² gross floor area)
Office	1 space per 600m ² of gross floor area of office and retail space (over 1200m ² gross floor area)

Table 16 details the requirements for Proposal, based on the parking rates detailed in **Table 15**. As shown, Stage 1 is required to provide a total of 64 bicycle parking spaces.

Bicycle parking is currently provided for both warehouse close to main office pedestrian entrances. It is anticipated that provision of these spaces could be ensured via a suitable Condition of Consent.

TABLE 16: BICYCLE PARKING REQUIREMENTS & PROVISION

Warehouse	GFA m ²	Requirement
1	63,857	65
4	17,785	18

Additionally, the MRP DCP also references the following rates for End of Trip (EoT) facilities:

TABLE 17: END-OF-TRIP PARKING RATES

Land-Use	Requirement
Office	For ancillary office and retail space with a gross floor area over 2500m ² , at least 1 shower cubicle with ancillary change rooms
Warehouse	For industrial activities with a gross floor area over 4000m ² , at least 1 shower cubicle with ancillary change rooms

On the basis of the above, the Proposal would need to provide for 1 shower cubicle each. It is anticipated that provision of these EoT facilities could be ensured via a suitable Condition of Consent.

Access Parking and Servicing Design

7.4 Design Standards

The Site's access, car park and loading areas have been generally designed with reference to the following Australian Standards:

- Australian Standard 2890.1:2004: Parking Facilities – Off Street Car Parking (AS 2890.1)
- Australian Standard 2890.2:2018 Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2)
- Australian Standard 2890.6:2009 Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.6)
- NSW Department of Planning, Industry and Environment, Mamre Road Precinct Draft Development Control Plan, November 2020
- Fire + Rescue NSW, Fire Safety Guideline: Access for fire brigade vehicles and firefighters, Version 05, 4 October 2019 (NSW Fire Safety Guidelines).

7.5 Design Vehicles

As per Table 13, 4.6.1 of the MRP DCP, the design vehicle required to service the Site is a 30.0m PBS Level 2.

The 12.5 metre Heavy Rigid Vehicle has been adopted for the design of fire access trails in accordance with the NSW Fire + Rescue Guidelines.

The proposed car parking area has been designed to accommodate B99 Vehicles as per AS2890.1:2004.

In regard to the above, **Appendix D** provides the relevant swept path analysis.

7.6 Access Driveways

All access driveways (to the proposed road network within the MRP) have been, and shall be, designed with reference to AS 2890.1, AS 2890.2, and any other relevant published road design / road engineering guidelines.

Truck access driveways shall be designed to provide for vehicles up to and including a 30m long PBS Type 2 with maximum gradients, maximum rates of change of grades, and maximum crossfalls in accordance with relevant standards applicable at the time when Construction Certification drawings are prepared and/or in accordance with standards applicable at the time of construction.

Access through each of the handstands has been designed to achieve one-way flow, providing for right-hand down manoeuvres where possible. The exception relates to the southern recessed docks of Warehouse 4, whereby a U-turn manoeuvre will be required, prior to reversing into the recess dock (see Appendix D). the hardstand maintains its compliance with AS2890.2:2018 and therefore this is considered a suitable arrangement as it achieves one-way flow through the site, rather than having two entry and exit points.

Further, it is noted that Warehouse 4 is expected to generate 12-13 heavy vehicle movements during the Site's peak hour, or 6-7 vehicles. Therefore, it is evident that the hardstand would be lowly trafficked, and movements through the hardstand would be readily managed as part of a suitable management plan.

Car access driveways shall be designed to provide for B99 vehicles, assuming simultaneous movements in accordance with AS 2890.1 and any other relevant Council Engineering Guidelines.

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

7.7 Parking Areas

All parking areas, including access aisles and parking modules shall be designed with reference to AS 2890.1 and AS 2890.6. It is anticipated that full parking area design compliance with AS 2890.1 and AS 2890.6 would form a standard Condition of Consent further to approval.

7.8 Service Areas

All service areas shall be designed with reference to AS 2890.2, and again provide for the movement of vehicles up to and including a 30m long PBS Type 2 vehicle.

It is anticipated that service area design compliance with AS 2890.2 would form a standard Condition of Consent further to approval.

8 Conclusions

Ason Group has been engaged by ESR Developments (Australia) Pty Ltd (ESR) to prepare a Transport Management & Accessibility Plan in relation to the State Significant Development for the Westlink industrial estate located on Abbots Road, Kemps Creek (the Site). Further to a detailed assessment of all relevant traffic and transport issues, Ason Group provides the following conclusions:

- The Site is well located for industrial development, with excellent existing and future connections to the sub-regional and regional network, as well as key growth centres across Western Sydney.
- Access to the Site will be provided via a signalised intersection at Abbots Road and Aldington Road, with access to the wider road network provided via Mamre Road, which itself will be upgraded.

ESR, along with other LOG-E members are proposing upgrades to the Abbots and Aldington Road corridor, inclusive of the signalised access intersection, as well the signalisation of the Mamre Road / Abbots Road.

- With regards to the ultimate MRP DCP road network operation, the Proposal is consistent with the modelling assessment which underpinned the network. The traffic generation associated with the Proposal is therefore acceptable when considered in relation to the operation of the planned road network.
- In consideration to the interim road network, prior to all road upgrades being completed, the road upgrades proposed by LOG-E have been demonstrated to be sufficient to accommodate the traffic associated with the Proposal.
- All internal Lots circulation, hardstand and parking areas have been designed with reference to the Australian Standards and provide for vehicles up to and including a 30m long PBS Type 2 vehicle, as required by the MRP DCP.
- Parking has been provided in accordance with the rates detailed in the MRP DCP, and includes an appropriate allocation of accessible parking spaces.
- All future operators will be encouraged to maximise the use of public and active transport, noting the future pedestrian, cycle and bus provisions included in the MR Upgrade design.
- All access driveways, parking areas and service areas have been designed with reference to the appropriate Australian Standards. It is anticipated that full design compliance with the relevant Australian Standards would form a standard Condition of Consent further to approval, which will also provide for any design changes if required.

Appendix A. Hourly Traffic Generation

Stage 1 Traffic Generation Traffic Profile (Generic Assessment)							
Start Time	All Vehicle	Light Vehicle	Heavy Vehicle	Rigid	Semi-trailer	B-double	A-double
0:00	20	14	6	4	0	0	1
1:00	17	11	6	4	0	0	2
2:00	19	13	6	4	0	0	2
3:00	21	16	5	3	0	0	1
4:00	67	56	11	8	1	0	3
5:00	128	103	26	17	2	0	6
6:00	173	137	36	24	2	1	9
7:00	172	129	43	28	3	1	11
8:00	159	110	49	32	3	1	12
9:00	138	84	54	36	4	1	14
10:00	129	77	52	34	4	1	13
11:00	135	82	53	35	4	1	13
12:00	148	100	48	32	3	1	12
13:00	178	129	48	32	3	1	12
14:00	194	150	43	29	3	1	11
15:00	166	127	38	25	3	1	10
16:00	137	107	31	20	2	1	8
17:00	114	88	26	17	2	0	7
18:00	68	50	18	12	1	0	5
19:00	40	29	11	7	1	0	3
20:00	30	21	9	6	1	0	2
21:00	39	32	7	4	0	0	2
22:00	49	42	8	5	1	0	2
23:00	35	28	7	5	0	0	2
Total	2,376	1,737	639	423	43	11	162

Note: Minor discrepancies between sum numbers due to 'rounding'.

Appendix B. Development Traffic Flows

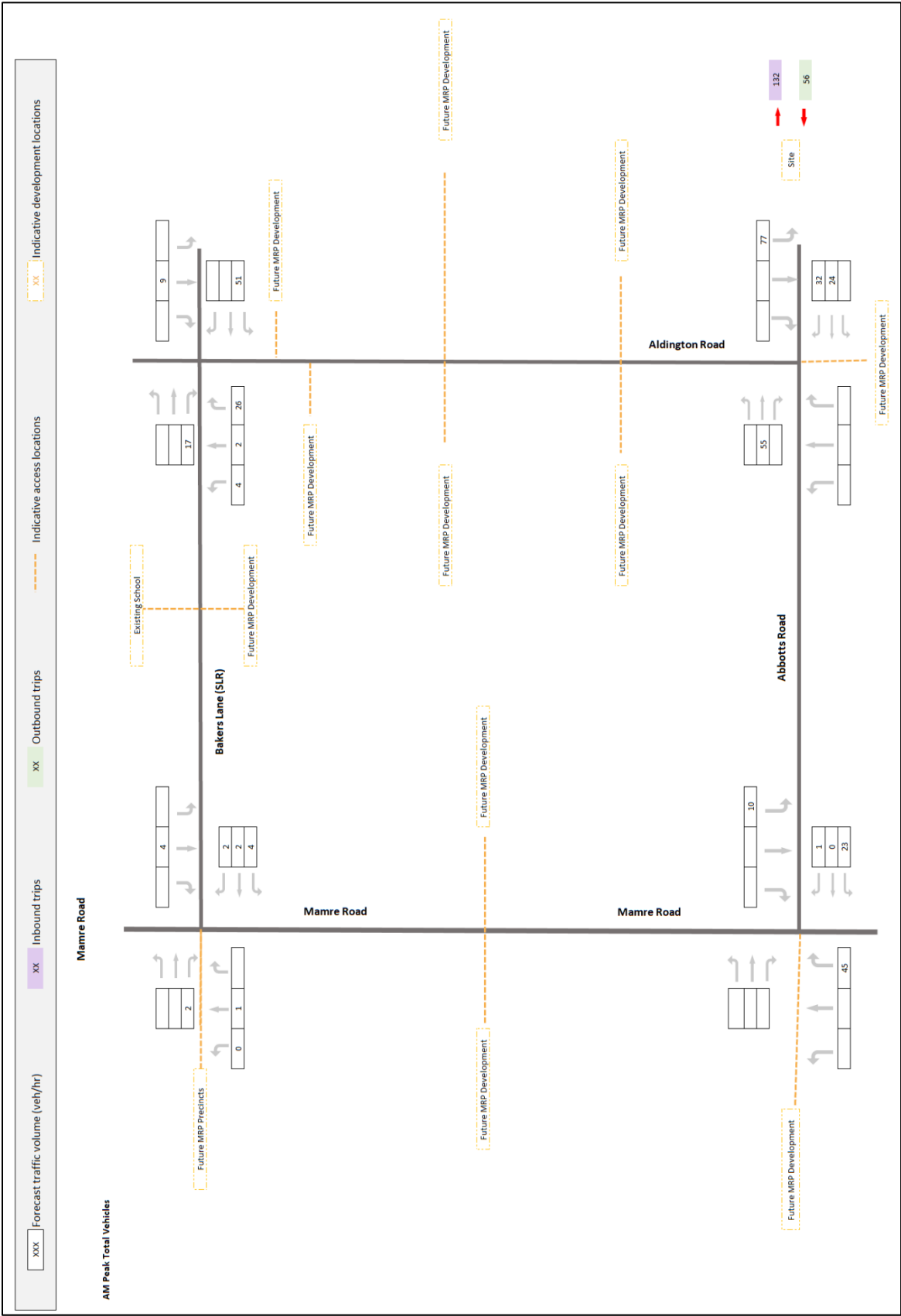


Figure 14: 2026 Development Traffic Flows, AM Peak

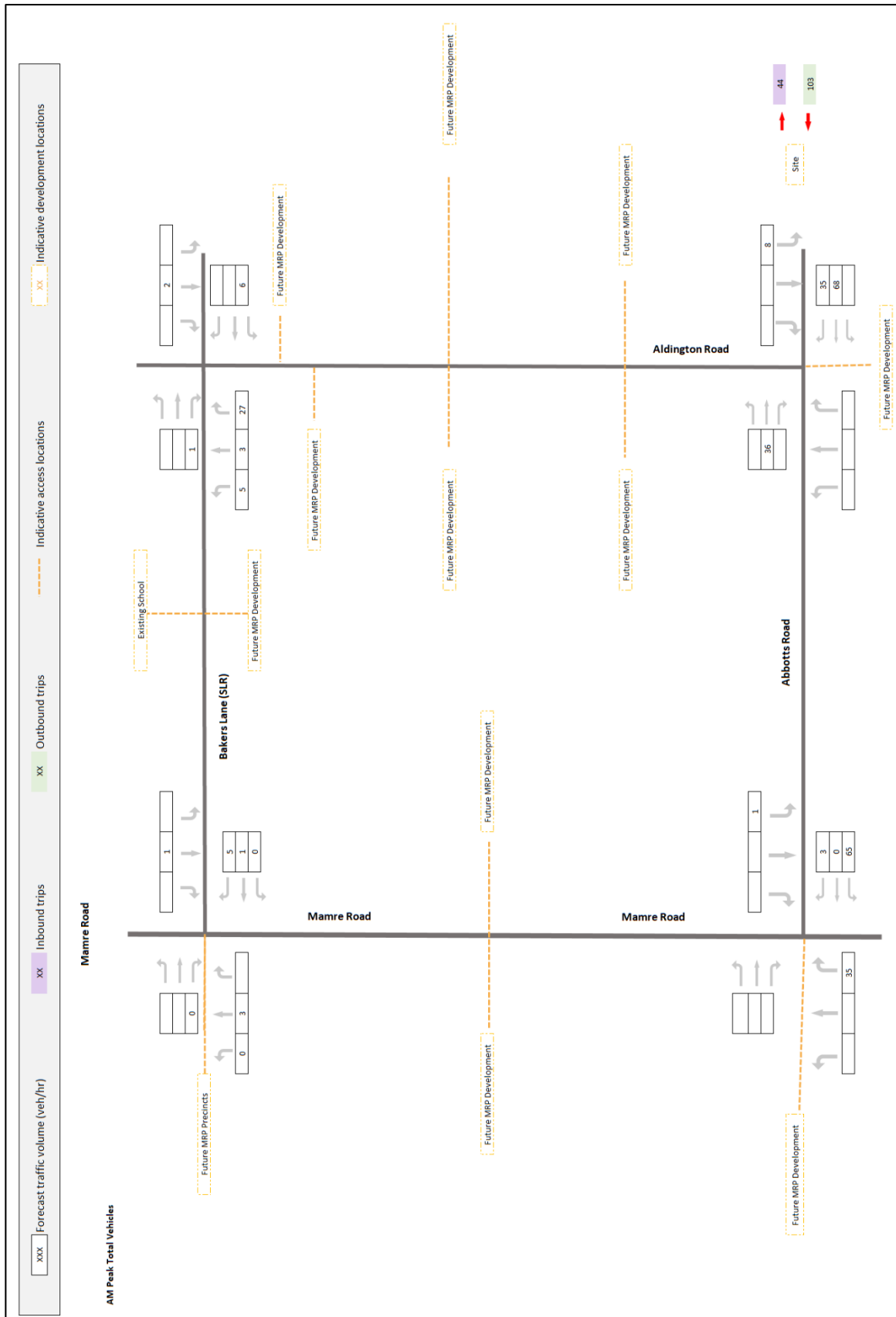


Figure 15: 2026 Development Traffic Flows, PM Peak

Appendix C. Framework Sustainable Travel Plan

Framework Sustainable Travel Plan

ESR Westlink

59-63 Abbotts Road & 290-308 Aldington Road, Kemps Creek

24/08/2022

P1323r05

Document Control

Project No	1323
Project	ESR Kemps Creek Industrial Estate, Abbots Road, Kemps Creek
Client	ESR Developments (Australia) Pty Ltd
File Reference	P1323r05v5 FTP Westlink, Stage 1

Revision History

Revision No.	Date	Details	Author	Approved by
I	11/05/2021	Draft	A. Tan	R. Butler-Madden
II	18/05/2021	Issue	A. Tan	R. Butler-Madden
III	18/11/2021	Issue	A. Tan	R. Butler-Madden
IV	12/04/2022	Issue	R. Butler-Madden	R. Butler-Madden
V	24/08/2022	Draft	M. Abdullah	R. Butler-Madden

This document has been prepared for the sole use of the Client and for a specific purpose, as expressly stated in the document. Ason Group does not accept any responsibility for any use of or reliance on the contents on this report by any third party. This document has been prepared based on the Client's description of its requirements, information provided by the Client and other third parties.

contents

1	Introduction	1
1.1	Context	1
1.2	Background	1
1.3	Goals	2
1.4	Objectives	2
2	Site Audit	4
2.1	Introduction	4
2.2	Development Site	4
2.3	Proposed Development	6
2.4	Public & Active Transport Opportunities	7
2.5	On Demand Services	13
2.6	Existing Travel Patterns	13
3	Development, Scope, and Implementation of the Plan	14
3.1	Introduction	14
3.2	Responsibility	14
3.3	FSTP Scope	14
3.4	Implementation	14
3.5	Consultation	15
4	Travel Mode Targets	16
4.1	Introduction	16
4.2	Mode Share Targets	16
5	Measures and Action Strategies	18
5.1	Measures	18
5.2	Strategies	18
5.3	Communications Strategy	18
6	Monitoring Strategy	19
6.1	Plan Maintenance	19
6.2	Monitoring	19

contents continued

Figures

Figure 1: 2056 Badgerys Creek Mode Share Targets	2
Figure 2: Site Location & Road Hierarchy	5
Figure 1: Proposed Stage 1 Masterplan	6
Figure 5: Existing Public and Active transport Network	8
Figure 6: BWSEA Public Transport Structure	9
Figure 7: Metro Western Sydney Airport Alignment	10
Figure 8: BWSEA Cycle Routes	12

Tables

Table 1: Site Description	4
Table 2: Travel Mode Summary (Journey to Work)	13
Table 3: Preliminary 2026 Mode Share Targets	17

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 State Significant Development Application (SSDA) in relation to the proposed ESR Westlink (the Estate) (SSD- 9138102). The Estate is located at 59-63 Abbots Road & 290-308 Aldington Road, Kemps Creek (the Site) and is located to the east of the Abbots Road / Aldington Road intersection, within the Penrith Local Government Area (LGA).

The Site is within the Mamre Road Precinct (MRP), which was rezoned in June 2020 for primarily industrial uses. The Department of Planning and Environment (DPE) adopted a precinct-wide Development Control Plan on the 19 November 2021 (herein referred to as the MRP DCP).

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 currently well connected by travel modes other than the private vehicle. However, the MRP 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.

The purpose of this FSTP is therefore to complement the intent of the MRP DCP, by outlining the overarching requirements for a future Sustainable 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

The 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.

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 Precinct . Of the 5 Aerotropolis Precincts covered, Badgerys Creek has the lowest mode share target (by 2056) to non-car travel of 20% (as shown by Figure 1).

This reflects the planned land uses, which are anticipated to support warehousing and logistics, as noted by the AECOM Report. This is a long-term target, which is ambitious but achievable based on the policy framework, actions, initiatives, infrastructure and services defined through the precinct planning process. These targets have been given consideration in setting targets for this FSTP.

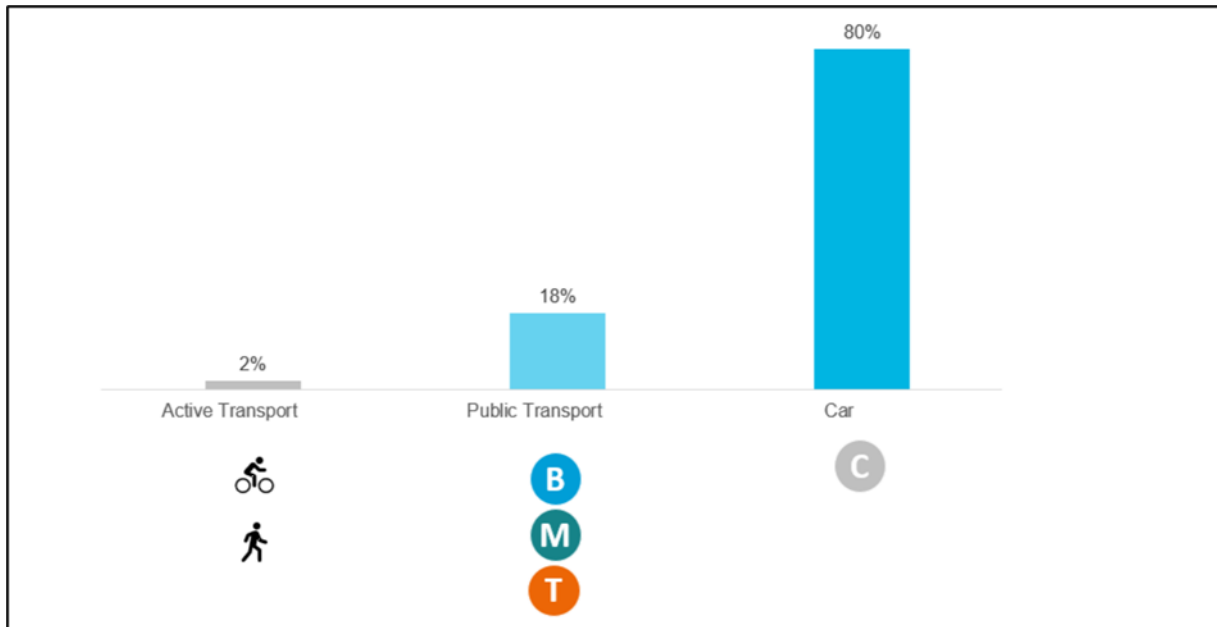


Figure 1: 2056 Badgerys Creek Mode Share Targets

Source: AECOM Report

1.3 Goals

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

- 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;
- Suggest specific tools and actions to help achieve the objectives and mode share targets;
- 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;
- 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 comprises of 3 separate allotments (refer to **Table 1**) and is legally described as Lots 13, 12 and 11 in DP253503. The Site is located approximately 4km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 12km south-east of the Penrith CBD and 40km west of the Sydney CBD. It is located at 290-308 Aldington Road, 59-62 Abbots Road, and 63 Abbots Road. The land is approximately 319,800m² in area and is irregular in shape.

Its sub-regional context is shown in **Figure 2** as well as the broader MRP Structure Plan area in which the Site lies.

It currently provides for a number of rural residential properties, as well as for small scale agricultural industries businesses.

TABLE 1: SITE DESCRIPTION

Address	Title	Area (m ²)
290-308 Aldington Road	Lot 13 / DP253503	104,700
59-62 Abbots Road	Lot 12 / DP253503	104,900
63 Abbots Road	Lot 11 / DP253503	110,200

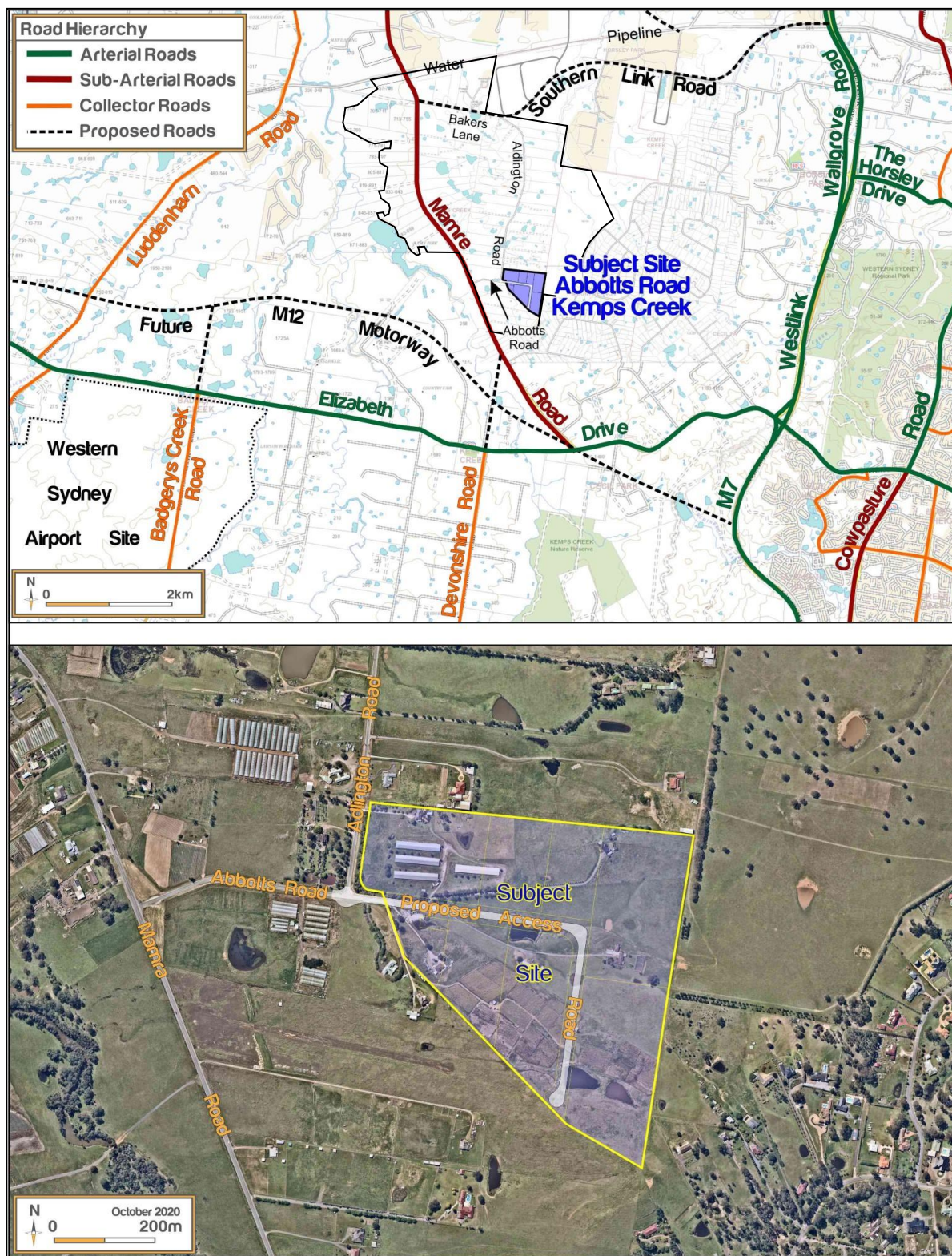


Figure 2: Site Location & Road Hierarchy

2.3 Proposed Development

A detailed description of the SSD Proposal is included in the Environmental Impact Statement (EIS) which this TMAP accompanies. In summary, the application relates to the construction of an industrial estate with associated hardstand and parking. The following summarises key aspects of the Proposal for which approval is being sought:

- Stage 1 Masterplan inclusive of 2 warehouse developments, detention basin and internal roads, including connection Abbots Road;
- Demolition and clearing of all existing built form structures and existing vegetation, subdivision of land;
- Construction of 2 industrial warehouse buildings comprising:
 - A total warehouse Gross Floor Area (GFA) of 78,906m² (including battery charging chamber GFA of 850m²)
 - A total ancillary and dock office GFA of 2,736m²
 - Provision of 338 parking spaces
 - Associated site landscaping

The proposed Masterplan (prepared by Nettletontribe Architects) is shown in **Figure 3**.



