

Appendix E

Traffic Impact Assessment



Traffic & Transportation Direction

Supagas Pty Ltd

Carbon Dioxide Plant at the Wilga Park
Power Station

Traffic Impact Assessment

May 2026

Reference: 1250 rep 260512 final

Supagas Pty Ltd

Carbon Dioxide Plant at the Wilga Park Power Station

Traffic Impact Assessment

Prepared for: Supagas Pty Ltd

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Definitions

Term	Definition
Application	Application for Development Consent under Part 4 of the NSW <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act).
DA	Development Approval
DPHI	Department of Planning, Housing and Infrastructure
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ha	hectare
LGA	local government area
The Proponent	Supagas Pty Ltd (Supagas)

1. Introduction

1.1 Background

Amber Organisation Pty Ltd has been engaged by Onward Consulting Pty Ltd (Onward) on behalf of Supagas Pty Ltd (Supagas) (the Proponent) to prepare a Traffic Impact Assessment for the proposed Carbon Dioxide (CO₂) Plant (the Project) at the Wilga Park Power Station (WPPS).

The WPPS operates as a gas fired power station in accordance with the conditions of consent (MP07_0023). Exhaust gases from the WPPS are discharged to the atmosphere via exhaust stacks. The Project would process this exhaust gas from the WPPS gas generators and produce a high purity CO₂ product to service the increasing demand for carbon dioxide in the soft drink, food processing and other industries throughout NSW and QLD.

Vehicle access to the Project Area is proposed via Kiandool Lane and the WPPS (private) site access road. The proposed site access route connects to the State road network at the intersections of Mooloobar Street / Newell Highway in Narrabri, and Cains Crossing Road / Newell Highway in Bohena Creek.

Construction is expected to commence in 2026 with a construction period up to 15 months, inclusive of one month for commissioning. A maximum workforce of 30 people would be on-site during the six month peak construction period, with the workforce expected to be primarily located in Narrabri.

The impacts and proposed mitigation measures for traffic generated by the proposed construction and operation of the Project are addressed in this report in accordance with relevant regulatory requirements and guidelines.

1.2 Purpose of Document

This Traffic Impact Assessment has been prepared to assess the construction and operational traffic impacts, and the access arrangements of the Project. The assessment details how road impacts of the Project traffic, particularly from heavy vehicle use would be avoided or managed with road-use management strategies.

More specifically, the report addresses the following key matters:

- Details of both light and heavy vehicle traffic volumes and proposed transport routes;
- An assessment of the potential traffic impacts of the Project on road network function and safety;
- An assessment of the capacity of the existing road network to accommodate the type and volume of traffic generated by the Project;
- Details of measures to mitigate and/or manage potential impacts; and
- Details of access roads and how these connect to the existing road network and ongoing operational maintenance.

The traffic assessment has been undertaken in accordance with the *TfNSW Guide to Traffic Impact Assessments* and relevant Austroads Guidelines.

