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c/o Plan Project Management
Level 1, Shop 2A, 17 MacMahon Street
Hurstville NSW 2220

Attention: Adam Pavlovic; Project Manager

Subject: **Transport Assessment Addendum, Mamre Road Data Centre Campus (SSD-92743706)**

Dear Adam,

We refer to the subject planning application seeking approval for the Mamre Road Data Centre Campus. This statement has been prepared as an addendum to the Transport Management and Accessibility Plan (TMAP) that supported the original submission. Comments have been received on the application following the exhibition period, including those from Department of Planning, Housing and Infrastructure (DPHI), Transport for New South Wales (TfNSW) and Penrith City Council (Council).

Changes have been made to the overall design of the development in response to the comments received. The TMAP has been updated accordingly (provided as Appendix A), inclusive of any necessary changes arising from the comments received.

This Addendum provides a consolidated overview of the relevant transport comments and the responses, as necessary. For completeness, an update to the TMAP has been prepared separately in response to key changes to the application.

Additional Roadworks within the Amended Application

Overview

A key change to the application relates to the inclusion of a suite of road upgrades to the north of the site, referred to as the Northern Access Works (NAW). The NAW includes partial delivery of the broader TfNSW Southern Link Road (SLR) project.

The NAW will form an interim solution to delivery of the ultimate road network envisaged by the Mamre Road Precinct (MRP) Development Control Plan. While the SLR is a key regional road project planned by TfNSW, funding is not currently available for delivery. The timeframes for its completion by TfNSW are therefore unknown.

The Proponent is now proposing to deliver part of the roadworks that would form the future SLR, as well as upgrading the existing (western) section of Bakers Lane which connects to the Mamre Road intersection. The roadworks proposed by the application would form a new (interim) road network to the north of the MRP, herein referred to as the Northern Access Road (NAR), which include:

- The NAR would replace Bakers Lane as a complete dual carriageway (two lanes each direction) between Mamre Road and a new roundabout intersection to the east of the site.
- The existing Bakers Lane along the frontage of the existing Mamre Anglican School and Emmaus Catholic College will be retained as a parallel road, with the new roundabout to the east providing connectivity to the existing Aldington Road / NAR. A left-in connection from the NAR would be provided to the west, allowing local access to Bakers Lane from Mamre Road. The roundabout to the east would allow local traffic to travel back to Mamre Road.
- Modification to the existing Mamre Road/ Bakers Lane (NAR) intersection with:
 - Dual exit lanes from Mamre Road.

- Accommodated by widening the existing Bakers Lane (NAR) into the site frontage.
- A signalised intersection is to be delivered between the NAR and Road 01 (being the north-south road that traverses through the site).

The proposed NAR is entirely consistent with the Stage 1 roadworks proposed as part of the ‘Summit at Kemps Creek’ Estate (SSD-30628110), which is currently approved on the site. The Stage 1 roadworks approved for Summit at Kemps Creek are shown below.

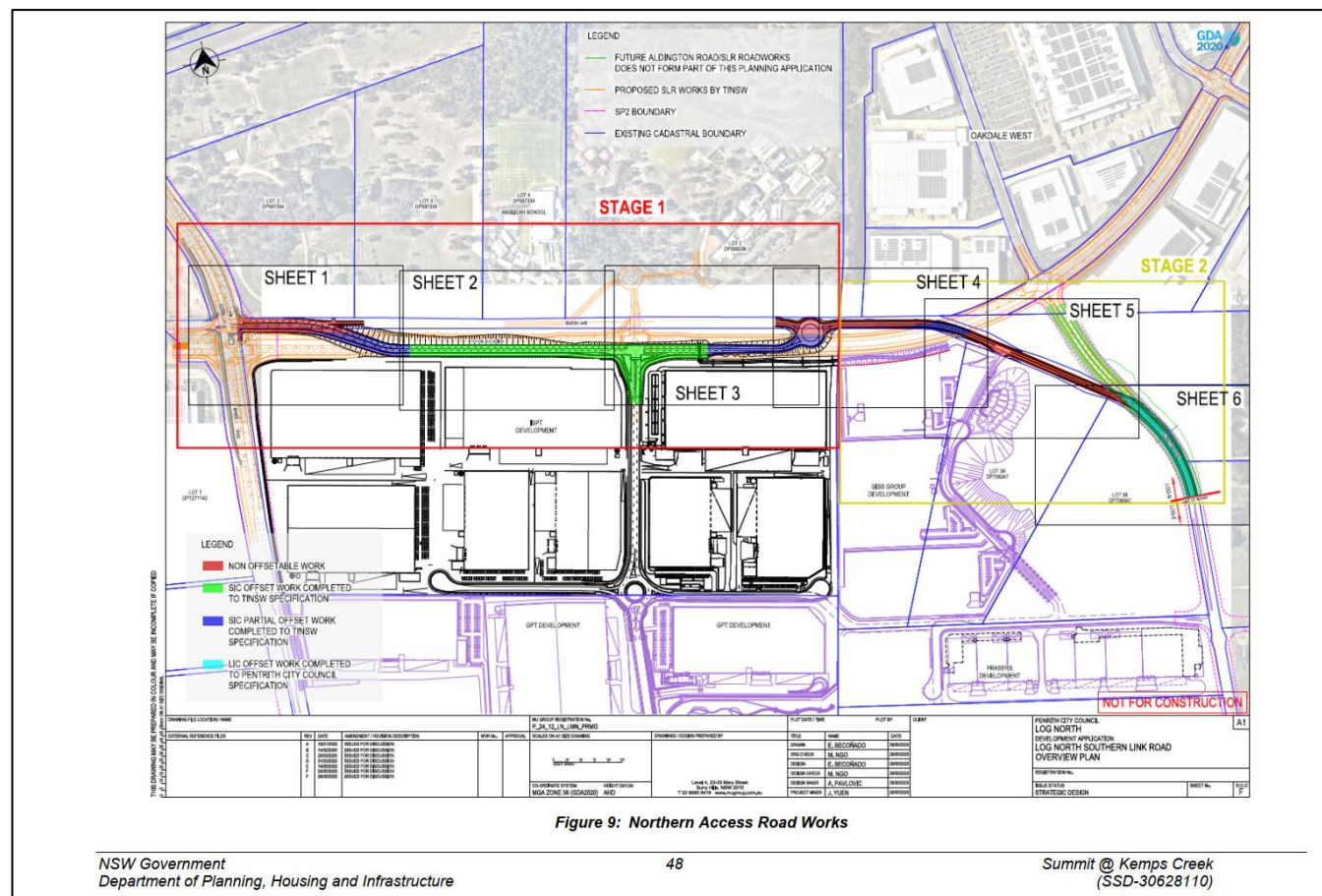


Figure 1: Summit at Kemps Creek Approved Roadworks

While this application should be assessed on its own merit, following feedback from the authorities of the precinct-wide benefits the NAR provides, the Proponent has now introduced them to the application.

NAR Benefits

The traffic generation associated with data centres is known to be reduced in comparison to other industrial and warehouse land uses due to staffing requirements being low. Requirements for regular servicing by heavy vehicles is also low, further reducing traffic demands.

The traffic impact assessment undertaken has demonstrated that the trip generation associated with the Proposal would not materially impact the operation of the road network being delivered by the approved developments. Specifically, the key intersection of Mamre Road / Darrabarra Avenue for the site (without the NAR) would perform in an almost identical manner when considering it with and without the development.

Nevertheless, key concerns from both TfNSW and Council have been considered in the proposed amendments to the application to include the NAR, notably:

- TfNSW:

As the Southern Link Road delivered precinct-wide transport benefits, TfNSW supported the former proposal (being “Summit”), and the associated roadworks were secured through conditions of consent.

- Council:

This will add pressure on local Council roads and funnel all vehicles through the Mirvac site... For the proposed development to not include road infrastructure as envisaged in the Precinct controls and DCP, and as approved in the Summit SSD approval is detrimental to the functionality of the Mamre Road Precinct.

In regard to the precinct-wide benefits the NAR would provide, it is notable that there is currently some 1,120,000m² of GFA either approved or under construction in the MRP. Approximately 60% of the MRP demand is expected to travel to / from the north of Mamre Road. As MRP development traffic is restricted from using the existing Bakers Lane, the two key routes from the eastern side of the MRP to the north of Mamre Road are via Darrabarra Avenue and Abbots Road (shown by the key routes in Figure 2).

Therefore, while the analysis within the TMAP has demonstrated that satisfactory intersection performance could be achieved without the NAR, it would:

- Improve permeability of the MRP for all users.
- Reduce reliance on the Mamre Road intersections with Darrabarra Avenue and Abbots Road by providing an alternative route north of the MRP.
- Improve safety by separating out access for the existing Bakers Lane users (i.e. school traffic) from heavy vehicle traffic associated with the MRP.

It is on this basis that the Proponent has amended the application to include the NAR, rather than out of a necessity to offset the impact of the Proposal.

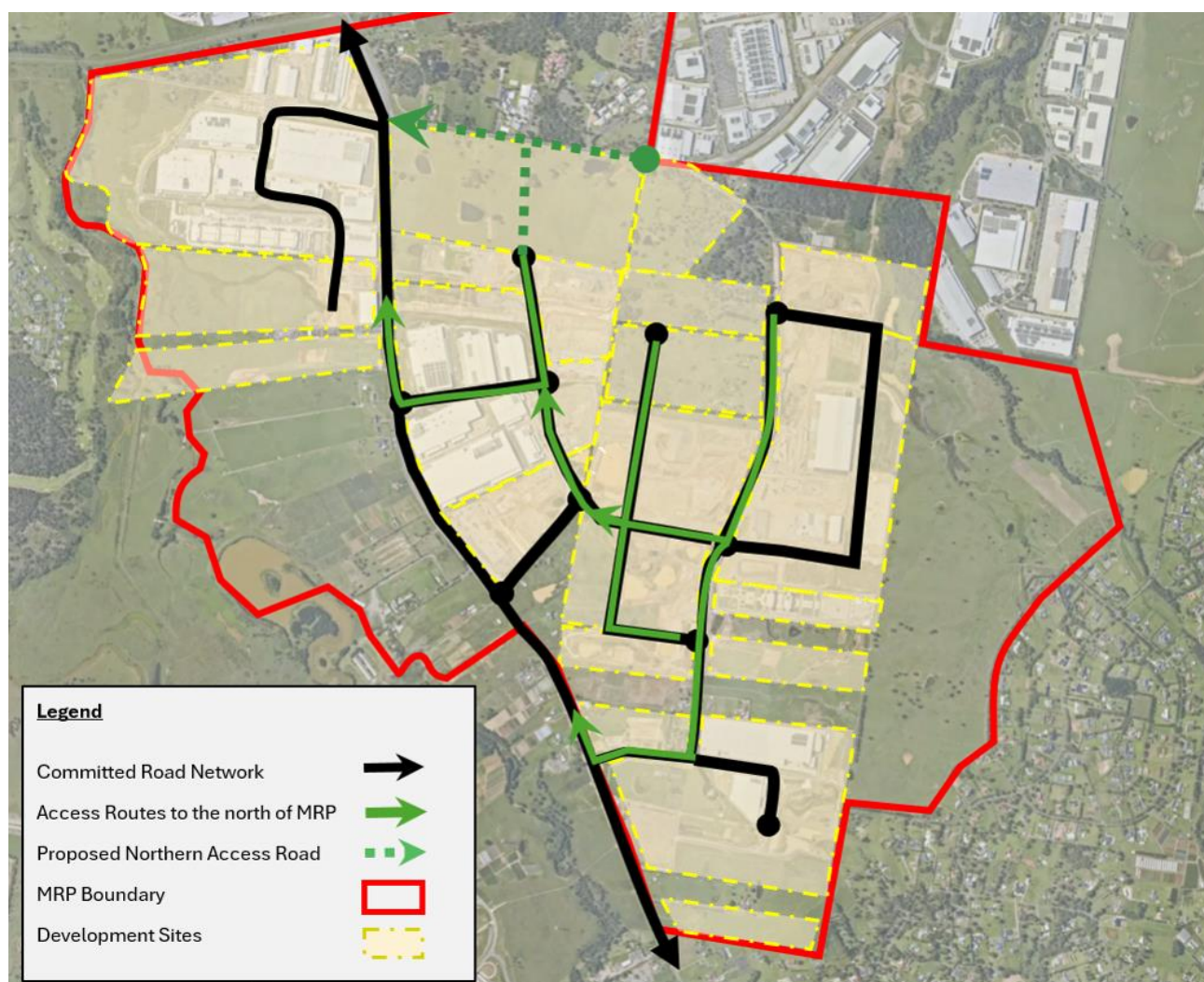


Figure 2: MRP Road Network Delivery

Response to Submissions

Table 1: Response to Submissions - DPHI

AG Ref	Comment	Response
1	The Transport Management and Accessibility Plan (TMAP) provided in Appendix 10 identifies that the operations of the development would involve three 8-hour shifts for employees which is inconsistent with the EIS which stipulates two shifts over a 24-hour period. The Department requests confirmation on the proposed employee shifts including approximate number of staff per shift and duration. In addition, the TMAP should be updated accordingly to ensure assumptions in the traffic assessment of employee vehicle movements are accurate.	There would be 3 shifts over a 24-hour period. The TMAP has been updated to provide clarity.

AG Ref	Comment	Response
2	The Department notes the car parking assessment within the TMAP has applied a weighted average of parking spaces per GFA of other data centre development. The Department does not consider this approach to accurately represent car parking demand as the employee generation of a data centre development does not directly correlate with the GFA of the development. The TMAP should be updated to assess car parking demand against a first principles approach which considers the maximum potential of staff and visitors on the site at anyone time.	The parking demand was established on the basis of first principles analysis, with the benchmark data utilised for validation only. The TMAP has been updated to provide clarity.

Table 2: Response to Submissions - TfNSW

AG Ref	Comment	Response
3	TfNSW has reviewed the EIS and notes that the site was previously approved under SSD-30628110, determined on 20 February 2026, for the Summit at Kemps Creek industrial development. That proposal formed part of the broader LOG North group of developments and sought approval for large-format warehousing and distribution land uses.	Note.
4	During the assessment of the earlier SSD, TfNSW raised concerns regarding the cumulative traffic generation and impacts associated with the LOG North developments, particularly given that access was proposed exclusively via Abbotts Road and Darrabarra Avenue. To mitigate these impacts, the applicant proposed the construction of a portion of the future Southern Link Road. This road provided direct access to the site and established the northern access point to the Mamre Road Precinct. As the Southern Link Road delivered precinct-wide transport benefits, TfNSW supported the former proposal, and the associated roadworks were secured through conditions of consent.	There is a fundamental difference in the traffic generating characteristics of the currently approved development and the data centre use now proposed. It is not the responsibility of the Proponent to deliver infrastructure to support the wider precinct, but to offset the impact of their development. Data centres are known to generate low volumes of traffic in comparison to other uses permissible under the current land use zoning. This was demonstrated by the previously submitted TMAP. Therefore, construction of a portion of the future SLR is considered a disproportionate requirement for the Proposal. Nevertheless, the application has been updated to now include the NAR; which is consistent with the approved Stage 1 of the approved Summit at Kemps Creek roadworks.
5	The current State Significant Development Application (SSDA) for a data centre diverges from the previously approved scheme by removing the Southern Link Road works. Instead, all site access is proposed via the recently constructed Mamre Road / Darrabarra Avenue signalised intersection.	The TMAP demonstrates that the Proposal would not have a material impact on the operation of this intersection. Darrabarra Avenue has been designed with two lanes in each direction. The level of trip generation associated with the development would not be

AG Ref	Comment	Response
	TfNSW raises concerns about the efficiency and operational performance of this intersection under the revised access arrangement, as well as the mid-block capacity of Darrabarra Avenue. On this basis, TfNSW does not support the proposal in its current form. Advisory comments are provided in TAB A for the Department's consideration.	sufficient to directly cause midblock capacity issues on Darrabarra Avenue. The inclusion of the NAR by the Proponent serves to improve the performance of this intersection.
6	Mode Share <u>Comment:</u> The traffic generation assessment has adopted a mode share assumption of 90% private vehicle use. TfNSW considers this assumption to be inappropriate given: • The quantum of on-site parking proposed. • The 24-hour operational nature of the development. • The absence of access to public transport services within reasonable walking distance of the site. In this context, TfNSW considers it unreasonable to assume any meaningful uptake of non-car travel modes. <u>Recommendation:</u> TfNSW recommends that a 100% private vehicle mode share be applied for the purposes of estimating traffic generation associated with the development.	The TfNSW Guide to Transport Impact Assessment (2024) suggests an average mode share of 71% found from surveys of large format warehouses (being the most comparable locations). Furthermore, the 2012 TfNSW data for warehouse development sites in Erskine Park and Eastern Creek demonstrated a car mode share of 90%, with 8% travelling as passengers. There is no evidence to suggest that adoption of a 100% mode share is appropriate and the existing mode share of 90% has been maintained. The quantum of car parking has been reduced to now include: • 90 spaces per parcel (270 in total) • 79 spaces for the COSH (operations building) • 2 spaces per substation parcel (for maintenance requirements). • Total: 355
7	Traffic Generation <u>Comment:</u> For the parking assessment, the traffic report applies the employee parking rate contained within the relevant Development Control Plan (DCP) of one space per two employees. On this basis, the proposal includes: • 540 parking spaces allocated to the data centre component; and • 79 parking spaces allocated to the Central Operating Support Hub (COSH). • Based on the adopted parking rate, the provision of 540 spaces implies approximately 1,080 employees per shift associated with the data centre alone. This figure is inconsistent with the traffic report, which identifies a peak campus population of 115 staff over a 12-hour period. Further inconsistencies arise given that the campus is proposed to operate on a three-shift system, comprising three 8-hour shifts, rather than two 12-hour shifts as implied elsewhere in the report.	The amount of car parking has been reviewed and has been reduced to reflect normal operations for the site (with the provision now totalling 355 spaces). The previous proposal sought to cover parking on days where the peak population on site may reach 550 staff / contractors due to significant maintenance works that could coincide. The updated plans now provide for parking that aligns with day-to-day activities. During days where 550 staff / contractors are required onsite, there is ample space along the internal roads that can accommodate overflow car parking. This will be managed by a suitable traffic management plan that would be developed for those days. This will include ensuring that the additional vendors will arrive outside of the road network peak hours. The trip generation analysis has been updated to include a scenario where the peak demand for 550 staff onsite could occur. This presents a sensitivity

AG Ref	Comment	Response
	The traffic report also assumes that only 36% of staff would arrive or depart in the hour before and after a shift changeover. TfNSW considers this assumption to be unrealistic and likely to substantially underestimate peak traffic generation. In practice, most staff are expected to arrive and depart within a concentrated period surrounding shift changes. <u>Summary of TfNSW position:</u> - TfNSW considers that 100% of staff should be assumed to arrive and depart within the peak hour before and after shift changeover. - Traffic generation should therefore be derived using a first-principles approach, based on the actual number of employees per shift. - The traffic modelling must be revised accordingly to accurately assess the operational performance of the Mamre Road / Darrabarra Avenue signalised intersection under peak conditions. Concern is raised with respect to the proposed 8:00 am to 4:00 pm shift, which would overlap with both the AM and PM network peak periods, thereby amplifying the potential impacts on the surrounding road network.	test only to understand the impacts of these “special” peak demands on the road network. Critically, the additional trip generation would occur outside of the road network peak hours. For regular operations, the following operational information is confirmed: - Total visitation of 800 people per day. 3 shifts operating across a 24-hour period: 00:00 to 08:00 08:00 to 16:00 16:00 to 00:00 - The following staff and customer/contractor split (during the day and evening shifts): 65% staff (on-duty) 35% customers/contractors The profile provided in the TMAP was broken down into 30-minute intervals, with a total of 77% staff trips expected in the immediate hour before and after the shift is due to start. This was based on the average profile identified from the survey sites of other data centres. This is also consistent with the surveys of warehouse developments that informed the GTIA (which also operate with similar shift patterns). The data clearly demonstrates that staff arrivals / departures are spread over a period and not concentrated to 1 specific peak hour. Nevertheless, a sensitivity assessment has been undertaken which assumes a more concentrated profile for arrivals (with 100% of staff arriving before the shift start time) and departures (with 100% of staff departing after completion of the shift time). The assessment demonstrates that the traffic generation associated with the Proposal would still be significantly reduced when compared to the approved Summit at Kemps Creek development. Noting the application includes the NAR (consistent to the approved Stage 1 roadworks associated with Summit), it is concluded that the Proposal is supportable from a traffic generation perspective.
8	Car Parking <u>Comment:</u> The parking benchmarking exercise presented in the traffic report is based on comparisons with other data centres that are significantly smaller in gross floor area (GFA) than the proposed development. In addition, the report does not clearly identify:	There is no appropriate parking rate in the DCP for this form of use. The DCP was referenced as data centres form a subset land use to industrial land uses. However, as industrial land uses encompass a large variety of operations including traditional labour-intensive manufacturing to modern high-technology

AG Ref	Comment	Response
	- The number of employees on site at each comparison facility; or - The operational shift patterns applicable to those facilities. - Noting that the proposed parking provision is derived from employee numbers rather than GFA, TfNSW requires further information to substantiate the proposed parking quantum, including: - The total number of employees associated with the development. - The number of employees per shift; and - Shift overlap arrangements, if any. This information is necessary to determine whether the proposed parking provision is appropriate and aligned with the actual operational needs of the development. With respect to the COSH, the traffic report states that: - The facility is intended to primarily service the data centre campus; and - Only 25% of customers are anticipated to be external visitors. On this basis, TfNSW considers that no more than 25% of parking associated with the COSH should be allocated to external customers. However, the plans identify 33 parking spaces allocated for “data centre customers”, despite these users already being on site. <u>Recommendation:</u> TfNSW seeks clarification on the following points: - The rationale for allocating dedicated parking spaces for data centre customers who are already present on the campus; and - Whether it is anticipated that data centre employees will be required to re-enter the road network or drive internally within the site to access the COSH.	businesses; the quantum of car parking was proposed on the basis of: - Assuming a potential peak demand of 550 staff onsite (being a mix of regular staff and special staffing / contractor requirements for special requirements) - Covering any potential overlap of arrivals and departures. Following feedback received on the proposal, the parking provision has been reviewed to accommodate regular parking requirements, with parking during the “special event” days to be accommodated as overflow parking along the internal road network. This will be managed as part of a suitable operational management plan. The proposed provision now includes: 90 spaces per parcel (270 in total) 79 spaces for the operations building 2 spaces per substation parcel (for maintenance requirements) - Total: 355 During normal operations, there is expected to be a peak demand of 115 staff & customers / vendor vehicles onsite. During shift change over the number of vehicles onsite for a short period would increase to 222. The proposed provision therefore caters for the shift change periods. The operations building will serve as a support hub for the wider campus operation and will provide for a range of facilities, including: - Staff and customers already elsewhere on the site. It is expected that staff / customers whose final destination is within the sub parcels would visit the operations building while leaving the site, creating a dual demand for the parking. - Customers / vendors who are just visiting the operations building; and - External visitors. In response to TfNSW specific recommendation: - There should be some assumptions that there would be internal movements of customers securely within the site. - Some movement can be expected via vehicle from the eastern campus to the operations building, but it is intended to minimise it by

AG Ref	Comment	Response
		provision of an underpass that will allow secure movements between the sites.