Figure 3: Proposed Stage 1 Masterplan

2.4 Public & Active Transport Opportunities

2.4.1 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.

2.4.2 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.

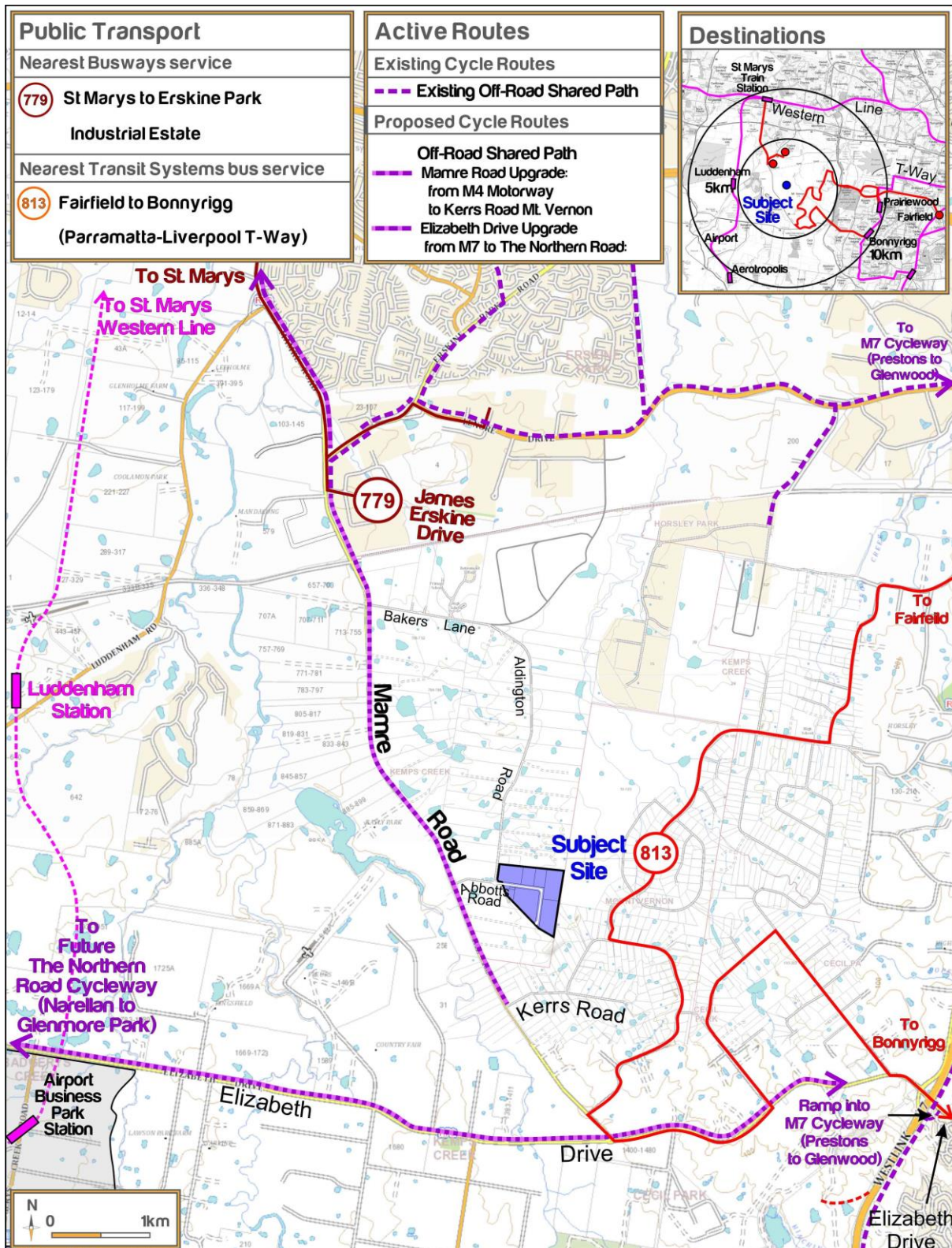


Figure 4: Existing Public and Active transport Network

It is clear from the intent of the objectives contained within the MRP DCP that a connected bus network will be provided. As per the MRP DCP, as all internal roads will accommodate heavy vehicles, they would also be capable of accommodating bus services. Therefore, there are significant opportunities to provide sub-

regional services along Mamre Road, as well as services within the MRP itself 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**.

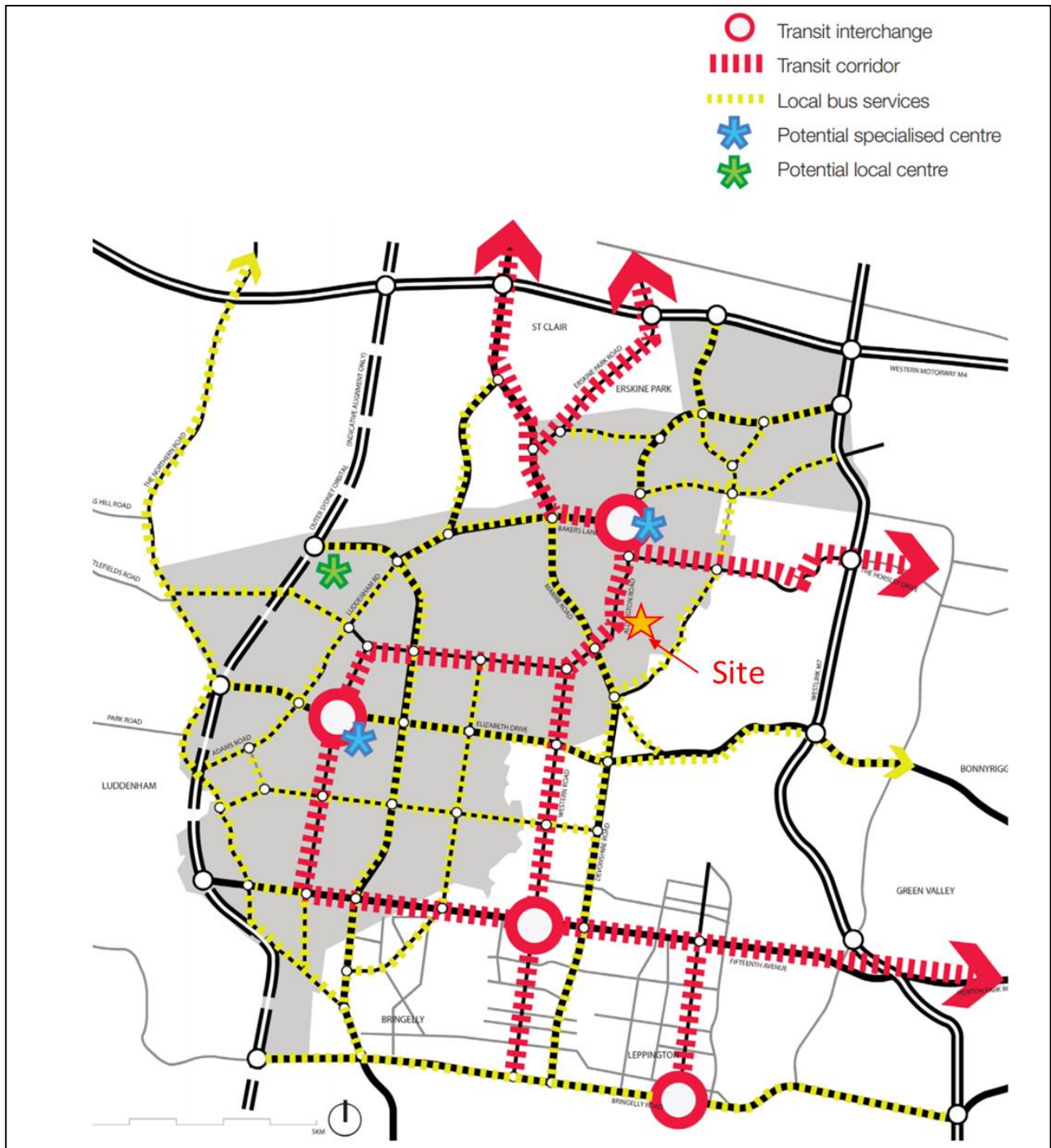


Figure 5: BWSEA Public Transport Structure

Source: BWSEA Structure Plan

2.4.3 Train Services – Metro Western Sydney Airport

The closest train station to the Site is currently some 10km 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 to the 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.

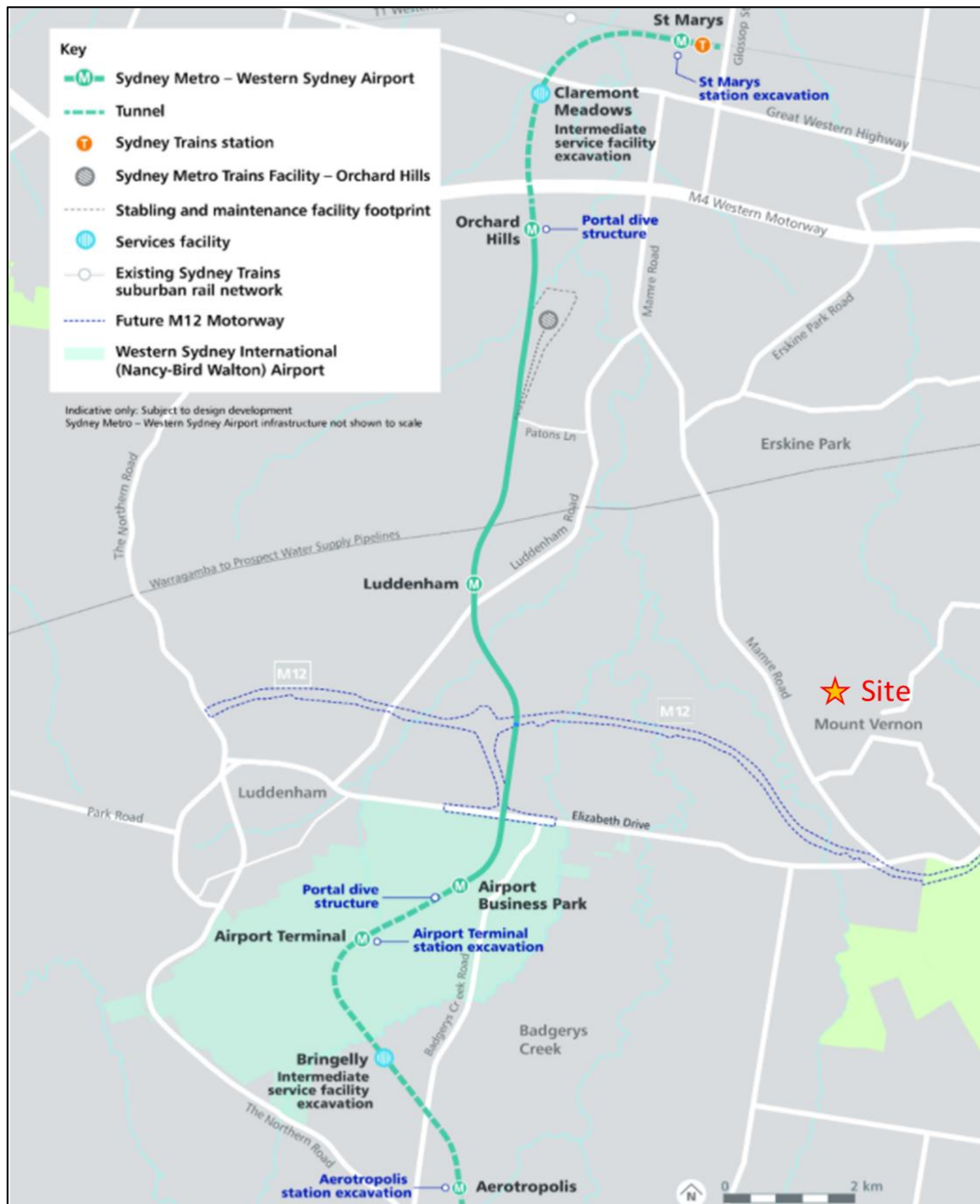


Figure 6: Metro Western Sydney Airport Alignment

2.4.4 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 in Mamre Road between Distribution Drive to the north and Elizabeth Drive to the south.

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.



Figure 7: BWSEA Cycle Routes

Source: BWSEA Structure Plan

2.4.5 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 MRP 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. Further, the MRP DCP requires roads to be provided with shared cycle and footpaths.

2.5 On Demand Services

2.5.1 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.

One of the prominent providers of car sharing in NSW is GoGet. GoGet provides a car share service allowing members to book cars for private use. Each vehicle has a home location which is referred to as a 'pod'. These are typically located in a parking lot or on-street and generally in a highly populated urban neighbourhood.

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

2.6 Existing Travel Patterns

2.6.1 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: 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, and 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.

4 Travel Mode Targets

4.1 Introduction

Based on the existing travel mode splits identified in Section 2.6, 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.

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

5 Measures and Action Strategies

5.1 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 STP 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).
- 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.

5.2 Strategies

Strategies and the actions required for each are to be identified as part of the future STP. The specific actions are to 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, the document is classed as a living document and subject to regular review.

5.3 Communications Strategy

5.3.1 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 an electronic 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.

6 Monitoring Strategy

6.1 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.

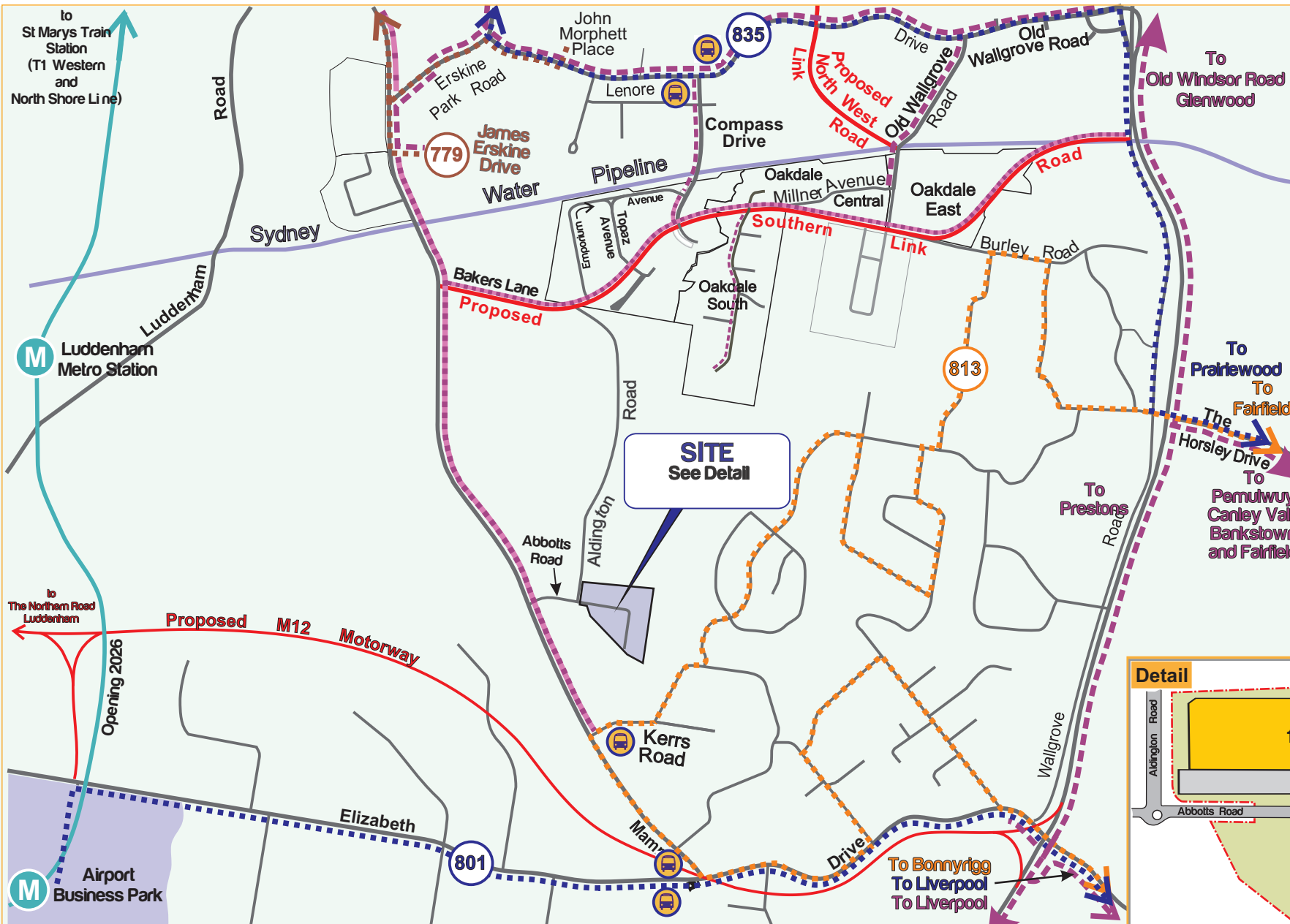
6.2 Monitoring

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

ESR Westlink
Abbots Road



Kemps Creek
2178

August 2022

Existing Public Transport (buses)

Transit Systems

- 835** Prairiewood to University of Western Sydney Penrith via Wetherill Park, Horsley Park, Eastern Creek, Erskine Park, St Clair, Colyton, St Marys
- 779** Nearest Bus Stops
- Other regional services**
- 813** Fairfield to Prairiewood via Horsley Park, Mt Vernon and Bonnyrigg

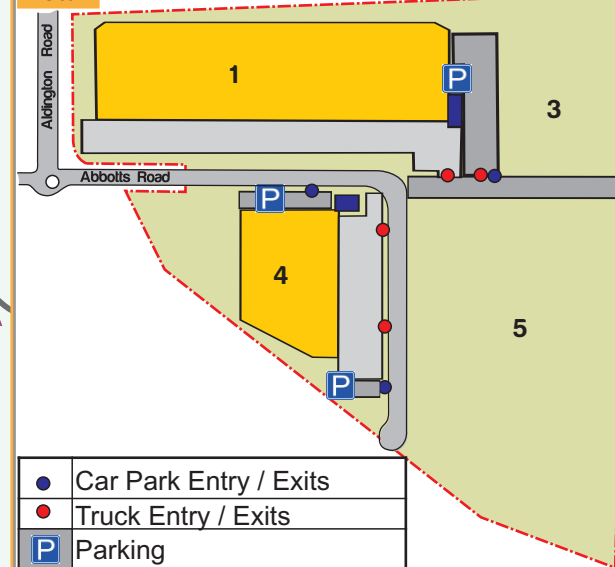
Busways

- 738** Mt Druitt to Rooty Hill via Eastern Creek Industrial Park and Horsley
- 779** St Marys to Erskine Park Industrial Estate

Existing and Proposed Active Transport Routes

- Existing Shared Paths
- Proposed Mamre Road Upgrade from M4 Motorway
- Future South Link Road Cycleway from Mamre Road to M7 Westlink

Detail



- Car Park Entry / Exits
- Truck Entry / Exits
- Parking

Appendix B. Sample Questionnaire

Instructions for Surveyor(s)

1. The Survey Form (over page) should be completed by EVERY PERSON attending the site on a particular day.
2. This survey should be completed SEPARATELY for EACH TRIP undertaken

Travel Mode Questionnaire Survey Form

Date:

Approximate Time:

Q1. Are you one of the following?

- | | |
|--|--|
| <input type="checkbox"/> Warehouse staff | <input type="checkbox"/> Casual contractor |
| <input type="checkbox"/> Office staff | <input type="checkbox"/> Company driver / sub-contractor |
| <input type="checkbox"/> Courier / office delivery | <input type="checkbox"/> Other (Please specify) |

Q2. How did you travel to / from the site today?

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> Walked only | <input type="checkbox"/> Car share vehicle |
| <input type="checkbox"/> Bicycle only | <input type="checkbox"/> Motorcycle / scooter |
| <input type="checkbox"/> Train | <input type="checkbox"/> Car (as passenger) |
| <input type="checkbox"/> Bus | <input type="checkbox"/> Car (as driver) |
| <input type="checkbox"/> Taxi | <input type="checkbox"/> Other (Please specify) |

Q3. If you drove to the site, where did you park?