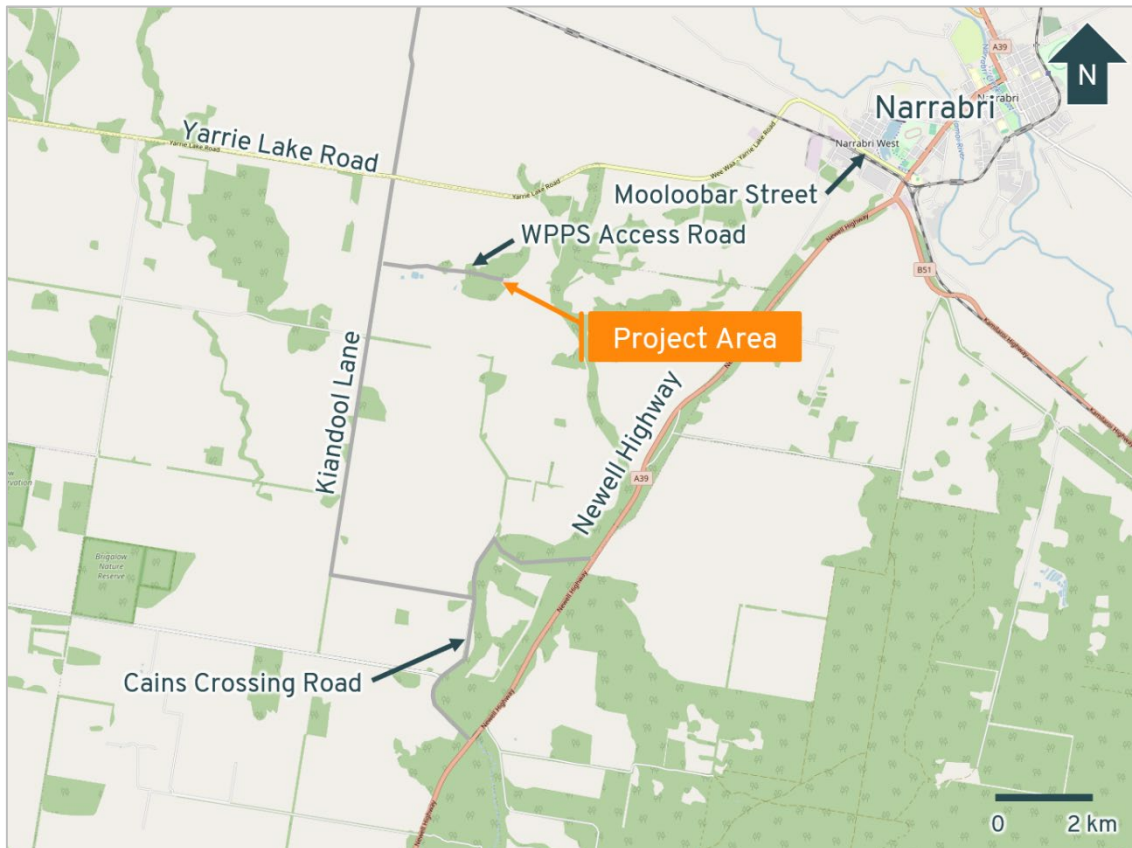
This Traffic Impact Assessment has also been prepared in response to the Agency Advice provided by Transport for New South Wales (TfNSW). Responses to each of the comments provided within the Agency Advice are outlined within Appendix A.

2. Existing Conditions

2.1 Site Location

The site is located within Lot 12 of DP 1171292 in the Narrabri Local Government Area (LGA), approximately 12 kilometres south-west of Narrabri, NSW. Figure 1 shows the location of the Project Area in relation to the involved land and surrounding transport network.

Figure 1: Site Location



Source: OpenStreetMap

The site and surrounding area are zoned *RU1 - Primary Production* and are primarily occupied by agricultural land uses. The Project Area has an area of approximately 0.7 hectares and is adjacent to the existing WPPS.

Figure 2 provides an aerial photograph of the site and the surrounding area.

Figure 2: Aerial Photograph



Source: Nearmaps

The aerial shows the rural nature of the surrounding area aside from the WPPS.

The power station currently operates with relatively low staffing requirements, generating approximately five light vehicles and one heavy vehicle per day.

2.2 Road Network

A summary of the surrounding road network is provided within Table 1.

Table 1: Road Network

Road	Surface	Typical Width	Speed Limit	Alignment
State Roads				
Newell Highway	Sealed	Between 8.0m and 12.0m providing one lane of traffic in each direction and sealed shoulders.	110 km/hr	Northeast-southwest alignment from the Victorian border near Tocumwal and the Queensland border near Goondiwindi.

Road	Surface	Typical Width	Speed Limit	Alignment
Local Roads				
Kiandool Lane	Unsealed	8.0m providing two-way vehicle movements for low levels of traffic.	100 km/hr	General north-south alignment between Culgoora Road in the north to Cains Crossing Road in the south.
Yarrie Lake Road	Sealed	7.0m providing two-way vehicle movements for low levels of traffic.	100 km/hr	General east-west alignment between Culgoora Road in the west and its continuation as Goobar Street to the east, in Narrabri.
Cains Crossing Road	Unsealed	8.0m providing two-way vehicle movement for low levels of traffic.	100 km/hr	An approximate 7km loop on the western side of Newell Highway
Goobar Street / Baranbar Street/ Mooloobar Street	Sealed	6.0 – 16.0m accommodating two lanes of traffic in each direction with sections of parallel parking.	50-80 km/hr	Residential collector roads within Narrabri between Newell Highway and Yarrie Lake Road.
Private Roads				
WPPS Access Road	Unsealed	6.0m providing two-way vehicle movements for low levels of traffic.	50 km/hr	General east-west alignment between Kiandool Lane and the Project Area

2.2.1 Key Intersections

An overview of the key intersections within the surrounding area is provided in Table 2.