Table 3: Response to Submissions – Penrith City Council

AG Ref	Comment	Response
<i>1. Development Assessment Considerations</i>		
9	(o) The use of Bakers Lane for construction traffic is not supported as it would have adverse noise, air quality, and safety impacts to the existing sensitive uses in Bakers Lane.	Noted, expected to be ensured via a suitable Condition of Consent.
10	(p) It is understood that vehicular access to the proposed development will only be via the southern portion of the site, from the neighbouring GPT and Aspect sites. The proposal does not include access via the Southern Link Road. Council staff have previously raised and maintain concerns with this approach in relation to increased traffic generation and sole reliance on other access roads within the Mamre Road Precinct.	As above, it should be acknowledged that data centres are known to generate very low volumes of vehicle traffic. The modelling undertaken has demonstrated that the development would have minimal impact on the committed road network, when considered over and above the approved developments. The proposed access strategy to support the development remains supportable. Nevertheless, the application has been updated to include the NAR.
11	(q) There are implications with the proposed development not fulfilling the road infrastructure that was expected and approved in the Summit SSD approval, such as not extending the estate road to the north to link with Bakers Lane and future Southern Link Road (SLR). This will add pressure on local Council roads and funnel all vehicles through the Mirvac site. Road access routes and traffic for the broader Mamre Road Precinct was developed based on road connections throughout the Precinct. For the proposed development to not include road infrastructure as envisaged in the Precinct controls and DCP, and as approved in the Summit SSD approval is detrimental to the functionality of the Mamre Road Precinct.	It is not the responsibility of the Proponent to deliver road upgrades to support the wider MRP. As above however, the application has been updated to include the NAR.
12	(r) The partial construction of the Southern Link Road and diversion off Bakers Lane is a critical component of the 'Summit at Kemps Creek'	

AG Ref	Comment	Response
	development. Variation from this outcome would be difficult to justify in the context of the broader traffic management issues within the Mamre Road Precinct.	
2. Development Engineering Considerations		
13	(e) The proposal includes road works carried out in different phases without any proposed works for the future Southern Link Road (SLR) connection/intersection. The phasing on the civil plans and architectural plans must be consistent. The northern end of the Collector Road (Road 1) near the future intersection of the SLR is proposed to be a temporary cul-de-sac, which could be considered in a temporary scenario. However, the Collector Road (Road 1) should connect to the Southern Link Road as per the Figure 12 of Mamre Road Precinct DCP in the ultimate scenario. It should be ensured that: i. the Collector Road (Road 1) along with the intersection with Southern Link Road are delivered by the applicant or TfNSW as per the MRP DCP, and ii. The proposed temporary cul-de-sac near the SLR intersection is to be constructed with kerb and gutter, stormwater drainage and paths as the timing of the delivery of through road/intersection is unknown at this stage.	Civil and architectural plan phasing has been updated to reflect the Proponent's delivery of the NAR.
14	(f) Similarly, based on the civil plan, the applicant has proposed to construct the Collector Road (Road 1) roundabout and the East-West Local Industrial Road (Road 2) at/along the GPT boundary in Phase 5. The Collector Road including the roundabout and temporary cul-de-sac near the SLR intersection should be fully constructed, at least at, or by Phase 4 completion. The delivery of the Collector Road including the roundabout should form part of any Offer/VPA with Council.	The phasing plans have been updated to reflect the delivery of the NAR. The NAR will be delivered as part of Stage 1B (completion of sub parcel B), with Road 01 to be provided upon completion of sub parcel C (Stage 2).
15	(i) The draft Construction Traffic Management Plan included in the Transport Report by Ason Group, indicates a temporary construction access from Bakers Lane, which is not acceptable. This has been the case for all other developments due to the proximity to the schools and the current condition of Bakers Lane.	Noted, the draft CTMP has been updated to remove the construction access from Bakers Lane.
3. Traffic Considerations		
16	(a) The provision of 619 spaces does not satisfy the parking requirement in the MRP DCP. For industries in Mamre Road Precinct, the parking requirement is	The TMAP references the DCP requirements for industrial land uses as data centres form a subset land use to that use.

AG Ref	Comment	Response
	1 space per 200sqm of gross floor area or 1 space per 2 employees, whichever is greater. The number of parking spaces required would be 1,186 spaces which includes provision of 48 parking spaces for the café.	However, it is emphasised that industrial land uses encompass a large variety of operations including traditional labour intense manufacturing to modern high-technology businesses. This is reflected in the variability in the nominal parking requirements under the DCP. In the case of data centres, it is generally understood that the resultant number of staff required for such operations is very low. The proposed parking provision has been updated to reflect typical operational requirements, based on staff and visitor numbers, in response to TfNSW comments.
17	(b) The provision of thirty (30) bicycle parking spaces does not comply with the DCP requirement.	The requirements for industrial land uses would result in a gross over provision of cycle parking, noting that staff levels for data centres are less than traditional industrial land uses. There is a forecast visitation of 800 people over a 24-hour period, with the demand spread out over the day. This results in a peak population onsite of 230 people. Provision of 30 spaces achieves an overall mode share of 13%. This well above the target mode shares identified by the Framework Green Travel Plan of 1%. Furthermore, during special events, there could be up to 550 staff onsite. Provision of 30 spaces still results in a mode share of 5.5%. Regardless of the scenario, the provision of 30 spaces results in assumed mode shares of greater than the 2% identified for the Badgerys Creek Precinct within the Aerotropolis Precinct Plan. Therefore, any additional spaces beyond that proposed are not considered necessary at this time. The cycle parking demand would be monitored as part of the implemented travel plan operation and can be modified as necessary. Noting the large size of the site, there is ample opportunity for additional cycle parking to be provided in response to additional demand.
18	(c) The traffic generated by the proposed development has been estimated based on data centres in the established suburbs, which is not supported.	A first principles assessment was undertaken to establish the trip generation of the site, which was validated by reference to trip rates derived from surveyed site.
19	(d) Access to Bakers Lane is not supported	Noted, no access is proposed to Bakers Lane. There will be an emergency egress to Bakers Lane until such a time that the NAR is delivered. However, this will only be used for emergency access for an interim period rather than regular access.

AG Ref	Comment	Response
20	(e) The proposed temporary construction access off Bakers Lane is not supported, considering the proximity to the schools within the vicinity.	Noted, the proposed construction access arrangements have been modified, and construction vehicles will not utilise Bakers Lane.
21	(f) The proposed temporary construction access off Mamre Road will require approval from Transport for NSW.	Noted, the access strategy has been revised and will not include temporary construction access off Mamre Road. Should there be any need for approvals from TfNSW, these will be sought as necessary.

We trust the above is of assistance and please contact the undersigned should you have any queries.

Sincerely,



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Appendix A Transport Management & Accessibility Plan



Mamre Road Data Centre Campus

Transport Management and Accessibility Plan

706-752 Mamre Road, Kemps Creek

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P3168R01





Document control

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V	15 June 2026	Issue	S. Mafi	R. Butler-Madden	R. Butler-Madden
VI	29 June 2026	Issue	S. Mafi	R. Butler-Madden	R. Butler-Madden

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1 Introduction

1.1 Overview

This Transport Management & Accessibility Plan (TMAP) has been prepared in support of the land located at 706-752 Mamre Road, Kemps Creek (the Site). The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 12 shells across four-storey data centre buildings (3x four shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

The assessment undertaken addresses the site's transport and access arrangements, parking provision, traffic generation, and integration with the wider Mamre Road Precinct (MRP) road network during both interim and ultimate stages. Active and public transport opportunities are also considered, alongside the design standards for on-site access, parking, and servicing in accordance with relevant Australian Standards and the Mamre Road Precinct Development Control Plan (MRP DCP).

This TMAP draws on Ason Group's extensive experience within the MRP, including preparation of transport assessments for other developments in the precinct and direct involvement in precinct-wide modelling and road network planning. The analysis has been tailored to reflect the specific operational requirements and anticipated transport characteristics of data centre uses while ensuring consistency with applicable planning controls and transport infrastructure strategies for the area.

1.2 Amended Application

This TMAP has been updated to reflect an amendment to the SSDA following comments received on the original application from key stakeholders. This submissions from includes Department of Planning, Housing and Infrastructure (DPHI), Transport for New South Wales (TfNSW) and Penrith City Council (Council).

Changes have been made to the overall design of the development in response to the comments received. This TMAP has been updated accordingly, inclusive of any necessary changes arising from the comments received.

The Addendum which this TMAP accompanies provides an overview of the consolidated overview of the relevant transport comments and the responses, as necessary.

A key change to the application relates to the inclusion of a suite of road upgrades to the north of the Site, referred to as the Northern Access Works (NAW). The NAW includes partial delivery of the broader TfNSW Southern Link Road (SLR) as well as upgrading the existing (western) section of Bakers Lane which connects to the Mamre Road intersection. The proposed works would form a new (interim) road network to the north of the MRP, herein referred to as the Northern Access Road (NAR).

More detailed information is provided in Section 4.2. However, the proposed works are entirely consistent with the Stage 1 roadworks proposed as part of the 'Summit at Kemps Creek' Estate (SSD-30628110), which is currently approved on the Site. The Stage 1 roadworks approved for Summit at Kemps Creek are shown below.

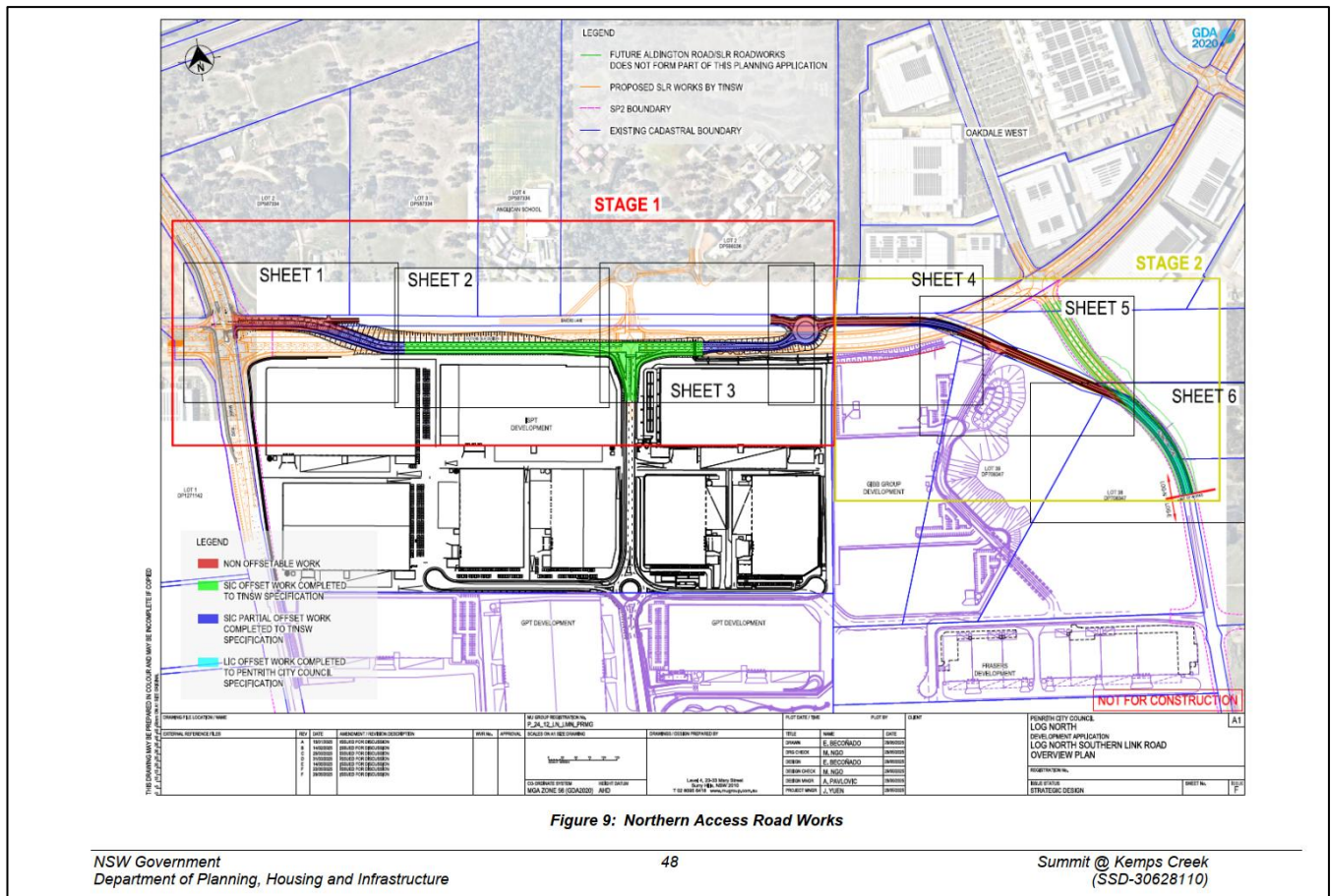


Figure 1: Summit at Kemps Creek Approved Roadworks

While this application should be assessed on its own merit, following feedback from the authorities of the precinct-wide benefits the works provide, the Proponent has now introduced them to the application.

1.3 Site Planning History

The separate SSD currently approved on the site (SSD-30628110) provides for a warehouse and logistics estate ('Summit at Kemps Creek' Estate). (DPHI) approved the Summit at Kemps Creek SSD development on 20 February 2026.

From the outset, it should be recognised that the proposal that is the subject of this TMAP forms part of a totally separate approvals process. The nature of the proposal is entirely different to that which is currently approved under the Summit at Kemps Creek SSD.

Ason Group also undertook the relevant traffic and transport assessment for the Summit at Kemps Creek SSD, which considered the requirements to facilitate a traditional warehouse use on the site. This TMAP considers the merit of the data centre use in its own right. This particularly relevant as data centre uses are known to generate fewer vehicle trips than warehouse uses.

Further detail on the Summit at Kemps Creek SSD is provided in Section 2.3.

1.4 Assessment Objectives

The key objectives of this SSD TMAP are as follows:

- To establish the traffic impact of the Proposal, over and above the currently approved and proposed development in the MRP.
- To establish that the development of the Site is compliant and consistent with the relevant access, traffic and parking requirements – in particular that there is an appropriate and sustainable provision of car parking.
- To demonstrate that the proposed access driveways, internal roads, car parks and service facilities can provide a design compliant with the relevant Australian Standards.
- To demonstrate that the amended design aligns with DPHI, TfNSW, and Council expectations.

1.5 Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs) were issued by the Department of Planning, Housing & Infrastructure (DPHI) in September 2025 for the subject SSD proposal (SSD-92743706).

The DPHI SEARs relating to traffic and transport considerations 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: SEARs Compliance (SSD-92743706)

SEARs Item	Summary Response	Reference
Traffic and Transport – a quantitative transport impact assessment prepared in accordance with relevant Transport for NSW (TfNSW) and Austroads guidelines (including the Guide to Transport Impact Assessment (TfNSW, 2024), which includes:		
– details of the likely construction trip generation, construction vehicle routes, access and parking arrangements during construction works and measures to mitigate any construction traffic and parking impacts, detailed in a draft Construction Traffic Management Plan	Construction traffic thresholds for the various constructions stages are detailed within the Draft Construction Traffic Management Plan (CTMP). Vehicle routes will be way of Mamre Road and the arterial road network.	Appendix B (Draft CTMP)
– details of all daily and peak traffic volumes likely to be generated during all key stages of operation, including a description of key access / haul routes, vehicle types and potential queuing impacts	The proposed Mamre Road Data Centre Campus was assessed on a first principles basis in consideration of key operational information relating to number of persons on site as well as shift times. A daily profile was established based on this information which also identifies the peak periods during AM and PM peak hours (associated with shift changes). This assessment includes distributions on	Section 5.1 (traffic volumes and distributions) Section 7.2.2 (queueing assessment)

	the MRP road network based on the interim network and access strategy.	
– demonstration that the proposed access arrangements can adequately accommodate all vehicle movements generated during construction and operation of the development, while ensuring the development does not adversely impact upon the orderly development of land within the surrounding area	As detailed in the response below, SIDRA modelling was undertaken to evaluate the capacity of the interim MRP network (and with delivery of the TfNSW Mamre Road Upgrade - Stage 2 Project). The results indicate that the newly completed signalised intersection at Mamre Road / Darrabarra Avenue will continue to perform satisfactorily in 2036 (planned year for ultimate MRP road network) with the addition of cumulative development within the MRP (including the proposed development).	Section 5 (Traffic Assessment)
– an assessment of the predicted impacts of development traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts on existing performance levels of nearby intersections, using a calibrated SIDRA (or similar) traffic model. This is to include the identification and consideration of approved and proposed developments and road upgrades in the Mamre Road Precinct and evidence of agreement with TfNSW in relation to the assessment approach	SIDRA modelling was undertaken of a study network which includes two major intersections on Mamre Road (Bakers Lane and at Darrabarra Avenue). This assessment considers the cumulative impact of developments (planning approvals and submissions) as well as accounting for existing infrastructure and planned upgrades (namely, the TfNSW Mamre Road Upgrade – Stage 2 project).	Section 5 (Traffic Assessment)
– identification and assessment of any required road upgrades, interim works, new roads or access points necessary to service the development or the broader Mamre Road Precinct, including:		
○ details of the timing, staging, and delivery of the works (construction and operation)	Staging details for construction activity is addressed in the Draft CTMP. The staging of the proposed development and delivery of works associated with the MRP road network has been also considered – with modelling assessments accounting for full development by 2031.	Appendix B – Draft CTMP Section 4.4 (Staging)
○ evidence of consultation with TfNSW and Penrith City Council regarding these works, as well as any necessary land owner's consent	Please refer to the Environmental Impact Statement for details regarding consultation with authorities, including TfNSW and Penrith City Council.	(Environmental Impact Statement)

○ evidence of consistency with Section 3.4.1 of the MRP DCP, specifically in relation to the use of Bakers Lane to access existing land uses to the north and east of the site	The access arrangements for the proposed development align with Section 3.4.1 of the MRP DCP by enabling interim access to Mamre Road via Darrabarra Avenue as well as delivery of the NAR, ensuring no reliance on Bakers Lane. It is noteworthy that the NAW are considered a disproportionate requirement for the Proposal as datacentres typically generate low volumes of traffic (associated with low staffing demands). Nevertheless, the application has been updated to now include the NAW; which is consistent with the approved Stage 1 of the approved Summit at Kemps Creek roadworks. This is in recognition of the precinct-wide benefits they provide, rather than a specific need to offset the impacts if the Proposal.	Section 4.2 (Proposed Access and Road Network)						
○ evidence of compliance with sections 2.34 and 2.35 of State Environmental Planning Policy (Industry and Employment) 2021, specifically regarding the site's integration with the Mamre Road Precinct's dedicated freight corridor and delivery of the Southern Link Road	The proposed development includes appropriate setbacks and dedications to allow for the future construction of the freight corridor (10m setback) as well as for the delivery of the Southern Link Road. In particular, the site includes splays at the northern boundary to facilitate the future integration of the planned north-south collector road with the SLR	-						
○ an update on the status of the planning agreement for the Land Owner Group – East (LOG-E) roadworks, including indicative timing for the delivery of associated road infrastructure	The proposed development does not rely on committed infrastructure upgrades by the LOG-E group which relies on access to Mamre Road via upgrades to Aldington Road and Abbotts Road. Ason Group has worked with respective landowners in relation to LOG-E works and understands the following timings are anticipated for intersections (in addition to carriageway upgrades): <table><tr><td>February 2026:</td><td>Complete in Q1 2026</td></tr><tr><td>October 2026:</td><td>Interim Signalised Intersection of Mamre Road / Abbotts Road</td></tr><tr><td>June 2027:</td><td>Ultimate Signalised Intersection of Mamre Road / Abbotts Road</td></tr></table>	February 2026:	Complete in Q1 2026	October 2026:	Interim Signalised Intersection of Mamre Road / Abbotts Road	June 2027:	Ultimate Signalised Intersection of Mamre Road / Abbotts Road	-
February 2026:	Complete in Q1 2026							
October 2026:	Interim Signalised Intersection of Mamre Road / Abbotts Road							
June 2027:	Ultimate Signalised Intersection of Mamre Road / Abbotts Road							

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	The Draft CTMP addresses access arrangements relating to construction activity both in relation to intensity and potential mitigations (e.g. traffic control). The proposed development includes dedicated loading bays for each sub-parcel and the 'COSH' facility (operations building), which incorporates a café. Swept path analysis has been undertaken as well as queuing assessments at the secure gates to validate that the on-street network would not be impacted by regular operation.	Appendix B – Draft CTMP Section 7.2.3 (Service Vehicles) Section 7.2.2 (Queueing Assessment)
details and plans of any proposed internal road network, access points, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards, the Austroads/TfNSW technical guidelines and the MRP DCP (as appropriate), including demonstration that driveways and internal circulation areas are designed to avoid conflict between heavy vehicles and light vehicle, pedestrian and cycle movements	On-Site parking provisions have been assessed with respect to projected demands based on operational details for the proposed data centre campus. Design aspects have been assessed in accordance with the AS2890 series, including for car parking, loading bays and bicycle facilities.	Section 6 (Parking Requirements) Section 7 (Access and Internal Road Networks)
swept path diagrams for the largest vehicles manoeuvring through site access points, internal roads, hardstand areas and nearby intersections (where necessary).	A swept path analysis has been undertaken for all access and circulation movements for the relevant design vehicle, including occasional articulated vehicles and for rare maintenance related activity with low loader vehicles.	Appendix A (Swept Path Analysis)

1.6 Response to Submissions

A consolidated overview of the relevant transport comments received from the exhibition process and the responses, as necessary, is provided in the below.

Table 2: Response to Submissions - DPHI

Comment	Response	Reference
The Transport Management and Accessibility Plan (TMAP) provided in Appendix 10 identifies that the operations of the development would involve three 8-hour shifts for employees which is inconsistent with the EIS which stipulates two shifts over a 24-hour period.	There would be 3 shifts over a 24-hour period.	Section 4.5

The Department requests confirmation on the proposed employee shifts including approximate number of staff per shift and duration. In addition, the TMAP should be updated accordingly to ensure assumptions in the traffic assessment of employee vehicle movements are accurate.	
The Department notes the car parking assessment within the TMAP has applied a weighted average of parking spaces per GFA of other data centre development. The Department does not consider this approach to accurately represent car parking demand as the employee generation of a data centre development does not directly correlate with the GFA of the development. The TMAP should be updated to assess car parking demand against a first principles approach which considers the maximum potential of staff and visitors on the site at any time.	The parking demand was established on the basis of first principles analysis, with the benchmark data utilised for validation only. Section 6.1

Table 3: Response to Submissions - TfNSW

Comment	Response
TfNSW has reviewed the EIS and notes that the site was previously approved under SSD-30628110, determined on 20 February 2026, for the Summit at Kemps Creek industrial development. That proposal formed part of the broader LOG North group of developments and sought approval for large-format warehousing and distribution land uses.	Note.
During the assessment of the earlier SSD, TfNSW raised concerns regarding the cumulative traffic generation and impacts associated with the LOG North developments, particularly given that access was proposed exclusively via Abbots Road and Darrabarra Avenue. To mitigate these impacts, the applicant proposed the construction of a portion of the future Southern Link Road. This road provided direct access to the site and established the northern access point to the Mamre Road Precinct. As the Southern Link Road delivered precinct-wide transport benefits, TfNSW supported the former	There is a fundamental difference in the traffic generating characteristics of the currently approved development and the data centre use now proposed. It is not the responsibility of the Proponent to deliver infrastructure to support the wider precinct, but to offset the impact of their development. Data centres are known to generate low volumes of traffic in comparison to other uses permissible under the current land use zoning. This was demonstrated by the previously submitted TMAP. Sections 4.2 and 5

proposal, and the associated roadworks were secured through conditions of consent.	Therefore, construction of a portion of the future SLR is considered a disproportionate requirement for the Proposal. Nevertheless, the application has been updated to now include the NAR; which is consistent with the approved Stage 1 of the approved Summit at Kemps Creek roadworks.	
The current State Significant Development Application (SSDA) for a data centre diverges from the previously approved scheme by removing the Southern Link Road works. Instead, all site access is proposed via the recently constructed Mamre Road / Darrabarra Avenue signalised intersection. TfNSW raises concerns about the efficiency and operational performance of this intersection under the revised access arrangement, as well as the mid-block capacity of Darrabarra Avenue. On this basis, TfNSW does not support the proposal in its current form. Advisory comments are provided in TAB A for the Department's consideration.	The TMAP demonstrates that the Proposal would not have a material impact on the operation of this intersection. Darrabarra Avenue has been designed with two lanes in each direction. The level of trip generation associated with the development would not be sufficient to directly cause midblock capacity issues on Darrabarra Avenue. The inclusion of the NAR by the Proponent serves to improve the performance of this intersection.	Section and 5
Mode Share <u>Comment:</u> The traffic generation assessment has adopted a mode share assumption of 90% private vehicle use. TfNSW considers this assumption to be inappropriate given: • The quantum of on-site parking proposed. • The 24-hour operational nature of the development. • The absence of access to public transport services within reasonable walking distance of the site. In this context, TfNSW considers it unreasonable to assume any meaningful uptake of non-car travel modes. <u>Recommendation:</u> TfNSW recommends that a 100% private vehicle mode share be applied for the purposes of estimating traffic generation associated with the development.	The TfNSW Guide to Transport Impact Assessment (2024) suggests an average mode share of 71% found from surveys of large format warehouses (being the most comparable locations). Furthermore, the 2012 TfNSW data for warehouse development sites in Erskine Park and Eastern Creek demonstrated a car mode share of 90%, with 8% travelling as passengers. There is no evidence to suggest that adoption of a 100% mode share is appropriate and the existing mode share of 90% has been maintained. The quantum of car parking has been reduced to now include: • 90 spaces per parcel (270 in total) • 79 spaces for the operations building • 2 spaces per substation parcel (for maintenance requirements). • Total: 355	Section 6
Traffic Generation <u>Comment:</u> For the parking assessment, the traffic report applies the employee parking rate	The amount of car parking has been reviewed and has been reduced to reflect normal operations for the site (with the provision now totalling 355 spaces).	Sections 5 and 6

contained within the relevant Development Control Plan (DCP) of one space per two employees. On this basis, the proposal includes:

- 540 parking spaces allocated to the data centre component; and
- 79 parking spaces allocated to the Central Operating Support Hub (COSH).
- Based on the adopted parking rate, the provision of 540 spaces implies approximately 1,080 employees per shift associated with the data centre alone. This figure is inconsistent with the traffic report, which identifies a peak campus population of 115 staff over a 12-hour period.

Further inconsistencies arise given that the campus is proposed to operate on a three-shift system, comprising three 8-hour shifts, rather than two 12-hour shifts as implied elsewhere in the report.

The traffic report also assumes that only 36% of staff would arrive or depart in the hour before and after a shift changeover.

TfNSW considers this assumption to be unrealistic and likely to substantially underestimate peak traffic generation. In practice, most staff are expected to arrive and depart within a concentrated period surrounding shift changes.