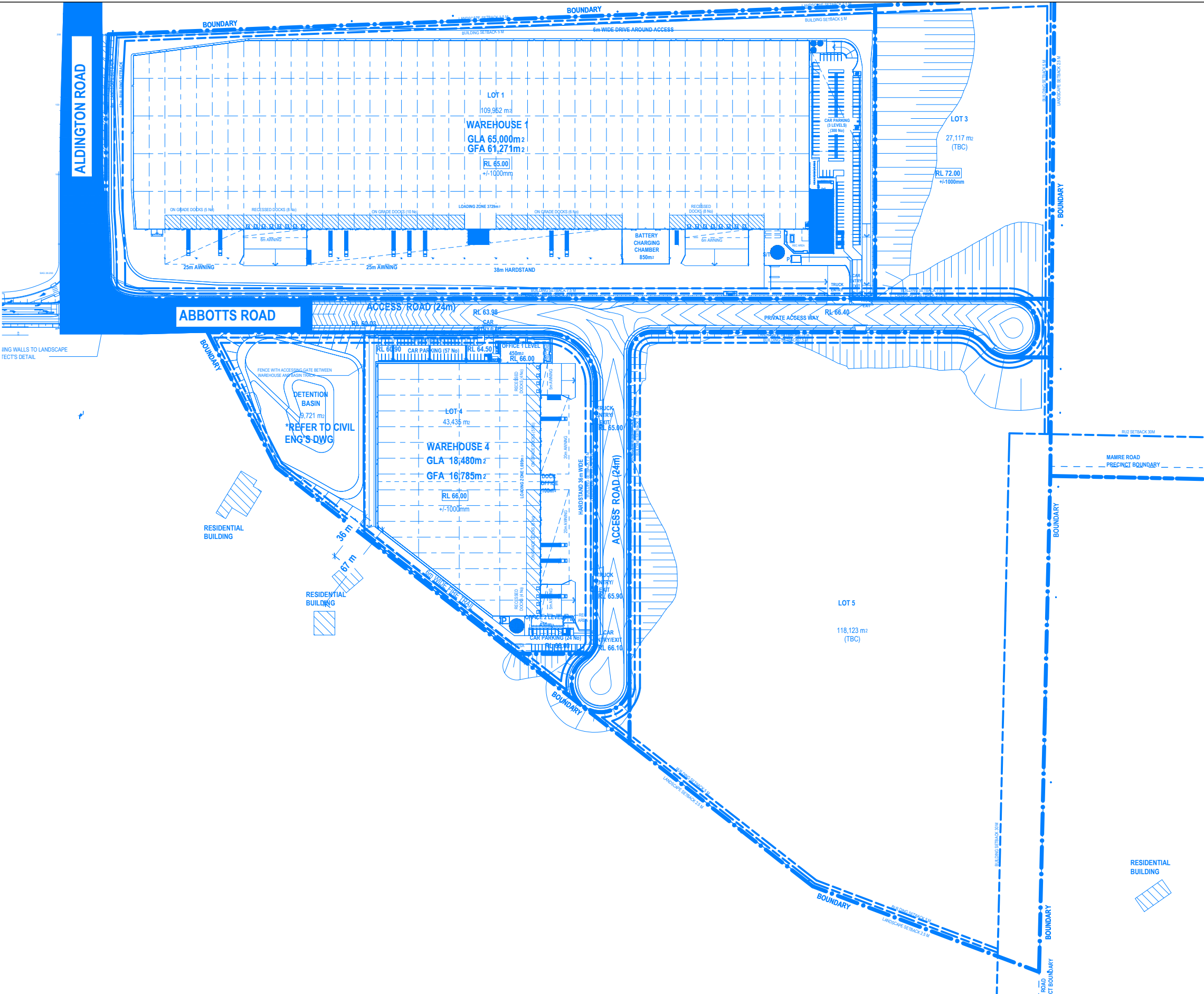
- ☐ Not applicable – did not drive
- ☐ On-site car park
- ☐ On-site within truck hardstand
- ☐ Other (Please specify)

[Blank Page]

Appendix D. Swept Path Analysis

GENERAL NOTE:

- A. WAREHOUSE 1
- CLOCKWISE ONE-WAY CIRCULATION AROUND THE WAREHOUSE HAS BEEN ASSUMED VEHICLES UP TO 30 METRES A-DOUBLE.
 - 30m A-DOUBLE TRUCKS WILL BE ABLE SIDE LOAD, HOWEVER, SOME RSDs SHALL NOT BE IN USE WHEN 30.0m A-DOUBLE TRUCKS ARE SIDE LOADING. TO BE MANAGED BY A SUITABLE LOADING DOCK MANAGEMENT PLAN.
 - FINAL DRIVEWAYS SUBJECT TO SEPARATE APPLICATION FOR CROSSOVER WORKS DETAIL, TO BE PROVIDED IN COMPLIANCE WITH AS2890.2:2018.
- B. WAREHOUSE 4
- THE SITE ACCESS AND DRIVEWAYS HAVE BEEN ASSESSED BY 20 METRES AV.
 - SOME SOME RSDs SHOULD BE RESTRICTED TO 12.5m HRV AND 8.8m MRV.
 - FINAL DRIVEWAYS SUBJECT TO SEPARATE APPLICATION FOR CROSSOVER WORKS DETAIL, TO BE PROVIDED IN COMPLIANCE WITH AS2890.2:2018.
- C. CAR PARKING AND FIRE ACCESS WH1 & WH4
- STAFF CAR PARKING DESIGN TO BE IN COMPLIANCE WITH REGARDS TO THE MINIMUM USER CLASS 1A
 - FIRE TRUCKS WILL BE ABLE TO TURN AROUND LOT 1 IN BOTH A CLOCKWISE AND COUNTER CLOCKWISE DIRECTION.
 - FIRE TRUCK STANDING AREA NEEDS FURTHER CONSIDERATION DURING DETAILED DESIGN PHASE TO DETAIL OUTLET CONNECTION. IT IS UNDERSTOOD THAT THE CONNECTION MUST BE ORIENTED SUCH THAT A MAXIMUM OF A 45 DEGREE CONNECTION IS MADE TO THE CENTRELINE OF THE TRUCK. FURTHER DETAIL SHOULD BE CONFIRMED WITH RELEVANT FIRE CONSULTANT.



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by Nettletontribe, received 23.08.2022.
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED RebeccaBMadden	PAPER SIZE A3
APPROVED BY X.XXXX	DATE 26.08.2022
SCALE Custom	NTS

CLIENT ESR Group
PROJECT 1323
Abbots Road, Kemps Creek

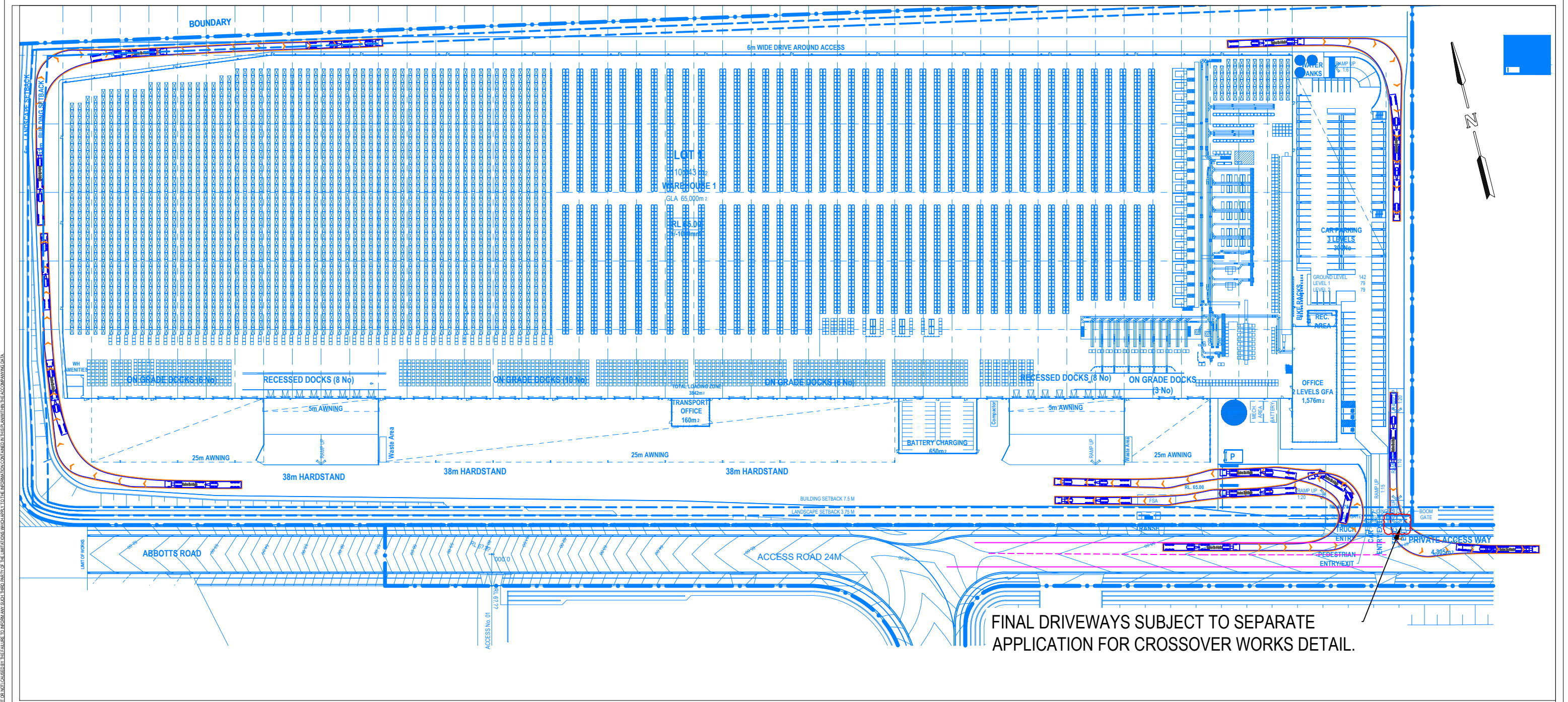
DOCUMENT INFORMATION

GENERAL ASSESSMENT

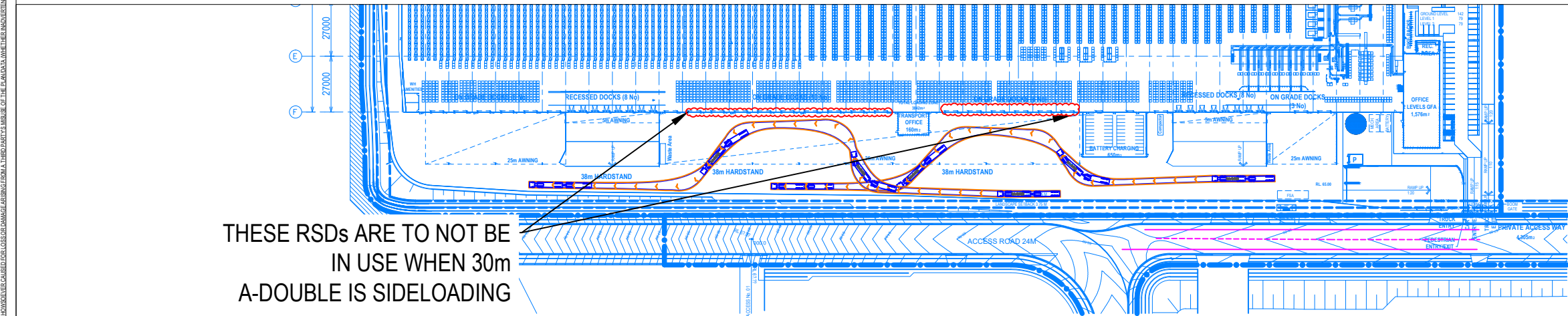
FILE NAME	SHEET
AG1323-03-v01.dwg	AG00

asongroup

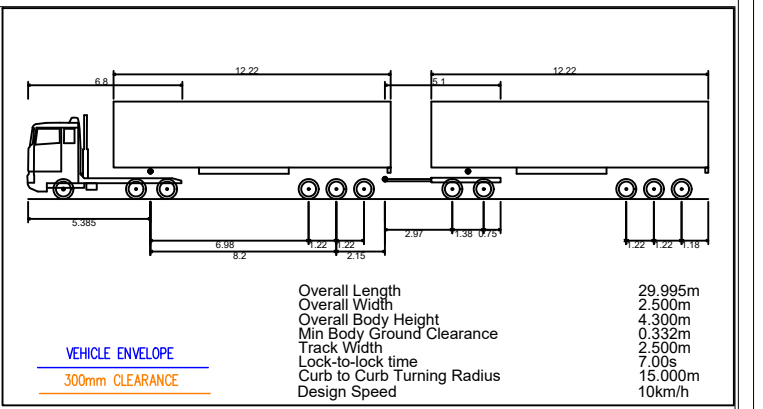
Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au



FINAL DRIVEWAYS SUBJECT TO SEPARATE APPLICATION FOR CROSSOVER WORKS DETAIL.



THESE RSDs ARE TO NOT BE IN USE WHEN 30m A-DOUBLE IS SIDELOADING



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by Nettletontribe, received 23.08.2022.
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED

RebeccaBMadden

APPROVED BY

X.XXXX

SCALE

1:1500

PAPER SIZE

A3

DATE

26.08.2022

NTS

CLIENT

ESR Group

PROJECT

1323

Abbotts Road, Kemps Creek

DOCUMENT INFORMATION

DRIVEWAY AND SIDELOADING ASSESSMENTS

FILE NAME

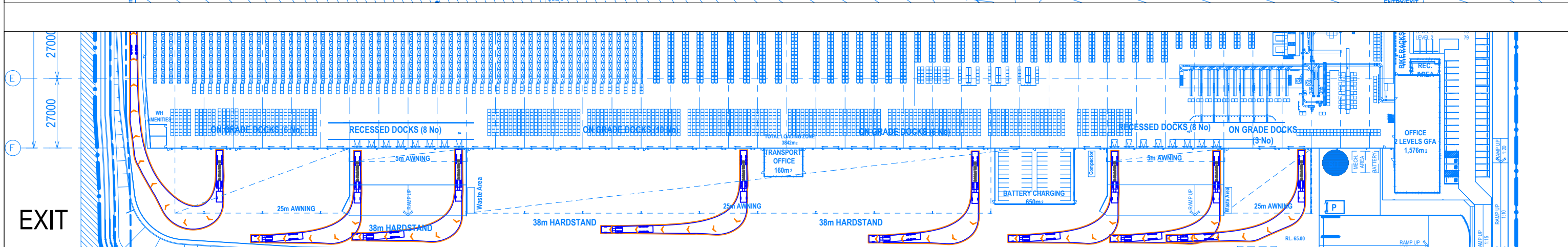
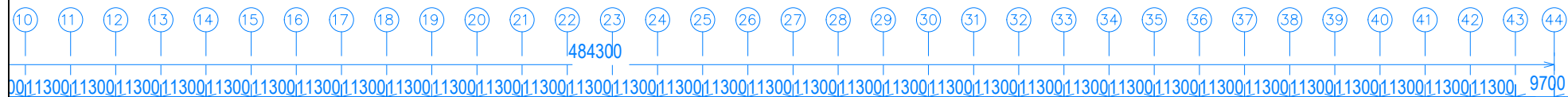
AG1323-03-v01.dwg


SHEET

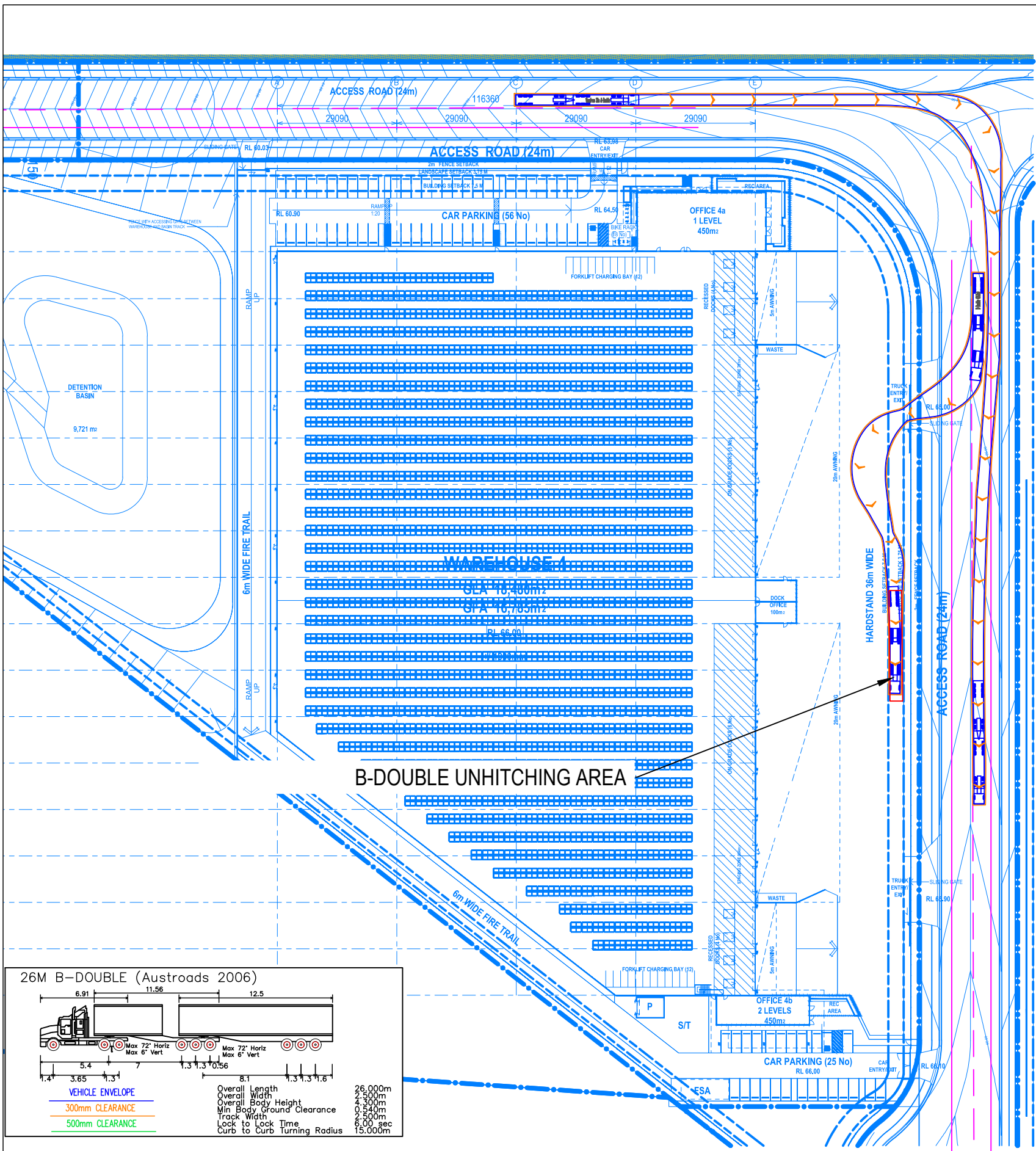
AG01

asongroup

Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au



GENERAL NOTES This drawing is provided for information purposes only and should not be used for construction. Base Plan prepared by Nettletontribe, received 23.08.2022. Swept path assessments completed at 10 km/h and 300mm clearance.	DESIGNED RebeccaBMadden	PAPER SIZE A3	CLIENT ESR Group	DOCUMENT INFORMATION LOADING DOCKS ASSESSMENT		 Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au
	APPROVED BY X.XXXX	DATE 26.08.2022	PROJECT 1323			
	SCALE Custom	NTS	Abbotts Road, Kemps Creek	FILE NAME AG1323-03-v01.dwg	SHEET AG02	



SITE AREA (LOT 4) (INCL. OSD) 43,420m²

WAREHOUSE (GFA) 16,785m²
EXCL. LOADING ZONE (1695 m²)

OFFICE 900m²

DOCK OFFICE 100m²

TOTAL BUILDING AREA (GFA) 17,785m²

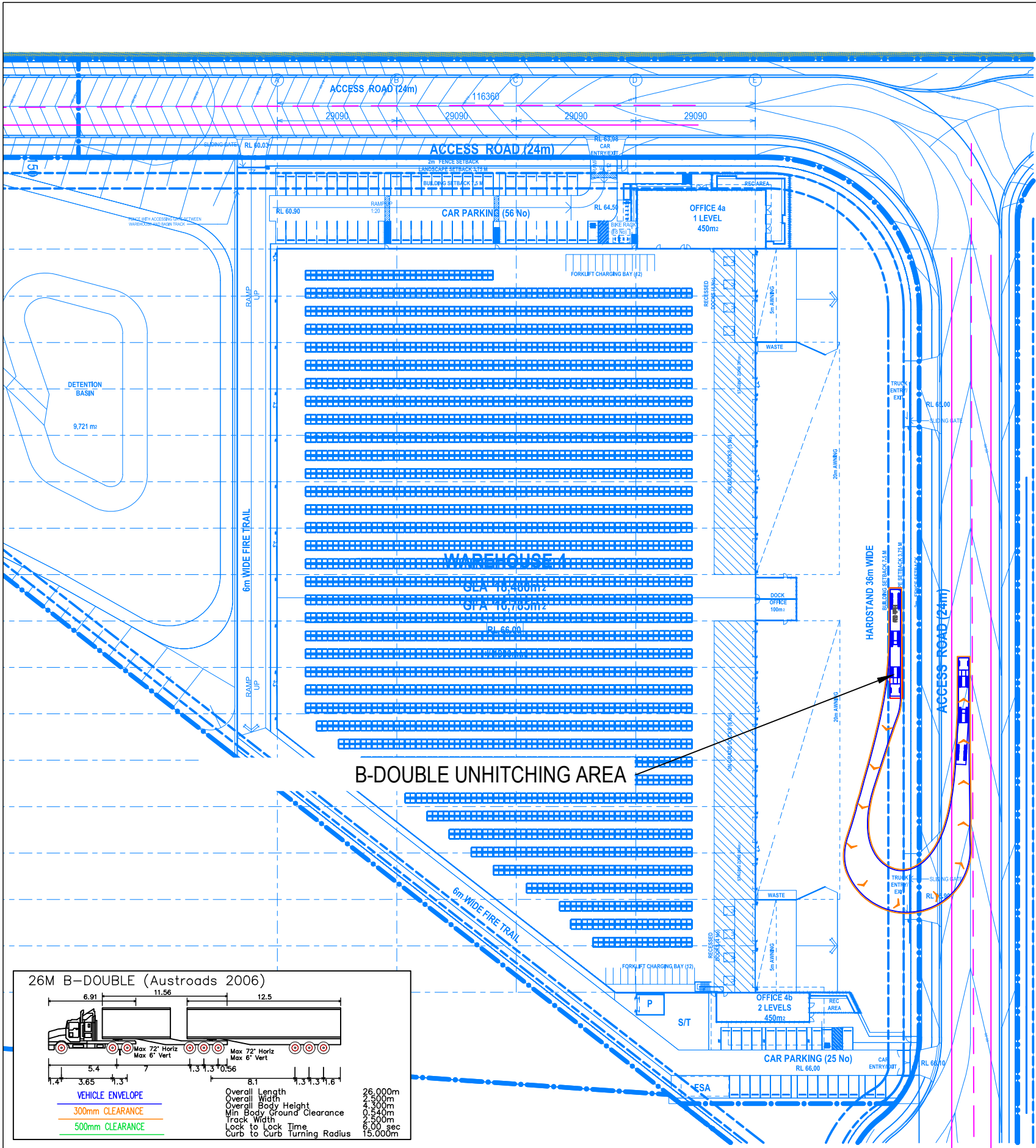
LANDSCAPE 4,945m²

4,575m²+370m²PERMEABLE CARPARKING 11.4%

TOTAL CARS REQUIRED (RMS)
WAREHOUSE 1/300m² (GFA)
OFFICE 1/40sqm (GFA)

TOTAL CARS PROVIDED
PERMEABLE CARPARKING 41

<div>GENERAL NOTES</div> <div>This drawing is provided for information purposes only and should not be used for construction. Base Plan prepared by Nettletontribe, received 19.10.2022. Swept path assessments completed at 10 km/h and 300mm clearance.</div>	<div>DESIGNED</div> <div>Musstafa Abdullah</div>	<div>PAPER SIZE</div> <div>A3</div>	<div>CLIENT</div> <div>ESR Group</div>	<div>DOCUMENT INFORMATION</div> <div>DRIVEWAY ASSESSMENT</div>		<div>asongroup</div> <div>Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au</div>
	<div>APPROVED BY</div> <div>X.XXXX</div>	<div>DATE</div> <div>19.10.2022</div>	<div>PROJECT</div> <div>1323</div>			
	<div>SCALE</div> <div>Custom</div>	<div>01020</div>		<div>Abbotts Road, Kemps Creek</div>	<div>FILE NAME</div> <div>AG1323-04-v04.dwg</div>	



SITE AREA (LOT 4) (INCL. OSD) 43,420m²

WAREHOUSE (GFA) 16,785m²
EXCL. LOADING ZONE (1695 m²)

OFFICE 900m²

DOCK OFFICE 100m²

TOTAL BUILDING AREA (GFA) 17,785m²

LANDSCAPE 4,945m²

4,575m²+370m²PERMEABLE CARPARKING 11.4%

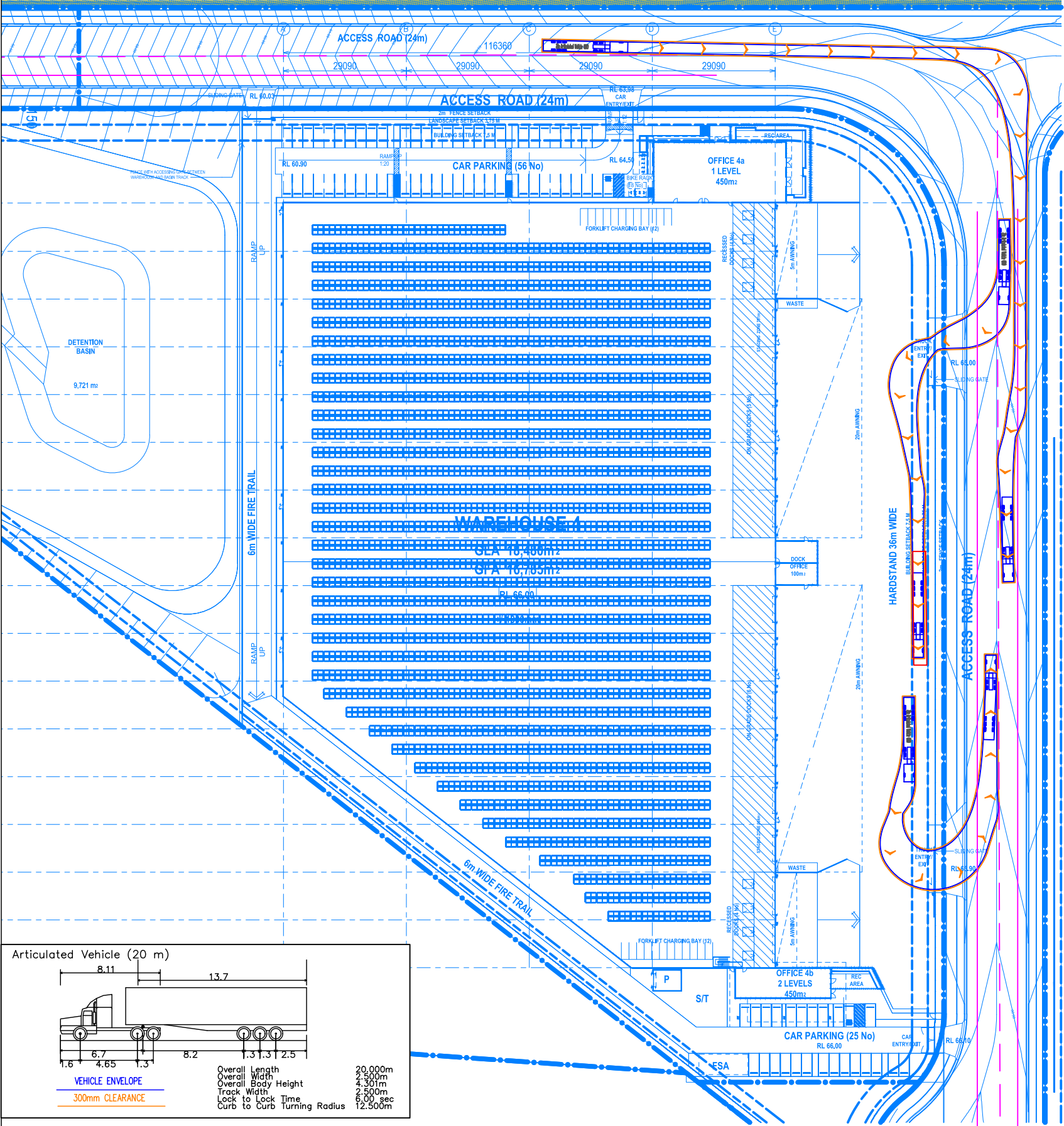
TOTAL CARS REQUIRED (RMS)
WAREHOUSE 1/300m² (GFA)
OFFICE 1/40sqm (GFA)