Table 2: Intersection Summary

Road Name	Intersecting Road	Configuration	Control / Turn Treatments
Newell Highway	Mooloobar Street / Old Turrawan Road	Roundabout	Four single lane approaches with signage and line markings provided.
	Cains Crossing Road	T-intersection	'Give Way' signage is provided for vehicles exiting Cains Crossing Road. Auxiliary Left (AUL) and Basic Right (BAR) turn treatments are provided. The straight and flat alignment of the Newell Highway provides good visibility for motorists departing Cains Crossing Road.
Yarrie Lake Road	Kiandool Lane	Cross intersection	Priority controlled with vehicles exiting Kiandool Lane required to give way. The generally flat and straight alignment of the roads facilitates good visibility.
Cains Crossing Road		T-intersection	Priority controlled with major flow expected between Kiandool Lane and the south approach of Cains Crossing Road.

Road Name	Intersecting Road	Configuration	Control / Turn Treatments
Kiandool Lane	WPPS Access Road	Cross intersection	Priority controlled with vehicles exiting WPPS Access Road and opposing Private Road required to give way.

2.2.2 Existing Road Network Constraints

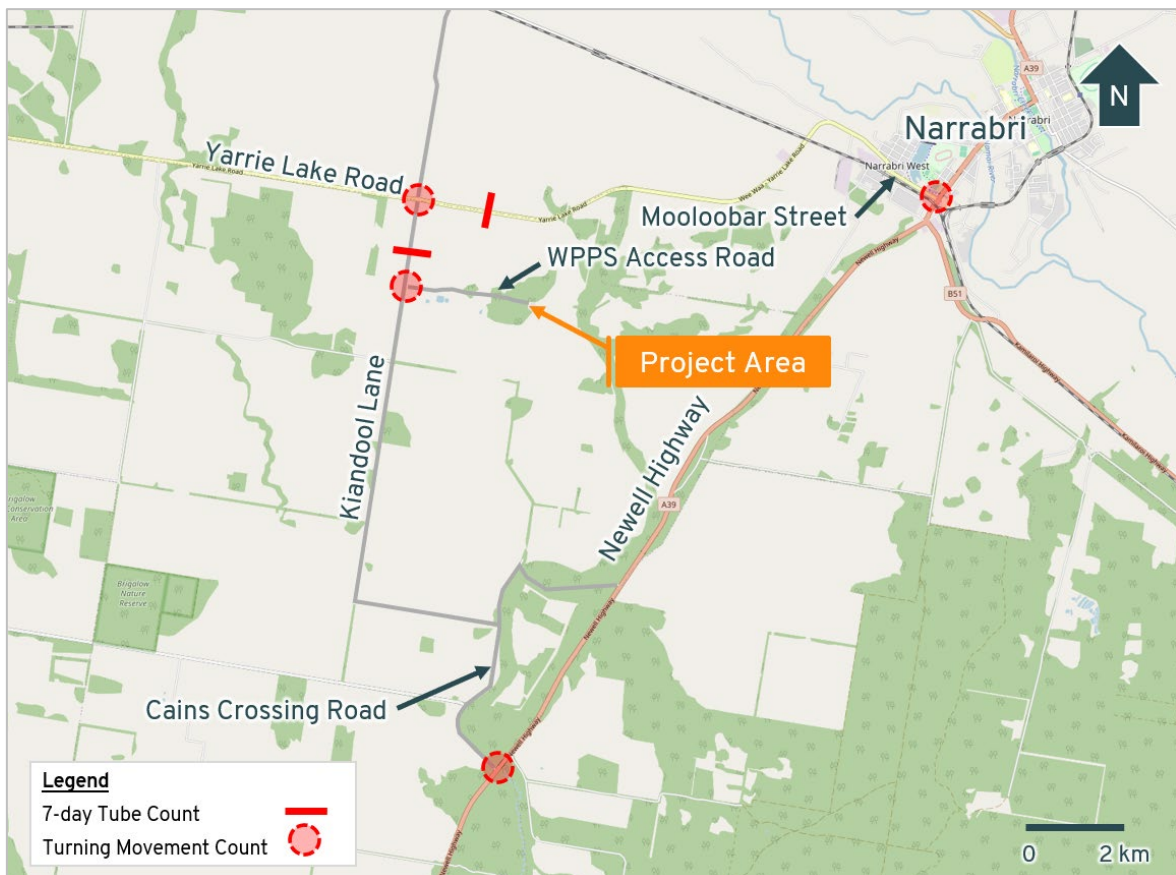
A review of the road network shows that the current condition of all roads that connect to the Project Area are in a generally good condition.