Summary of TfNSW position:

- TfNSW considers that 100% of staff should be assumed to arrive and depart within the peak hour before and after shift changeover.
- Traffic generation should therefore be derived using a first-principles approach, based on the actual number of employees per shift.
- The traffic modelling must be revised accordingly to accurately assess the operational performance of the Mamre Road / Darrabarra Avenue signalised intersection under peak conditions.

Concern is raised with respect to the proposed 8:00 am to 4:00 pm shift, which would overlap with both the AM and PM network peak periods, thereby amplifying the potential impacts on the surrounding road network.

The previous proposal sought to cover parking on days where the peak population on site may reach 550 staff / contractors due to significant maintenance works that could coincide.

The updated plans now provide for parking that aligns with day-to-day activities.

During days where 550 staff / contractors are required onsite, there is ample space along the internal roads that can accommodate overflow car parking. This will be managed by a suitable traffic management plan that would be developed for those days. This will include ensuring that the additional vendors will arrive outside of the road network peak hours.

The trip generation analysis has been updated to include a scenario where the peak demand for 550 staff onsite could occur. This presents a sensitivity test only to understand the impacts of these “special” peak demands on the road network.

Critically, the additional trip generation would occur outside of the road network peak hours.

For regular operations, the following operational information is confirmed:

- Total visitation of 800 people per day.
- 3 shifts operating across a 24-hour period:
 - 00:00 to 08:00
 - 08:00 to 16:00
 - 16:00 to 00:00
- The following staff and customer/contractor split (during the day and evening shifts):
 - 65% staff (on-duty)
 - 35% customers/contractors

The profile provided in the TMAP was broken down into 30-minute intervals, with a total of 77% staff trips expected in the immediate hour before and after the shift is due to start. This was based on the average profile identified from the survey sites of other data centres.

This is also consistent with the surveys of warehouse developments that informed the GTIA (which also operate with similar shift patterns). The data clearly demonstrates that staff arrivals / departures are spread

	over a period and not concentrated to 1 specific peak hour. Nevertheless, a sensitivity assessment has been undertaken which assumes a more concentrated profile for arrivals (with 100% of staff arriving before the shift start time) and departures (with 100% of staff departing after completion of the shift time). The assessment demonstrates that the traffic generation associated with the Proposal would still be significantly reduced when compared to the approved Summit at Kemps Creek development. Noting the application includes the NAR (consistent to the approved Stage 1 roadworks associated with Summit), it is concluded that the Proposal is supportable from a traffic generation perspective.	
Car Parking <u>Comment:</u> The parking benchmarking exercise presented in the traffic report is based on comparisons with other data centres that are significantly smaller in gross floor area (GFA) than the proposed development. In addition, the report does not clearly identify: • The number of employees on site at each comparison facility; or • The operational shift patterns applicable to those facilities. • Noting that the proposed parking provision is derived from employee numbers rather than GFA, TfNSW requires further information to substantiate the proposed parking quantum, including: – The total number of employees associated with the development. – The number of employees per shift; and – Shift overlap arrangements, if any. This information is necessary to determine whether the proposed parking provision is appropriate and aligned with the actual operational needs of the development. With respect to the COSH, the traffic report states that: • The facility is intended to primarily service the data centre campus; and	There is no appropriate parking rate in the DCP for this form of use. The DCP was referenced as data centres form a subset land use to industrial land uses. However, as industrial land uses encompass a large variety of operations including traditional labour-intensive manufacturing to modern high-technology businesses; the quantum of car parking was proposed on the basis of: • Assuming a potential peak demand of 550 staff onsite (being a mix of regular staff and special staffing / contractor requirements for special requirements) • Covering any potential overlap of arrivals and departures. Following feedback received on the proposal, the parking provision has been reviewed to accommodate regular parking requirements, with parking during the “special event” days to be accommodated as overflow parking along the internal road network. This will be managed as part of a suitable operational management plan. The proposed provision now includes: • 90 spaces per parcel (270 in total) • 79 spaces for the operations building • 2 spaces per substation parcel (for maintenance requirements) • Total: 355	Section 6

- Only 25% of customers are anticipated to be external visitors. On this basis, TfNSW considers that no more than 25% of parking associated with the COSH should be allocated to external customers. However, the plans identify 33 parking spaces allocated for “data centre customers”, despite these users already being on site. <u>Recommendation:</u> TfNSW seeks clarification on the following points: - The rationale for allocating dedicated parking spaces for data centre customers who are already present on the campus; and - Whether it is anticipated that data centre employees will be required to re-enter the road network or drive internally within the site to access the COSH.	During normal operations, there is expected to be a peak demand of 115 staff & customers / vendor vehicles onsite. During shift change over the number of vehicles onsite for a short period would increase to 222. The proposed provision therefore caters for the shift change periods. The operations building will serve as a support hub for the wider campus operation and will provide for a range of facilities, including: - Staff and customers already elsewhere on the site. It is expected that staff / customers whose final destination is within the sub parcels would visit the operations building while leaving the site, creating a dual demand for the parking. - Customers / vendors who are just visiting the operations building; and - External visitors. In response to TfNSW specific recommendation: - There should be some assumptions that there would be internal movements of customers securely within the site. - Some movement can be expected via vehicle from the eastern campus to the operations building, but it is intended to minimise it by provision of an underpass that will allow secure movements between the sites.
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Table 4: Response to Submissions – Penrith City Council

Comment	Response
<i>1. Development Assessment Considerations</i>	
(o) The use of Bakers Lane for construction traffic is not supported as it would have adverse noise, air quality, and safety impacts to the existing sensitive uses in Bakers Lane.	Noted, expected to be ensured via a suitable Condition of Consent.
(p) It is understood that vehicular access to the proposed development will only be via the southern portion of the site, from the	As above, it should be acknowledged that data centres are known to generate very low volumes of vehicle traffic.

neighbouring GPT and Aspect sites. The proposal does not include access via the Southern Link Road. Council staff have previously raised and maintain concerns with this approach in relation to increased traffic generation and sole reliance on other access roads within the Mamre Road Precinct.	The modelling undertaken has demonstrated that the development would have minimal impact on the committed road network, when considered over and above the approved developments. The proposed access strategy to support the development remains supportable. Nevertheless, the application has been updated to include the NAR.
(q) There are implications with the proposed development not fulfilling the road infrastructure that was expected and approved in the Summit SSD approval, such as not extending the estate road to the north to link with Bakers Lane and future Southern Link Road (SLR). This will add pressure on local Council roads and funnel all vehicles through the Mirvac site. Road access routes and traffic for the broader Mamre Road Precinct was developed based on road connections throughout the Precinct. For the proposed development to not include road infrastructure as envisaged in the Precinct controls and DCP, and as approved in the Summit SSD approval is detrimental to the functionality of the Mamre Road Precinct.	Sections 4.2 and 5 It is not the responsibility of the Proponent to deliver road upgrades to support the wider MRP. As above however, the application has been updated to include the NAR.
(r) The partial construction of the Southern Link Road and diversion off Bakers Lane is a critical component of the ‘Summit at Kemps Creek’ development. Variation from this outcome would be difficult to justify in the context of the broader traffic management issues within the Mamre Road Precinct.	
2. Development Engineering Considerations	
(e) The proposal includes road works carried out in different phases without any proposed works for the future Southern Link Road (SLR) connection/intersection. The phasing on the civil plans and architectural plans must be consistent. The northern end of the Collector Road (Road 1) near the future intersection of the SLR is proposed to be a temporary cul-de-sac, which could be considered in a temporary scenario. However, the Collector Road (Road 1) should connect to the Southern Link Road as per the Figure 12 of Mamre Road Precinct	Civil and architectural plan phasing has been updated to reflect the Proponent’s delivery of the NAR.

DCP in the ultimate scenario. It should be ensured that: i. the Collector Road (Road 1) along with the intersection with Southern Link Road are delivered by the applicant or TfNSW as per the MRP DCP, and ii. The proposed temporary cul-de-sac near the SLR intersection is to be constructed with kerb and gutter, stormwater drainage and paths as the timing of the delivery of through road/intersection is unknown at this stage.	
(f) Similarly, based on the civil plan, the applicant has proposed to construct the Collector Road (Road 1) roundabout and the East-West Local Industrial Road (Road 2) at/along the GPT boundary in Phase 5. The Collector Road including the roundabout and temporary cul-de-sac near the SLR intersection should be fully constructed, at least at, or by Phase 4 completion. The delivery of the Collector Road including the roundabout should form part of any Offer/VPA with Council.	The phasing plans have been updated to reflect the delivery of the NAR. The NAR will be delivered as part of Stage 1B (completion of sub parcel B), with Road 01 to be provided upon completion of sub parcel C (Stage 2).
(i) The draft Construction Traffic Management Plan included in the Transport Report by Ason Group, indicates a temporary construction access from Bakers Lane, which is not acceptable. This has been the case for all other developments due to the proximity to the schools and the current condition of Bakers Lane.	Noted, the draft CTMP has been updated to remove the construction access from Bakers Lane. Appendix B
3. Traffic Considerations	
(a) The provision of 619 spaces does not satisfy the parking requirement in the MRP DCP. For industries in Mamre Road Precinct, the parking requirement is 1 space per 200sqm of gross floor area or 1 space per 2 employees, whichever is greater. The number of parking spaces required would be 1,186 spaces which includes provision of 48 parking spaces for the café.	The TMAP references the DCP requirements for industrial land uses as data centres form a subset land use to that use. However, it is emphasised that industrial land uses encompass a large variety of operations including traditional labour intense manufacturing to modern high-technology businesses. This is reflected in the variability in the nominal parking requirements under the DCP. In the case of data centres, it is generally understood that the resultant number of staff required for such operations is very low. The proposed parking provision has been updated to reflect typical operational Section 6

	requirements, based on staff and visitor numbers, in response to TfNSW comments.	
(b) The provision of thirty (30) bicycle parking spaces does not comply with the DCP requirement.	The requirements for industrial land uses would result in a gross over provision of cycle parking, noting that staff levels for data centres are less than traditional industrial land uses. There is a forecast visitation of 800 people over a 24-hour period, with the demand spread out over the day. This results in a peak population onsite of 230 people. Provision of 30 spaces achieves an overall mode share of 13%. This well above the target mode shares identified by the Framework Green Travel Plan of 1%. Furthermore, during special events, there could be up to 550 staff onsite. Provision of 30 spaces still results in a mode share of 5.5%. Regardless of the scenario, the provision of 30 spaces results in assumed mode shares of greater than the 2% identified for the Badgerys Creek Precinct within the Aerotropolis Precinct Plan. Therefore, any additional spaces beyond that proposed are not considered necessary at this time. The cycle parking demand would be monitored as part of the implemented travel plan operation and can be modified as necessary. Noting the large size of the site, there is ample opportunity for additional cycle parking to be provided in response to additional demand.	Section 6.2.4
(c) The traffic generated by the proposed development has been estimated based on data centres in the established suburbs, which is not supported.	A first principles assessment was undertaken to establish the trip generation of the site, which was validated by reference to trip rates derived from surveyed site.	Section 5.1.2.2
(d) Access to Bakers Lane is not supported	Noted, no access is proposed to Bakers Lane. There will be an emergency egress to Bakers Lane until such a time that the NAR is delivered. However, this will only be used for emergency access for an interim period rather than regular access.	Section 4.3
(e) The proposed temporary construction access off Bakers Lane is not supported, considering the proximity to the schools within the vicinity.	Noted, the proposed construction access arrangements have been modified, and construction vehicles will not utilise Bakers Lane.	Appendix B

(f) The proposed temporary construction access off Mamre Road will require approval from Transport for NSW.	Noted, the access strategy has been revised and will not include temporary construction access off Mamre Road. Should there be any need for approvals from TfNSW, these will be sought as necessary.	Appendix B
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1.7 References

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 MRP:

- DPHI, Mamre Road Precinct Development Control Plan, November 2021 (MRP DCP).

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

- TfNSW Guide to Traffic Generating Developments, Version 1.1, November 2024 (TfNSW Guide).
- State Environmental Planning Policy (Industry and Employment) 2021
- 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, the previously prepared Summit at Kemps Creek TMAP has also been referenced:

- Ason Group, Transport Management & Accessibility Plan, Summit at Kemps Creek at Kemps Creek, 706-752 Mamre Road, Kemps Creek, Version 8, 17/10/2024 (Summit at Kemps Creek TMAP).

2 Planning Context

2.1 Mamre Road Precinct

In June 2020, the NSW Government rezoned approximately 850 hectares of land within Kemps Creek to from rural uses to IN1 General Industrial. This rezoning was formalised as the Mamre Road Precinct (MRP) and seeks to:

- Respond to the demand for industrial land in Western Sydney, as well as the future freight, logistics and industrial needs of Greater Sydney.
- Facilitate 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 MRP will provide capacity for some 17,000 jobs, and in addition to enhancing transport networks will include creation of new environmental conservation areas and public open space.

The Mamre Road Precinct Structure Plan is shown in **Figure 2**.

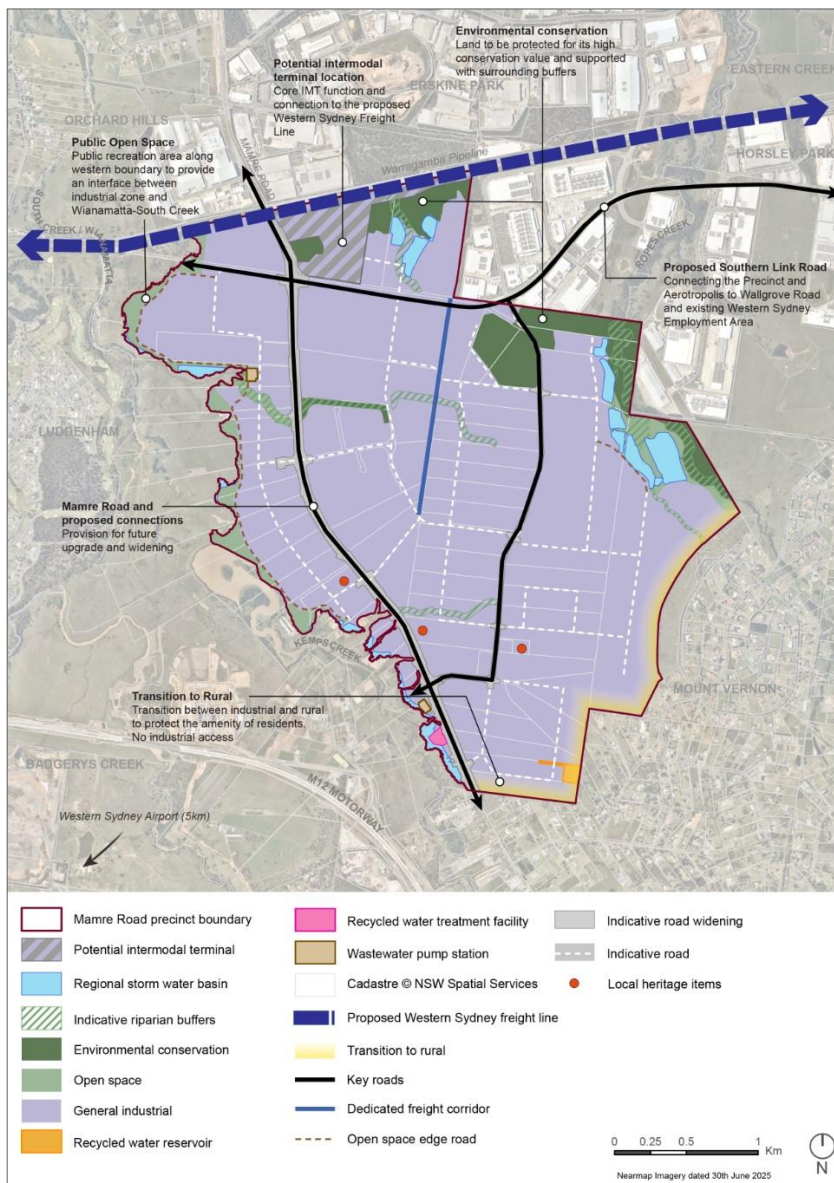


Figure 2: Mamre Road Precinct Structure Plan

Since the rezoning of the MRP, multiple developments have either been delivered and are now operational, are under construction or are working through the relevant planning approvals. As part of this progression, new road infrastructure has already been delivered, and further road upgrades are committed by other developers, which includes:

- Mamre Road / Abbots Road interim intersection upgrade, with signalisation of the current configuration of priority control; and
- Abbots Road and Aldington Road corridor upgrades. This includes widening (for the most part) of the existing road to 2 lanes in each direction as well as delivery of signalised intersection along Aldington Road (as per the DCP).

The figure below provides a comparison in change over time since 2022. Note that Summit at Kemps Creek SSD originally received SEARs in November 2021. As is shown by the comparison below between January 2023 and February 2026 (MetroMap Imaging), the context of the MRP has changed substantially since that time.



Figure 3: MRP Precinct – January 2023



Figure 4: MRP Precinct – February 2026

2.2 Future Road Network

2.2.1 Mamre Road Upgrade Project – Stage 2

2.2.1.1 OVERVIEW

There are numerous road upgrades being undertaken by Transport for NSW (TfNSW) in Western Sydney to accommodate the growth associated with the wider Aerotropolis Precincts. Of particular relevance to the Site is the commitment to deliver Phase One of the Mamre Road Stage 2 Upgrade between Erskine Park Road and Kerrs Road, secured following provision of joint funding in mid-2025 by the Federal and State Governments.

This Project will continue the transformation of Mamre Road from a two-lane rural road to an arterial road. Improvements principally relate to increased lane capacity in anticipation of traffic volumes doubling by 2041, along with targeted improvements along the 6.1km corridor.

In October 2025 TfNSW exhibited the Review of Environmental Factors (REF) for the Mamre Road Stage 2 Upgrade and confirmed an intention to deliver the project in two phases:

- **Interim Phase:** Widening of the corridor (Erskine Park Road to Kerrs Road) to a four lane divided road with associated intersection upgrades, to be completed by 2029.
- **Ultimate Phase:** Widening of the corridor (Erskine Park Road to Kerrs Road) to a six lane divided road.

A detailed extract of the REF in relation to interim phase works is provided below, which also includes intersection improvements and enhancement of active and public transport networks.

Mamre Road – Between Erskine Park Road and Kerrs Road – Phase One

The key features of the Interim Stage of the Proposal would include:

- upgrading and widening Mamre Road to a continuous four-lane divided road with two lanes in each direction between Erskine Park Road and Darrabarra Avenue
- upgrading and widening Mamre Road to a four-lane divided road, with wide shoulders between Darrabarra Avenue and Kerrs Road to allow for six lanes in the future
- changes to intersections with Mamre Road including:
 - upgrading the signalised intersections at Darrabarra Avenue and Abbots Road to three through lanes in each direction with bus jump start facility provided at approaches to each intersection
 - changes to the temporary left-in/left-out access arrangements to 805 Mamre Road
 - an additional right turn lane northbound from Mamre Road into Bakers Lane
 - revised pedestrian and cyclist crossing arrangement on the western leg of Distribution Drive intersection to signalised instead of the existing zebra crossing
 - revised crossing arrangement on the southern leg of James Erskine Drive intersection to allow for both pedestrian and cyclist crossings
 - new left-in/left-out intersections at 931 Mamre Road, and Access Logistics Park (884-928 Mamre Road) in line with the Mamre Road Precinct Development Control Plan (DCP) 2021
 - new left-out intersection at approximately 600 metres south of Abbots Road
 - new shared path on the western side of Mamre Road from James Erskine Drive to Darrabarra Avenue and on the eastern side of Mamre Road from Darrabarra Avenue to about 600 metres south of Abbots Road
 - new footpath on the western side of Mamre Road from Darrabarra Avenue to approximately 600 metres south of Abbots Road
 - new bus stop facilities on Mamre Road at James Erskine Drive, Distribution Drive, Bakers Lane, Darrabarra Avenue, and Abbots Road intersections

Source: Review of Environmental Factors (Transport for NSW) – September 2025



Figure 5: Mamre Road Upgrade Project Stage 2 Summary (Source: TfNSW)

2.2.1.2 GROWTH ASSUMPTIONS

The upgrades were informed by a modelling assessment detailed in the exhibited Traffic and Transport Assessment (Aerocon, July 2025). In this regard, the following assumptions are relevant with respect to comparing growth factors between the REF and the subject SSD Proposal:

- Anticipated completion of 70% of all development within the Mamre Road Precinct by 2041.
- Annual average background growth of:
 - 2023 to 2029: 6% per annum
 - 2023 to 2041: 5% per annum

These growth forecasts include regional traffic growth (along Mamre Road) as well as directly arising from development within the adjoining Mamre Road Precinct. In particular, the modelling assessment has assumed the completion of the Southern Link Road (SLR) in 2041, which would introduce regional connectivity to Mamre Road from the east originating from Wallgrove Road.

2.2.1.3 CROSS SECTIONS

Typical cross sections for the Stage 2 corridor under the phase two corridor are shown in **Figure 6** and **Figure 7** and to the north and south of Darrabarra Avenue. This shows the interim four-lane configuration with a median to allow for future expansion to six lanes under Phase 2 of the Project.

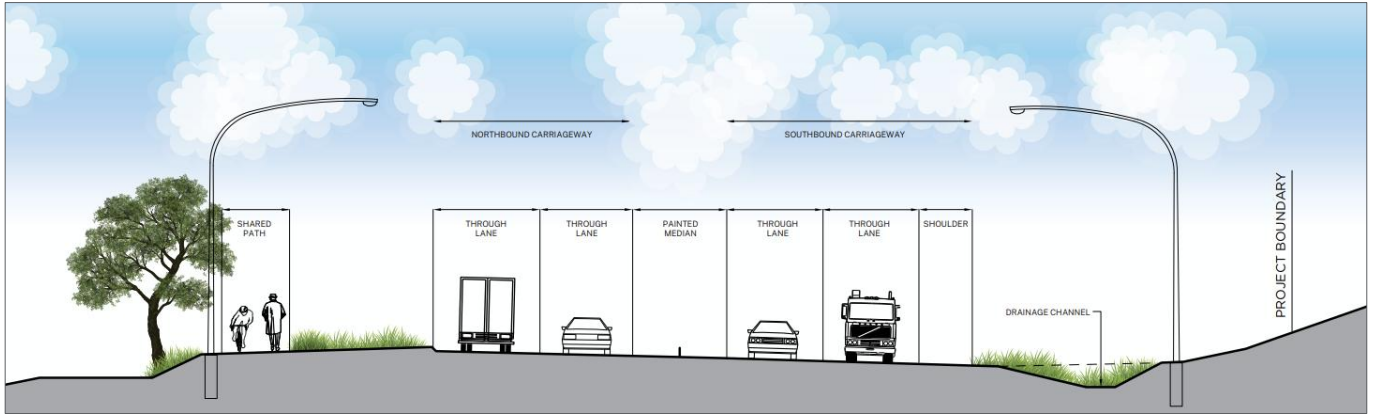


Figure 6: Mamre Road Typical Profile – Darrabarra Avenue to Erskine Park Road (TfNSW)

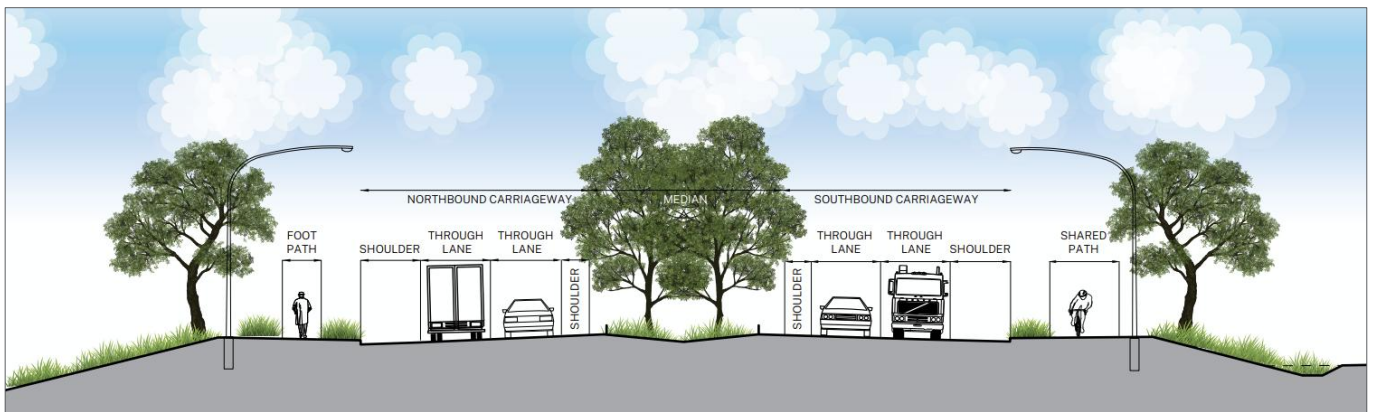


Figure 7: Mamre Road Typical Profile – Darrabarra Avenue to Kerrs Road (TfNSW)

2.2.1.4 INTERSECTION UPGRADES (BY TfNSW)

The Phase 2 works will also include improvements to the following key intersections (as identified in the preceding summary figure) along the corridor:

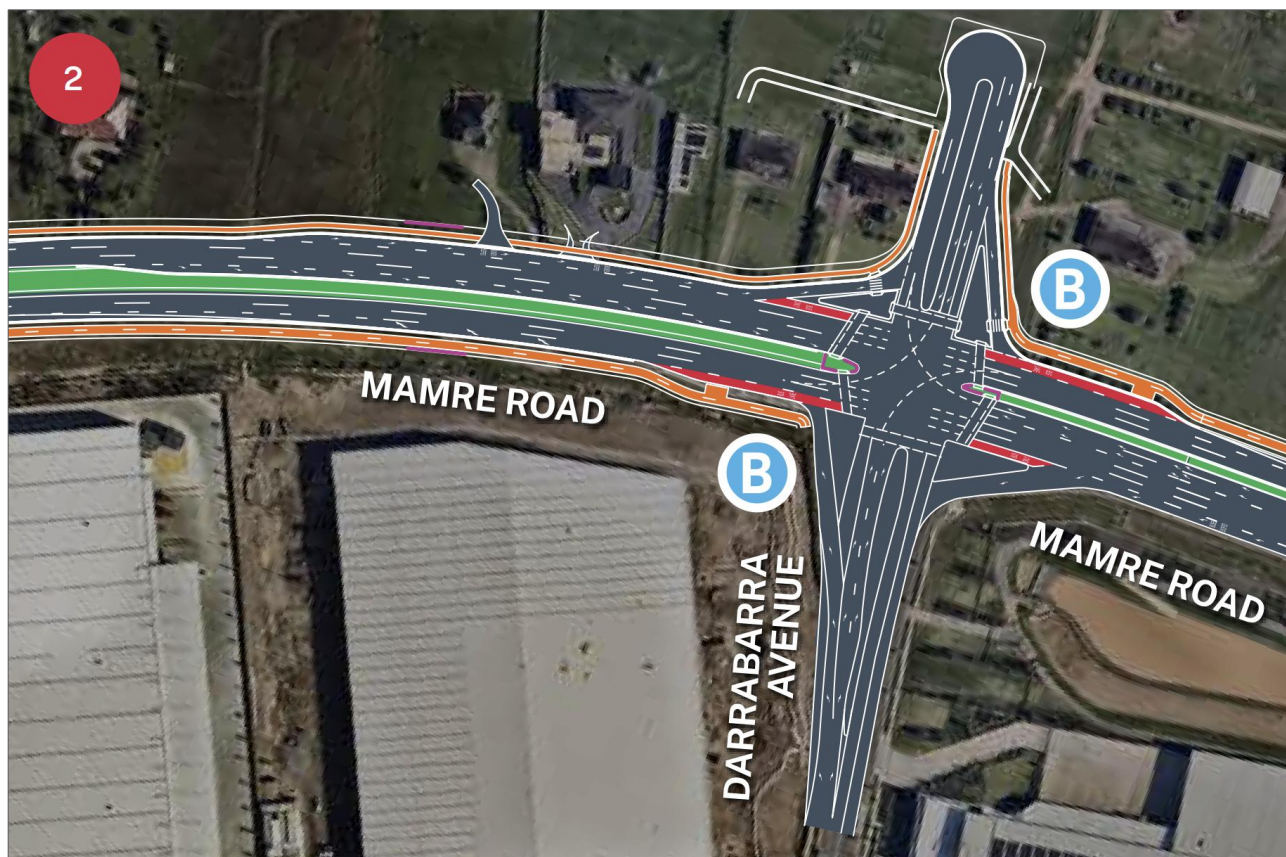


Figure 8: Intersection Upgrade – Mamre Road and Darrabarra Avenue (TfNSW)

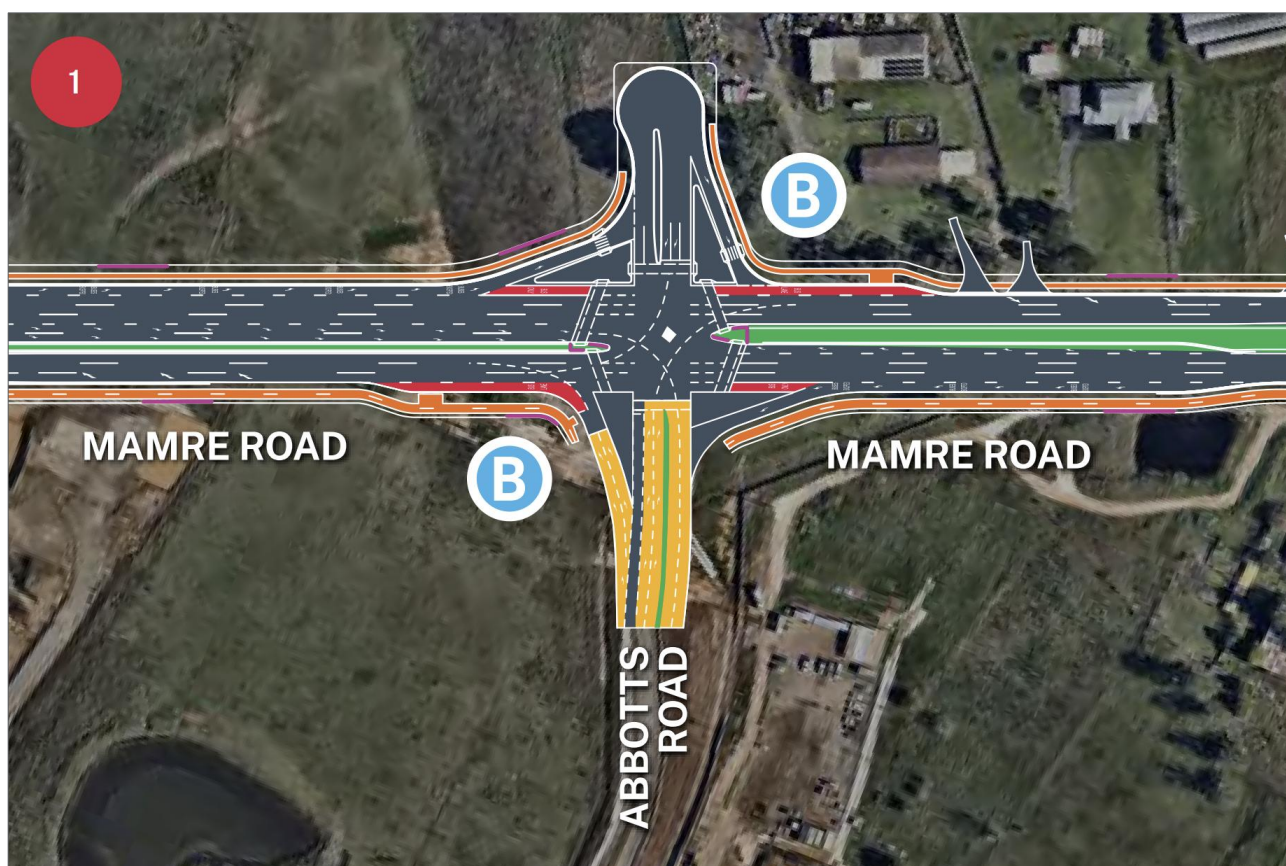


Figure 9: Intersection Upgrade – Mamre Road and Abbotts Road (TfNSW)

2.2.2 Mamre Road Precinct Road Network

Ason Group worked with DPHI and TfNSW to deliver a modelling assessment (herein referred to as the MRP modelling assessment) which accounted for MRP under full development in the years 2031 and 2036. The modelled layout was endorsed and adopted within the MRP DCP as the ultimate road network for the year 2036.

The road network outlined within the MRP DCP is shown by **Figure 10** which provides context to the configuration of MRP roads and confirms a north-south connection through the Site as a local industrial road.

The requirements for the Local and Collector Industrial Road typology, as per the Mamre Road DCP, is shown further below.

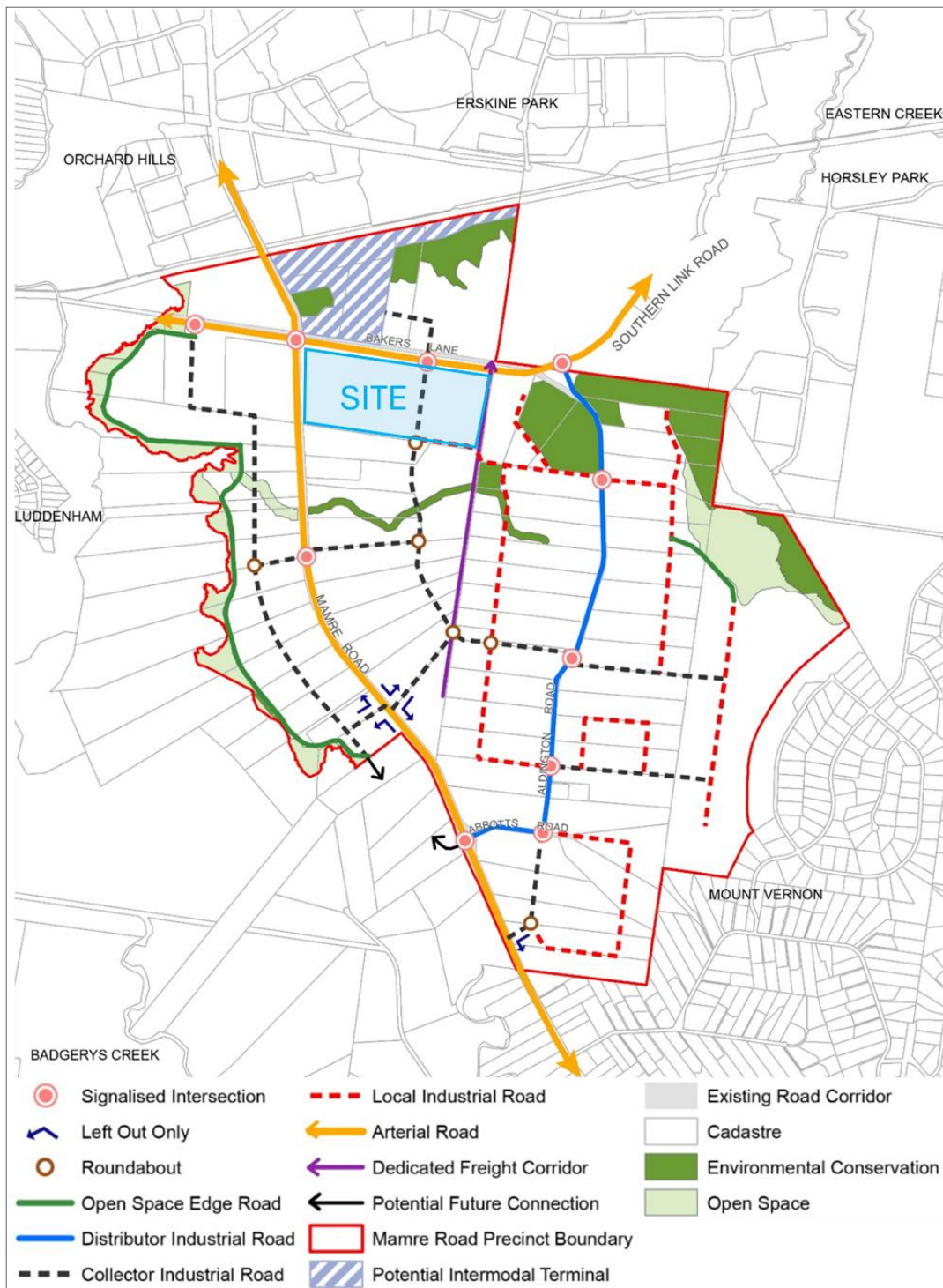


Figure 10: Mamre Road Precinct Road Hierarchy

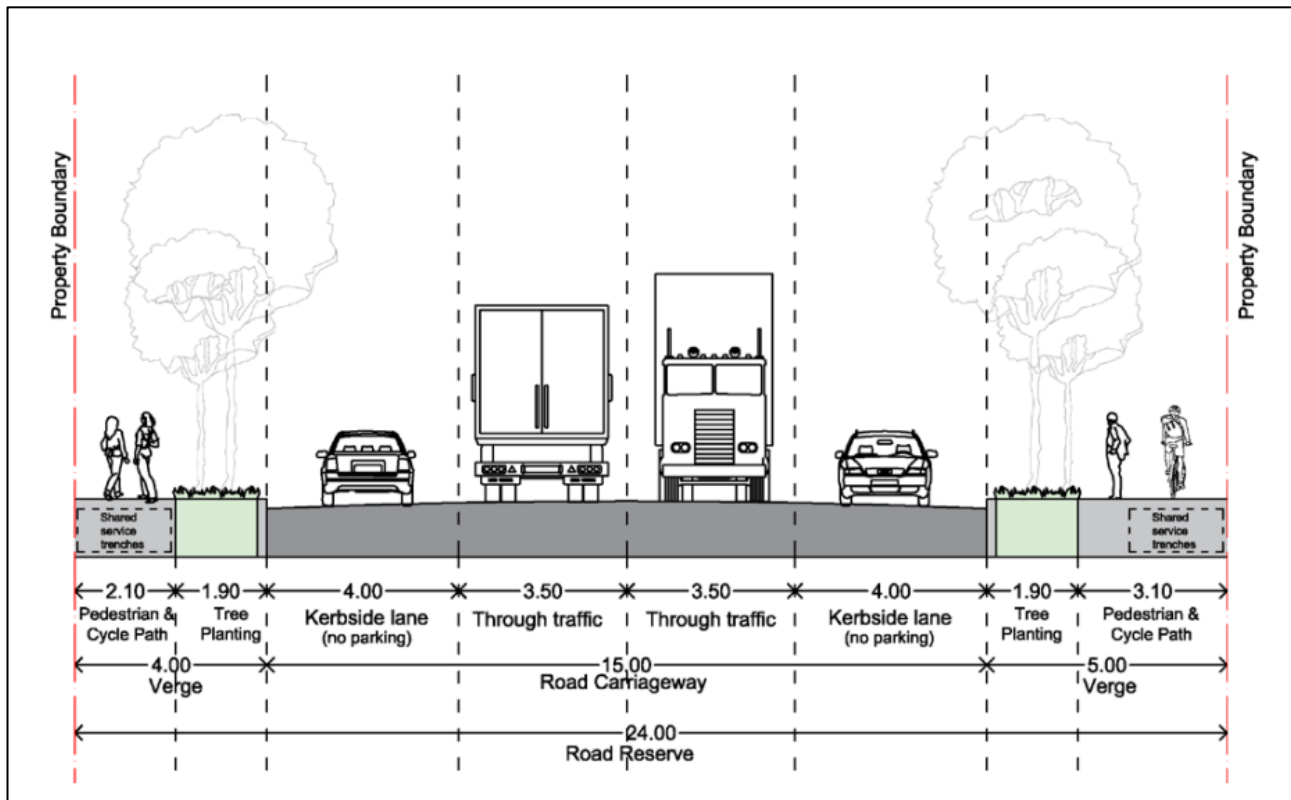


Figure 11: MRP DCP Typical Local Industrial Road

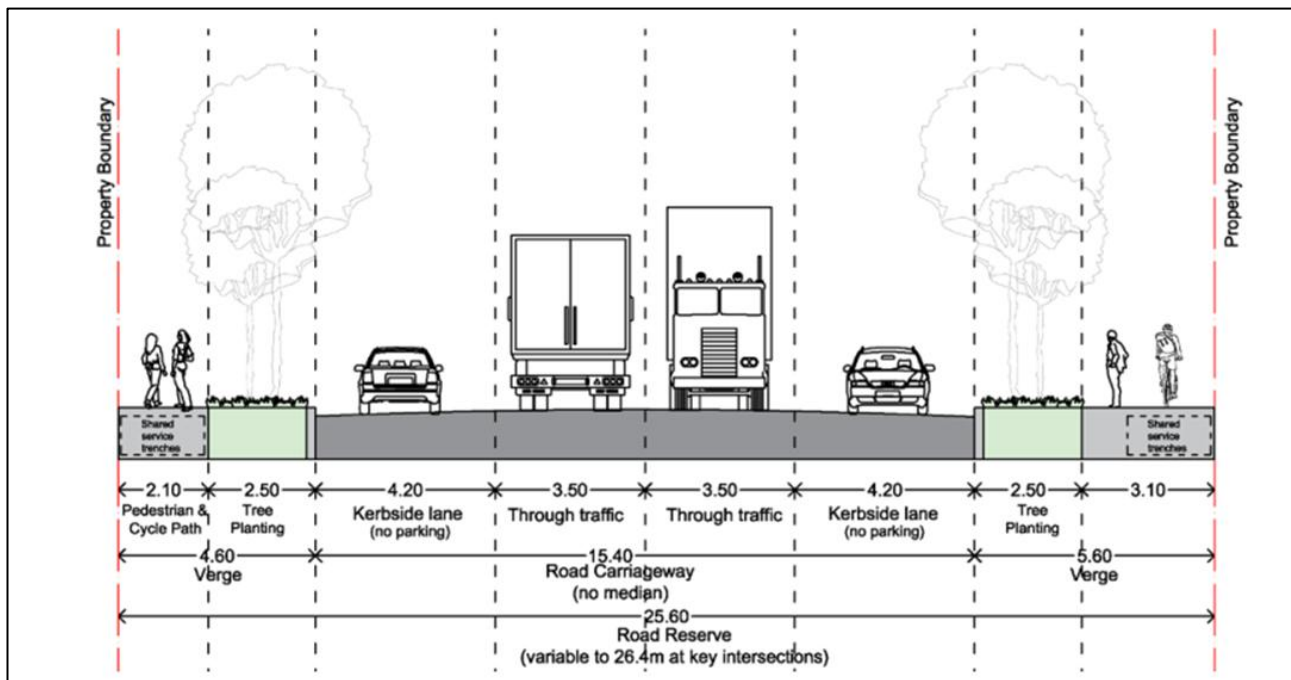


Figure 12: MRP DCP Typical Collector Industrial Road

2.2.2.1 COMMITTED DEVELOPER ROAD DELIVERY & UPGRADES

The Mamre Road Precinct DCP identifies the ultimate road network (by 2036), however no staging strategy had been identified to allow for the initial stages of development in the interim period prior to delivery of the ultimate road network.

Ason Group undertook a modelling assessment on behalf of landowners along Aldington Road (referred to as the Land Owners Group East (LOG-E) to the relevant upgrades to the Abbots Road and Aldington Road corridor. These upgrades were confirmed to include carriageway upgrades at Aldington Road and Abbots Road as well as the signalisation of the intersection of Mamre Road and Abbots Road.

The detailed assessment which identified the road requirements focused on an assessment year of 2026 and provided consideration to the road network that will be delivered by the LOG-E and other landowners in the MRP. The relevant road network assumed and the development sites, are shown by **Figure 13**.

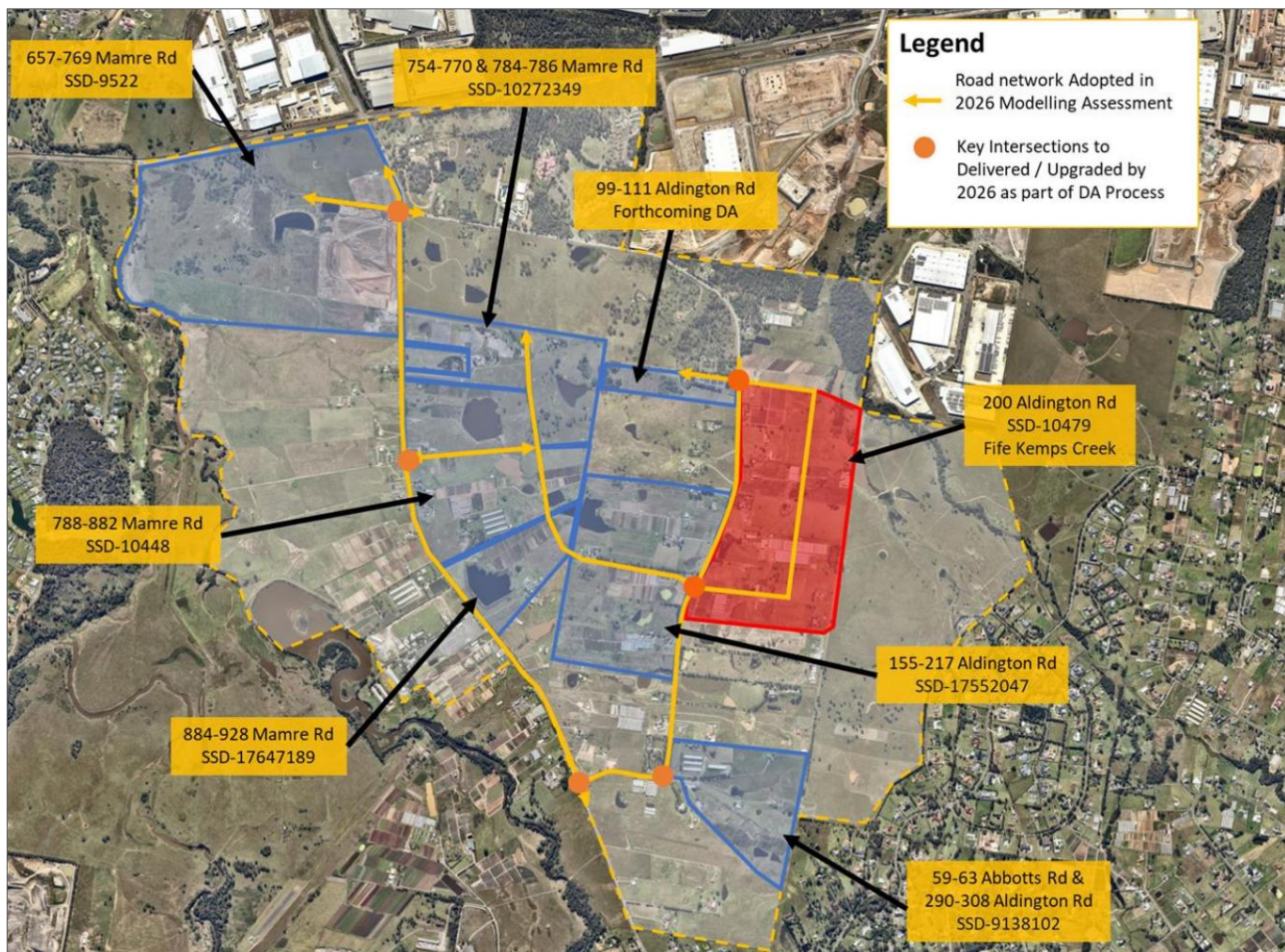


Figure 13: Interim Modelling Assessment Road Network

Critically, this assessment (inclusive of the road network adopted) was agreed with TfNSW, and has since been endorsed (facilitating the approval of the Concept Master Plan). The assessment identified that, on the basis of the network being delivered, approximately 990,000m² of GFA could be delivered in the MRP by 2026.

2.3 Relevant Development Application Context

2.3.1 Proposed Summit at Kemps Creek Estate (SSD-30628110)

The SSD for the Summit at Kemps Creek Estate (ISPT) was approved by DPHI for the subject site (at 706-752 Mamre Road) on 20 February 2026. The approved development provides for an industrial estate comprising nine buildings with

a total gross floor area (GFA) of up to 244,413 square metres (m²) and Stage 1 development of three buildings with a total GFA of 79,263 m².

Based on the adopted MRP trip rates, the estate would generate some 562 vehicle trips per hour during the AM peak period and 587 vehicle trips per hour during the PM peak period.

An extract of the concept masterplan for the Summit at Kemps Creek Estate is shown below.