TOTAL CARS PROVIDED
PERMEABLE CARPARKING 41

GENERAL NOTES This drawing is provided for information purposes only and should not be used for construction. Base Plan prepared by Nettletontribe, received 19.10.2022. Swept path assessments completed at 10 km/h and 300mm clearance.	DESIGNED Musstafa Abdullah	PAPER SIZE A3	CLIENT ESR Group	DOCUMENT INFORMATION	
	APPROVED BY X.XXXX	DATE 19.10.2022	PROJECT 1323	DRIVEWAY ASSESSMENT	
	SCALE Custom	0 10 20	Abbotts Road, Kemps Creek	FILE NAME AG1323-04-v04.dwg	SHEET AG02

asongroup
Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au

ASON GROUP LTD. 11/01/2022 4:15:10 PM | CAD REFERENCE: C:\Users\Musstafa Abdullah\Ason Group Team Site - 1323\Projects\Design Advice\20220823 03v1- Stage 1-Design Advice\AG1323-04-v04.dwg | Musstafa Abdullah |



SITE AREA (LOT 4) (INCL. OSD) 43,420m²

WAREHOUSE (GFA) 16,785m²
EXCL. LOADING ZONE (1695 m²)

OFFICE 900m²

DOCK OFFICE 100m²

TOTAL BUILDING AREA (GFA) 17,785m²

LANDSCAPE 4,945m²

4,575m²+370m²PERMEABLE CARPARKING 11.4%

TOTAL CARS REQUIRED (RMS)

WAREHOUSE 1/300m² (GFA)

OFFICE 1/40sqm (GFA)

TOTAL CARS PROVIDED

PERMEABLE CARPARKING 41

GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by Nettletontribe, received 19.10.2022.
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED
Musstafa Abdullah

PAPER SIZE
A3

CLIENT
ESR Group

DOCUMENT INFORMATION

DRIVEWAY ASSESSMENT

APPROVED BY
X.XXXX

DATE
19.10.2022

PROJECT

1323
Abbotts Road, Kemps Creek

SCALE
Custom

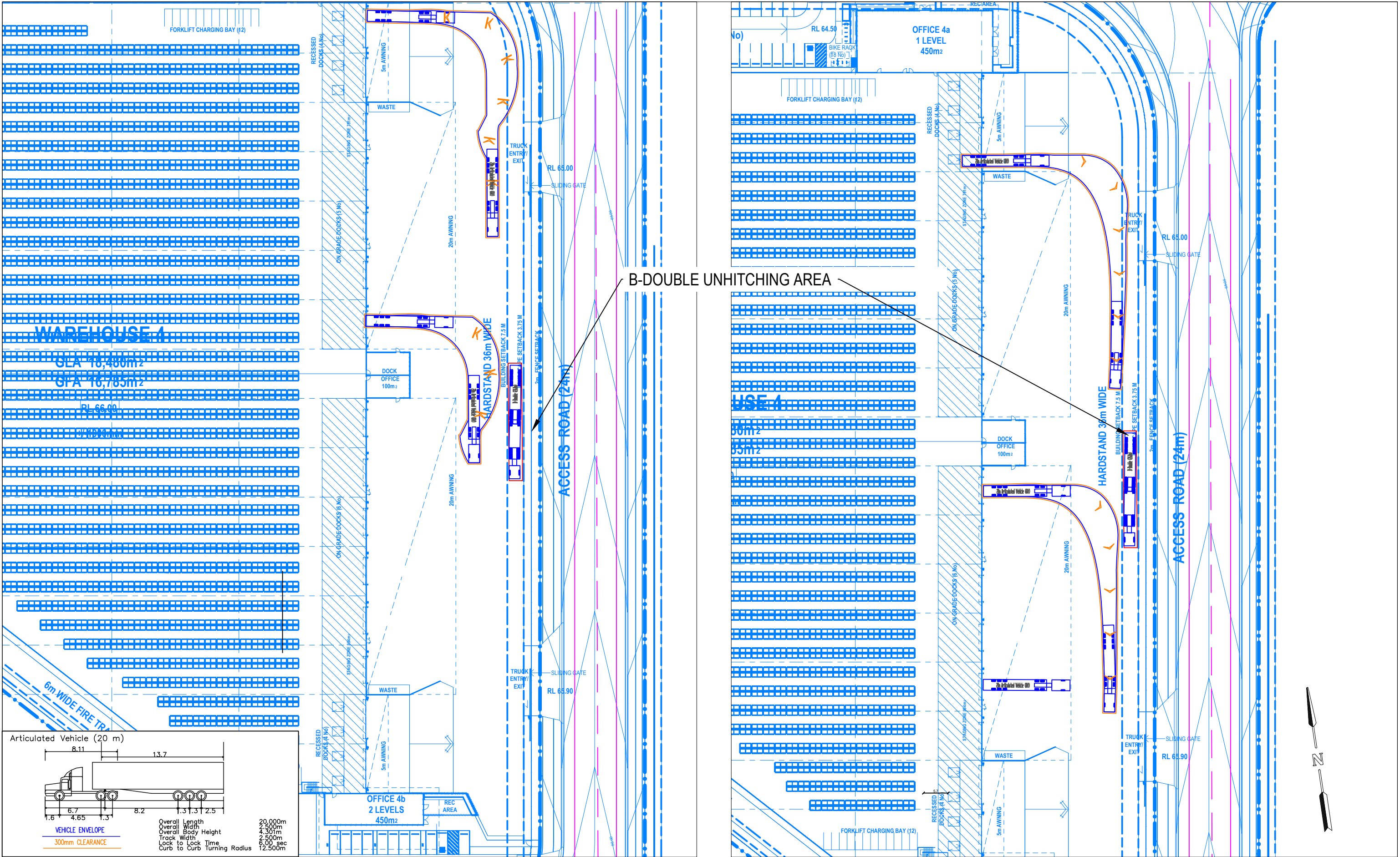
0 10 20

FILE NAME
AG1323-04-v04.dwg

SHEET
AG03

asongroup

Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au

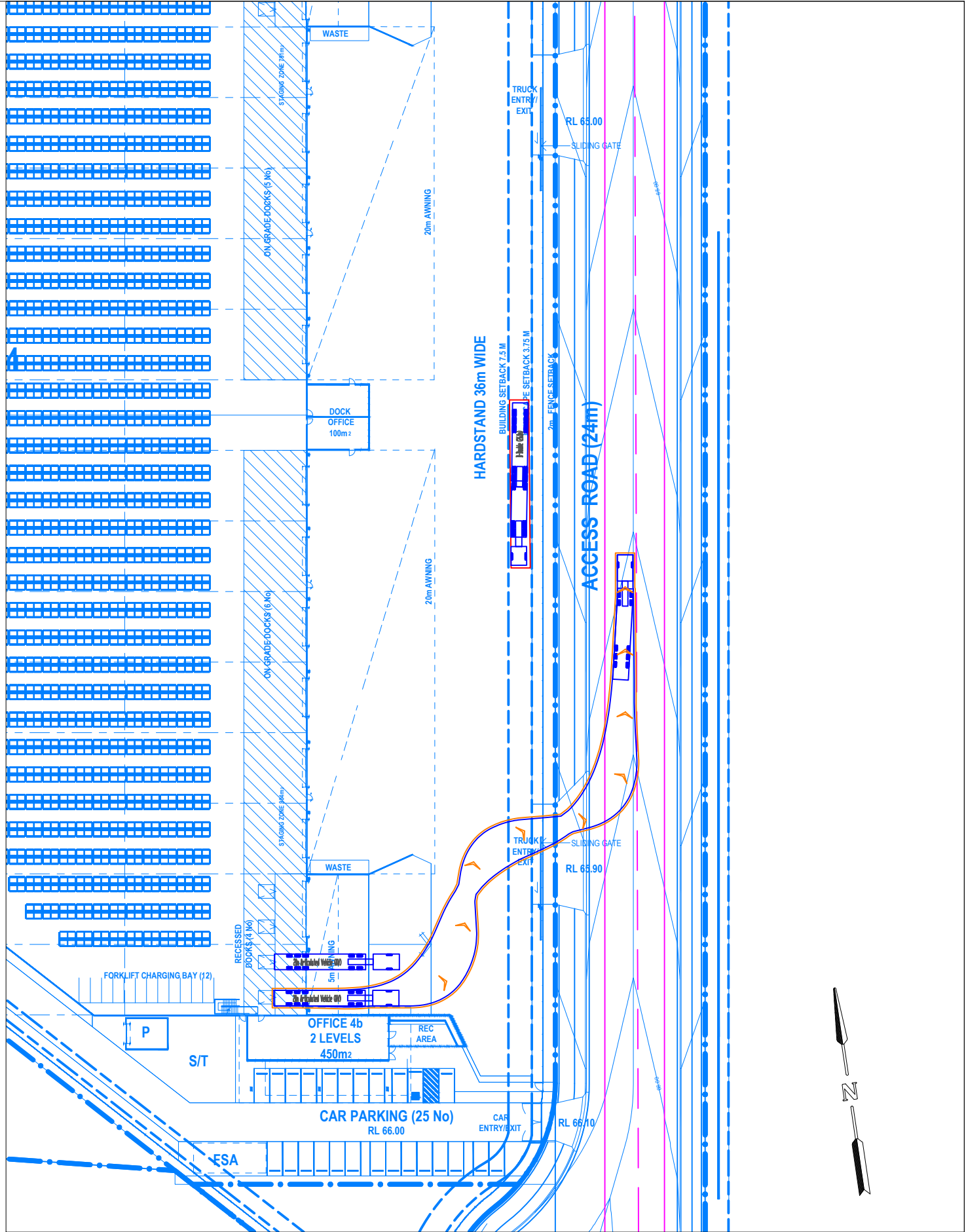
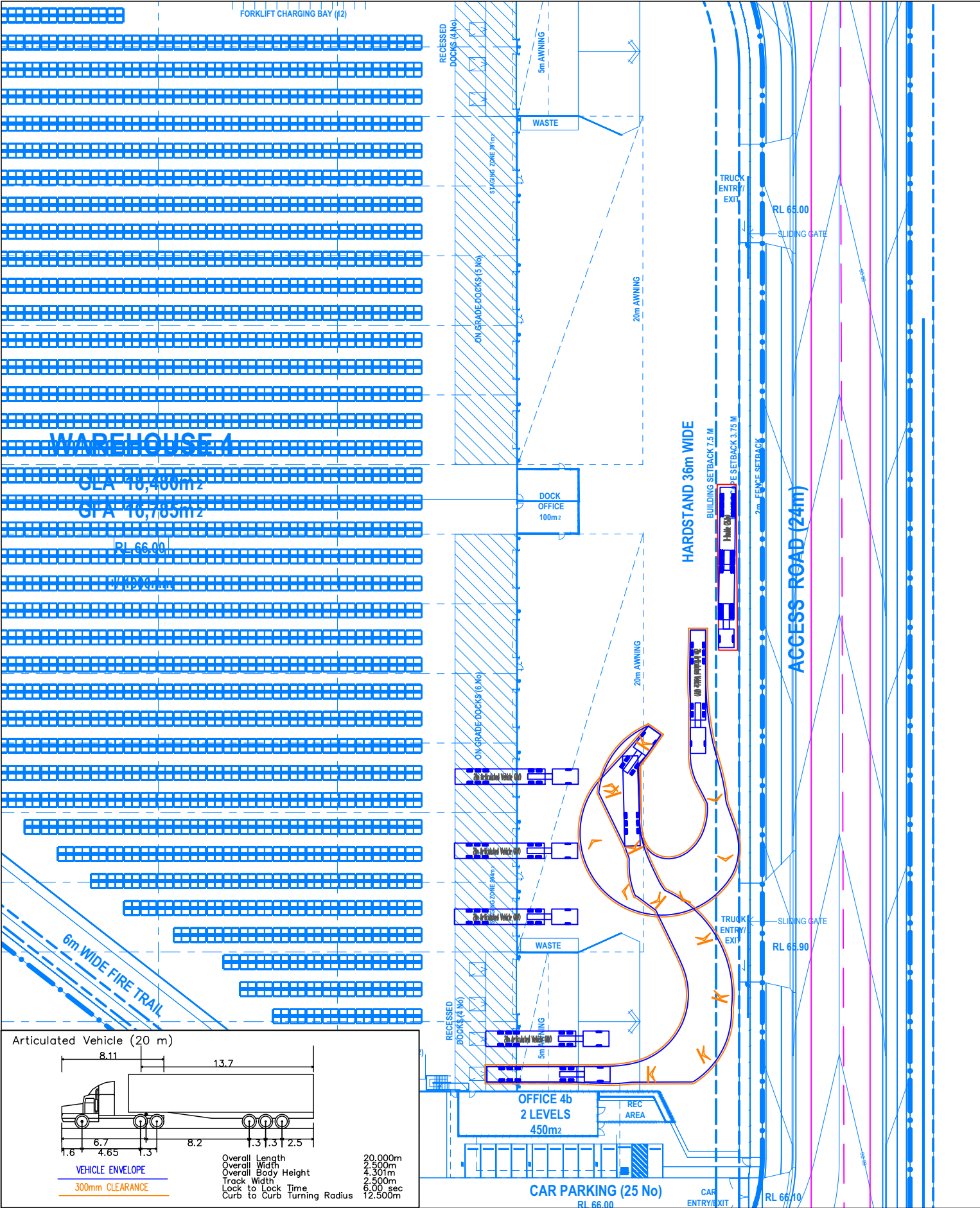


GENERAL NOTES This drawing is provided for information purposes only and should not be used for construction. Base Plan prepared by Nettletontribe, received 19.10.2022. Swept path assessments completed at 10 km/h and 300mm clearance.	DESIGNED Musstafa Abdullah	PAPER SIZE A3	CLIENT ESR Group	DOCUMENT INFORMATION	
	APPROVED BY X.XXXX	DATE 19.10.2022	PROJECT 1323	SWEEP PATH ASSESSMENT	
	SCALE Custom	NTS	Abbots Road, Kemps Creek	DOCKS SWEEP PATHS ASSESSMENT	
				FILE NAME AG1323-04-v04.dwg	SHEET AG04

asongroup

Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au

ASON ACCEPTS NO RESPONSIBILITY WHATSOEVER FOR THE USE OF UNAPPROVED PLANS IN ANY CONSTRUCTION OR FOR ANY COMMERCIAL PURPOSES. SET OUT DIMENSIONS OF ALL DESIGN LINES, CONTROL LINES, RECOVERY MARKS AND BECH MARKS SHOULD BE VERIFIED AND CONFIRMED AGAINST THE LATEST INFORMATION AT CONSTRUCTION. ASON IS TO BE NOTIFIED IMMEDIATELY OF ANY ERROR OR DISCREPANCY AND THE MATTER RESOLVED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN DATA. REPRODUCTION OF THIS PLAN OR ANY PART OF IT WITHOUT THE WRITTEN PERMISSION OF ASON GROUP WILL BE CONSIDERED A BREACH OF COPYRIGHT AND WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW. ASON GROUP WILL NOT BE RESPONSIBLE FOR ANY DAMAGE OR LOSS OF DATA OR INFORMATION CAUSED BY THE USE OF THIS PLAN OR ANY PART OF IT. THE USER OF THIS PLAN OR ANY PART OF IT SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED THEREIN AND FOR THE RESULTS OF ANY ACTION TAKEN THEREON. THE USER OF THIS PLAN OR ANY PART OF IT SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED THEREIN AND FOR THE RESULTS OF ANY ACTION TAKEN THEREON.



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by Nettletontribe, received 19.10.2022.
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED
Musstafa Abdullah

PAPER SIZE
A3

CLIENT
ESR Group

DOCUMENT INFORMATION

SWEPT PATH ASSESSMENT

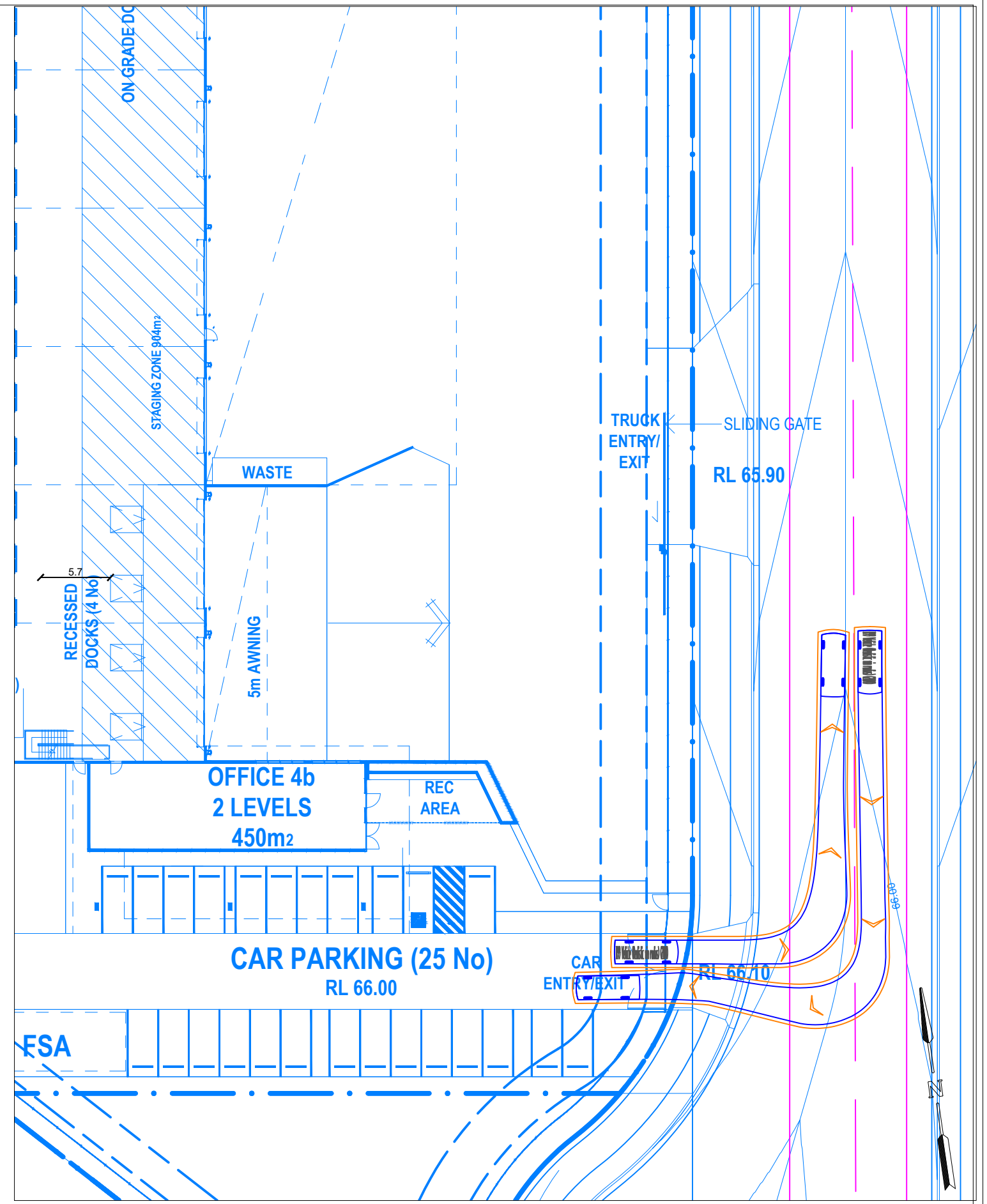
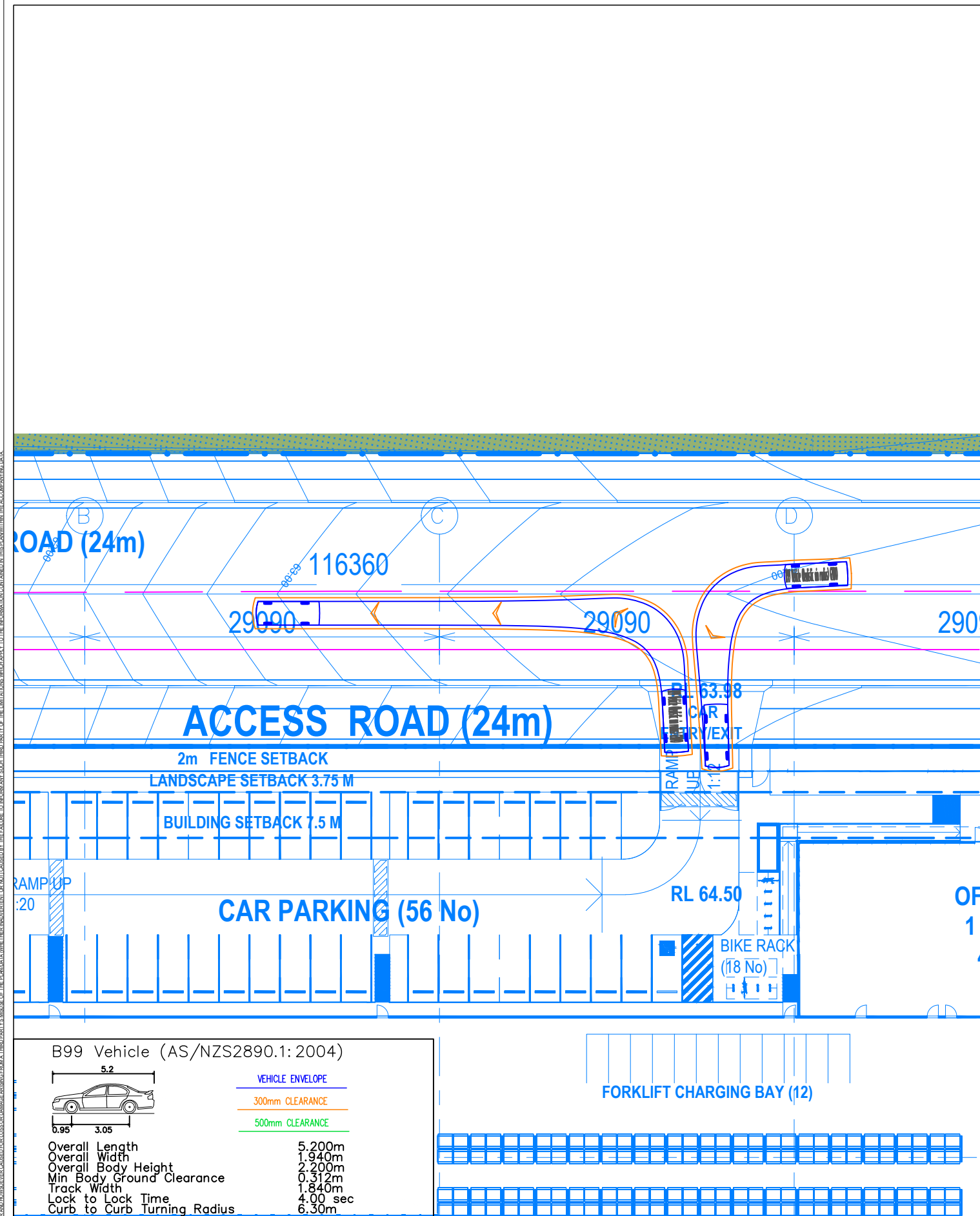
DOCKS SWEPT PATHS ASSESSMENT

FILE NAME
AG1323-04-v04.dwg

SHEET
AG05

asongroup

Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by Nettletontribe, received 19.10.2022.
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED	
Musstafa Abdullah	