It is noted that flooding events can occur which impact Yarrie Lake Road which can cut off access to between the Project Area and Narrabri, with access during flood events generally limited to Cains Crossing Road.

2.3 Traffic Volumes

Amber commissioned various traffic surveys of the local and State Road network surrounding the Project Area to establish the existing traffic conditions. The surveys included turning movement counts at four key intersections and a 7-day tube count of roads anticipated to be used by the Project. The survey locations in the vicinity of the Project Area can be seen in Figure 3.

Figure 3: Traffic Survey Locations



Source: OpenStreetMap

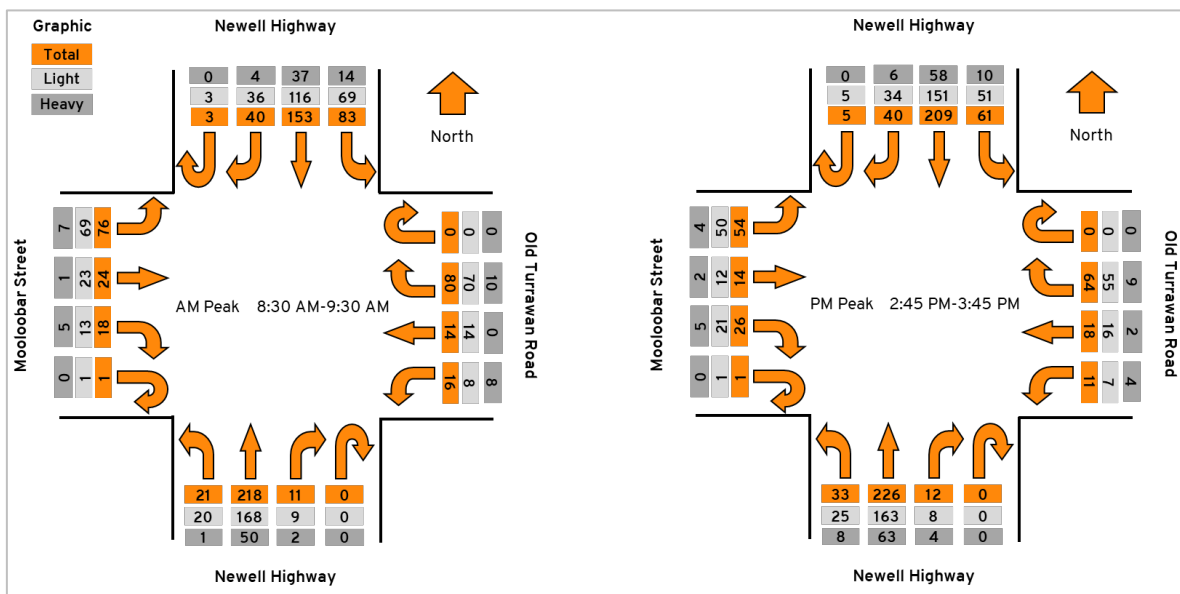
2.3.1 Intersection Surveys

Turning movement count surveys were completed at four key intersections in the surrounding area of the Project on Wednesday 7 May 2025 from 6:00am-10:00am and 2:00pm-6:00pm. A summary of the results is presented in the following sections with the full survey data provided within Appendix B.

2.3.1.1 Newell Highway / Mooloobar Street / Old Turrawan Road

A summary of the traffic recorded at the roundabout during the morning and peak hour periods is provided in Figure 4.