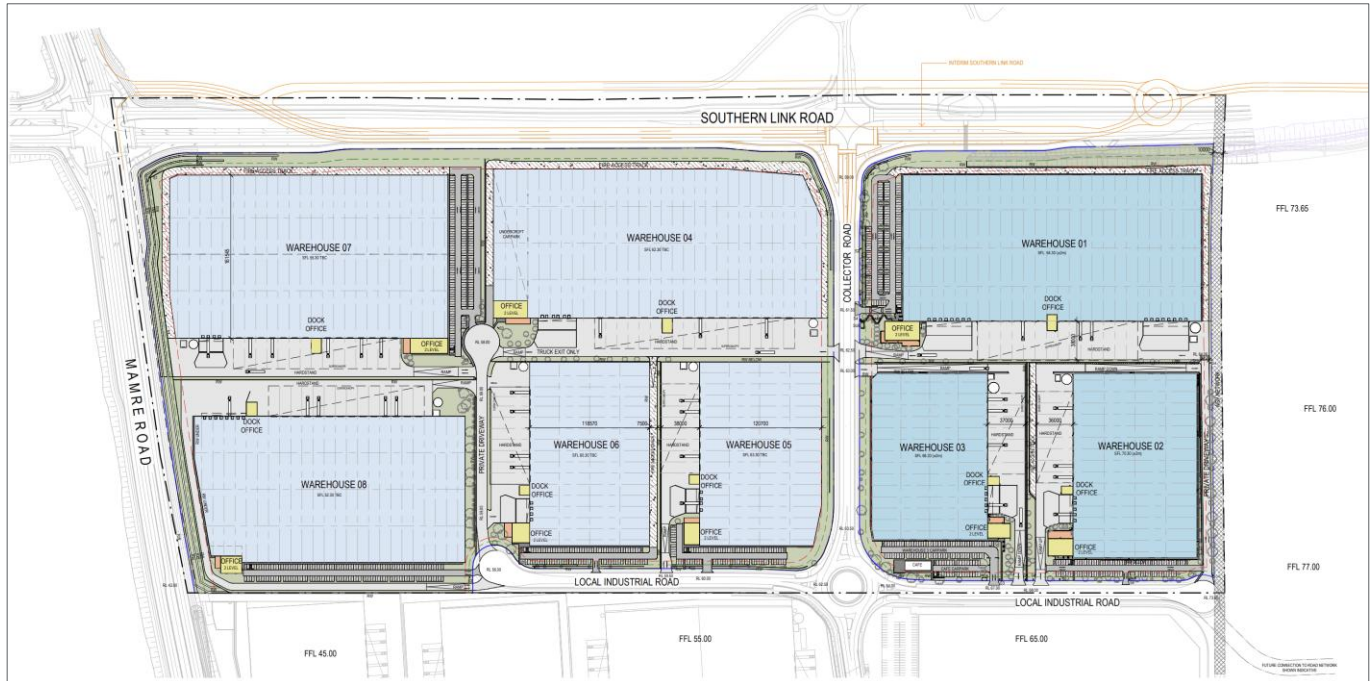


Figure 14: Summit at Kemps Creek Masterplan

Notably, the proponent was part of a landowners group known as LOG-N which proposed a suite of upgrades in order to activate access for new MRP developments via Bakers Lane. With reference to the below layouts, these works included partial delivery of the Southern Link Road (SLR) and integration of the site as follows:

- SLR to replace Bakers Lane as a complete dual carriageway (two lanes each direction) between Mamre Road and the Aldington Road Works by LOG-E. The existing Bakers Lane along the frontage of the existing Mamre Anglican school and Emmaus Catholic College will be retained as a parallel road, with a left-in connection to the west and a new roundabout to the east.
- A signalised intersection is to be delivered between the SLR and Road 01 (being the north-south road that traverses through the site).
- Modification to the existing Mamre Road/ Bakers Lane intersection with:
 - Dual exit lanes from Mamre Road.
 - Accommodated by widening the existing Bakers Lane into the site frontage.

The road works approved for Summit at Kemps Creek are shown below:

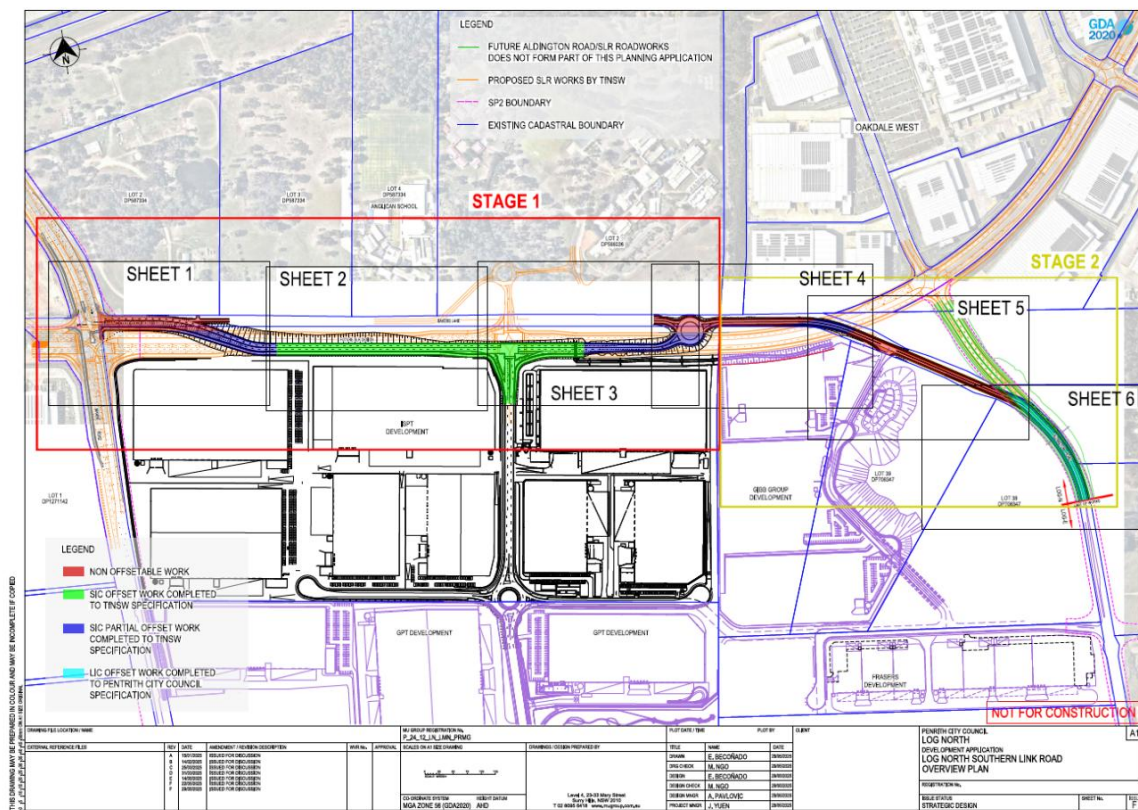


Figure 9: Northern Access Road Works

NSW Government
Department of Planning, Housing and Infrastructure

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Summit @ Kemps Creek
(SSD-30628110)

Figure 15: Summit at kemps Creek Approved Roadworks

2.3.2 Approved Aspect Industrial Estate (SSD-10448)

The Aspect Industrial Estate (Mirvac) at 778-822 Mamre Road was granted approval in May 2022 for a Concept Proposal for the staged development of an industrial estate comprising of 11 buildings (subsequently reduced to 9) with a total GFA of up to 247,990m² industrial, warehousing and distribution centres, and café uses. The estate has since progressed multiple detailed DAs with several warehouses now operational.

Further detail is provided in Table 10, however the current detailed approvals include provision of 209,948m² of warehouse GFA across 7 buildings. Approval for the remaining lots (for a further 30,095m²) is being sought via a SSDA submission (SSD-98407710), which proposes the consolidation of the reining lot. The currently proposed masterplan is shown below.

The site also includes dedication to allow for the development of the MRP road network, notably with construction of the signalised intersection of Mamre Road and Darrabarra Avenue, the construction of Darrabarra Avenue – extending east to Berriwerri Drive at a new roundabout alongside the partial completion of Berriwerri Drive.



Figure 16: Currently Proposed Aspect Industrial Estate under SSD-98407710 (Mirvac)

2.3.3 Approved Yiribana East Logistics Estate (SSD-10272349)

The Yiribana East Logistics Estate (GPT) at 772-786 Mamre Road was approved in September 2023 with respect to the Concept plan and Stage 1 DA for an industrial estate. Stage 1 is to comprise two warehouses, site-wide bulk earthworks and retaining walls, an internal road network, storm water works, car parking, signage and landscaping.

The estate has approval for 54,982m² GFA of large-format warehousing space, which based on the adopted MRP trip rates would account for 126 vehicle trips per hour during the AM peak period and 132 vehicle trips per hour during the PM peak period.

The site also includes dedication to allow for the development of the MRP road network, notably with the extension of Berriwerri Drive north of Darrabarra Avenue.

An extract of the concept masterplan for the Yiribana East Logistics Estate is shown below.

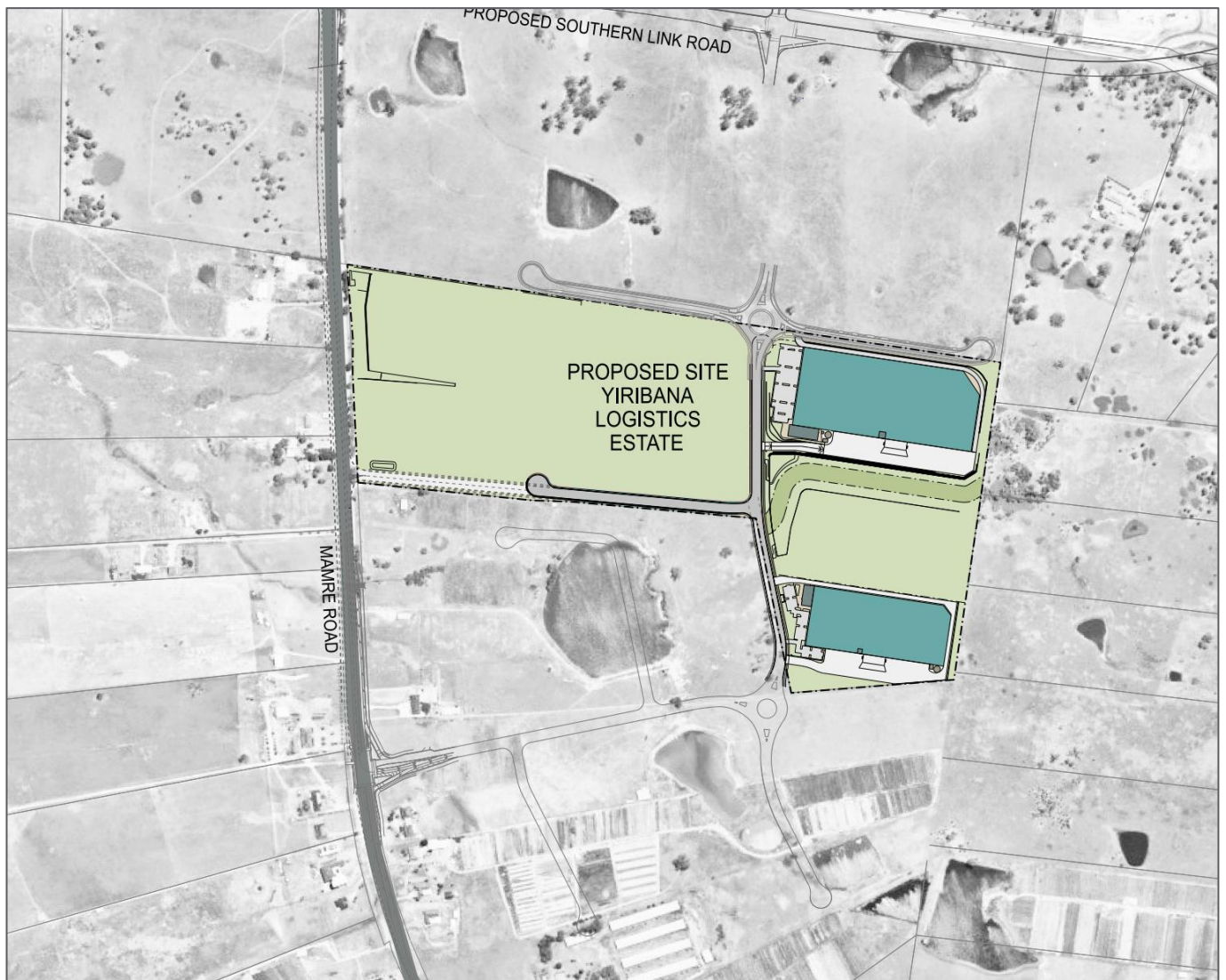


Figure 17: Yiribana East Logistics Estate

3 Existing Conditions

3.1 Location

The project area for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kemps Creek (Lot 40 in DP 708347).
- GPT Group site to the South known as 754 Mamre Road, Kemps Creek (Lot 180 in DP 1290397).

In a regional context, 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.

The landholding which will accommodate the proposed Mamre Road Data Centre Campus is approximately 522,477m² in area and is rectangular in shape as shown in **Figure 18**.



Figure 18: Lot Boundary

3.2 Current Site Land Usage

The Site currently provides for a single rural residential dwelling. The existing properties along the length of Aldington Road and Bakers Lane can be categorised in this manner. It is noted that there is also a retirement village and 3 schools located to the north of Bakers Lane.

Further there are construction works ongoing in the wider area associated with delivery of the MRP.

The development proposal (SSD-30628110) pertaining to the Summit at Kemps Creek Estate envisages the delivery of 9 warehouse buildings with a total gross floor area (GFA) of up to 244,413m². The traffic generation potential of Summit at Kemps Creek includes 562 vehicle trips during the AM peak hour and 587 vehicle trips per hour during the PM peak hour.

3.3 Site Access

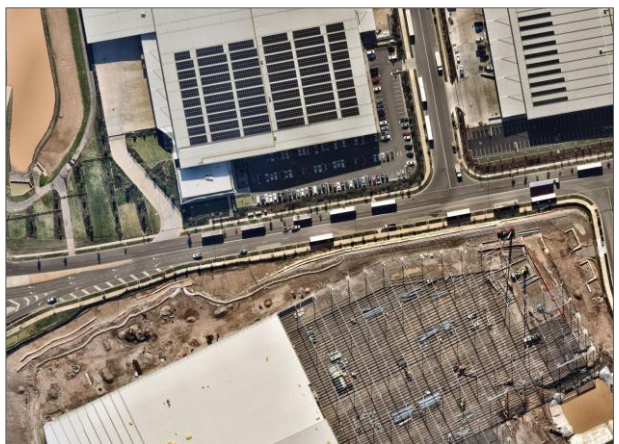
The Site currently has an access point onto Bakers Lane. Bakers Lane connects with Mamre Road to the west of the Site, and Aldington Road to the east.

3.4 Existing Road Network

3.4.1 Key Roads

The existing characteristics of key roads with the vicinity of the site are outlined in **Table 5**.

Table 5: Existing Roads

Road	Description	Typical Road Characteristics
Mamre Road	Mamre Road is a north–south arterial connecting the Great Western Highway to the M4 Motorway and Elizabeth Drive. In the vicinity of the Site (between Bakers Lane and Darrabarra Avenue), Mamre Road currently operates as a two-lane two-way road (one lane in each direction) with a posted speed limit of 80 km/h.	
Bakers Lane	A local access that runs east-west (to the east of Mamre Road) and currently provides access for a number of rural residential, educational and retirement sites. It provides 1 traffic lane in each direction and has a posted speed limit of 60km/h. Along Bakers Lane, private schools are located on the northern frontage, and a school zone applies in this area, reducing the speed limit to 40 km/h during school hours.	
Darrabarra Avenue	Darrabarra Avenue is a local access road running east–west to the east of Mamre Road. It currently provides access to the Aspect Industrial Estate and will function as a collector road for the MRP network with a completed connection to Berriwerri Drive . The road is to operate as a four lane road with No Parking on kerbside travel lanes.	

3.5 Key Intersections

The key intersections in the vicinity of the Site include:

- Mamre Road / Bakers Lane
- Mamre Road / Darrabarra Avenue; and
- Mamre Road / Abbotts Road

The signalised Mamre Road / Bakers Lane intersection was upgraded in mid-2023 and, is shown in **Figure 19**.

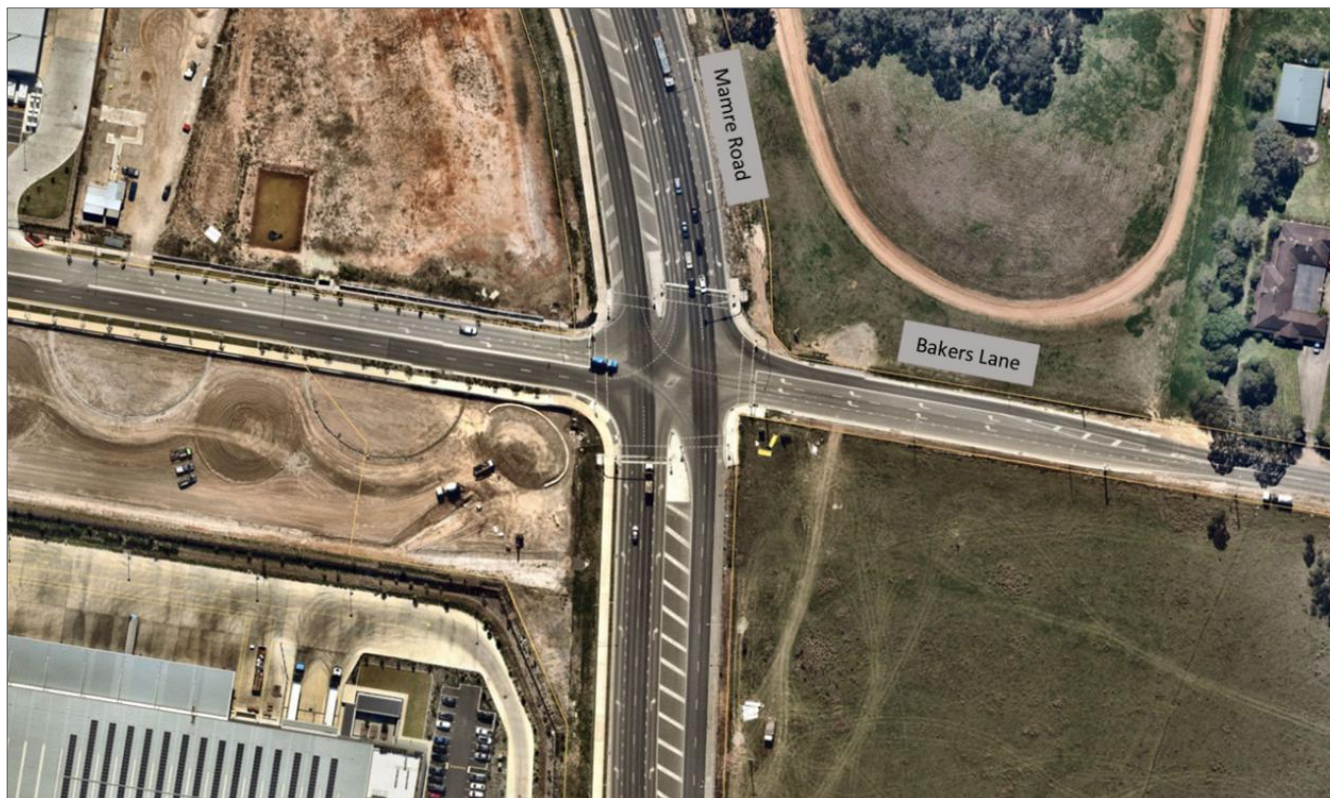


Figure 19: Existing Mamre Road / Bakers Lane Intersection

The signalised Mamre Road / Darrabarra Avenue intersection was constructed in late-2024, is shown in **Figure 20**.



Figure 20: Existing Mamre Road / Darrabarra Avenue Intersection

The existing configuration for the Mamre Road / Abbotts Road intersection is shown in **Figure 21**. As is evident (February 2026), road works are progressing in relation to the signalisation of the existing priority intersection (including the widening of Abbotts Road).



Figure 21: Existing Mamre Road / Abbotts Road Intersection

3.6 Public & Active Transport Opportunities

While it is apparent that the Site will be well serviced by the future road network outlined in the Mamre Road DCP; it is also important that people are provided opportunity to use public transport. In the first instance, this requires improved connectivity to the broader area, noting the current lack of connectivity to the Site.

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

- integrate with existing bus services in the area;
- connect to regional centres of Penrith, Mt Druitt and Blacktown; 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.

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 22**. While the closest station to the Site will 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 was 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.

The internal MRP road network provides 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 22 demonstrates the future, potential bus routes for the internal MRP and public transport options, alongside the existing routes.

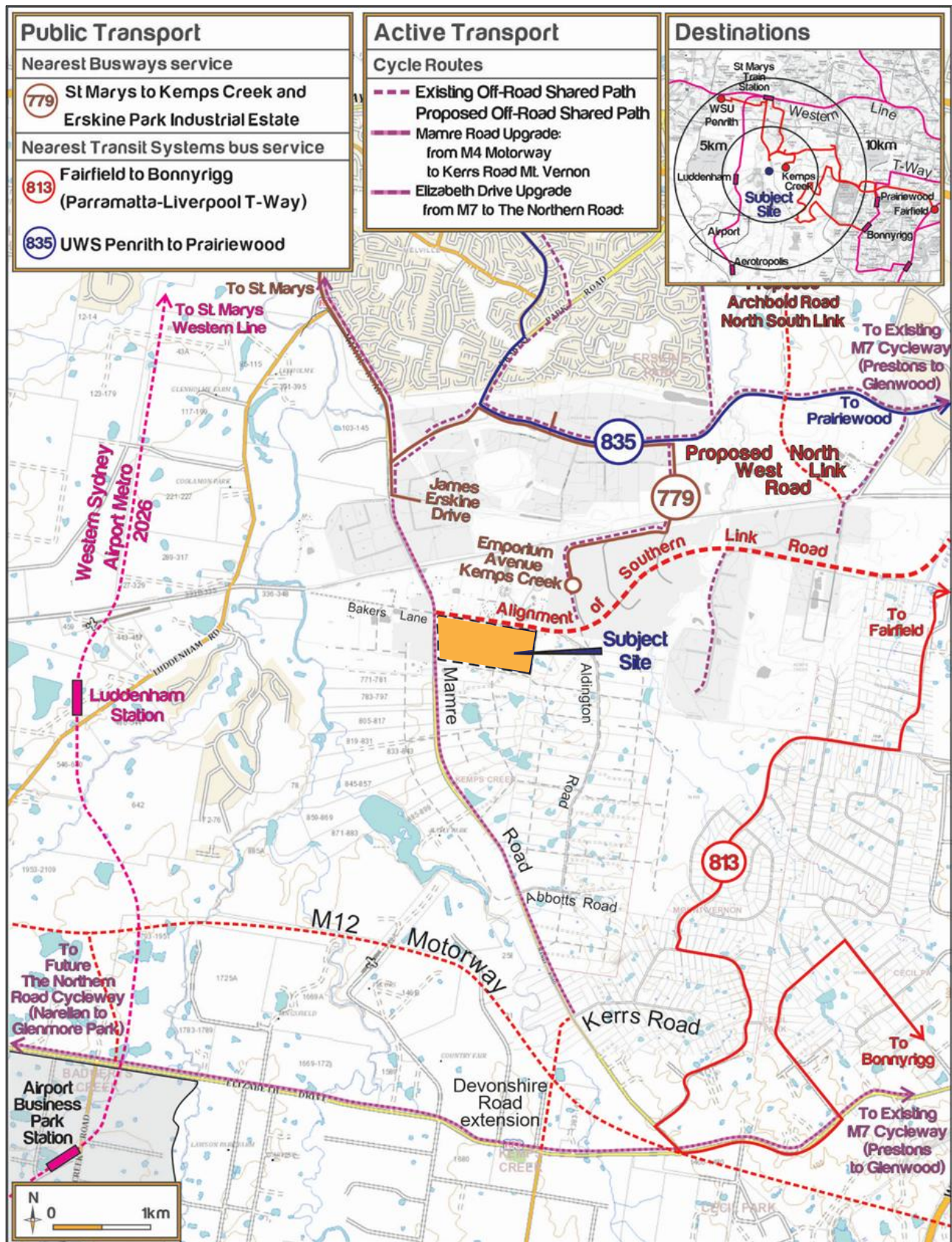


Figure 22: Existing and Future Public Transport Opportunities for MRP

3.6.1 Bicycle Network and Pedestrian Connectivity

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 infrastructure in Mamre Road between Distribution Drive to the north and Elizabeth Drive to the south. Notwithstanding, the Phase 1 works of the Mamre Road Upgrade Project Stage 2 would provide an extension of the active transport network south of Distribution Drive by providing a shared path to Kerrs Road to the south.

Further to the existing bicycle connections, pedestrian infrastructure is currently non-existent, due to the current largely undeveloped nature of the land immediately surrounding the Site. Future 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, the MRP roads are all to include shared cycle and pedestrian pathways, presenting a significant opportunity to provide strong connectivity through the Precinct for both pedestrians and cyclists. Beyond the internal roads, Mamre Road will provide for sub-regional bicycle connections to the north and south of the MRP.

4 Development Proposal

4.1 Overview

The Proposal seeks development consent for the staged construction and operation of a 1.2-Gigawatt (GW) Data Centre Campus comprising:

- Approximately 12 shells across four-storey data centre buildings (3x four shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

The Proposal is reproduced at a reduced scale below.