APPROVED BY

SCALE
1:400

PAPER SIZE	A3
------------	----

DATE	19.10.2022
------	------------

CLIENT	ESR Group
--------	-----------

	PROJECT
--	---------

1323	
Abbotts Road, Kemps Creek	

DOCUMENT INFORMATION

SWEPT PATH ASSESSMENT

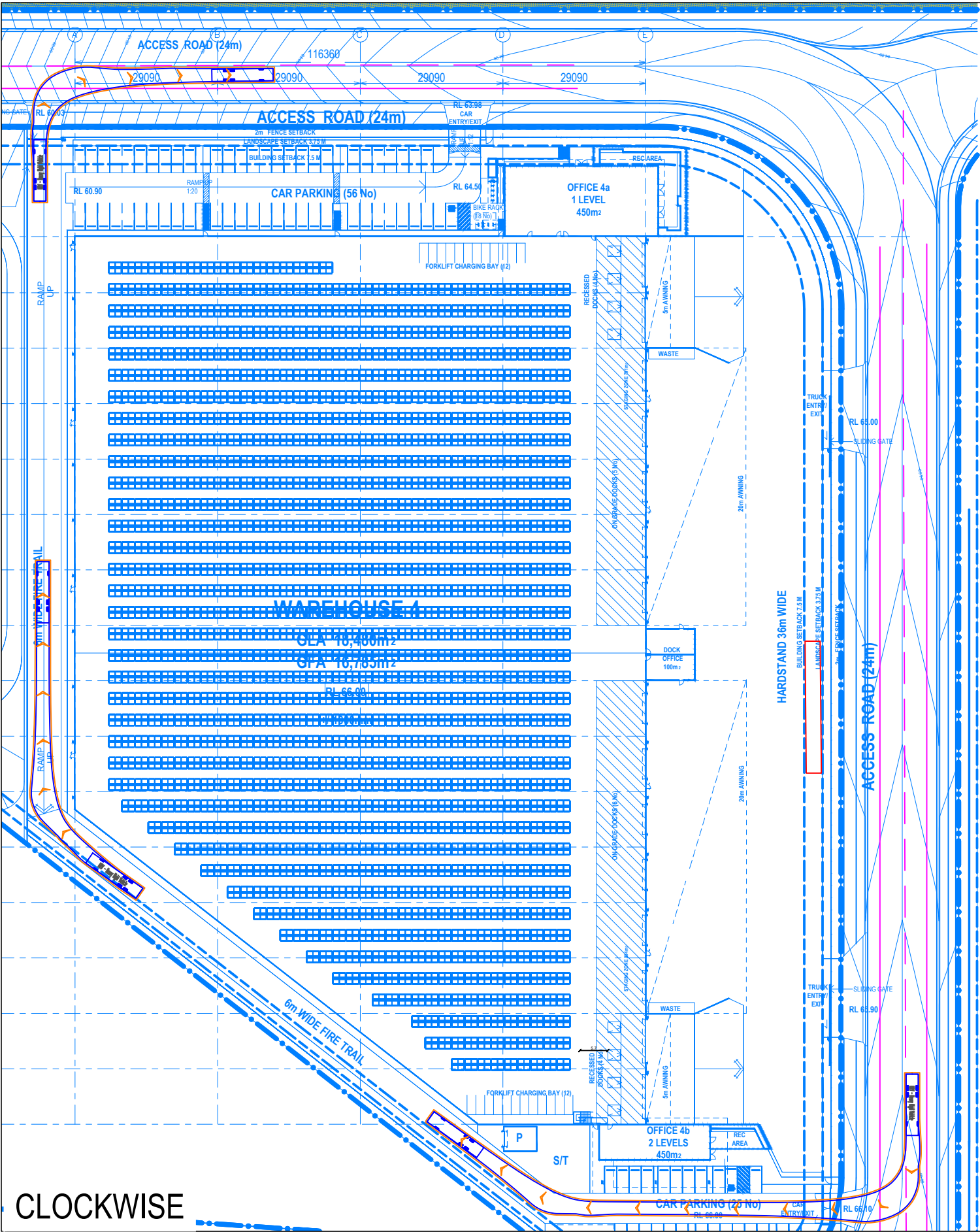
CAR PARKING ACCESS ASSESSMENT

FILE NAME
AG1323-04-v04.dwg

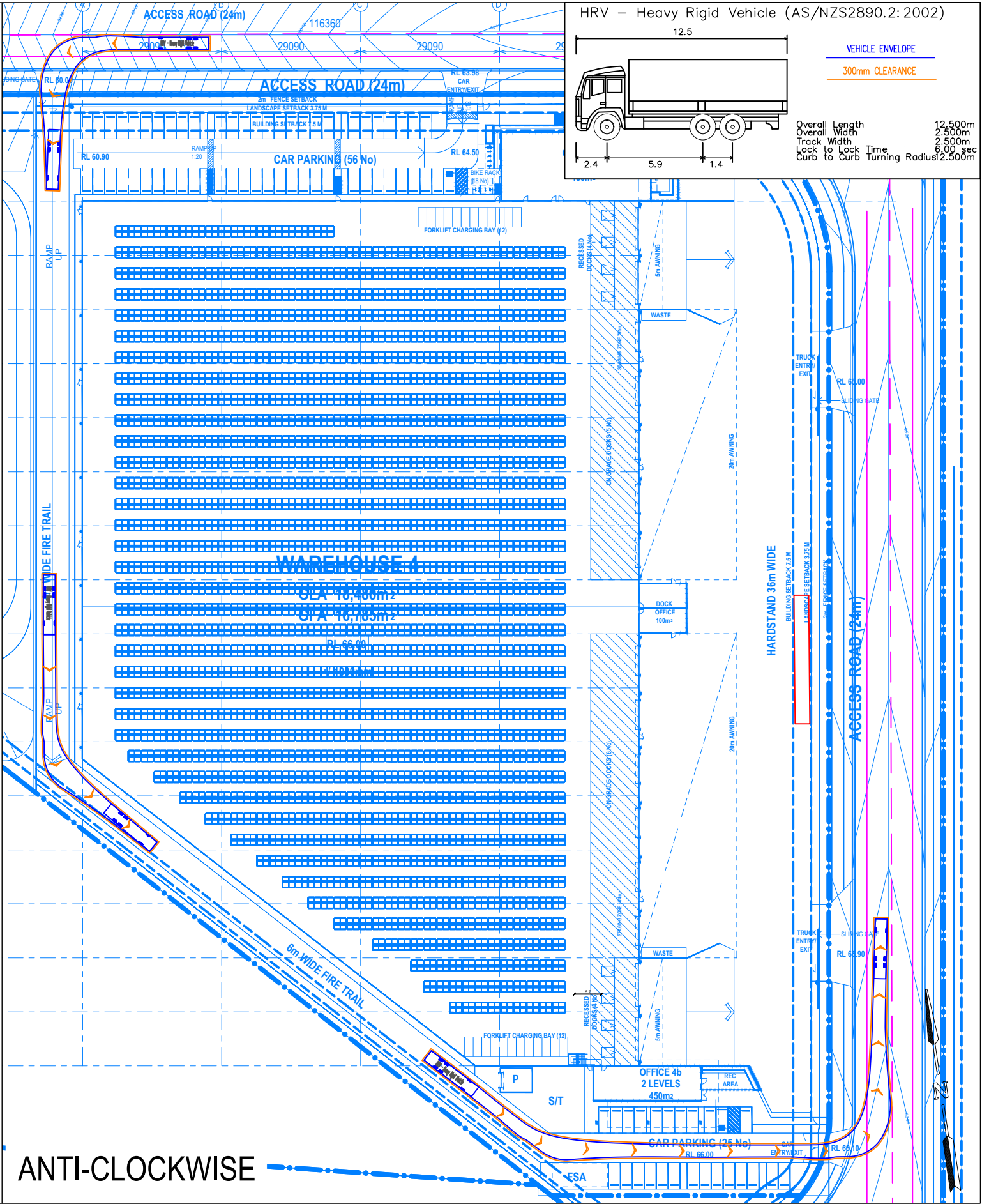
SHEET
AG06

asongroup

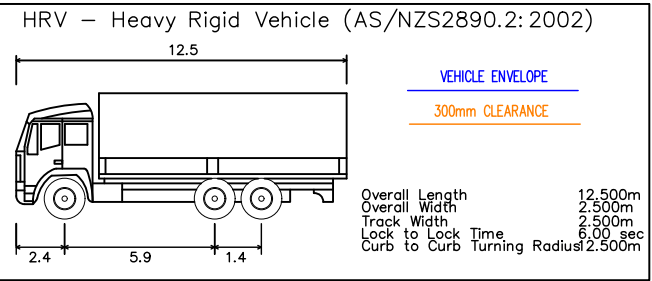
Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000



CLOCKWISE



ANTI-CLOCKWISE



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by Nettletontribe, received 19.10.2022.
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED

Musstafa Abdullah

APPROVED BY

X.XXXX

SCALE

Custom

PAPER SIZE

A3

DATE

19.10.2022

0 10 20

CLIENT

ESR Group

PROJECT

1323

Abbotts Road, Kemps Creek

DOCUMENT INFORMATION

SWEPT PATH ASSESSMENT

FIRE TRUCK SWEPT PATH ASSESSMENT

FILE NAME

AG1323-04-v04.dwg

SHEET

AG07

asongroup

Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000

info@asongroup.com.au

Appendix E. Draft Construction Traffic Management Plan

Preliminary Construction Traffic Management Plan

ESR Westlink

59-63 Abbots Road & 290-308 Aldington Road, Kemps Creek

31/08/2022

P1323r03

Document Control

Project No	1323
Project	ESR Kemps Creek Logistics Park, Abbots Road, Kemps Creek
Client	ESR Developments (Australia) Pty Ltd
File Reference	1323r03v5 Draft CTMP_Westlink, Stage 1, Issue

Revision History

Revision No.	Date	Details	Author	Approved by
-	17/12/2020	Draft	V. Cheng	R. Butler-Madden
I	22/12/2020	Issue	V. Cheng	R. Butler-Madden
II	18/05/2021	Issue	V. Cheng	R. Butler-Madden
III	12/04/2022	Issue	R. Butler-Madden	R. Butler-Madden
IV	13/04/2022	Issue	J.Wu	R. Butler-Madden
V	24/08/2022	Draft	M. Abdullah	R. Butler-Madden

This document has been prepared for the sole use of the Client and for a specific purpose, as expressly stated in the document. Ason Group does not accept any responsibility for any use of or reliance on the contents on this report by any third party. This document has been prepared based on the Client's description of its requirements, information provided by the Client and other third parties.

contents

Glossary

1	Introduction	1
1.1	Overview	1
1.2	Proposed Development	1
2	The Site	2
2.1	Site Location	2
2.2	Road Network	2
3	Overview of Construction Works	5
3.1	Staging and Duration of Works	5
3.2	Construction Hours	7
3.3	Site Access	7
3.4	Construction Vehicle Access Routes	8
3.5	Fencing Requirements	10
3.6	Materials Handling	11
3.7	Additional Site Management	11
3.8	Road Occupancy	11
3.9	CTMP – Monitoring & Review Process	11
4	Assessment of Traffic & Transport Impacts	12
4.1	Forecast Cumulative Traffic Movements	12
4.2	Vehicle Management – Principles	13
4.3	Construction Staff Parking	13
5	Traffic Control	14
5.1	Traffic Control	14
5.2	Authorised Traffic Controller	14
6	Monitoring & Communication Strategies	15
6.1	Development of Monitoring Program	15
6.2	Communications Strategy	15
7	Summary	16
	Drivers Code of Conduct	18
	Code of Conduct	18
	Crash or incident Procedure	19

contents continued

Figures

Figure 1: Site Location	2
Figure 2: TfNSW Approved 25/26m B-Double Routes	4
Figure 3: Indicative Vehicle Access Plan	8
Figure 4: Construction Vehicle Routes	10

Tables

Table 1: Key Road Network	2
Table 2: Staging Overview	5
Table 3: Intersection Works Staging Overview	6
Table 4: Daily Cumulative Traffic Forecast (Movements)	12

APPENDICES

Appendix A. White Group Roadworks CTMP

Appendix B. Driver Code of Conduct

Appendix C. Traffic Control Plan(s)

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
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 ESR Developments (Australia) Pty Ltd (ESR) to prepare a Draft Preliminary Construction Traffic Management Plan (CTMP) in regard to the future construction of industrial development known as the ESR Westlink, at Abbots Road, Kemps Creek (the Site).

This Preliminary CTMP details the proposed construction management strategies which would provide for the safe and efficient completion of the proposed works while minimising construction traffic impacts on the surrounding road network and public road network users.

From the outset, it is noted that the this CTMP is designed to be updated over time as additional details in regard to the construction proposal are revised / finalised as is standard in any major construction project, noting that all such updates would be completed in consultation with Penrith City Council (Council) in whose Local Government Area (LGA) the Site lies; and / or with the relevant authorities such as Transport for NSW (TfNSW) where special road occupancy or the like are required.

Importantly, Ason Group has been responsible for the preparation of this Draft CTMP, which has been prepared with reference to all available information in regard to the construction program, and all relevant CTMP preparation guidelines. The implementation of the recommendations and strategies detailed in this CTMP are the strict responsibility of ESR Australia and / or the designated construction Project Manager.

1.2 Proposed Development

The proposed development relates to a State Significant Development (SSD) for an industrial development Masterplan. The SSD generally provides for:

- Stage 1 Masterplan inclusive of 2 warehouse developments, detention basin and internal roads, including connection Abbots Road;
- Demolition and clearing of all existing built form structures and existing vegetation, subdivision of land;
- Construction of 2 industrial warehouse buildings comprising:
 - A total warehouse Gross Floor Area (GFA) of 78,906m² (including battery charging chamber GFA of 850m²)
 - A total ancillary and dock office GFA of 2,736m²
 - Provision of 381 parking spaces
 - Associated site landscaping
 - 1 x detention basin

Full details of the Proposal are provided in the Environmental Impact Statement (EIS) prepared by Ethos Urban, which this CTMP accompanies.

2 The Site

2.1 Site Location

The Site is comprised of 3 separate allotments with a total area of approximately 319,800m² and is legally described as Lots 13, 12 and 11 in DP253503. The Site is located approximately 4km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 12km south-east of the Penrith CBD and 40km west of the Sydney CBD. It is located at 290-308 Aldington Road, 59-62 Abbots Road, and 63 Abbots Road.

The Site in its sub-regional context is shown in **Figure 1**, as well as the broader Mamre Road Precinct as designated by DPIE.

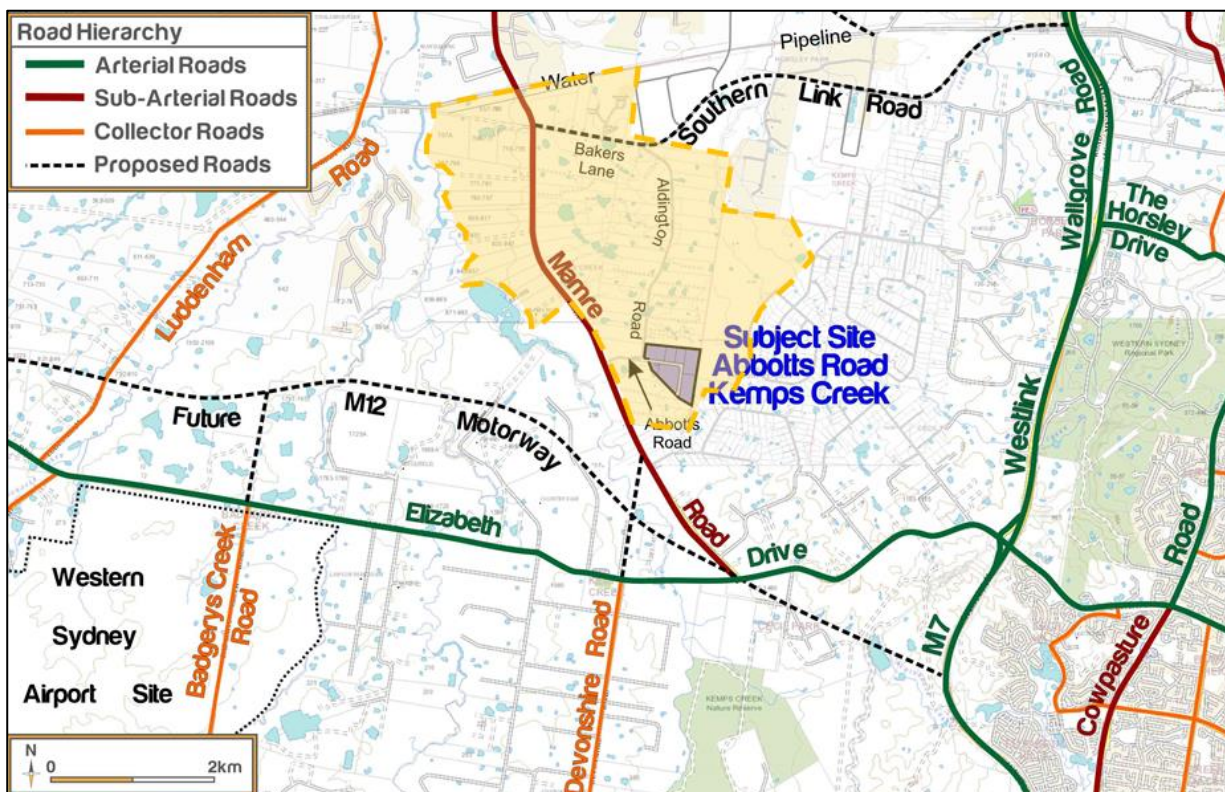


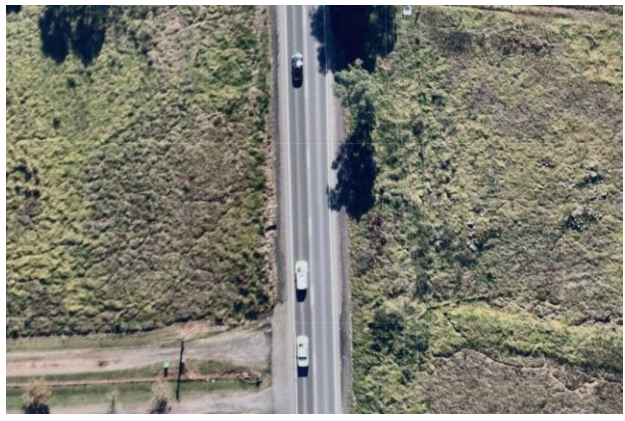


Figure 1: Site Location

2.2 Road Network

Key roads in the vicinity of the Site are shown in Figure 1, and include:

TABLE 1: KEY ROAD NETWORK

Road	Description	Typical Road Characteristics
------	-------------	------------------------------

Mamre Road	<p>An arterial road which runs north-south between the Great Western Highway and M4, and Elizabeth Drive respectively.</p> <p>In the vicinity of the Site, Mamre Road has a posted speed limit of 80km/h.</p>	
Aldington Road	<p>A local access that runs north-south (to the east of Mamre Road) and currently provides access for a number of rural residential properties. It connects with Bakers Lane to the north and Abbots Road to the south.</p> <p>It provides 1 traffic lane in each direction and has a posted speed limit of 80km/h.</p>	
Abbots Road	<p>A local access road that runs east-west connecting to Mamre Road (to the east of Mamre Road) and currently provides access for a number of rural residential properties. Abbots Road provides 1 traffic lane in each direction and has a posted speed limit of 60km/h,</p>	

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 2** with specific reference to the current TfNSW Restricted Access Vehicle (RAC) routes, which allow for up to 25m/26m B-Double combinations.



Figure 2: TfNSW Approved 25/26m B-Double Routes

3 Overview of Construction Works

3.1 Staging and Duration of Works

3.1.1 Site Works

In advance of a Development Consent, the construction strategy and staging has not yet been finalised. However, preliminary advice from ESR Australia and a Contractor has been used to inform the potential staging of the development. Based on this, it is anticipated that construction works for the preliminary stages would commence in September 2022 and be completed over a duration between 12-18 months, subject to authority approvals and inclement weather delays.

The following summarises key aspects of the construction phases:

- Early works are set to have a duration for 8-12 weeks.
- Internal civil and site road works would continue for 13 months.
- General Construction works are estimated to continue for 13 months.

The preliminary construction staging is provided in **Table 2**.

TABLE 2: STAGING OVERVIEW

Stage	Early Works and Bulk Earthworks	Internal Road and Civil Works	Main Construction
Timeframe	3 months (September 2022 to November 2022)	13 months (September 2022 to October 2023)	13 months (November 2022 to November 2023)
Peak Workers On-site Numbers	50	60	30
Light Vehicle Movements / Day	94	70	50
Truck Movements / Day	32	164	0

3.1.2 Additional External Road and Intersection Works

It is noted that LOG-E, are working to deliver interim upgrades to the Aldington Road / Abbotts Road corridor, as well as to the Mamre Road / Abbotts Road intersection.

A preliminary programme and staging plan has been developed to inform the preliminary construction traffic information. It is noted that this will need to be updated at the at the time that all the relevant approvals have been gained from the relevant roads authorities to allow the road works to commence.

In considering the road upgrades, the staging suits various factors including:

- Maximising cut / fill site areas to ensure the project is utilising directly cut material to an area of the Site that requires fill material. This will minimise overall construction traffic as it does not require material to be transported to a staging compound area and be double handled to Site at a later date.

- Directly loading and hauling material off site that is not being utilised on the site. This minimises construction traffic by not hauling the material to a staging yard to be re-loaded at a future date to be disposed of off-site.
- Providing maximum work area possible whilst maintaining two-way traffic on the roadways, this strategy will minimise the overall project duration.
- Relocating utilities as early as possible to ensure efficient work areas are available to the subsequent work activities.
- Maintaining at all times access to existing properties along the alignment.

Table 3 details the proposed staging. It has been developed to incorporate the previously defined staging considerations. This is subject to change following detailed design and engagement of the roadworks contractor however the overriding principle of minimising construction traffic volumes whilst maintaining constant 2-way traffic flow on the roads.

TABLE 3: INTERSECTION WORKS STAGING OVERVIEW

Stage	Name	Description	Timing
1	Utility Relocations	<p>Utility relocations will be undertaken along the full alignment of the works during this stage. The relocations consist of electrical assets being moved from overhead to underground, water assets being relocated behind the new kerb line, communication assets being relocated from overhead to underground behind the new kerb line.</p> <p>These works will be undertaken in a combination of day shift (primarily) and during approved out of hours periods where required, to minimise disruption to the local consumers.</p> <p>The works will be undertaken where possible behind concrete barriers, and where this is not possible under traffic management utilising approved Road Occupancy Licenses via the road authority.</p> <p>This stage will run concurrently with other stages as the works progress.</p>	6 Months (April 2023 to September 2023)
2.1	Abbotts Rd – Southern Carriageway, Mamre Rd Southbound Carriageway	<p>Construct temporary pavement where required, realign traffic, construct half road width. These works will be a combination of interim works and ultimate works.</p> <p>During this stage, there will be a temporary intersection established via an approval pathway with the road authority to better control the traffic flow at the intersection.</p> <p>During these works, the existing configuration of the Mamre Road / Abbotts Road intersection is maintained. All access to residential properties is maintained. The construction contractor will directly co-ordinate with the residential properties to agree access conditions.</p>	3 Months (June 2023 to August 2023)
2.2	Abbotts Rd – Northern Carriageway, Mamre Rd Northbound Carriageway	<p>Traffic is realigned to the newly constructed pavement, construct half road width. These works will be a combination of interim works and ultimate works.</p> <p>During this stage, there will be a temporary intersection established via approval pathway with the road authority to better control the traffic flow in the intersection.</p> <p>During these works, the existing configuration of the Mamre Road / Abbotts Road intersection is maintained. All access to residential properties is maintained. The construction contractor will directly co-ordinate with the residential properties to agree access conditions.</p>	3 Months (September 2023 to November 2023)
2.3	Abbotts Rd / Mamre Rd Completion Works	<p>During this stage, any works that were not possible to be constructed in stage 2.1 and 2.2 will be constructed. Completion works will also include pavement wearing course works which will be primarily completed during nights under traffic management.</p> <p>Traffic signals for both the Mamre Road / Abbotts Road and Abbotts Road / Aldington Road intersections will be commissioned during this stage. Permanent Linemarking will be the final step in this stage with a handover to the road authority signalling the completion of both Mamre Road / Abbotts Road intersection and Abbotts Road upgrade.</p>	2 Months (December 2023 to January 2024)
3.1	Aldington Rd Southbound / Aldington Rd Northbound	<p>Construct temporary pavement where required, realign traffic, construct half road width. These works will be a combination of interim works and ultimate works.</p> <p>During this stage, all access to residential properties is maintained. The construction contractor will directly co-ordinate with the residential properties to agree access conditions.</p>	3 Months (August 2023 to November 2023)
3.2	Aldington Rd Northbound /	<p>Traffic is realigned to the newly constructed pavement, and construction of the remaining half road width is completed. These works will be a combination of interim works and ultimate works.</p>	3 Months (December 2023 to February 2024)

	Aldington Rd Southbound	During this stage, all access to residential properties is maintained. The construction contractor will directly co-ordinate with the residential properties to agree access conditions.	2023 to February 2024)
3.3	Aldington Rd Northbound / Aldington Rd Southbound	During this stage, any works that were not possible to be constructed in stage 3.1 and 3.2 will be constructed. Completion works will also include pavement wearing course works which will be primarily completed during nights under traffic management. Permanent Linemarking will be the final step in this stage with a handover to the road authority signalling the completion of both Mamre Rd / Abbots intersection and Abbots Rd upgrade	2 Months (March 2024 to May 2024)

A further CTMP has been prepared by White Group (see Appendix A) to address the first stage of construction by the developer, prior to any upgrades at the Mamre Road/Abbots Road intersection. This CTMP will be updated as additional developers accessing sites off Abbots Road commence work (which is subject to development consent being issued); when the Mamre Road/Abbots Road and Aldington Road upgrades commence; and during various stages of construction of these external roads. The additional traffic control measures applicable during the intersection upgrade will be determined based on the construction methodology and determined with input from TfNSW during the Works Authorisation Deed process.