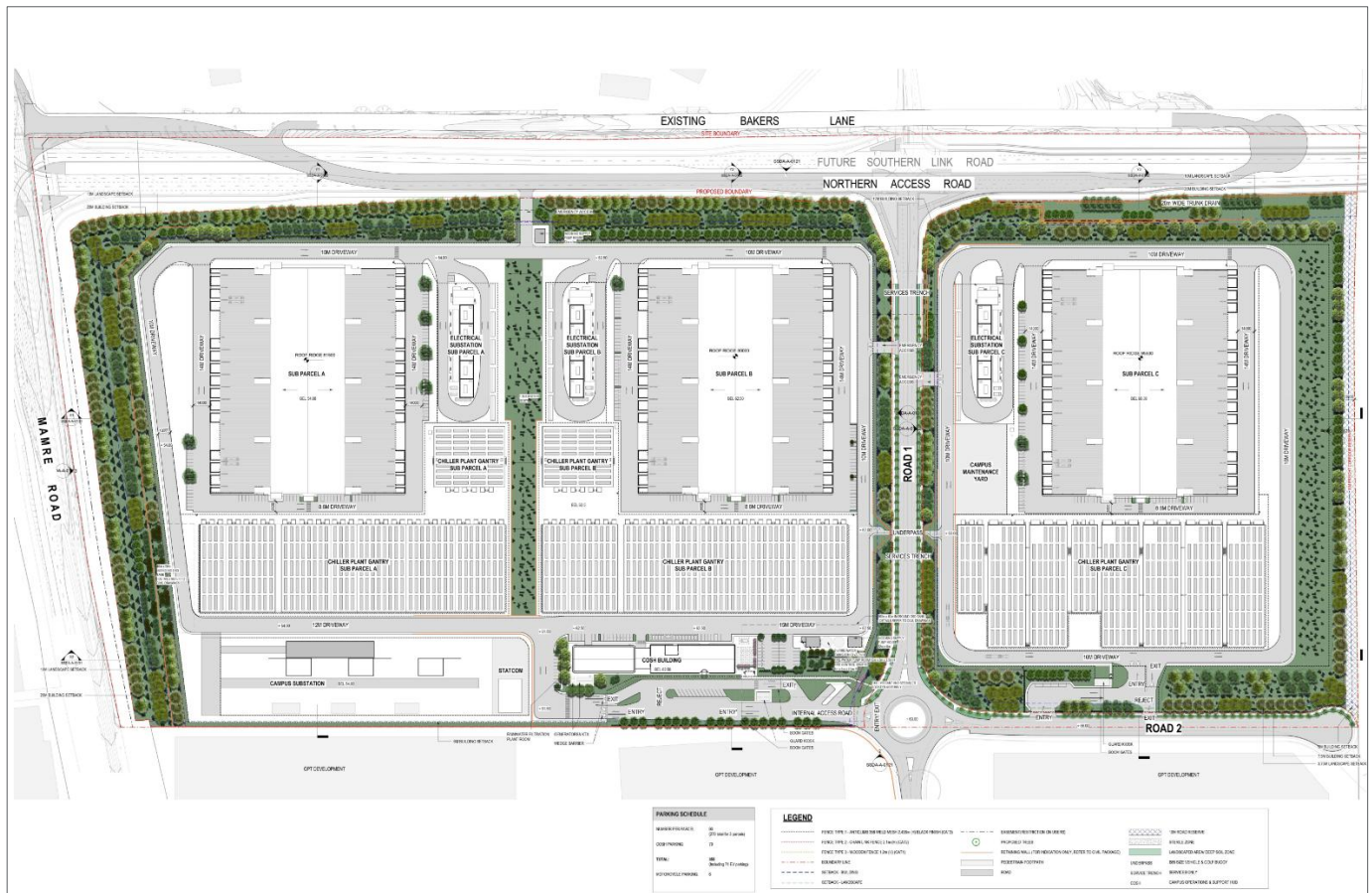


Figure 23: Proposed Campus Plan

4.2 Additional Roadworks within the Amended Application

As mentioned, a key change to the application relates to the inclusion of NAW, which includes partial delivery of the broader TfNSW SLR project.

The NAW will form an interim solution to delivery of the ultimate road network envisaged by the MRP DCP. While the SLR is a key regional road project planned by TfNSW, funding is not currently available for delivery. The timeframes for its completion by TfNSW are therefore unknown.

The Proponent is now proposing to deliver part of the roadworks that would form the future SLR, as well as upgrading the existing (western) section of Bakers Lane which connects to the Mamre Road intersection. The roadworks proposed by the application would form a new (interim) road network to the north of the MRP, herein referred to as the Northern Access Road (NAR), which include:

- The NAR would replace Bakers Lane as a complete dual carriageway (two lanes each direction) between Mamre Road and a new roundabout intersection to the east of the site.
- The existing Bakers Lane along the frontage of the existing Mamre Anglican School and Emmaus Catholic College will be retained as a parallel road, with the new roundabout to the east providing connectivity to the existing Aldington Road / NAR. A left-in connection from the NAR would be provided to the west, allowing local access to Bakers Lane from Mamre Road. The roundabout to the east would allow local traffic to travel back to Mamre Road.
- Modification to the existing Mamre Road/ Bakers Lane (NAR) intersection with:
 - Dual exit lanes from Mamre Road.
 - Accommodated by widening the existing Bakers Lane (NAR) into the site frontage.
- A signalised intersection is to be delivered between the NAR and Road 01 (being the north-south road that traverses through the site).

The proposed NAR is entirely consistent with the Stage 1 roadworks proposed as part of the ‘Summit at Kemps Creek’ Estate (SSD-30628110), which is currently approved on the site. The Stage 1 roadworks approved for Summit at Kemps Creek are shown below.

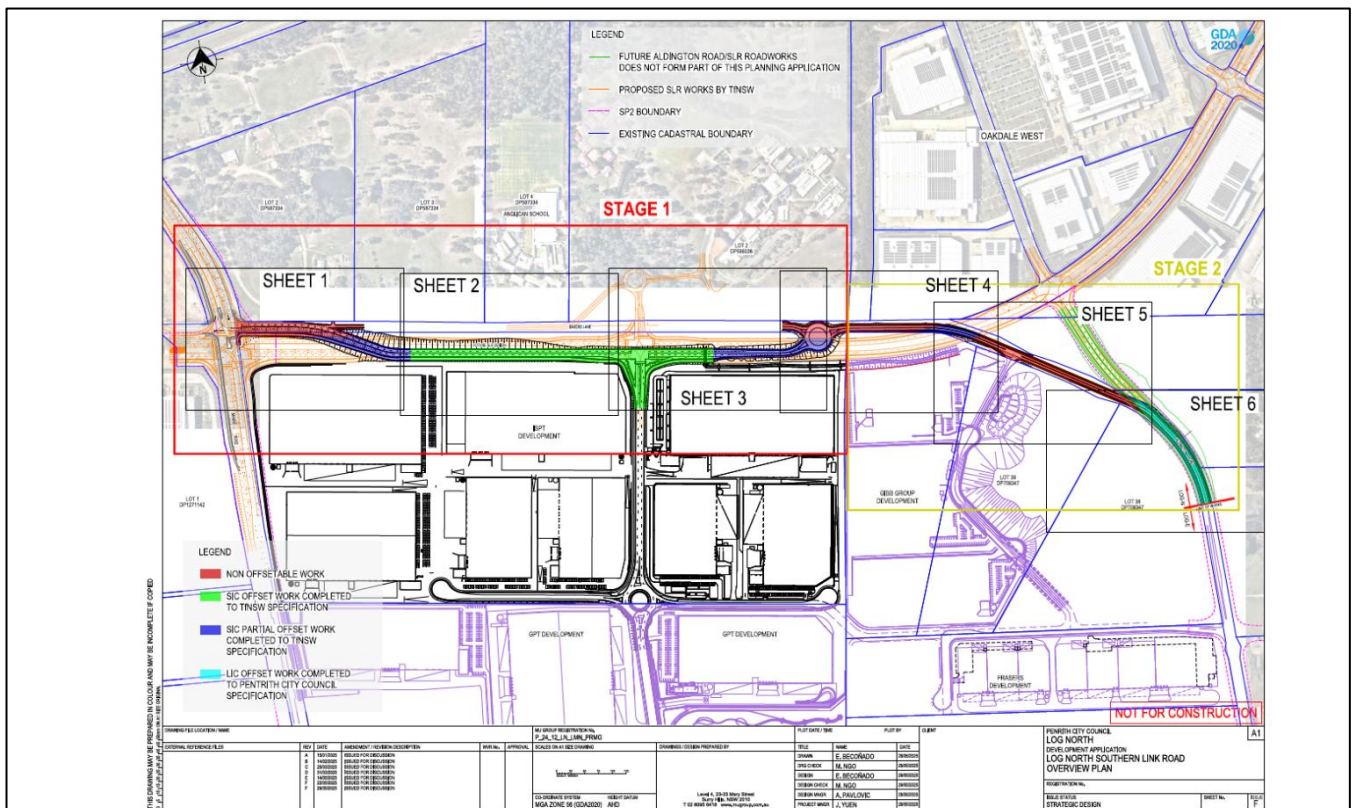


Figure 24: Summit at Kemps Creek Approved Roadworks

4.3 Proposed Access and Road Network

In developing the proposed access strategy for the Proposal, the most recent context of wider MRP has been considered, alongside the nature of data centres, which typically generate lower volume of traffic than warehouses, including a much smaller proportion of heavy vehicle traffic. The Yiribana East Logistics Estate directly to the south of the Site is currently under construction. This includes delivery of the north-south Industrial Collector Road as per the MRP DCP, which connects to Darrabarra Avenue.

The access strategy therefore includes a two-phased approach which will involve:

- Phase 1: access from the Yiribana East Logistics Estate, via Berriwerri Road (to the south)
- Phase 2: access from the north following delivery of the NAR by the Proponent.
- Phase 3: this phase will see completion of the north-south collector road (Road 01) through the Site (being the extension of Berriwerri Road) providing a connection between the NAR and Berriwerri Road. Road 01 serves limited purpose for access to the Site, and it is therefore not necessary to deliver the road at the opening the first sub parcel.

As shown in **Figure 25**, the proposed development would involve delivery and dedication (at timeframes to be agreed between the Proponent and the relevant roads authority) of the following planned MRP roads and intersections:

- Intersections:
 - Mamre Road / Bakers Lane (NAR): modifications to widen the Bakers Lane exit to dual lanes.
 - NAR / Baker Lane west: Left-in from the NAR to existing Bakers Lane.
 - NAR / Road 01: signalised intersection.
 - NAR / Bakers Lane east / Aldington Road: roundabout intersection.
 - Berriwerri Road / Local Road: dual-lane roundabout intersection with integrated site access for proposed site access at western leg.
- Roads:
 - NAR: dual carriageway (two lanes each direction) between Mamre Road and the eastern roundabout intersection.
 - Berriwerri Drive: extension of collector road north of Yiribana Logistics Estate through to the NAWR.
 - Local Road: construction of new-east west local road between Berriwerri Drive to the east and terminating prior to planned MRP freight corridor.

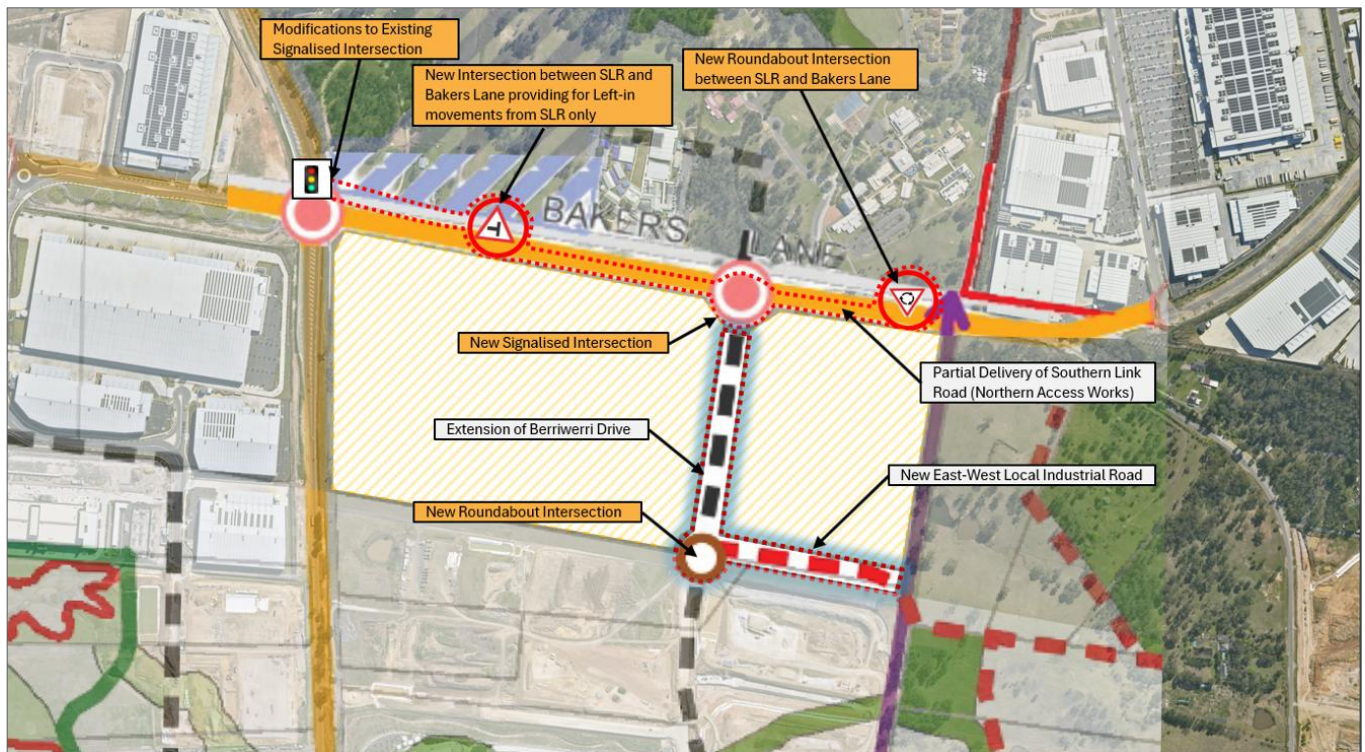


Figure 25: Proposed MRP Network Improvements

With respect to the proposed access arrangements for the proposed development, consideration has been given to the splitting of the development site (by Berriwerri Drive) into a western campus and eastern campus. The respective accesses proposed are identified in **Figure 26** and are as follows:

1. Two-way access for Western Campus forming direct western leg to Berriwerri Drive / Local Road roundabout.
2. Entry access for Eastern Campus from east-west local industrial road.
3. Exit access for Eastern Campus from east-west local industrial road.
4. Emergency access driveways for western and eastern campuses from Berriwerri Drive.
5. Emergency access driveway for western campuses from the NAR.

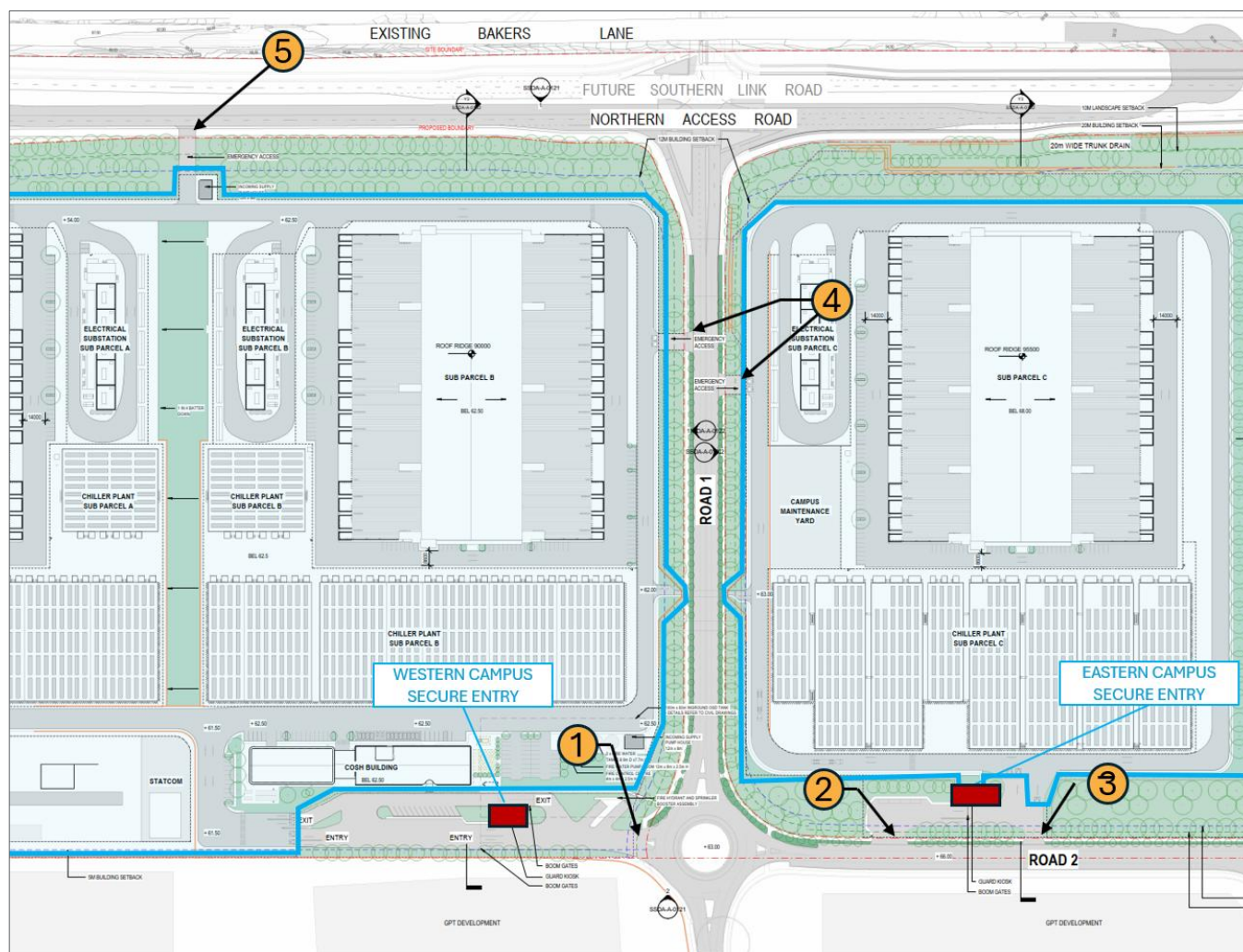


Figure 26: Proposed Access Arrangements

4.4 Staging

The anticipated staging for the Mamre Road Data Centre Campus responds to the development of the MRP road network as outlined in **Table 6**.

Table 6: Development and Works Staging

Stage	Development (Mamre Road Data Centre Campus)	Works (Responsible Party)
Stage 0	-	Berriwerri Drive extension to site boundary GPT Group (Yiribana Logistics Estate)
Stage 1A	Sub-Parcel A and associated works Operations Building Guard House	Construction of Berriwerri Drive roundabout Proponent
Stage 1B	Sub Parcel B and associated works	NAR Proponent
Stage 2	Sub Parcel C and associated works Guard House	Construction of Road 1 (N-S) and Road 2 (E-W) Proponent
Stage 3 ^{Note 1}	-	Construction of Ultimate Southern Link Road Delivered by Others

Note 1: Stage 3 works not committed to as part of this SSDA.

4.5 Operational Characteristics

With respect to the Proposal, Ason Group has been provided the operational characteristics by the future operator (as outlined below) for the purpose of assessing parking demands and traffic impacts under this TMAP.

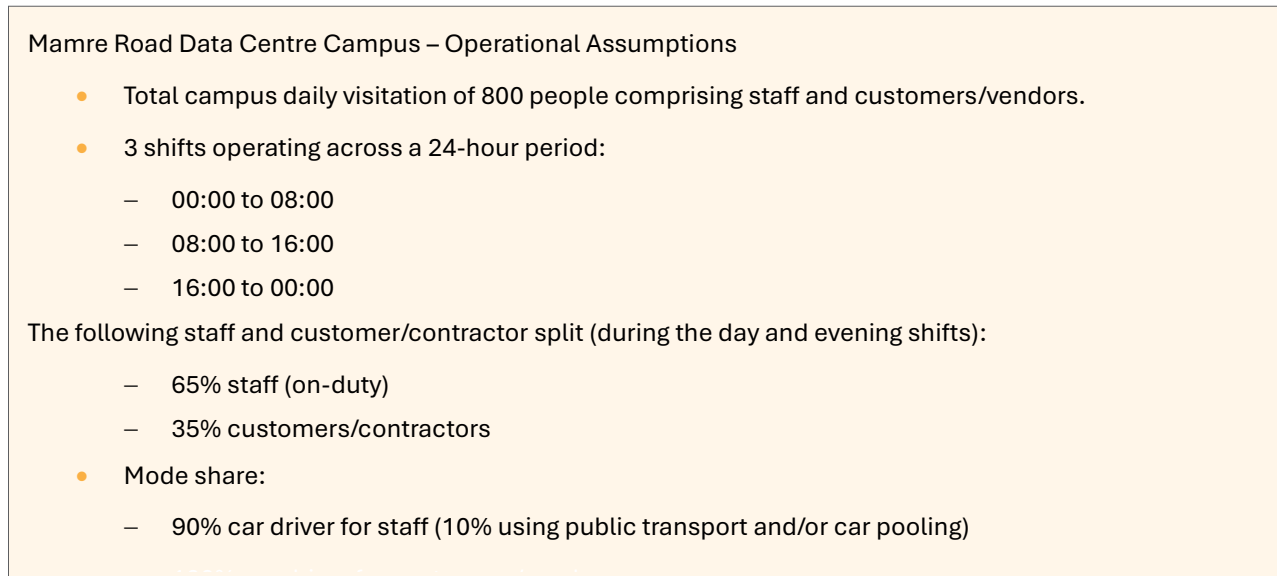


Figure 27: Operational Characteristics

A 24-hour arrival and departure profile based on the shift patterns has been established in **Table 7**. The profile has been established based on expected arrivals and departures drawn from 24-hour surveys of existing data centres, as well as large format warehouse developments which operate with similar shift patterns.

Table 7: Arrival and Departure Profile (Standard Operations)

TIME			STAFF		CUSTOMERS / VENDORS		TRUCKS	
			IN	OUT	IN	OUT	IN	OUT
0:00	-	0:30	18%	36%			0%	0%
0:30	-	1:00	5%	18%			0%	0%
1:00	-	1:30	5%	5%			0%	0%
1:30	-	2:00	2%	5%			0%	0%
2:00	-	2:30	2%	2%			0%	0%
2:30	-	3:00	2%	2%			0%	0%
3:00	-	3:30	2%	2%			0%	0%
3:30	-	4:00	1%	2%			0%	0%
4:00	-	4:30	1%	1%			0%	0%
4:30	-	5:00	1%	1%			0%	0%
5:00	-	5:30					0%	0%
5:30	-	6:00	1%	1%			0%	0%
6:00	-	6:30	1%	1%	2%		2%	2%
6:30	-	7:00	5%	1%	2%		2%	2%
7:00	-	7:30	18%	5%	2%		2%	2%
7:30	-	8:00	36%	18%	2%		2%	2%
8:00	-	8:30	18%	36%	4%	2%	5%	5%
8:30	-	9:00	5%	18%	4%	2%	5%	5%
9:00	-	9:30	5%	5%	8%	2%	5%	5%
9:30	-	10:00	2%	5%	8%	2%	5%	5%
10:00	-	10:30	2%	2%	8%	4%	5%	5%
10:30	-	11:00	2%	2%	8%	4%	5%	5%
11:00	-	11:30	2%	2%	4%	8%	5%	5%
11:30	-	12:00	1%	2%	2%	8%	5%	5%
12:00	-	12:30	1%	1%	2%	4%	5%	5%
12:30	-	13:00	1%	1%	2%	2%	5%	5%
13:00	-	13:30			2%	2%	5%	5%
13:30	-	14:00	1%	1%	4%	2%	5%	5%
14:00	-	14:30	1%	1%	8%	2%	5%	5%
14:30	-	15:00	5%	1%	8%	2%	5%	5%
15:00	-	15:30	18%	5%	4%	2%	5%	5%
15:30	-	16:00	36%	18%	4%	4%	5%	5%
16:00	-	16:30	18%	36%	2%	4%	2%	2%
16:30	-	17:00	5%	18%	2%	8%	2%	2%
17:00	-	17:30	5%	5%	2%	8%	2%	2%
17:30	-	18:00	2%	5%	2%	8%	2%	2%
18:00	-	18:30	2%	2%		8%	0%	0%
18:30	-	19:00	2%	2%		4%	0%	0%
19:00	-	19:30	2%	2%		2%	0%	0%
19:30	-	20:00	1%	2%		2%	0%	0%
20:00	-	20:30	1%	1%			0%	0%
20:30	-	21:00	1%	1%			0%	0%
21:00	-	21:30					0%	0%
21:30	-	22:00	1%	1%			0%	0%
22:00	-	22:30	1%	1%			0%	0%
22:30	-	23:00	5%	1%			0%	0%
23:00	-	23:30	18%	5%			0%	0%
23:30	-	0:00	36%	18%			0%	0%

5 Traffic Assessment

5.1 Trip Generation

5.1.1 Methodology

The trip generation assessment has considered the following:

- **Standard operations** – this reflects the anticipated operation on the average day. Two scenarios have been considered:
 - Anticipated trip generation – this reflects the anticipated trip generation for the site, based on a series of assumptions around shift patterns, travel behaviour and anticipated arrival and departure patterns.
 - Sensitivity analysis – following feedback from TfNSW, sensitivity analysis has been undertaken which reflects a more defined arrival and departure pattern. This assumes that almost all staff would arrive in the 1 hour before the start of a shift and all staff would depart in the hour after the shift.
- **Special Events** – this reflects non-standard days where there could be a significant overlap of normal staff as well as non-regular staff on-site to undertake specific maintenance requirements (i.e. not associated with the day-to-day operations). The peak demand on-site during this period could reach 550 staff. These occasions would not impact the operation of the road network during the peak hours as the non-regular staff would travel outside of the peak hours.

5.1.2 Standard Operations

The TfNSW Guide to Transport Impact Assessment (GTIA) does not stipulate any trip rates for data centre land uses. Trip generation has therefore been established on the basis of a two-fold approach:

- A benchmarking exercise of survey data of other data centres across NSW. It is noted that the Proposal presents a unique development with a number of sub parcels. The data from the surveyed sites have therefore been utilised to validate the trip generation found by the first principles analysis undertaken;
- First principles analysis based on shift patterns and staff/ customers/ contractors numbers.