3.2 Construction Hours

The type of work being undertaken will remain consistent throughout the duration of construction and associated activities. All works will be undertaken within the following hours:

- Monday to Friday (other than Public Holidays): 7:00am – 6:00pm.
- Saturday: 8:00am – 1:00pm
- Sunday & 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.

3.3 Site Access

3.3.1 Construction Vehicle Access

All construction vehicles will enter and depart the Site from / to Mamre Road via Abbots Road and not Bakers Lane, to avoid conflict with the School peak periods. The existing Site access, to the east of Abbots Road, would be utilised for vehicle access during construction.

It is anticipated that the largest vehicle accessing the Site would be a 19.6m Truck & Dog combination, which the temporary access driveway will be designed for.

The following Figure 3 shows the indicative Site access location and Figure 4 details the likely key access strategy into the routes between the Site and the regional road network.

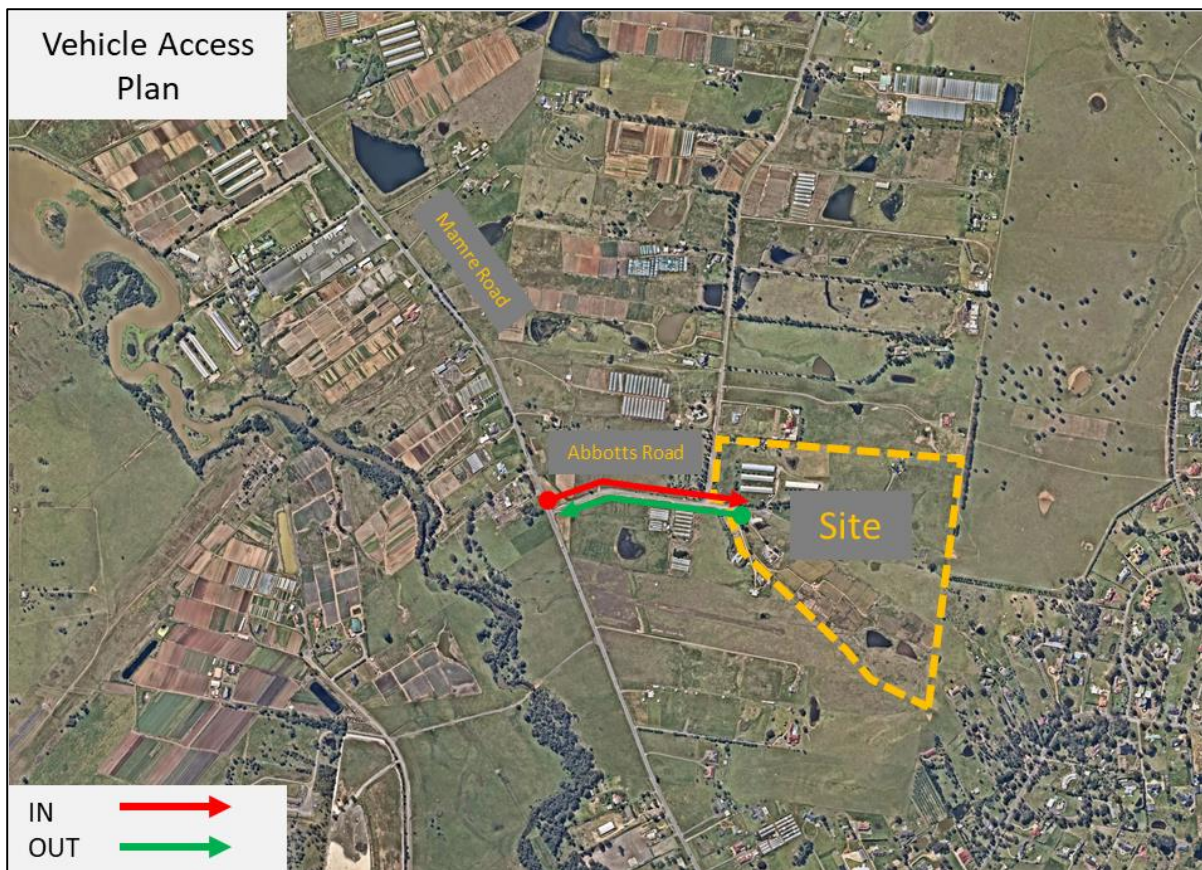


Figure 3: Indicative Vehicle Access Plan

3.3.2 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; emergency protocols during the works will be developed by the Project Manager for inclusion within the final CTMP.

3.3.3 Pedestrian Access

There are currently no pedestrian amenities or footpaths along Abbotts 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 Abbotts Road.

Further to the above, while there is no expectation of pedestrians crossing the future construction access 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.

3.4 Construction Vehicle Access Routes

As discussed, all construction vehicles will enter and exit the Site via Abbotts Road.

It is anticipated that all heavy vehicles will access Site via the following routes:

- Arrival Trips:
 - Route 1: From M4 Western Motorway, southbound along Mamre Road and left into Abbots Road.
 - Route 2: From Westlink M7, westbound on Old Wallgrove Road, Lenore Drive and Erskine Park Road, then south along Mamre Road and left into Abbots Road.
- Departure Trips:
 - Route 1: From the Site, onto Abbots Road then south on Mamre Road to Elizabeth Drive and left to the M7 Motorway and sub-regional routes to the east.
 - Route 2: From the Site, onto Abbots Road then south on Mamre Road to Elizabeth Drive and right to Badgerys Creek and The Northern Road to the west.

These routes are shown in Figure 4.

A copy of the approved routes will be distributed by the Project Manager to all drivers as part of their induction process.

In the event that an oversized or over-mass vehicles is required to travel to and / or from the Site, a permit from Roads and Maritime Services and / or the National Heavy Vehicle Register (NHVR) will be required prior to arrival to the site. Notwithstanding, this CTMP relates to general construction which does not seek the use of oversize vehicles; a separate application would be submitted if such access is required.

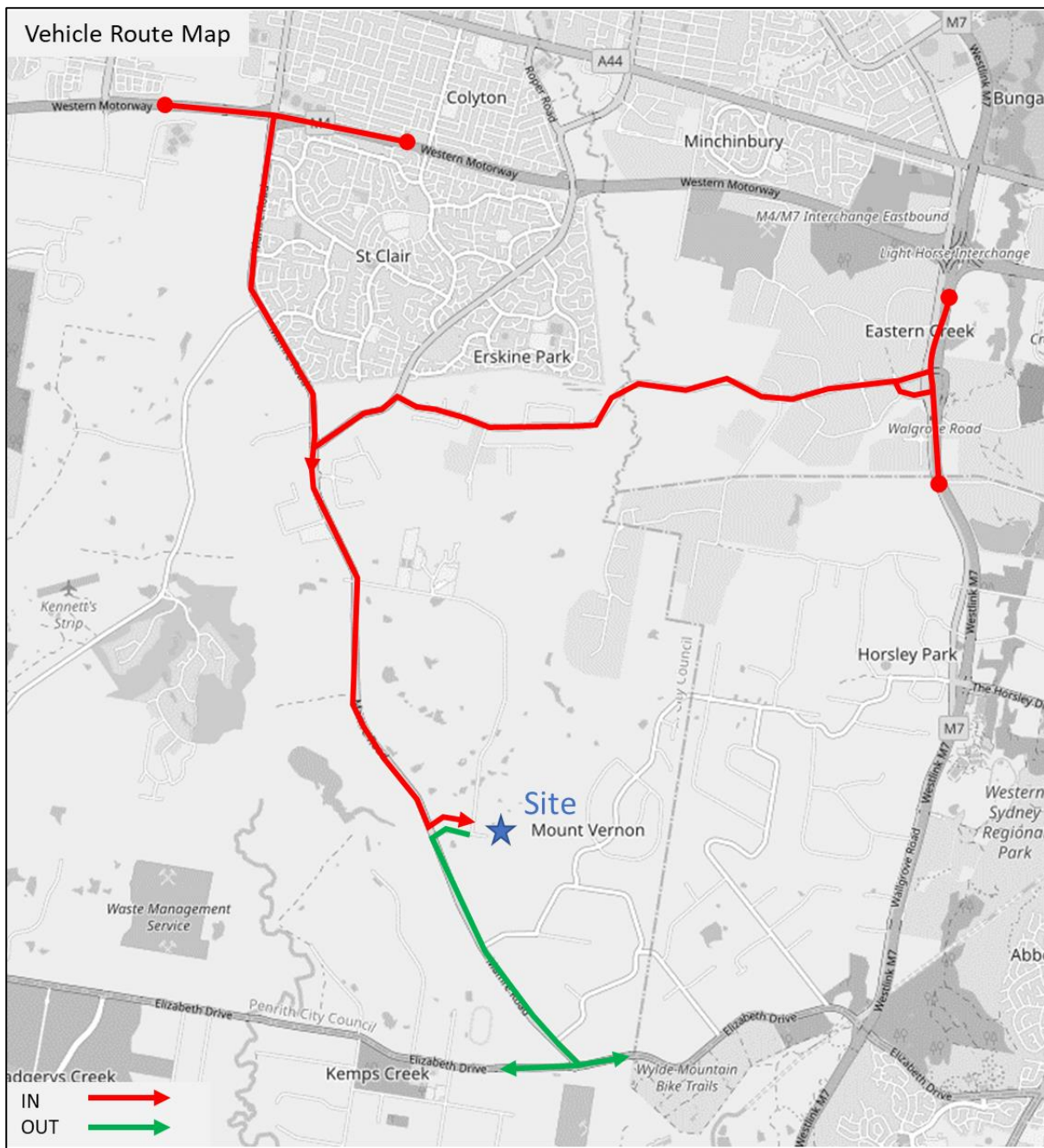


Figure 4: Construction Vehicle Routes

3.5 Fencing Requirements

Security fencing will be erected along the entire boundary of the Site and will be maintained for the duration of the construction works to ensure that unauthorised persons are kept out of the Site. The fencing will either be ATF or 2.4m chain wires.

Site access gates would be provided at the temporary driveway which would remain closed at all times outside of the permitted construction hours.

3.6 Materials Handling

All material loading will be undertaken wholly within the Site, and all construction equipment, materials and waste will similarly be strictly kept within the Site.

While not anticipated, should any materials handling (or other constructed related activity) be required from the public roadway (i.e. Abbotts Road) then prior approval shall be sought and obtained from the appropriate authorities.

3.7 Additional Site Management

Although it is not expected, in the event that any Site construction traffic management outside of that described in this CTMP is required, the Project Manager will be required to notify adjacent properties of any temporary traffic restrictions (or the like) at least fourteen (14) days in advance.

3.8 Road Occupancy

The potential exists for future road occupancy requirements to facilitate the construction of the temporary driveway, and then any further upgrades to the intersection of Aldington Road. Road occupancy permits will necessarily be procured prior to starting intersection construction works, while a detailed intersection-specific CTMP would be prepared in consultation with Council and Roads & Maritime to ensure traffic along Aldington Road would continue to operate adequately during any such occupancy period.

3.9 CTMP – Monitoring & Review Process

This CTMP has been prepared referencing the existing Site conditions. Consultation with Council, Roads and Maritime and neighbouring developments will continue to be undertaken to ensure that the cumulative traffic impacts of construction within the area do not adversely impact the operations of the neighbouring developments or the local road network.

4 Assessment of Traffic & Transport Impacts

4.1 Forecast Cumulative Traffic Movements

It is expected that the other landowners in LOG-E will also be undertaking construction works accessed via Abbots and Aldington Road at a similar time to the subject site and upgrades to external roads and intersections.

Prior to Conditions of Consent being issued for any proposed development, a program for construction cannot be finalised. However, following discussions with the relevant land owners, indicative construction traffic numbers have been collated for consideration in this assessment.

The relevant sites are:

- Subject site: Westlink – Abbots Road SSD-9138102 (ESR)
- Fife Kemps Creek 200 Aldington Road, SSD-10479 (FKC); and
- Frasers Property Industrial site at 155-251 Aldington Rd, SSD-17552047 (Frasers).

Actual timing and traffic movements will be updated as conditions of consent are issued and construction programs finalised. However, **Table 4** provides an updated forecast of staging and daily traffic generation for each stage, for each development site and the associated road upgrade works.

TABLE 4: DAILY CUMULATIVE TRAFFIC FORECAST (MOVEMENTS)

Site Timeframe	FKC 200 Aldington (SSD-10479) Movements / Day		ESR – Westlink (SSD-9138102)		Frasers (SSD-17552047)		External Road & Intersections Works		Cumulative	Status of Abbots / Mamre Intersection
0-3 months Sept-Nov 2022	Light	70							Light 70 Heavy 70	Existing Mamre Intersection – 60km/hr restriction
3-6 months Dec 2022- Feb 2023	Light	100	Light 224						Light 320 Heavy 296	Existing Mamre Intersection – 60km/hr restriction
6-9 months March-May 23	Light	100	Light 130				Light 120		Light 350 Heavy 404	Under construction 40km/hr restriction Temp intersection
9-12 months June-August 2023	Light	100	Light 130				Light 120		Light 350 Heavy 404	Under construction 40km/hr restriction Temp intersection
12-15 months	Light	100	Light 130		Light 30		Light 120		Light 380 Heavy 414	Under construction

Sept-Nov 2023							40km/hr restriction Temp intersection
15-18 months Dec 2023-Feb 2024	Light 150 Heavy 100	Light 130 Heavy 164	Light 30 Heavy 10	Light 120 Heavy 140	Light 430 Heavy 414		Intersection and Aldington Road/Abbotts Road upgrade complete
18-21 months Mar-May 2024	Light 150 Heavy 100	Light 130 Heavy 164	Light 80 Heavy 20		Light 360 Heavy 284		

When considering the cumulative impacts of the road / intersection works and the above LOG-E development site construction traffic, the peak period (prior to completion of the upgrade of the Mamre Road/Abbotts Road intersection) would be 15-18 months after SSD-10479 commences construction on site, estimated as December 2023-February 2024, when the intersection is under construction but nearing completion. During this period there would be a peak of 844 vehicle movements per day.

Based on an 11-hour day for construction activities (between 7am to 6pm), this equates to 77 vehicle movements per hour (i.e. 39 inbound vehicles / 38 outbound vehicles).

Until such a time that the Mamre Road/Abbotts Road intersection works commence, speed restriction and traffic controls will be established via an approval pathway with the relevant road authority to control the traffic flow and mitigate the risks, as is proposed in the appended CTMP.

Further consideration to the operation of the intersection during construction will be determined during the relevant Works Authorisation Deed process required prior to the commencement of works. When this intersection is under construction it is expected the CTMP will identify the speed be reduced to 40km/hr during construction.

4.2 Vehicle Management – Principles

In accordance with TfNSW requirements, all vehicles transporting loose materials would 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.

Further to covering/securing the load to prevent deposits onto the roadway, a Shaker Grid is proposed and installed at the point of vehicle egress to minimise the risk of dirt tracking out onto Aldington Road. The responsibility of the driver to ensure that the Shaker Grid is driven over would be included as part of the Driver Code of conduct; this requirement, and indeed all driver requirements, will be detailed during an induction process for all drivers prior to commencing work at the Site, and will be further detailed in the Driver Code of Conduct, a copy of which included in Appendix B.

4.3 Construction Staff Parking

All construction staff and contractors will be required to park wholly within the Site, noting that there will be significant area available (at all times) to meet the peak parking demand.

5 Traffic Control

5.1 Traffic Control

The RMS guide “Traffic Control at Worksites” (TCAW) manual contains standard traffic control plans (TCPs) for a range of work activities. The manual’s objective is to maximise safety by ensuring traffic control at worksites complies with best practice.

The RMS TCAW outlines the requirements for a Vehicle Movement Plan (VMP) for construction works such as proposed; a VMP is a diagram showing the preferred travel paths for vehicles associated with a work site entering, leaving or crossing the through traffic stream. A VMP should also show travel paths for trucks at key points on routes remote from the work site such as places to turn around, accesses, ramps and side roads.

Regarding construction work on roads with an average daily total (ADT) in excess of 1,500 vehicles, approach speeds of between 60 km/hr and 80 km/hr, with truck movements > 20 veh/shift, and sight distance is less than 2d, (where d equals the posted speed limit and in this instance the sight distance is required to be up to 120 metres), it would be expected for the following to be required by the RMS TCAW:

- A detailed Traffic Control Plan (TCP) with Traffic controllers
- A VMP.
- Warning Signs required during shifts.

With regard to the proposed temporary access road, a site-specific version of TCP 195 (as shown in Appendix C) would be implemented for the duration of the works.

5.2 Authorised Traffic Controller

An authorised Traffic Controller(s) is to be present on-site throughout the proposed works. Responsibilities of the Traffic Controller will include:

- The supervision of all construction vehicle movements into and out of site at all times,
- The 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.

6 Monitoring & Communication Strategies

6.1 Development of Monitoring Program

The development of a program to monitor the effectiveness of this CTMP shall be established by the Project Manager and should consider scheduled reviews as well as additional reviews should construction characteristics be substantially changed (from those outlined in the Final CTMP). All and any reviews of the CTMP should be documented, with key considerations expected to include:

- Tracking heavy vehicle movements against the estimated heavy vehicle flows during the Stage 1 works.
- The identification of any shortfalls in the CTMP, and the development of revised strategies / action plans to address such issues.
- Ensuring that all TCPs 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 to ensure all loads are departing the Site covered as outlined within this CTMP.

6.2 Communications Strategy

A Communications Strategy shall be established by the Project Manager for implementation throughout the construction works; this strategy will outline the most effective communication methods to ensure adequate information within the community and assist the Project Team to ensure the construction works have minimal disruption on the road network. The Communications Strategy will include:

- The erection of appropriate signage providing advanced notice of works and any traffic control measures to be implemented.
- Written notices to surrounding landowners (and tenants) likely to be directly affected by the works, prior to commencement.

Ongoing communication is also required so that all stakeholders are kept up to date of works and potential impacts.

7 Summary

This CTMP has been prepared to ensure appropriate traffic management is undertaken during the proposed industrial development.

Ultimately, this CTMP report has been prepared with regard to the management principles outlined in the RMS Traffic Control at Worksites Manual (2018) and AS1742.3, and per the detailed strategies outlined in the CTMP is recommended for adoption at the Site.

In summary though – and further to a determination that the proposal's construction traffic will not impact the local road network - the following measures are recommended to minimise the potential traffic impacts associated with the proposal:

- Traffic control would be required to manage and regulate construction vehicle traffic movements to and from the Site during construction.
- All vehicles transporting loose materials will have the load covered and/or secured to prevent any items depositing onto the roadway during travel to and from the Site.
- All vehicles are to enter and depart the Site in a forward direction, with reverse movements to occur only within the Site boundary.
- All contractor parking is to be contained wholly within the Site, and.
- Pedestrian and cyclist traffic along the Site frontage will be managed appropriately at all times.

In summary, the CTMP report is proposed in accordance with the RMS TCAW.

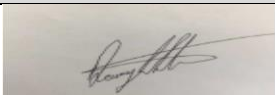
Appendix A. White Group Roadworks CTMP



Construction Traffic Management Plan (CTMP)

Westlink Estate, Kemps Creek, NSW

Revision Record

Issue No.	Author	Reviewed/Approved	Description	Date
0.	Danny White		Rev 01	24/08/22
1.			Rev 02	
2.			Rev 03	
3.			Rev 04	
4.			Rev 05	
5.			Rev 06	
6.			Rev 07	
7.			Rev 08	

Author: Danny White

Ticket Number: 0052250460

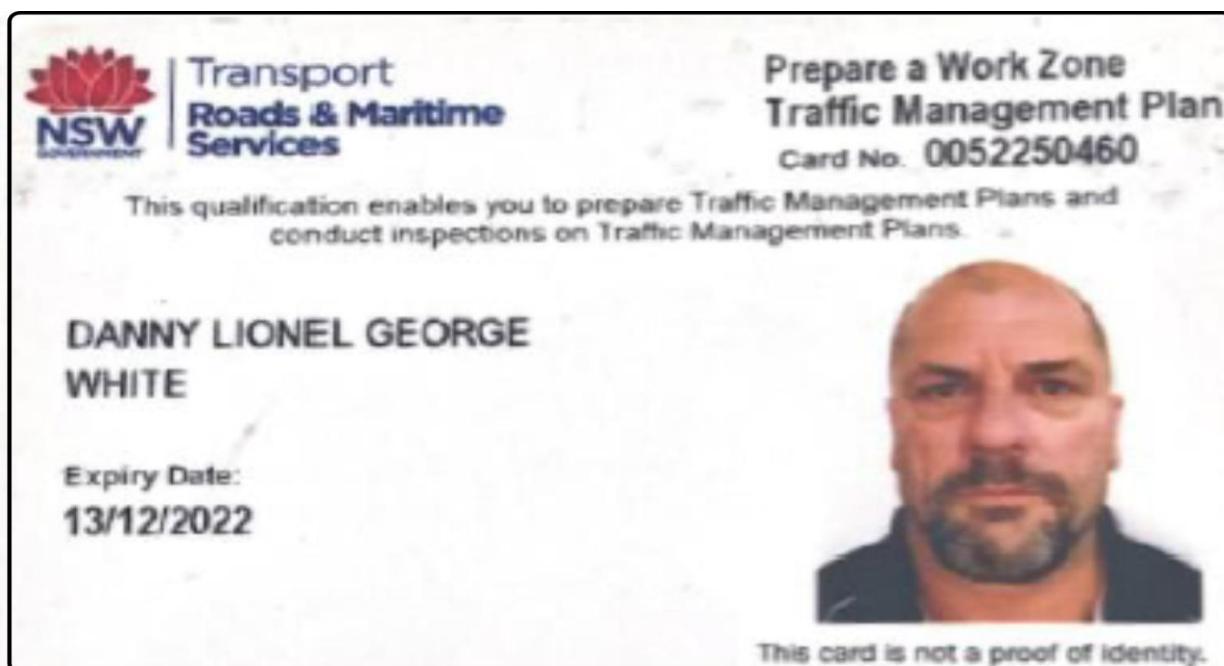


TABLE OF CONTENTS

1. INTRODUCTION	
1.1 Executive Summary	4
1.2 Background	4
1.3 Site Location	4
1.4 Scope	5
1.5 Objective of this Plan	5
1.6 Guideline & Design Standards – Reference Documents	5
1.7 Limitations of this Construct	5
2. ROLES & RESPONSIBILITIES	
2.1 Key Personnel & Contact Details	6
2.1.1 Project Manager	6
2.1.2 Site Supervisor	6
2.1.3 Emergency Contact	6
2.1.4 Traffic Control Contractor	6
2.1.5 TfNSW Project Manager	6
2.1.6 Project Verifier/Penrith Council Inspector.....	6
2.1.7 Transport Management Centre	6
2.2 Responsibilities	7
2.2.1 Project Manager	7
2.2.2 Site Supervisor	7
2.2.3 Nominated Traffic Officer	8
3. EXISTING TRANSPORT INFRASTRUCTURE	
3.1 The Road Network	8
3.1.1 Key Roads	8
3.2 Existing Traffic Controls	8
3.3 Parking	8
3.4 Public Transport	9
3.4.1 Bus Routes	9
3.5 Pedestrian Infrastructure	9
3.6 Cyclist Infrastructure	9
4. CONSTRUCTION METHODOLOGY	
4.1 Duration of works & daily / weekly schedule	9
4.1.2 Construction Traffic Management Plan compliance	9
4.2 Staging	9
4.2.1 Type & Number of Construction Vehicles	10
4.3 Truck Routes	11
4.3.1 Haulage Routes	11-12
4.4 Materials on site	12
4.4.1 Building Materials	12
4.4.2 Materials on Road Reserve	12
4.5 Scrub & Dry	12
4.5.1 Mud & Sediment Control	12
4.5.2 Unexpected Finds & Soil Contamination	12

5. TRAFFIC MANAGEMENT STRATEGY	
5.1 Traffic Management Options	13
5.1.1 Continuous Flow of traffic on Aldington Road	13
5.1.2 Stop / Slow Control Measures	13
5.2 Temporary Road Closure	13
5.3 Working on Footpaths	13
5.4 Pedestrian & Cyclist Management	13
5.5 Emergency Services	13
5.6 ROL's & SZA	13
5.7 Road Barriers	13
5.8 Line marking	13
5.9 Lighting	13
6. INSPECTION, AUDITING & REPORTING	
6.1 Inspection & Auditing requirements.....	14
6.2 TMP Up-dates & amendments	14
7. CONSULTATION & COMMUNICATION	
7.1 Notification	14
7.2 Site Contact Information	14-15
7.3 VMS	15
APPENDIX A – Traffic Control Plans	
A1.1 Long Term & Vehicle Movements	16
A1.2 Work Zones	17
A1.2 Mamre Road Speed Reduction.	18
APPENDIX B	
B1.1 Risk Management	19
B1.2 Risk assessment Matrix	20
APPENDIX C	
C1.1 Site Photos	21-23
APPENDIX D	
D1.1 Site Plans	24 to 26
APPENDIX E	
E1.1 Traffic Volumes	27 - 30
APPENDIX E	
E1.1 Drivers Code of Conduct.....	31 - 32

1. Introduction

This CTMP covers stages for the new Westlink estate at 292-308 Aldington Road & 59-62 Abbotts Road, Kemps Creek, NSW.

1.1 Executive Summary

Construction Consent provides for the creation of the Construction Traffic Management Plan (CTMP) for the works at 292-308 Aldington Road & 59-62 Abbotts Road, Kemps Creek, NSW.

The works will cover the construction of the proposed new Westlink estate.

Within this Construction Traffic Management Plan (CTMP), all relevant Conditions relating to traffic management have been addressed.

1.2 Background

Westlink Estate, Kemps Creek – Development is subject to approval by Dept Planning & Environment.

White Group has been engaged by ESR, to prepare a Construction Traffic Management Plan (CTMP) to be implemented during the on-site work.

1.3 Site Location

The site is located at 292-308 Aldington Road & 59-62 Abbotts Road, Kemps Creek, NSW, as shown in Figure 1-1.

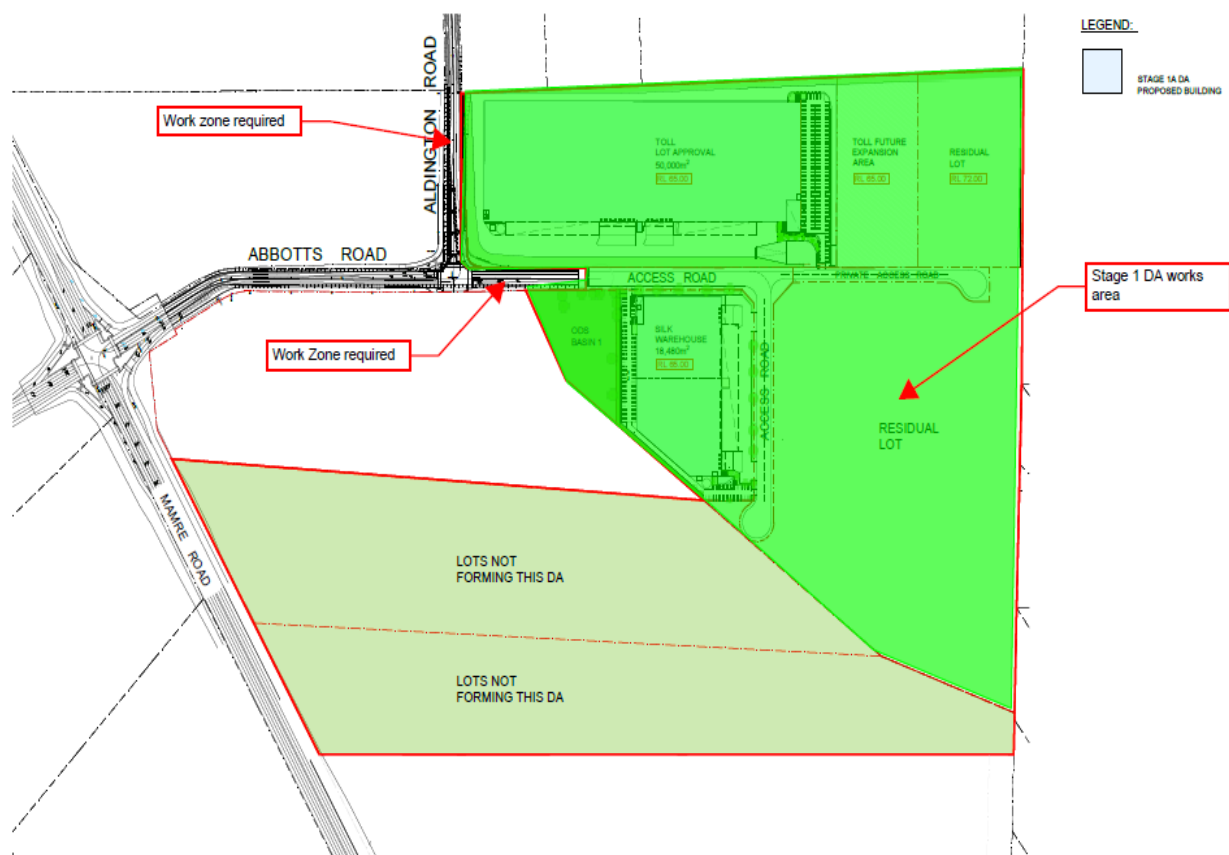


Figure 1-1: Site Location

1.4 Scope

The works within the site will include clearing of the land, leveling, haulage of soil both to & from the site, excavation, instillation of stormwater, sewage, roads, driveways, car parks & footpaths.

External works will include upgrades to the local road network. These are currently subject to design & approval by PCC & TfNSW. This CTMP will be updated when these works commence.

1.5 Objective of this Plan

The Primary objective of this Construction Traffic Management Plan (CTMP) is to ensure safe & efficient movement of vehicles & pedestrians on to, off & around the site, whilst minimising disruptions / impacts & maintaining a safe environment for both vehicular & pedestrian traffic

1.6 Guideline & Design Standards – Reference Documents

The Construction Traffic Management Plan (CTMP) has been developed in accordance with the requirements of Transport for NSW (RMS) Traffic Control at Works Sites Manual (Version 6.1, issued February 2022) and are referenced in this report:

- NSW Roads and Maritime Services Traffic Control at Worksites Manual V6.1.
- AS1742.3 Manual of Uniform Traffic Control Devices: Works on Roads & in accordance with the relevant legislation, codes of practice or other requirements.

This document will:

- Ensure the project establishes and maintains best practice to manage traffic & pedestrians during all stages of work.
- Ensure a safe environment for members of the public & construction personnel is maintained at all times.
- Ensure compliance with relevant specifications and the RMS's - "Traffic Control at Work Sites" (TCAWS V-6.1) Manual.
- Deliver a high standard of community engagement and awareness during the works.

1.7 Limitations of this Construct

The Construction Traffic Management Plan (CTMP) developed by White Group only considers the impact of works on traffic & pedestrians. Impacts on other aspects in the local environments, such as noise, are not considered here but will be in other parts of the Construction Environmental Management Plan. The CTMP is based on information provided by ESR regarding the expected characteristics & requirements of the construction program.

2. ROLES AND RESPONSIBILITIES

2.1 Key Personnel & Contact Details

2.1.1 Project Manager

Name:

Mobile Phone:

Email:

2.1.2 Site Supervisor

Name:

Mobile Phone:

Email:

2.1.3 Emergency Contact

Name:

Mobile Phone:

Email:

2.1.4 Traffic Control Contractor

Company: White Group

Name: Danny White

Mobile Phone: 0427 281 171

Email: whitegroupops@outlook.com

2.1.5 TfNSW Project Manager

Name:

Mobile Phone:

Email:

2.1.6 Project Verifier/Penrith Council Inspector

Name:

Mobile Phone:

Email:

2.1.7 Transport Management Centre

Phone: 02 8396 1513

Email: tmc_piu@tmc.transport.nsw.gov.au

2.2 Responsibilities

All site personnel have a responsibility to,

- Ensure a safe workplace and safe environment during works.
- Report any hazards to a supervisor immediately.
- Advise supervisory personnel immediately of any concerns.

2.2.1 Project Manager

The Project Manager has ultimate responsibility to,

- Promote at all times the company's policies, procedures and standards relating to health, safety and environmental management and ensure that they are complied with.
- Ensure sufficient resources are available to achieve the CTMP, objectives and targets and that those resources have sufficient skills to conduct the roles competently.
- Ensuring the Project achieves compliance with the CTMP.
- Providing leadership in the development and implementation of the CTMP.
- Ensure that all staff and contractors engaged to work on the Project are appropriately inducted and trained in all relevant CTMP issues and controls.
- Organise and coordinate construction activities in accordance with the CTMP.
- Ensure that staff have been trained appropriately for the tasks that they are undertaking prior to commencing work.

2.2.2 Site Supervisor

The Site Supervisor has the responsibility to,

- Support the Project Manager in providing leadership in the implementation of the CTMP.
- Conduct surveillance with the aim to identify unusual, non-conforming conditions.
- Perform investigations of construction sites and temporary traffic control schemes, prepare necessary reports, as well as maintain incident records and inspections logs.
- Ensures receipt of the relevant approvals for construction activities and traffic control.
- Ensures the relevant Supervisors and workforce are familiar with the approval conditions and requirements prior to implementation.
- Ensures the Supervisors and workforce are re-familiarised in the approval conditions and requirements at regular intervals during the period of the approvals.
- Liaises with the Traffic Control Company and crews in the planning and implementation of the required traffic management arrangements.
- Conducts regular inspections (including pre-starts) of traffic controls and where necessary instructs the rectification of deficiencies.
- Allocates plant, equipment and human resources for the works including the provision of the temporary traffic control arrangements.
- Conducts and keeps records of daily and weekly (day and night) inspections of the traffic control arrangements, assist audits and where necessary rectifies deficiencies.
- Inform and assist with the management of unplanned incidents, providing initial response to make the site safe.
- Assist with the implementation of mitigation measures to address unsafe or unusual conditions.
- Records unplanned incident details, and when traffic controls are in operation, including the installation and removal of regulatory signage.

2.2.3 Nominated Traffic Officer

The Nominated Traffic Officer has the responsibility to,

- has authority to stop work on any activity if it is considered to be necessary to prevent a traffic accident, or to comply with the direction of RMS, Council or Police.
- Ensure that the approved traffic control measures are established, implemented and maintained in accordance with the approved plan.
- Carrying out regular inspections and auditing (TCAWS V-6.1 Section 8.1.3) of the traffic control measures to ensure that they are effective and are being followed.
- Monitoring traffic conditions.
- Ensuring and monitoring conformance to time and period of operation.
- Maintaining current copies of the construction Traffic Management Plan, Traffic Guidance Schemes, approvals, and their controlled distribution.
- Facilitate traffic awareness and giving toolbox talks to the site personnel.
- Managing the dedicated Traffic Control Crew in the delivery of required maintenance activities, incident and emergency support, and providing support/resources during implementation.
- Updating the CTMP in response to any incidents arising from the Contractor's Works.
- Develop a strategy for the dissemination of changed traffic condition information to potentially affected stakeholders, including road users, local communities and residents.

3. EXISTING TRANSPORT INFRASTRUCTURE

3.1 The Road Network

3.1.1 Key Roads

The roads in the immediate vicinity of the site are administered by Penrith City Council & TfNSW. The characteristics of roads in the immediate vicinity of the site are shown below in Table 1-1.

Road	Speed limit	Lanes	Road Authority
Aldington Road	60 kph	Two lanes north & south bound, un-divided.	Council
Abbotts Road	60 kph	Two lanes east & west bound, un-divided.	Council
Mamre Road	80 kph	Two lanes north & south bound, un-divided.	TfNSW

Table 1-1: Road Characteristics

3.2 Existing Traffic Controls

Key features of the existing traffic controls which apply to the road network in the vicinity of the site are:

- No right turn from Abbotts Road onto Mamre Rd between 0800 – 0930 & 1430 – 1600, Monday to Friday.

3.3 Parking

All construction work vehicles as well as staff & visitors, will be parked on-site only.

[3.4 Public Transport](#)

[3.4.1 Bus routes](#)

There are currently no bus stops or bus routes within the area affected by the works, no consultation with bus companies will be required at this time:

[3.5 Pedestrian Infrastructure](#)

The project site will have no impact on footpaths as there are currently no formed footpaths on Aldington Road, Abbots Road or Mamre Road at this location, pedestrian management will be in place as required.

[3.6 Cyclist Infrastructure](#)

Cyclists will not be affected & are to comply with the road conditions & rules and shall adhere to any posted regulatory signage.

[4. CONSTRUCTION METHODOLOGY](#)

[4.1 Duration of works and Daily / Weekly schedule](#)

The construction site works for the proposed stage are expected to take 15 months and will be undertaken as per the following condition:

- Construction works between:

Monday to Friday 7:00am to 6:00pm

Saturday 7:00am to 1:00pm, if inaudible to adjoining properties otherwise 8:00am to 1:00pm

No work to be undertaken on Sunday or public Holiday's.

[4.1.2 Construction Traffic management plan compliance](#)

In compliance with TfNSW & Penrith Council conditions, across the entire duration of the project the Contractor and all subcontractors and employees will obey any direction or notice from the Prescribed Certifying Authority.

[4.2 STAGING](#)

ESR propose the following staging of works:

- Demolition & clearing of any existing structures
- Drainage & infill of existing dams & any ground dewatering
- Clearing of existing trees & vegetation from site
- Bulk earthworks for site preparation & stabilisation works
- Create individual sub-division lots
- Roadworks & access infrastructure
- Stormwater & drainage
- Sewers
- Road & boundary retaining walls

4.2.1 Type and Number of Construction Vehicles

The construction works for the Initial site infrastructure will be over a 15-month construction period. Throughout the main stages, the maximum number of trucks accessing the site on any given day will be 100 truck & dogs.

Stage	Times per day	Movement numbers	Largest vehicles
Haulage	7am to 6pm Minimise heavy traffic movements during peak times of 7-9am & 4-6pm.	100 movements	Semi / Truck & dog

4.3 TRUCK ROUTES

4.3.1 Haulage Routes

Haulage vehicle traveling to site will travel from the M4 Motorway or Lenore Drive, south along Mamre Road for approx. 9km left onto Abbotts Road, continue along Abbotts Road, turning left onto Aldington Road & continue to the work site turning right & entering the work site at the marked site entry point.

Haulage vehicles leaving 200A development site will turn left onto Aldington Road & then right onto Abbotts Road, continue to Mamre Road & turn left only, continue Elizabeth Drive & turn left heading towards the M7 Motorway.

No construction traffic is permitted to use Bakers Lane to enter or exit the site.

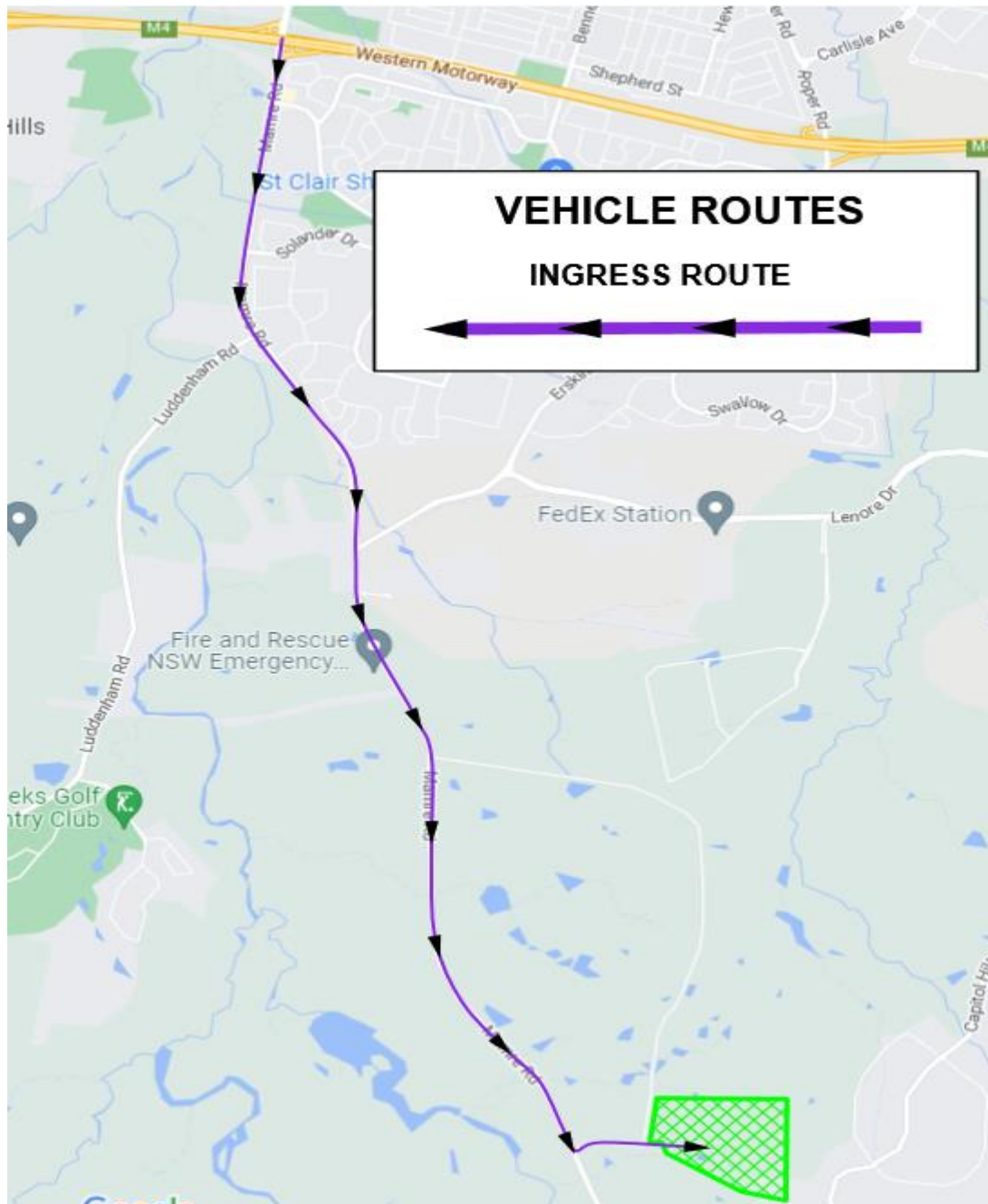


Figure 1-2: Haulage Ingress

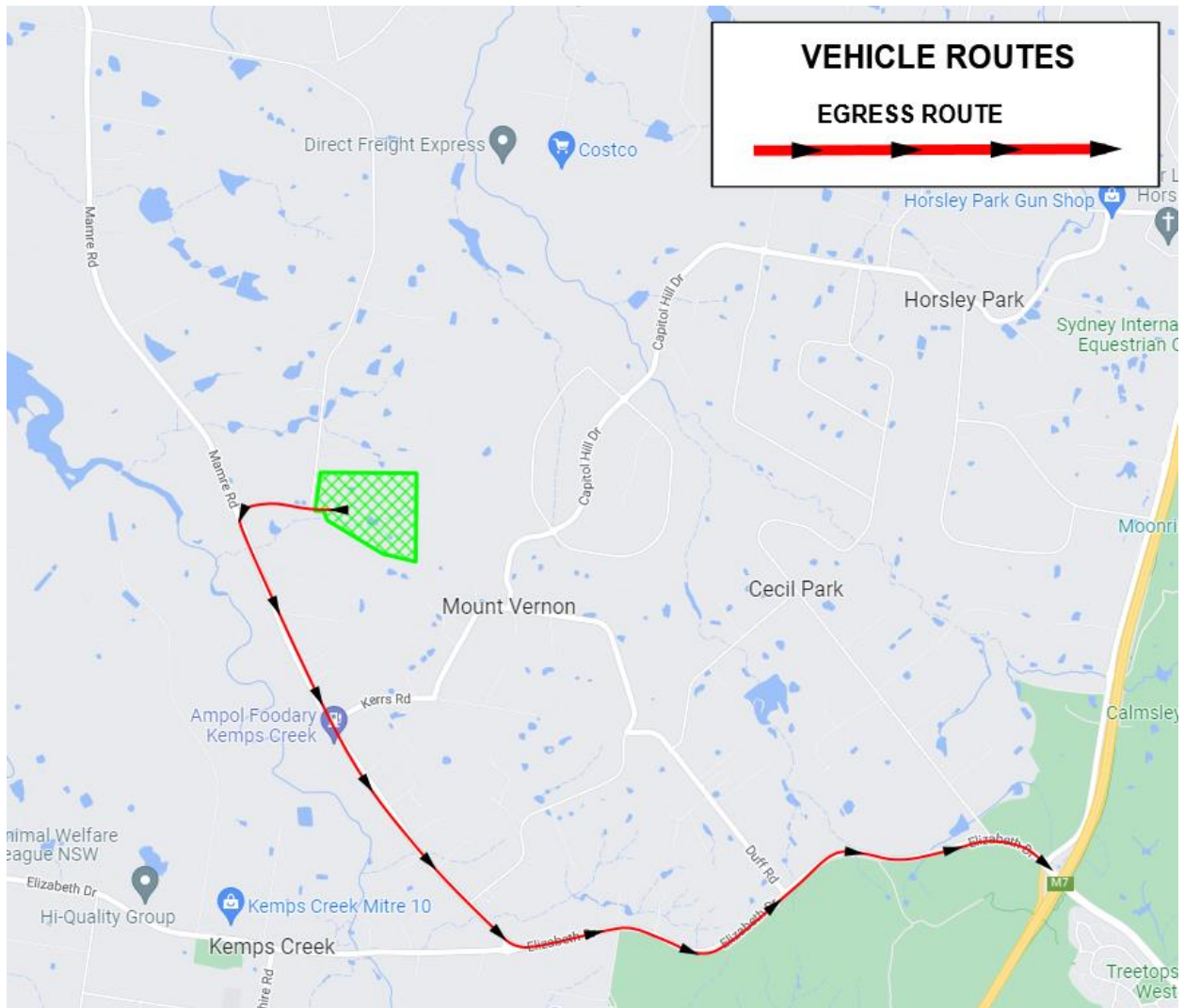


Figure 1-3: Haulage egress

[4.4 Materials on site](#)

[4.4.1 Building Materials](#)

All construction materials are to be stored in the designated storage areas.

[4.4.2 Materials on Road Reserve](#)

No building materials, work sheds, vehicles, machines or the like shall be allowed to remain in the road reserve area unless they are behind authorised traffic barriers.

[4.5 Scrub & Dry](#)

[4.5.1 Mud & Sediment Control](#)

Wheel wash to be in place at site egress point to remove mud from vehicle tyres before allowing them to re-enter the public traffic lanes, a water cart may also be used to clean tyres if required, if a risk assessment highlights the possibility of mud or sediment being trafficked onto the road, a street sweeper is to be placed on standby to clean the road.

[4.5.2 Unexpected Finds & Soil Contamination](#)

Any unexpected finds or contaminated soil will be controlled and dealt with in accordance with the on-site Environmental Management Plan.

5. TRAFFIC MANAGEMENT STRATEGY

5.1 Traffic Management Options

The traffic management strategy prioritises the free flowing, unimpeded movement of vehicles past the worksite.

5.1.1 Continuous Flow of traffic on Aldington Road

Trucks and the like will be brought onto the site at the designated entry points for safety & to avoid interruptions to the traffic flow on Aldington Road, Abbotts Road & Mamre Road.

5.1.2 Stop / Slow Control Measures

Stop/Slow traffic control measures will not be required.

5.2 Temporary Road Closure

There will not be a requirement for any road closures.

5.3 Working on Footpaths

There are no footpaths at this location.

5.4 Pedestrian & Cyclist Management

During the construction works there will be limited movements of pedestrian and cyclists on the verge & road reserve, this is to be monitored to maintain a safe area for them.

5.5 Emergency Services

Access must be available at all times for emergency services to adjacent properties & to the site itself. No access will be impeded by the works at this location.

5.6 ROL's & SZA's

TfNSW Road Occupancy Licences (ROL) & Speed Zones (SZA) are to be obtained prior to the commencement of any works that will affect traffic movements on TfNSW roads, they are to be activated as per TfNSW requirements & deactivated at the end of each shift.

5.7 Road Barriers

Road barriers ranging from Concrete Jersey Barriers to water filled barriers may be used on this project.

5.8 Line Marking

N/A.

5.9 Lighting

N/A.

6. INSPECTION, AUDITING AND REPORTING

6.1 Inspections & Audits

Daily site checks of signs and devices to be undertaken prior to work commencing.