5.1.2.1 BENCHMARKING ASSESSMENT

The TfNSW Guide to Transport Impact Assessment (GTIA) does not stipulate any trip rates for data centre land uses. As such, a benchmark exercise was undertaken in accordance with the GTIA to assess the trip generating potential of six established data centres within Greater Sydney.

Based on 24-hour surveys undertaken in May 2024, the relevant site, network (the trip rate coinciding with the AM and PM peak hours for the surrounding road network) and daily trip rates for each data centre is summarised in **Table 8**, along with derived benchmarked averages.

Table 8: Benchmarked Sites (AM/PM)

Data Centre	GFA (m ²)	Network Peak (trips per 100m ²)	Site Peak (trips per 100m ²)	Daily Peak (trips per 100m ²)
17 Roberts Rd, Eastern Creek	44,330	0.07 / 0.08	0.07 / 0.08	0.69
35 Huntingwood Dr, Huntingwood	28,530	0.16 / 0.12	0.16 / 0.12	0.98
47 Bourke Rd, Alexandria	18,063	0.05 / 0.03	0.12 / 0.13	0.91
4 Eden Park Drive, Macquarie Park	10,391	0.01 / 0.02	0.07 / 0.05	0.65
8 Giffnock Ave, Macquarie Park	15,726	0.03 / 0.03	0.06 / 0.05	0.40
2 Broadcast Way, Artarmon	33,799	0.08 / 0.05	0.09 / 0.06	0.59
Benchmark Average		0.07 / 0.06	0.10 / 0.08	0.70

Based on the above data, the benchmarked average site peak for the six data centres was:

- AM Peak: 0.07 vehicle trips per hour / 100m² GFA
- PM Peak: 0.06 vehicle trips per hour / 100m² GFA
- Daily: 0.70 vehicle trips per day / 100m² GFA

The benchmarked site trip rates for data centres are appreciably lower than guideline rates for other industry uses, including large-format warehousing (0.14/0.14 under the GTIA), as well as trip rates used to inform infrastructure planning in the MRP (0.23/0.24 as advised by TfNSW for the underlying modelling study undertaken by Ason Group for the MRP).

Notwithstanding, shift patterns were observed to vary across the survey data centres, including the number of shifts (two versus three changeovers) and timing across the 24-hour period.

In this regard, a first principles assessment was also undertaken for the proposed development as outlined below.

5.1.2.2 FIRST PRINCIPLES ASSESSMENT – ANTICIPATED TRIP GENERATION

With reference to the assumed operational characteristics in **Figure 27**, the 24-hour profile of typical arrivals and departures in **Table 7** was based on the following inputs:

- Total visitation of 800 people per day.
- 3 shifts operating across a 24-hour period:
 - 00:00 to 08:00
 - 08:00 to 16:00
 - 16:00 to 00:00
- The following staff and customer/contractor split (during the day and evening shifts):
 - 65% staff (on-duty)
 - 35% customers/contractors
- 90% car driver mode share for staff and 100% car driver mode share for customers/contractors.

On this basis, a 24-hour profile of vehicle trips was established by scaling the arrival/departure profile to the daily trip generation rate set under the benchmarking study. That is, the total daily trip generation of the proposed development would be consistent with the benchmark daily trip rate surveyed across the six data centres in Greater Sydney, with the AM and PM site and network peak trips being uniquely associated with the Mamre Road Data Centre Campus.

The profile shown in **Figure 28** including a breakdown of vehicle trips by staff and customers (and arrivals/departures).

The analysis demonstrates that there could be a demand for a *total of 115 vehicles on-site* during the peak 30 minutes, which occurs between 15:30 to 16:00 (increasing temporarily to 222 vehicles during the changeover at 16:00).

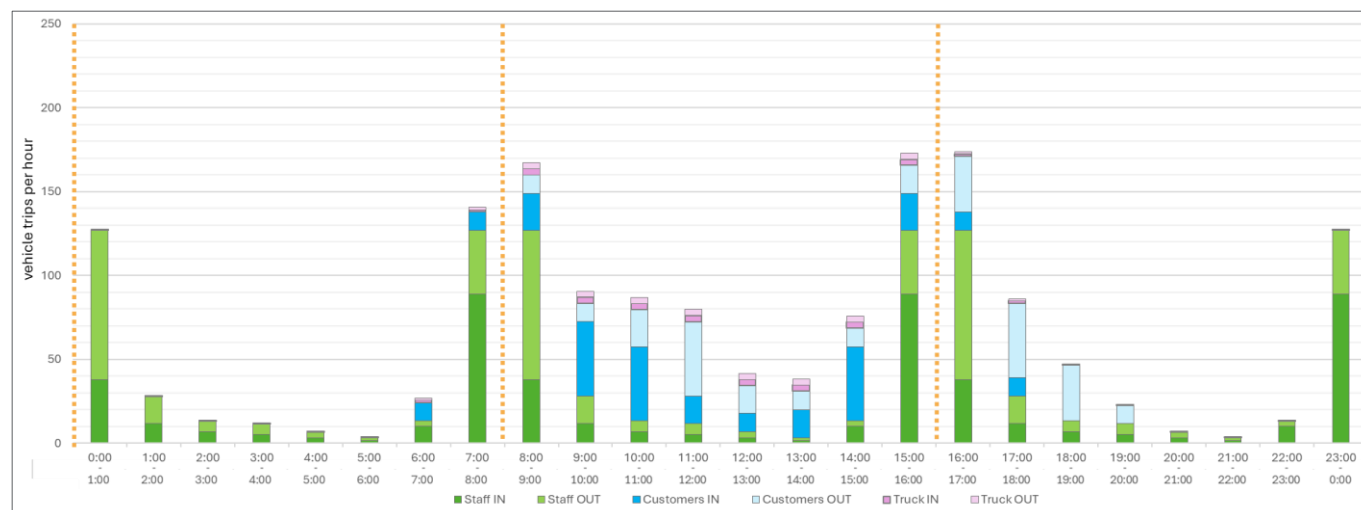


Figure 28: Vehicle Trip Profile – Anticipated Trip Generation

The resulting AM and PM trip generation and derivative trip rates for network and site peaks for the proposed development is summarised in **Table 9**.

Table 9: Proposed Trip Generation Summary

Attribute	Network Peak		Site Peak		Daily Peak
	AM Peak	PM peak	AM Peak	PM Peak	
Time	7:00am – 8:00am	4:00pm – 5:00pm	8:00am – 9:00am	4:00pm – 5:00pm	24h
Trips	141 veh/hr	174 veh/hr	167 veh/hr	174 veh/hr	1,592 veh/hr
Trip Rate	0.13	0.16	0.15	0.16	1.47

The network peak hour vehicle trip rates have been adopted for the modelling assessment detailed in the following sections.

For comparison, the traffic volumes under each rate have been contrasted with the historical MRP trip rates (0.23/0.24) used to assess the Summit at Kemps Creek Estate in **Figure 29**, in the Summit at Kemps Creek TMAP, affirming that the trip generating potential for the Proposal is well below that assessed for the Summit at Kemps Creek Estate.

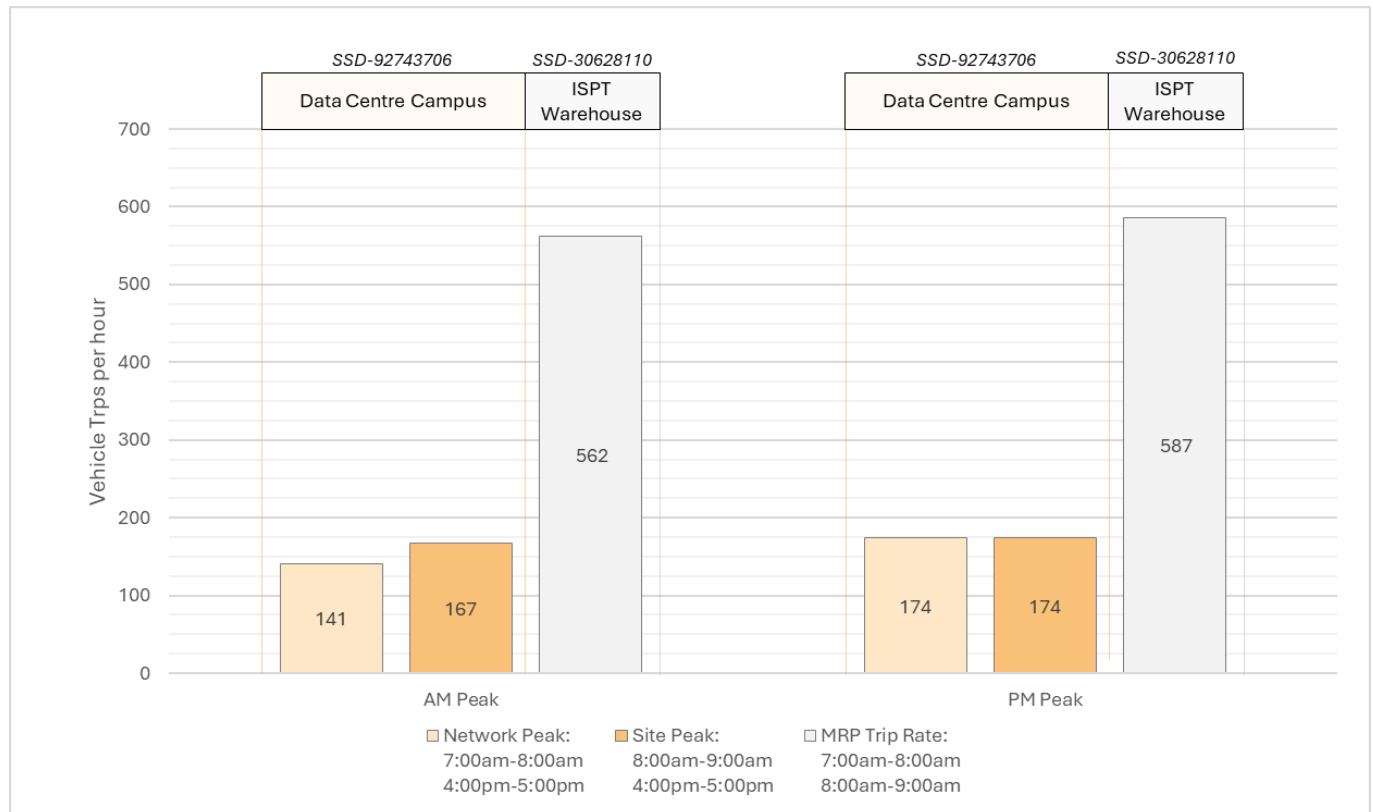


Figure 29: Trip Rate Comparison

5.1.2.3 FIRST PRINCIPLES ASSESSMENT – SENSITIVITY ANALYSIS

Sensitivity analysis has also been undertaken which assumes a more defined peak for commencement of shift patterns that shown by Table 7 to provide a more conservative assessment. This assumes that:

- 100% of staff would arrive in the immediate hour before commencement of a shift
- 100% of staff would depart in the immediate hour after completion of a shift
- Arrivals and departures assumed for customers / contactors remains the same as Table 7.

The resulting profile is shown in **Figure 30**.

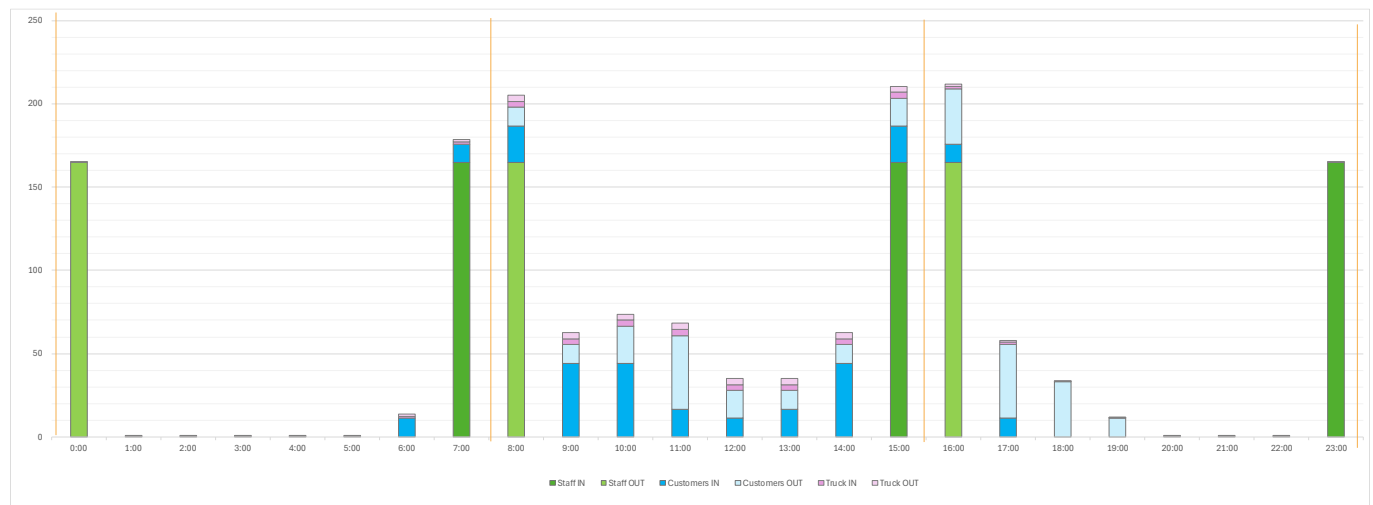


Figure 30: Vehicle Trip Profile - Sensitivity Analysis

A comparison against the anticipated trip generation shown in Figure 28 demonstrates that sensitivity analysis assessment method does not significantly change the overall trip generation assumed for the Proposal, it rather modifies the distribution of trips.

An updated comparison against the volumes assessed for Summit at Kemps Creek Estate is provided in **Figure 29**. As shown, despite more conservative assumptions around arrival and departures, the trip generating potential remains well below that assessed for the Summit at Kemps Creek industrial estate.

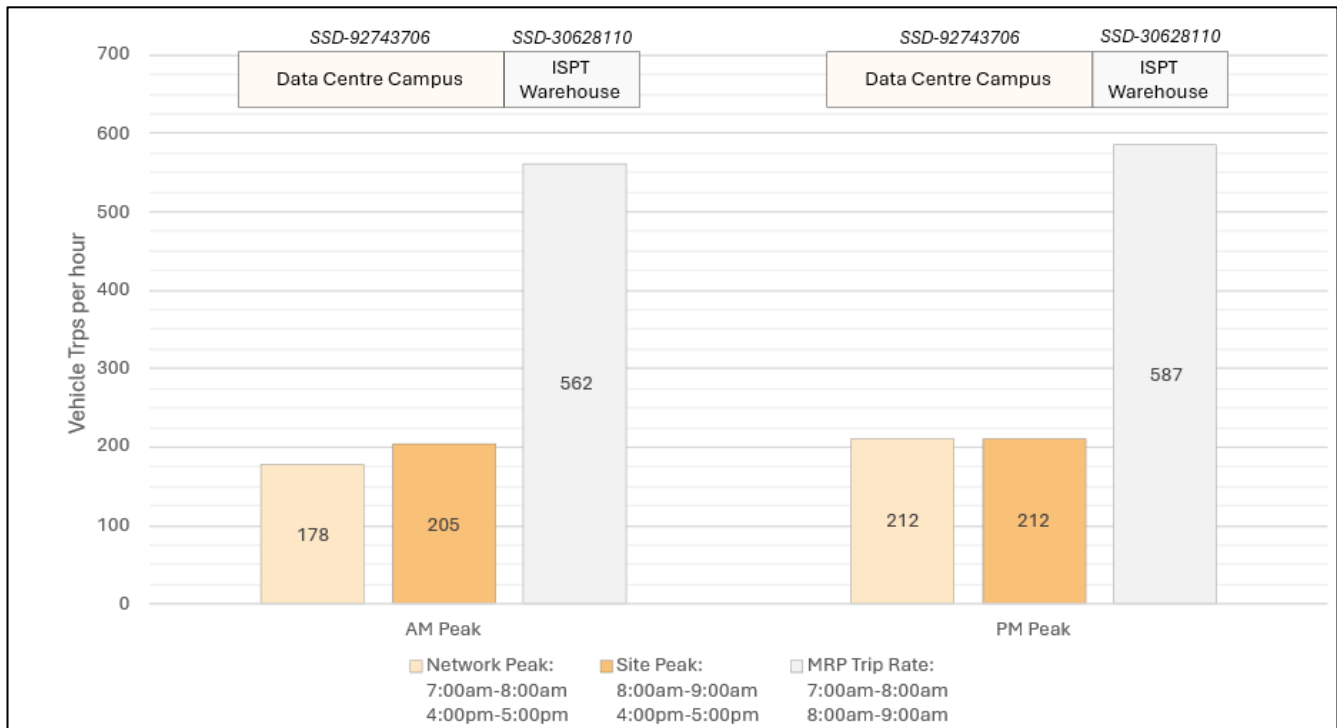


Figure 31: Trip Rate Comparison

5.1.3 Special Events

There may be occasions where peak staffing / contractor demands on-site reach a cumulative peak of 550 people as result of specific occasions where peak maintenance demands coincide. However, it is noted that these occasions would be rare (once to twice a year). Furthermore, arrival and departures of the contracting staff would be timed to be outside of road network peak hours and would not therefore impact the road network peak hours.

5.2 Background Traffic Growth Rates

A background growth rate of 2% has been adopted with respect to modelling future years and has been applied to all existing traffic volumes originating from the 2022 volumes (before the addition of construction associated with MRP developments).

5.3 Cumulative Development

The background growth rate is assumed to account for regional growth only and in this regard, a summary of MRP developments expected to be online have been summarised in **Table 9**, with respect to the identified sites in **Figure 32**.

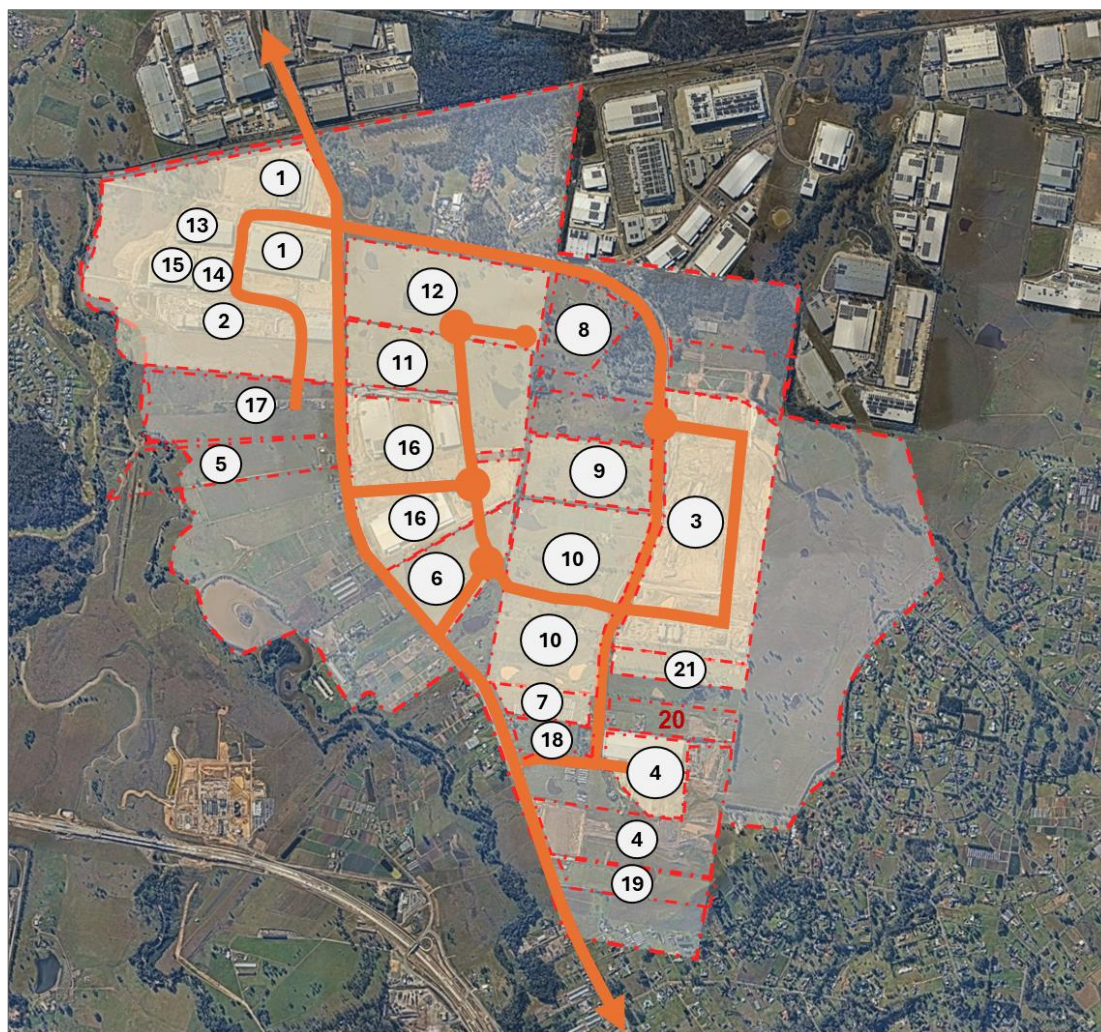


Figure 32: MRP Development Locations

This list comprises of developments that have been approved by authorities, or are known proposals expected to be lodged – being all large-format warehouses, the GTIA trip rate of 0.14 vehicle trips per 100m² GFA was applied for all developments (with the collective MRP well exceeding the 100,000m² estate threshold).

Table 10: MRP Development Summary

No	Site	Approved GFA	Proposed GFA	Total GFA
1	SSD-9522: Kemps Creek Warehouse, Logistics, and Industrial Facilities Hub	173,931m ²		173,931m ²
2	SSD-10101987: Kemps Creek Data Centre	60,943m ²		60,943m ²
3	SSD-10479: 200 Aldington Road Concept Proposal - MOD 1	50,300m ²		134,109m ²
3	Detailed SSDAs: SSD61212208 / SSD64589711 / SSD64583708	15,516m ²	68,293m ²	
4	Westlink Industrial Estate - SSD-9138102: Stage 1	81,371m ²		118,861m ²
	Westlink Industrial Estate - SSD-46983729: Stage 2	37,490m ²		
5	SSD-30871587: 805-817 Mamre Road, Kemps Creek	25,370m ²		25,370m ²
6	SSD-17647189: Access Logistics Estate (884-928 Mamre Road, Kemps Creek)	39,161m ²		39,161m ²
7	SSD-23480429: Westgate 253-267 Aldington Road	34,245m ²		34,245m ²
8	SSD-74784709: 1-51 Aldington Road Industrial Estate		49,895m ²	49,895m ²
9	SSD-32722834: Dexus Kemps Creek – 113-153 Aldington Road	68,914m ²		68,914m ²
10	SSD-17552047: The Edge Estate (155-217 Aldington Road Estate)	153,343m ²		153,343m ²
11	SSD-10272349: Yiribana East Logistics Estate	54,982m ²		54,982m ²
12	SSD-92743706 – Mamre Road Data Centre Campus		108,627m ²	108,627m ²
13	SSD-25725029: ARDEX Warehouse and Manufacturing Facility	27,470m ²		27,470m ²
14	DA22/1172: Probiotic Warehouse Facility	29,768m ²		29,768m ²
15	DA22/0671: Cargoline Warehouse	30,581m ²		30,581m ²
16	Aspect WH1 - SSD-10448	33,886m ²		209,948m ²
	Aspect WH2 - SSD-60513208	24,295m ²		
	Aspect WH3 - SSD-46516461	21,535m ²		
	Aspect WH6 & WH7 - DA24/0264	22,532m ²		
	Aspect WH8 - SSD-58257960	41,350m ²		
	Aspect WH9 - SSD-46516461	66,350m ²		
16	Aspect WH4		30,095m ²	30,095m ²
17	Yiribana West Logistics Estate DA23/0067	24,953m ²		24,953m ²
18	1 Abbots Rd		41,465m ²	41,465m ²
19	1080 Mamre Road DA23/0495		40,256m ²	40,256m ²
21	Place of Worship	3,821m ²		3,821m ²
Total		1,122,107m²	338,631m²	1,460,738m²

5.4 SIDRA Intersection Analysis

5.4.1 Scenarios

Traffic surveys were sourced from 2022 surveys on the basis of recent 2024 surveys demonstrating comparable traffic volumes and to remove complexities associated with accounting for subsequent/ongoing construction activity within the MRP.

These surveys were used to establish baseline traffic conditions at the following key intersections within the surrounding road network, with cumulative MRP development volumes and Mamre Road Stage 2 Upgrades (Phase 1) considered for the following study network:

- Mamre Road / Bakers Lane (Signalised)
- Mamre Road / Darrabarra Avenue (Signalised)
- Mamre Road / Abbotts Road (Signalised)
- Darrabarra Avenue / Berriwerri Drive
- Berriwerri Drive / Access Road

For consistency with MRP assessments, the following network peaks were also adopted:

- The morning peak hour period was between 7:00AM – 8:00AM.
- The evening peak hour period was between 4:00PM – 5:00PM.