The specific requirements for safety inspection and audits will meet with the requirements of the Traffic Control at Worksite Manual V6.1, Traffic audits will be undertaken after every major traffic change.

Inspection of traffic control devices for short term traffic management will be completed on weekly basis by a site supervisor with 2 years or more experience with work carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is used by traffic other than pedestrians.

Reporting will be in a format provided in the Traffic Control at Worksite Manual.

6.2 TMP Up-dates & Amendments

Update of this plan will occur as necessary and reasons for update of the plan may include the following,

- Consideration of monitoring, inspection and audit results.
- Consideration of incidents and any lessons learnt.
- Consideration of any new regulatory issues.
- A review of the effectiveness of traffic management controls.
- Consideration of changes in operational needs such as resourcing.
- Feedback from management reviews.
- At the request of the Principal or their representative.
- Commencement of construction by additional developers on Aldington or Abbotts Road or Mamre / Abbotts Road upgrade.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

7. CONSULTATION AND COMMUNICATION

For businesses & residences impacted by the works, a letterbox drop providing details of the works and the timing will be provided a minimum 7 days in advance of any changes to traffic conditions.

7.1 Site Contact Details

The site shall be clearly posted with a sign erected in a prominent position on the site perimeter, it is to be maintained & removed at the completion of works. The sign must contain the following information,

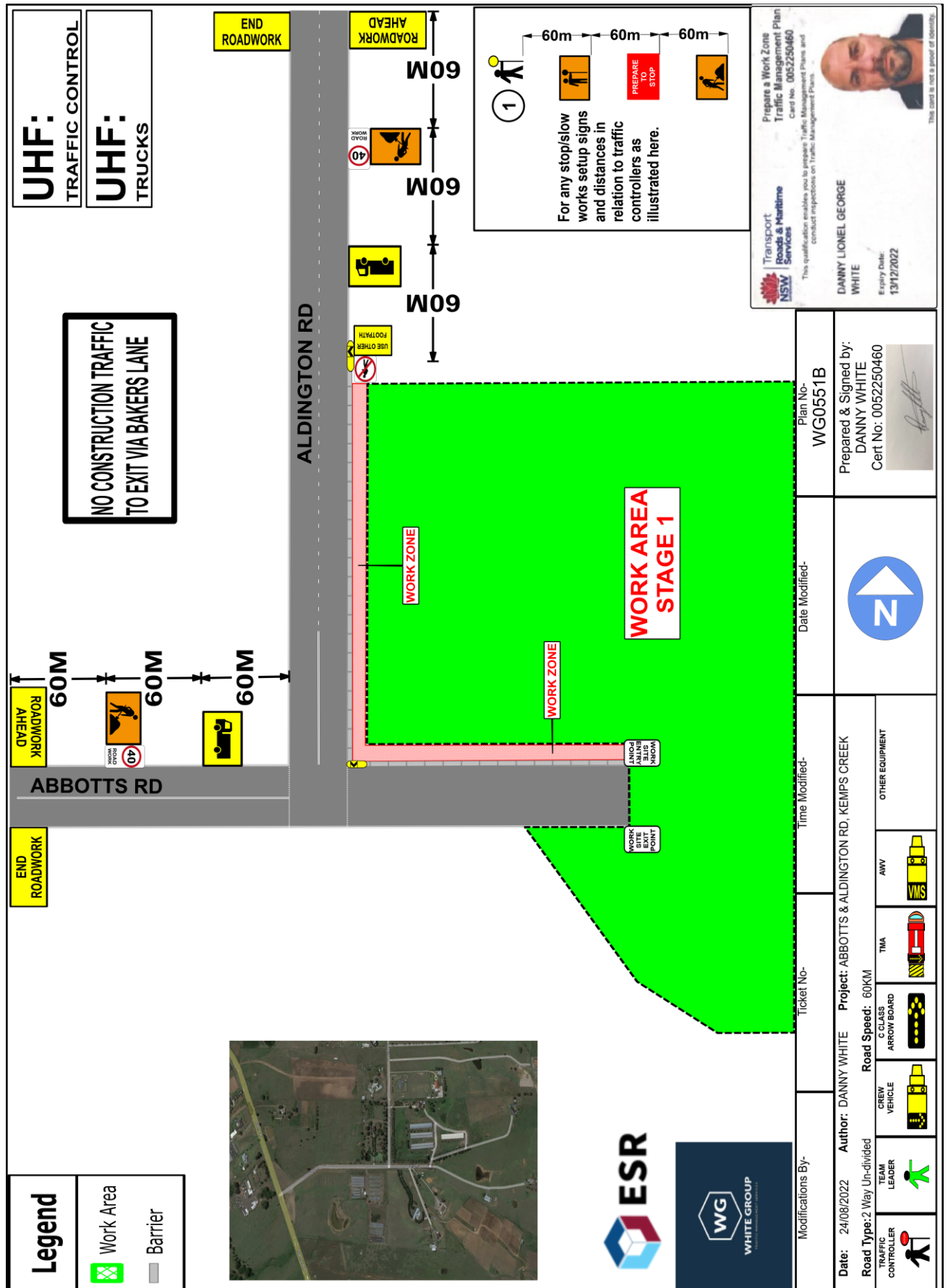
- Name, address, contractor licence number and telephone number of the *principal contractor*, including a telephone number at which the person may be contacted outside working hours, or *owner-builder* permit details.
- Name, address and telephone number of the *Principal Certifying Authority*
- A statement stating that ‘unauthorised entry to the work site is prohibited’.
- A notice with contact names and mobile phone numbers of site supervisors be displayed at the entrance to the site for community to make contacts regarding work activities.

<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> YOUR LOGO HERE </div>	SITE CONTACT: PHONE #: LICENCE No:
ACCESS TO THIS SITE IS PERMITTED ONLY BY PREVIOUS ARRANGEMENT WITH THE BUILDER	
<div style="background-color: black; color: white; text-align: center; padding: 5px; margin-bottom: 5px;"> DANGER </div> <div style="text-align: center;"> CONSTRUCTION SITE UNAUTHORISED PERSONS KEEP OUT </div>	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%; text-align: center;">   </div> <div style="width: 50%; text-align: center;">   </div> </div>
PROTECTIVE EQUIPMENT MUST BE WORN BEYOND THIS POINT	
ALL CONTRACTORS MUST HAVE PROOF OF INDUSTRY SAFETY INDUCTION TRAINING PRIOR TO COMMENCING WORK	
<div style="text-align: center;">  </div> <div style="text-align: center;"> ALCOHOL AND DRUGS NOT PERMITTED ON THIS SITE </div>	<div style="text-align: center;"> IN CASE OF EMERGENCY CALL 000 AND CONTACT THE SITE MANAGER ON MOBILE NUMBER PROVIDED </div>
PROPERTY OWNERS SHOULD CONTACT THE BUILDER TO ARRANGE ACCESS	

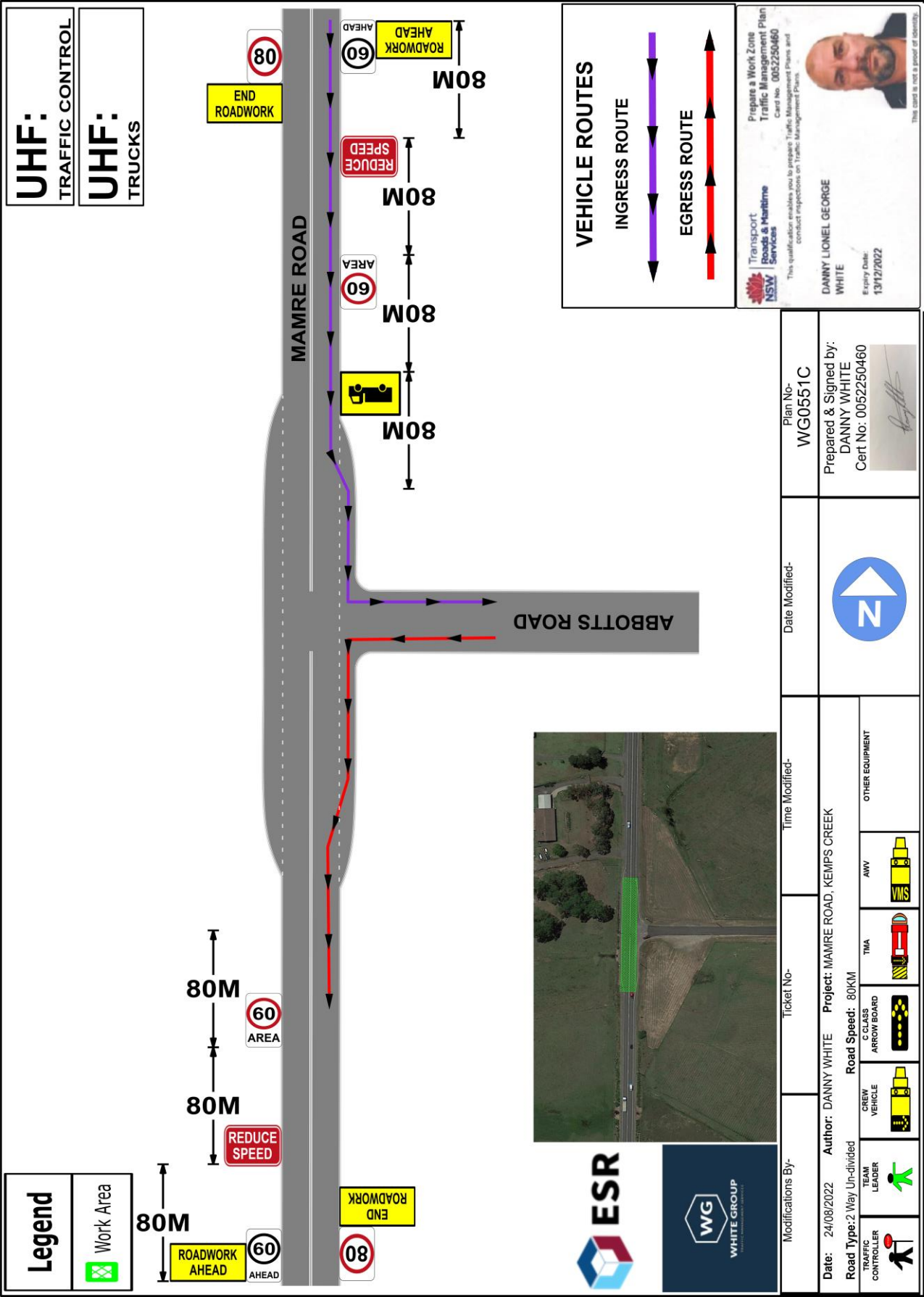
7.2 VMS

Variable message signs may be used to notify motorists of the changed traffic conditions both prior & during works at this location.

A 1.2 – Work Zones



A 1.3 – Mamre Road Signage & Speed Reduction



APPENDIX B

B 1.1 – RISK ASSESSMENT

No	Risks	Rate	Potential consequences	Evaluate	Proposed risk treatment
1	Work vehicles, truck & dog, moving in & out of site	3 H	Traffic accidents, unfamiliarity with area	1 L	<ul style="list-style-type: none"> Site will require appropriate signs, all drivers to be given written directions on entry & exit procedures. UHF communication with traffic marshal on approach to site
2	Access to site for receiving deliveries	2 M	Traffic disruption or interference, Incidents due to unfamiliarity within site	1 L	<ul style="list-style-type: none"> Regular check of Traffic Management Plan implementation. Limit deliveries during peak times. Have procedures in place for rapid recovery.
3	Working in close proximity to Intersections	2 M	Traffic delays, work vehicles pulling out of site, queuing.	1 L	<ul style="list-style-type: none"> Vehicles leaving site to be aware of traffic flow & conditions. Limit vehicle movements at peak times.
4	Speed Reduction	2 M	Speed reduction on Mamre Road due to slow moving trucks entering from Abbots Road & possible collisions if speed remains at 80kph	1 L	<ul style="list-style-type: none"> Speed reduced to 60kph to allow for safer vehicle breaking distance when trucks are entering traffic flow on Mamre Road. Ensure speed reduction signage is in place at correct distance & height on approaches to intersection.
5	Pedestrian access	2 M	Potential disruption to progress causing pedestrians to not comply with pedestrian provisions.	1 L	<ul style="list-style-type: none"> Ensure pedestrian access provisions are adequately addressed, well established and maintained.
6	Cyclist access	2 M	Potential disruption to progress causing cyclists to not comply with cyclist provisions.	1 L	<ul style="list-style-type: none"> Ensure cyclist access provisions are adequately addressed, well established and maintained.
7	Noise pollution	1 L	Noise affecting residents & community.	1 L	<ul style="list-style-type: none"> Limit noise near residential areas where possible. Have vehicles are not to use compression braking when entering site.
8	Access for emergency services restricted	2 M	Emergency vehicles & personnel unable to attend to an emergency situation.	1 L	<ul style="list-style-type: none"> Make emergency services in the local area aware of the works & provide them with a copy of the Construction Traffic Management Plan (CTMP)

B 1.2 – RISK ASSESSMENT MATRIX

Step 2: Determine Consequence What will be the expected effect?	
Level of Effect:	Example of each level:
Insignificant/Acceptable	No effect – or so minor that effect is acceptable
Minor	First Aid treatment only; no lost time injury
Moderate	Medical treatment; serious injuries, temporary partial disability; lost time injury < 7 days
Major	Hospital admittance; extensive injuries; lost time injury > 7 days; Permanent Total Disability injury; death
Catastrophic	Permanent Total Disability; Loss of life

Step 1: Determine Likelihood What is the possibility that the effect will occur?	
Criteria	Description
Almost certain	Expected in most circumstances.
Likely	Will probably occur in most circumstances
Possible	Might occur at some time
Unlikely	Could occur at some time
Rare	May occur only in exceptional circumstances

Step 4 Record risk score on worksheet (Note – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)	
Score	Action
4 A: Acute	DO NOT PROCEED. Requires immediate attention. Introduce further high level controls to lower the risk level. Re-assess before proceeding.
3 H: High	Review before commencing work. Introduce new controls and/or maintain high level controls to lower the risk level. Monitor frequently to ensure control measures are working.
2 M: Moderate	Maintain control measures. Proceed with work. Monitor and review regularly, and if any equipment/people/materials/work processes or procedures change.
1 L: Low	Record and monitor. Proceed with work. Review regularly, and if any equipment/people/materials/work processes or procedures change.

Step 3 Determine the risk score				
Consequence	Insignificant	Minor	Moderate	Catastrophic
Almost certain	3 High	3 High	4 Acute	4 Acute
Likely	2 Moderate	3 High	3 High	4 Acute
Possible	1 Low	2 Moderate	3 High	4 Acute
Unlikely	1 Low	1 Low	2 Moderate	4 Acute

APPENDIX C

C 1.1 – SITE PHOTOS

Abbotts Road – West bound



Abbotts Road – East bound



Aldington Road – North bound



Aldington Road – South bound



Mamre Road & Abbotts Road – Intersection

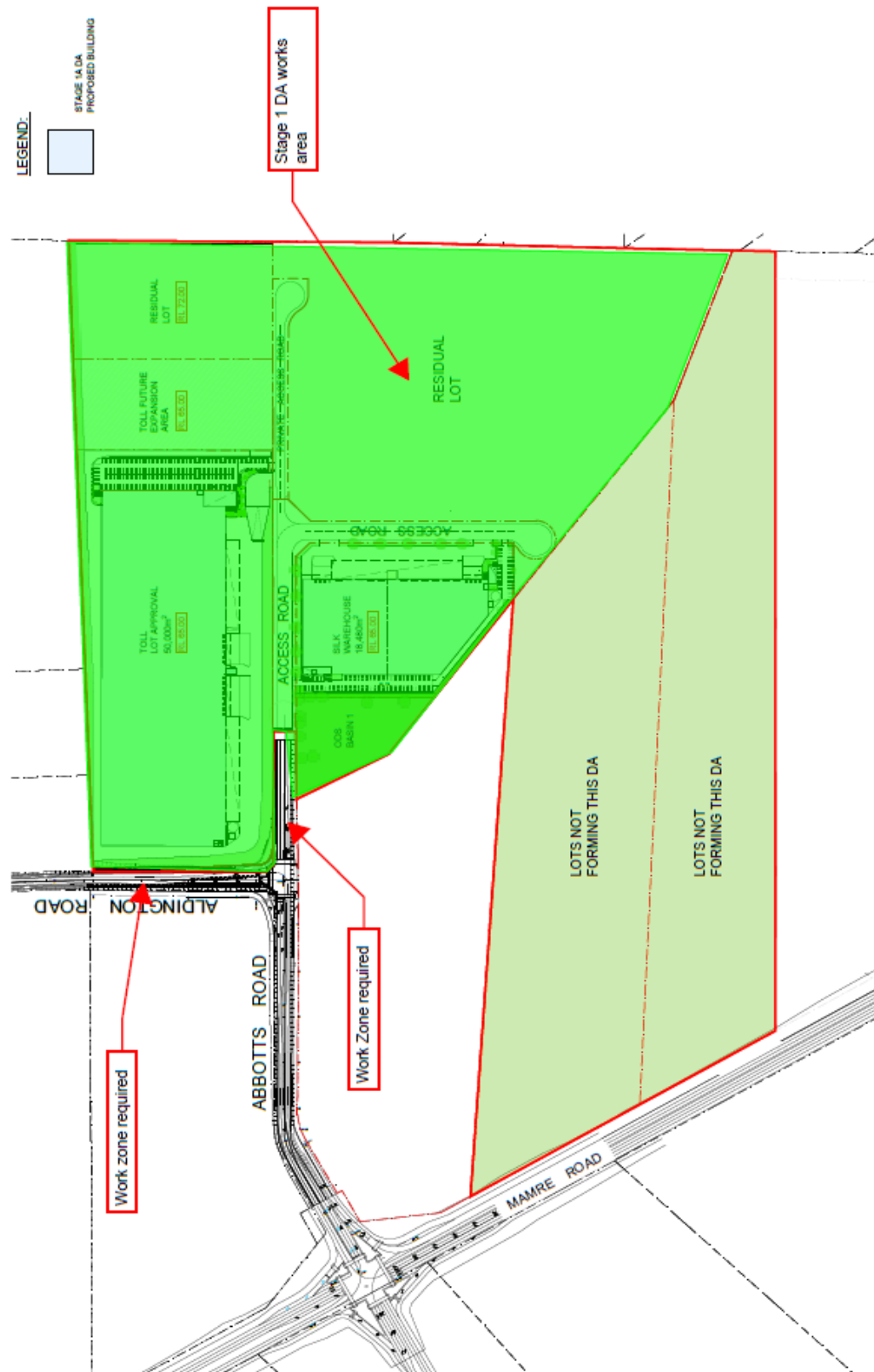


APPENDIX D

D 1.1 – Site Plans



Site Work Zone Locations



STAGE 1A DA
ESTATE PLAN
DATE: 10/10/2022
P-487-277088 PL 007-0000

255/258 ALDINGTON ROAD &
59-62 ABBOTTS ROAD & 63 ABBOTTS ROAD
RESERVE STREET
NSW

ESR

1:1000 @ A3

© 2022 ESR. ALL RIGHTS RESERVED. THIS DOCUMENT IS THE PROPERTY OF ESR AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM ESR. ESR ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE, INCLUDING CONSEQUENTIAL DAMAGES, ARISING FROM THE USE OF THIS DOCUMENT.

Site Ariel View



APPENDIX E

E 1.1 – Traffic Volumes

Bulk Earthworks

Stage Name / Description (e.g., demolition, excavation, structure, fit out etc.)	Westlink Stage 1 - Lot 1, Lot 4, Lot 3, Lot 1B					
Construction Management Plan Provided?? (showing site sheds, materials storage etc.)	Site Cut to Fill, No external import and export, External infrastructure to be used only for employees to access site during work hours. Roads used during work hours only to be used for fuel and maintenance and machine/plant floatage					
Timing(s)	Dates:	Start Nov-22	End Aug-23	Work Times:	Start 6:00	End 18:00
Work Zone required? If yes, please provide details: - location (sketch) - length - time (if different to the above)	Yes Abbotts Road, Aldington Road frontages to estate					
Truck types (sizes) i.e. Small (<6.4m), Medium (>6.4, <8.8m), Heavy (>12.5m) rigid trucks, truck and dog, semi-trailer etc.	Small, Medium, Heavy, Semi					
Worker numbers - maximum on-site at any one time	Average over stage:	30	Peak Times:	50		
Details regarding any proposed measures to limit contractor parking on-street in the vicinity of the site (if any).	On-site parking will be provided.					
Details of any proposed hoarding and pedestrian protection/ control	N/A					
Crane required? - crane location - crane swing radius, and - times that a crane is required for the project.	N/A					
Are any road (lane closure) occupancies required? Please specify location / duration of specific works, where possible.	No					
Are any footpath / verge works required? Please specify location / duration of specific works.	No					
Typical Peak Vehicle Movement Profile (1 truck = 1 in movement + 1 out movement = 2 movements)	Light Vehicles (cars)		Rigid Trucks/ Commercial Vans		Articulated Vehicles/ Truck + Dog Combination	
Time (hour starting)	IN	OUT	IN	OUT	IN	OUT
0:00						

1:00						
2:00						
3:00						
4:00						
5:00						
6:00	10	0	0	0	0	0
7:00	10	0	0	0	0	0
8:00	10	2	0	0	0	0
9:00	2	2	2	2	0	0
10:00	2	2	2	2	0	0
11:00	2	2	2	2	0	0
12:00	2	2	2	2	0	0
13:00	2	2	2	2	0	0
14:00	2	2	2	2	0	0
15:00	2	2	2	2	0	0
16:00	2	2	2	2	0	0
17:00	0	15	0	0	0	0
18:00	0	15	0	0	0	0
19:00						
20:00						
21:00						
22:00						
23:00						
TOTAL	46	48	16	16	0	0

Retaining Wall Road Works

Stage Name / Description (e.g., demolition, excavation, structure, fit out etc.)	Westlink Stage 1					
Construction Management Plan Provided?? (showing site sheds, materials storage etc.)	Import supplies for road construction and retaining wall construction. Utility works to be undertaken which will require work zones on ESR frontage on Abbots and Aldington. Traffic control will be present on site to manage this. These works to be undertaken at night.					
Timing(s)	Dates:	Start Nov-22	End May-24	Work Times:	Start 6:00	End 6:00
Work Zone required? If yes, please provide details: - location (sketch) - length - time (if different to the above)	Yes Abbots Road, Aldington Road frontages to estate					
Truck types (sizes) i.e., Small (<6.4m), Medium (>6.4, <8.8m), Heavy (>12.5m) rigid trucks, truck and dog, semi-trailer etc.	Small, Medium, Heavy, Truck and Dog, Semi					
Worker numbers - maximum on-site at any one time	Average over stage:	40	Peak Times:	60		
Details regarding any proposed measures to limit contractor parking on-street in the vicinity of the site (if any).	Parking to be contained on site.					
Details of any proposed hoarding and pedestrian protection/ control	N/A					
Crane required? - crane location - crane swing radius, and - times that a crane is required for the project.	N/A					
Are any road (lane closure) occupancies required? Please specify location / duration of specific works, where possible.	Only during the utility works and road tie in with Abbots Road					
Are any footpath / verge works required? Please specify location / duration of specific works.	Yes					
Typical Peak Vehicle Movement Profile (1 truck = 1 in movement + 1 out movement = 2 <u>movements</u>)	Light Vehicles (cars)		Rigid Trucks/ Commercial Vans		Articulated Vehicles/ Truck + Dog Combination	
Time (hour starting)	IN	OUT	IN	OUT	IN	OUT
0:00						
1:00						
2:00						

3:00						
4:00						
5:00						
6:00	10	0	4	4	4	4
7:00	20	0	4	4	4	4
8:00	10	0	4	4	4	4
9:00	0	0	4	4	4	4
10:00	0	0	4	4	4	4
11:00	0	0	4	4	4	4
12:00	0	0	4	4	4	4
13:00	0	0	4	4	4	4
14:00	0	0	4	4	4	4
15:00	0	0	4	4	4	4
16:00	0	0	2	2	2	2
17:00	0	20	0	0	0	0
18:00	0	20	0	0	0	0
19:00						
20:00						
21:00						
22:00						
23:00						
TOTAL	40	40	42	42	42	42

APPENDIX F

F 1.1 – Driver Code of Conduct

- Driver Code of Conduct -

Drivers Code of Conduct

Safe Driving Policy for the 200 Aldington 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.

All vehicle operators leaving the site:

- Drivers are not to turn right when leaving the site, heavy vehicles are not to use Bakers Lane.
- Vehicle are not to turn right at the intersection of Abbots Road & Mamre Road, this is a left turn only onto Mamre Road.

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. Driver Code of Conduct

Driver Code of Conduct

Drivers Code of Conduct

Safe Driving Policy for the ESR Westlink, Abbots Road.

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 C. Traffic Control Plan(s)

TCP 195