SIDRA intersection modelling was undertaken to establish the baseline performance of the key intersections. In this regard, SIDRA modelling outputs a range of performance measures relevant to this assessment, including:

- *Degree of Saturation (DOS)* – The DOS is used to measure the performance of intersections where a value of 1.0 represents an intersection at theoretical capacity. As the performance of an intersection approaches DOS of 1.0, queue lengths and delays increase rapidly.
- *Average Vehicle Delay (AVD)* – The AVD (or average delay per vehicle in seconds) for intersections also provides a measure of the operational performance and is used to determine an intersection's Level of Service (see below).
- *Level of Service (LOS)* – This is a comparative measure that provides an indication of the operating performance, based on AVD.

As per the GTIA, assessments should take into account site-specific factors including maximum queue lengths, the influence of nearby intersections and the sensitivity of the locations to delays. The table below provides the LoS as outlined in the TfNSW GTIA.

Table 11: Level of Service Criteria

Level of Service	Average Delay per Vehicle (sec/veh)
A	Less than 14
B	15 to 28
C	29 to 42
D	43 to 56
E	57 to 70
F	More than 70

Traffic modelling using SIDRA software was undertaken using base data used for the modelling to inform the development of the MRP road network (dating from 2022), along with future horizon years of 2031 (assumed year for full

completion of development) and 2036 (Ultimate MRP Road Network). Modelling was conducted for both the AM and PM weekday peak periods, which were determined based on the analysis of observed traffic survey data.

Table 12: Assessment Years and Scenarios

#	Scenario	Year	Planned Infrastructure	Background Traffic	Development Traffic
1	Project Opening Year Base Case	2031	Mamre Road Upgrade Stage 2 – Phase 1	2% linear growth p.a.	-
2	Project Opening Year Project Case				Subject Development
3	Future Base Case	2036	Mamre Road Upgrade Stage 2 plus NAW	+ MRP Cumulative Development	-
4	Future Project Case				Subject Development

A comparison of volumes was also undertaken between that published for the Mamre Road Upgrade Stage 1 REF and the above background growth factors. A summary of midblock volumes on Mamre Road is shown in **Table 13** which relate to common scenarios of adopting the Phase 1 upgrades (however with the REF assuming the completion of the SLR in 2041).

Table 13: Mamre Road – Midblock Volumes Comparison (REF vs SSD)

Location (North of Intersection)	AM Peak Hour						PM Peak Hour					
	REF		REF (+ SLR)		SSD		REF		REF (+ SLR)		SSD	
	2029		2041		2036		2029		2041		2036	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Bakers Ln (SLR)	1642	2126	1484	2644	1403	2073	2096	1075	2189	1508	1899	1590
Darrabarra Ave	1455	1258	1593	1686	1432	1602	1610	1147	1864	1974	1498	1659
Abbotts Rd	1482	1144	1794	1696	1365	1120	1413	1229	1731	2051	1044	1605

It is evident that the background traffic growth assumptions for the SSD are generally comparable to that assumed in the REF, with some redistribution of traffic associated with the delivery of the SLR in 2041 (as assumed in the REF). While the delivery of the SLR would extend beyond the 2036 study window (to be delivered by others), the similarity of most midblock volumes indicates that the method of assuming 2% linear growth plus cumulative MRP development would align with the nominated (overall) growth rates of 5%-6% under the REF.

5.4.2 Opening Year - 2031

Base Case and Project Case results for the opening year in 2031 are summarised below. The 2031 scenario assessed excludes delivery of the NAW as a conservative assessment.

Table 14: Base Case 2031 Intersection Performance

Intersection	Configuration	Scenario	Period	DOS	AVD	95% Queue	LOS
Mamre Road / Bakers Lane	Signals	Base Case	AM	0.812	18.1	205	B
			PM	0.682	19.8	150	B
		Project Case	AM	0.836	18.9	238	B
			PM	0.781	19.3	202	B
Mamre Road / Darrabarra Avenue	Signals	Base Case	AM	0.616	20.6	181	B
			PM	0.704	22.8	227	B
		Project Case	AM	0.656	22.9	191	B
			PM	0.820	31.9	289	C
Mamre Road / Abbotts Road	Signals	Base Case	AM	0.532	17.0	108	B
			PM	0.504	12.3	85	A
		Project Case	AM	0.536	16.6	107	B
			PM	0.599	16.9	130	B
Darrabarra Avenue / Berriwerri Drive	Roundabout	Base Case	AM	0.021	10.9	1	A
			PM	0.035	9.9	1	A
		Project Case	AM	0.048	10.6	2	A
			PM	0.113	9.9	4	A
Berriwerri Road / Access Road	Roundabout	Base Case	AM	-	-	-	-
			PM	-	-	-	-
		Project Case	AM	0.022	11.9	1	A
			PM	0.012	11.9	1	A

The 2031 year of opening indicate that intersections will generally continue operating at acceptable levels (LOS A–C), with minimal delays caused by the addition of development volumes. A review of the detailed SIDRA output also indicates that no approaches for the study intersections have an LoS of F that would indicate capacity on that leg has been exceeded.

Accordingly, the proposed development is anticipated to have very minor traffic impacts and would not warrant any additional network upgrades in 2031.

5.4.3 Future Year 2036

Base Case and Project Case results for the future 2036 year are summarised below. The 2036 assessment assumes delivery of the NAW.

The 2036 future year results indicate that intersections will continue operating at acceptable levels with the LoS continuing to operate at a minimum Level of Service of C. A review of the detailed SIDRA output also indicates that no approaches for the study intersections have an LoS of F that would indicate capacity on that leg has been exceeded.

In summary, the Proposal is found to have minor traffic impacts that can be readily accommodated within the proposed road network.

Table 15: Project Case 2036 Intersection Performance

Intersection	Configuration	Scenario	Period	DOS	AVD	95% Queue	LOS
Mamre Road / Bakers Lane	Signals	Base Case	AM	0.836	18.9	236	B
			PM	0.779	19.5	201	B
		Project Case	AM	0.848	19.6	254	B
			PM	0.810	19.1	218	B
Mamre Road / Darrabarra Avenue	Signals	Base Case	AM	0.645	19.8	192	B
			PM	0.813	27.4	293	B
		Project Case	AM	0.656	22.9	191	B
			PM	0.851	33.0	328	C
Mamre Road / Abbotts Road	Signals	Base Case	AM	0.557	16.7	116	B
			PM	0.618	16.7	135	B
		Project Case	AM	0.536	16.6	107	B
			PM	0.630	16.7	141	B
Darrabarra Avenue / Berriwerri Drive	Roundabout	Base Case	AM	0.021	10.9	1	A
			PM	0.036	10.0	1	A
		Project Case	AM	0.048	10.6	2	A
			PM	0.113	9.9	4	A
Berriwerri Road / Access Road	Roundabout	Base Case	AM	-	-	-	-
			PM	-	-	-	-
		Project Case	AM	0.022	11.9	1	A
			PM	0.012	11.9	1	A
NAW / Road 01 (Site Access)	Signals	Base Case	AM	-	-	-	-
			PM	-	-	-	-
		Project Case	AM	0.24	16.0	55	B
			PM	0.29	17	55	B
NAW / Bakers Lane / Aldington Road	Roundabout	Base Case	AM	-	-	-	-
			PM	-	-	-	-
		Project Case	AM	0.30	8.0	17	A
			PM	0.37	9.0	17	A

6 Parking assessment

6.1 Car Parking

6.1.1 Data Centres

Car parking controls are subject to the MRP DCP. The general rate for industries (to which data centres form a subset land use) is detailed in **Table 16**.

Table 16: Parking Rates

Land Use	DCP Parking Rate
Industries	1 space per 200m ² OR 1 space per 2 employees whichever is the greater

It is emphasised that industry land uses encompass a large variety of operations including traditional labour intense manufacturing to modern high-technology businesses. This is reflected in the variability in the nominal parking requirements under the DCP.

In the case of data centres, it is argued that the resultant number of staff required for such operations is very low, and this is reflected in the Transport and Infrastructure SEPP definition which emphasises the purpose of such facilities relating to electronic data:

“data centre means a building or place the principal purpose of which is to collect, distribute, process or store electronic data using information technology.”

The DCP rates have thus been disregarded (relating to industry uses involving the production or storage of physical goods) and parking provision has been established on the basis of the anticipated peak traffic demands.

Reference should be made to the demands assessment in Section 5.1.2.2 which evaluates a peak vehicle demand (or parking demand) of 115 at any one time (with customers comprising both secure and unsecured spaces). Taking account of periods of shift change over, this would increase temporarily to approximately 222 vehicles on-site.

The proposed provision is as follows:

- 90 spaces per sub parcel (270 in total)
- 79 spaces for the operations building
- 2 spaces per substation parcel (for maintenance requirements).
- Total: 355

These provisions would satisfy the demands based on the assumed operational characteristics for the proposed development.

The Operations building (which incorporates a café) largely functions as an ancillary facility that caters to campus users whom may park enroute to their longer-term parking spot at their respective sub parcel. The café parking demands are discussed further below.

6.1.2 Café

The proposal also includes a café within the operations building (western campus) while largely intended to service the campus, will also be open to the general public to improve commercial viability and service the wider MRP.

In ordinarily applying guideline parking rates to the café component, the Transport for NSW Guide to Transport Impact Assessments (GTIA) has been referenced in lieu of such rates being published in the Mamre Road Precinct DCP.

For *take-away food outlets* that have on-site seating but without drive-through facilities, the applicable parking rates are either:

- 12 spaces per 100m² GFA; OR
- The greater of:
 - 1 space per five seats (both internal and external seating); OR
 - 1 space per two seats (internal seating).

For reference, the café contains approximately 400m² GFA and has a nominated seating capacity for 70 customers internally and 96 customers externally. Application of the seating based rate yields a nominal parking requirement for 35 spaces while the floor space rate yields a requirement for 48 parking spaces.

In response, provision for 79 parking spaces has been made within the overall allocation which can be accommodated in addition to the 270 parking spaces allocated for the sub parcels. These spaces are located within close proximity to the operations building (containing the café) and include 33 customer parking spaces accessed securely (within the western campus) and 13 customer parking spaces accessible by the public (before the secure entry gates). This corresponds to a ratio of 75% internal customers vs 25% external customers and is considered an appropriate ratio given the café is largely intended to service a captive market.

6.2 Other Parking

6.2.1 Accessible Parking

Accessible car spaces should be in accordance with the Access to Premises Standards, Building Code of Australia and AS2890. The respective parking requirements for a Class 8 structure are outlined below.

Table 17: Site Details

Type of Facility	Accessible Parking Rate	Accessible Parking Requirement	Accessible Parking Provision
Class 8	1 accessible space for every 100 car parking spaces or part thereof	4 spaces	6 spaces

As shown, the proposal to provide 6 accessible parking spaces is superior to the minimum requirements under the Code. This outcome is supported noting that the spaces are spread across the campus (including 2 spaces for the operations building) and would reduce physical travel distances for accessible parking space users.

Accessible spaces will be designed in accordance with AS2890.6:2022.

6.2.2 Electric Vehicle Parking

In relation to Electric Vehicle (EV) 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. Notwithstanding it is understood that the following EV provisions will be based in consideration of requirements under the National Construction Code including as a minimum:

- 5% of all car parking spaces (18 spaces) provided with EV charging capability on day of opening

- 20% parking spaces (71 spaces) provided with infrastructure to readily accommodate EV charging capability (inclusive of 5% day of opening provision).

6.2.3 Motorcycle Parking

No motorcycle parking rates are stipulated in the MRP DCP. Notwithstanding, 6 motorcycle spaces are provided on campus in addition to car parking provisions which is a supported outcome.

6.2.4 Bicycle Parking

The MRP DCP stipulates the following bicycle parking rates for the following uses:

Table 18: Site Details

Type	Land Use	Requirements
Bicycle Parking	Industry	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)
End of Trip Facilities	Industry	For industrial activities with a gross floor area over 4000m ² , at least 1 shower cubicle with ancillary change rooms
	Office	For ancillary office and retail space with a gross floor area over 2500m ² , at least 1 shower cubicle with ancillary change rooms

Application of these rates to the data hall (industry) and support space (office/café) components results in a nominal requirement for 284 bicycle spaces for the proposed development.

In response, the Mamre Road Data Centre Campus will include a consolidated bicycle end of trip facility within the operations building that provides capacity for 30 bicycle spaces (vertical rails) within a secure Class 2 setting – with 44 locker spaces and shower/change rooms.

While this represents a nominal shortfall relative to the DCP rates, the proposed arrangements are considered reasonable in light of the number of spaces supporting a cycling mode share of 5% - accounting for the target mode shares set in the Preliminary Green Travel Plan included in **Appendix C**. The provision reflects the realistic uptake of cycling transport (given the inherent catchment limitations of Kemps Creek) while providing a high level of amenity to encourage users to use this form of transport where possible.

7 Design commentary

7.1 Relevant Design Standards

The Site access, car park and loading should be designed to comply with the following relevant Australian Standards:

- Australian Standard 2890.1 (2004): *Off-street car parking* (AS2890.1:2004).
- Australian Standard 2890.2 (2018): *Off-street commercial vehicle facilities* (AS2890.2:2018).
- Australian Standard 2890.3 (2015): *Bicycle Parking* (AS2890.2:2015).
- Australian Standard 2890.6 (2022): *Off-street parking for people with disabilities* (AS2890.6:2022)

It is expected that any detailed construction drawings in relation to any modified areas of the car park or Site access would comply with these Standards. Furthermore, compliance with the above Standards would be expected to form a standard Condition of Consent prior to any development approval. Detailed Design will be undertaken based on relevant Australian Standards (AS2890 series) as part of the Construction Certificate (CC).

7.2 Design Review

7.2.1 Access Considerations

Reference should be made to the design commentary and swept paths provided in **Appendix A**, demonstrating that vehicles can enter and exit the Site in a forward direction.

The site accesses have been designed to accommodate regular movements for 20.0m Articulated Vehicles (20.0m AV) (right in and right out) and 12.5m Heavy Rigid Vehicles (12.5m HRV) (right in, left out and right out). With consideration for the Berriwerri Drive roundabout, the western campus access forms a direct (western leg) and therefore a 30m A-Double movement has been tested to confirm that errant vehicles can turn around safely within the publicly accessible area.

7.2.2 Queuing Assessment

Both western and eastern campuses include secure entries that ordinarily should have very minimal wait times for regular staff and customers/contractors. Notwithstanding, a queuing assessment has been undertaken under two methodologies to account for a worst case scenario with 180 entry movements per hour (for reference, maximum forecast entry movements is 137 veh/hr), split into 120 trips for the western parcel and 60 for the eastern parcel:

Australian Standard AS2890.1:	AS2890.1:2004 stipulates maximum lane capacities for lanes and the limit for “ticket and token acceptance unit and boom gate” is 300 vehicles / hour / lane. Both campuses will have sufficient capacity to accommodate the peak hour exit movement.
First Principles:	The first principle assessment has assumed a service time of 20 seconds which would generate a design queue of 9 vehicles based on the accumulation of vehicle arrivals. While this is considered to be a theoretical worst case for regular operation, the analysis would demonstrate there would be some 4:30 minutes to resolve any glitches before the design queue forms.

In response, the public queuing areas for both campuses provide a minimum of queuing length of 90m (across multiple lanes) which would provide capacity for approximately 13 cars (6.5m spacing) without impacting on exit movements for the campus. In addition, the provision of multiple lanes (e.g. for breakdown/hold ups) and ability to manage contra-flow (via diverting entering traffic to exit lanes) provides a robust design that minimises the chance of on-street queuing.

7.2.3 Service Vehicles

Consideration of the intended development of the Proposal – being data centre and associated office space – indicates the loading dock comprising 1 loading bay (suitable for an HRV) for each sub-parcel (6 total) is considered sufficient and appropriate. Furthermore, the operations building incorporating a café has been provided with a dedicated loading space suitable to accommodate an HRV which will provide a high level of servicing amenity.

It is anticipated that service area design compliance with AS 2890.2:2018 would form a standard Condition of Consent further to approval.

7.2.4 Car Parking Design

All staff and customer/contractor car spaces would be designed to meet the minimum requirements of User Class 1/1A car parking (low turnover) to align with AS2890.1:2004 for staff parking and AS2890.6:2009 for accessible parking. Parking spaces for the operations building have been designed to user Class 3 standards within the campus (suitable for medium/high turnover) with publicly accessible spaces (for the café) provided in an angled configuration that is well suited to high turnover traffic.

The internal manoeuvring area to and from the internal car park areas have been designed for light vehicles up to B99 with dimensions 1,940mm×5,200mm, as prescribed within AS2890.1: 2004.

8 Conclusions

This Transport Accessibility and Impact Assessment (TMAP) has been prepared to support the proposed Mamre Road Data Centre Campus at 706-752 Mamre Road. The site is notably subject to the previous Summit at Kemps Creek SSD, which was established to have traffic generating potential such as to require network mitigations to permit additional precinct access to Mamre Road at Bakers Lane.

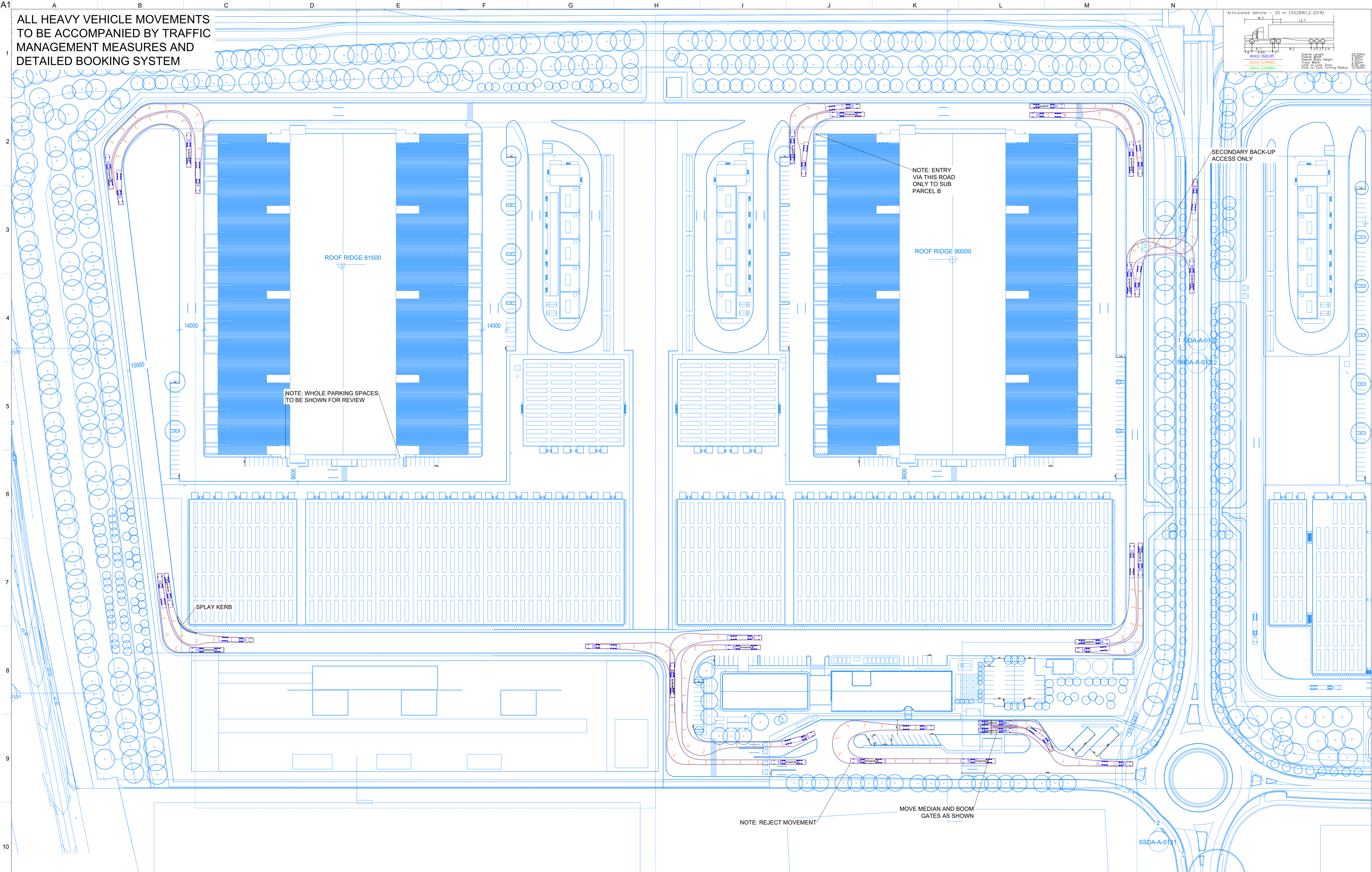
The application has amended following a period public exhibition and receipt of comments from key stakeholders. The TMAP has been updated accordingly. Notably, the amended application includes Stage 1 of the Northern Access Works (NAW), consistent with the approved Summit at Kemps Creek SSD. This is in recognition of the precinct-wide benefits they provide.

The key findings of this assessment are as follows:

- **Traffic Generation:** assessed on the based on the occupier's operational requirements (first-principles analysis), the standard day-to-day operations are anticipated to generate 141 AM-peak trips, 171 PM-peak trips and 1,592 daily trips.
- **Sensitivity testing:** Assumes conservative staff arrival and departure patterns would result in 178 AM-peak trips and 212 PM-peak trips. This volume of vehicle trips does not change the outcomes of the modelling assessment.
- The Proposal includes delivery of part of the roadworks that would form the future Southern Link Road, as well as upgrading the existing (western) section of Bakers Lane which connects to the Mamre Road intersection. The proposed works would form a new (interim) road network to the north of the MRP, referred to as the Northern Access Road (NAR).
- The NAR is not specifically required to offset the impact so the Proposal itself, but rather provides precinct-wide benefits
- **Access Strategy:** access will be established via 3 phases:
 - Stage 1A - All traffic will use a new four-leg roundabout on Berriwerri Drive which will be delivered and dedicated to Council as part of the MRP Road Network. Access will be from the south via the Yiribana Logistics Estate.
 - Stage 1B – As part of delivery of sub parcel B, the NAW will be delivered.
 - Stage 2 – the north-south collector road will be delivered providing a connection between Berriwerri Drive and the NAW.
- **Road Network Impact:** The development trips can be accommodated by the planned road network.
- **Parking Provision:** The proposed development provides 355 car parking spaces which would provide for:
 - Periods of shift change over where there could be approximately 220 vehicles on-site.
 - Maintenance requirements for each substation parcel.
 - The operations building (which incorporates a café) to cater to campus users whom may park enroute to their longer-term parking spot at their respective sub parcel and café parking demands.
- **Internal Design and Servicing:** Internal access, circulation and loading have been designed to meet AS2890 standards, with swept path analysis confirming safe accommodation of 20 m Articulated vehicles, HRVs, MRVs, and fire truck access as required. Café loading is served by a dedicated 3.5 m-wide bay.

In light of the above, the proposal is considered to be supportable on traffic, access and parking grounds.

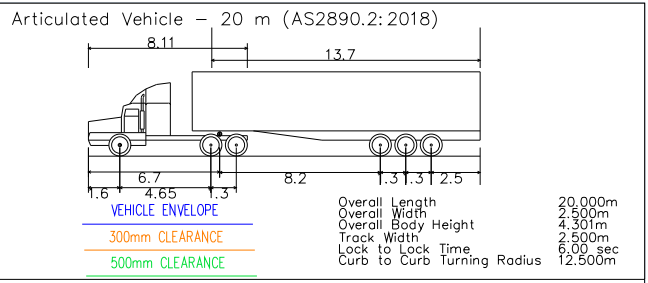
Appendix A Vehicle swept paths



Drawing Status: 10% Concept Design			This drawing is provided for information purposes only and should not be used for construction. Base plan prepared by Greenbox, received 12.06.2026.			Client:			Contractor /Consultant/ Document Author: asongroup			Key Plan: 			Site: 706-752 Mamre Road, Kemps Creek		Stage: CONCEPT DESIGN		Phase:		Project name: Mamre Road, Data Centre Campus	
Author Job Number: P3168			Drawn by: JDW			Designed by: Designer			Scale: As indicated			Drawing title: MASTER SITE PLAN										
Checked by: JJ			Approved by: AR													Sheet: A1						
File Name AG3168-07-v04.dwg											Drawing Number A001				Rev							

Actual size: A1: 440x660mm Horizontal
Do not scale

ALL HEAVY VEHICLE MOVEMENTS
TO BE ACCOMPANIED BY TRAFFIC
MANAGEMENT MEASURES AND
DETAILED BOOKING SYSTEM



Drawing Status: **10% Concept Design**

This drawing is provided for information purposes only and should not be used for construction.
Base plan prepared by Greenbox, received 12.06.2026.

Client:

Contractor /Consultant/ Document Author:



Key Plan:

Site:
706-752 Mamre
Road, Kemps Creek

Stage:
CONCEPT DESIGN

Phase:

Project name:

Mamre Road, Data Centre Campus

Author Job Number:
P3168

Drawn by:
JDW

Designed by:	
Designer:	

Scale

As

Drawing title:
MASTER SITE PLAN

File Name
AG3168-07-v04.dwg

Drawing Number
AG02

Rev

Actual size: A#_###x###_Horizontal

Issue	Date	Description
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