Figure 4: Turning Movement Count Peak Hour Survey Results – Newell Highway / Mooloobar Street / Old Turrawan Road



The survey results indicate the intersection currently carries a high level of traffic in the order of 758 vehicles in the morning peak hour and 774 vehicles in the evening peak hour. The morning peak hour was recorded from 8:30am to 9:30am and the evening peak hour was recorded from 2:45pm to 3:45pm.

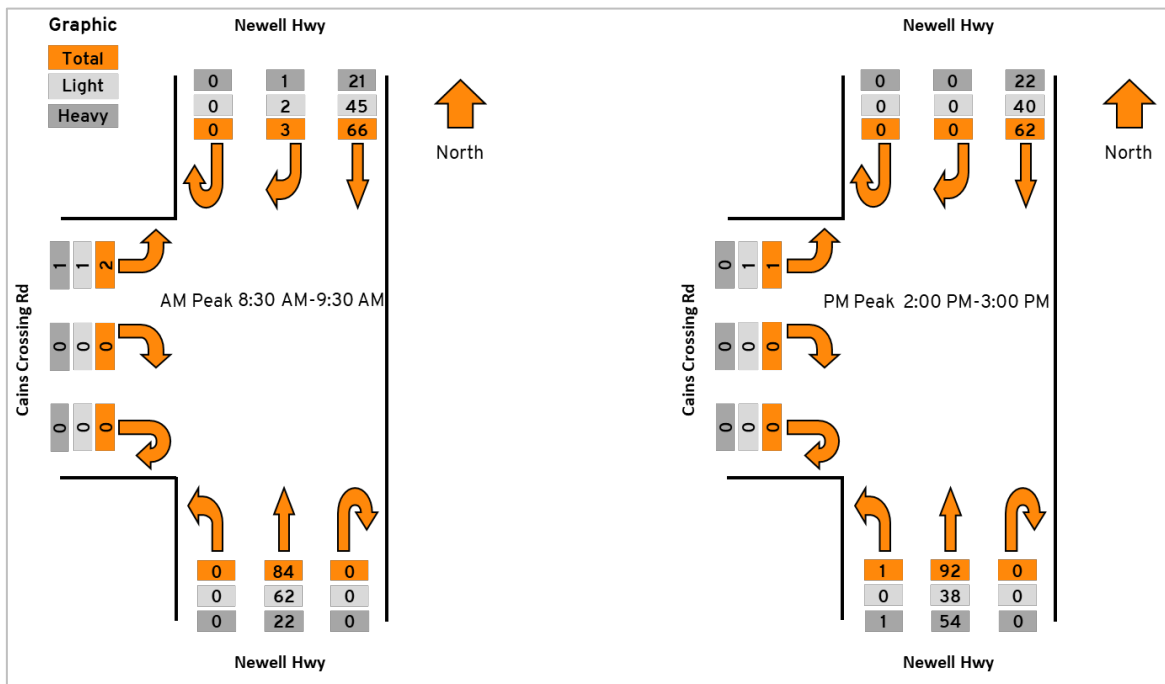
The majority of vehicle trips at this intersection are through traffic movements along Newell Highway. During the morning peak hour the percentage of heavy vehicles is 18%, lower than the afternoon peak hour which was recorded at 23%. The majority of the heavy vehicles do not undertake a turning movement and remain on Newell Highway.

Overall, the results indicate that the Newell Highway accommodates a high volume of traffic, which is expected given its convergence with the Kamilaroi Highway at this location with the town of Narrabri. The two highways are important roads functioning as a major inland connection between regional towns. Mooloobar Street and Old Turrawan Road connect residential areas of West Narrabri and a public school to the wider road network.

2.3.1.2 Newell Highway / Cains Crossing Road

A summary of the traffic recorded at the intersection during the morning and peak hour periods is provided in Figure 5.

Figure 5: Turning Movement Count Peak Hour Survey Results – Newell Highway / Cains Crossing Road



The survey results indicate the intersection currently carries a low level of traffic in the order of 155 vehicles in the morning peak hour and 156 vehicles in the evening peak hour. The morning peak hour was recorded from 8:30am to 9:30am and the evening peak hour was recorded from 2:00pm to 3:00pm.

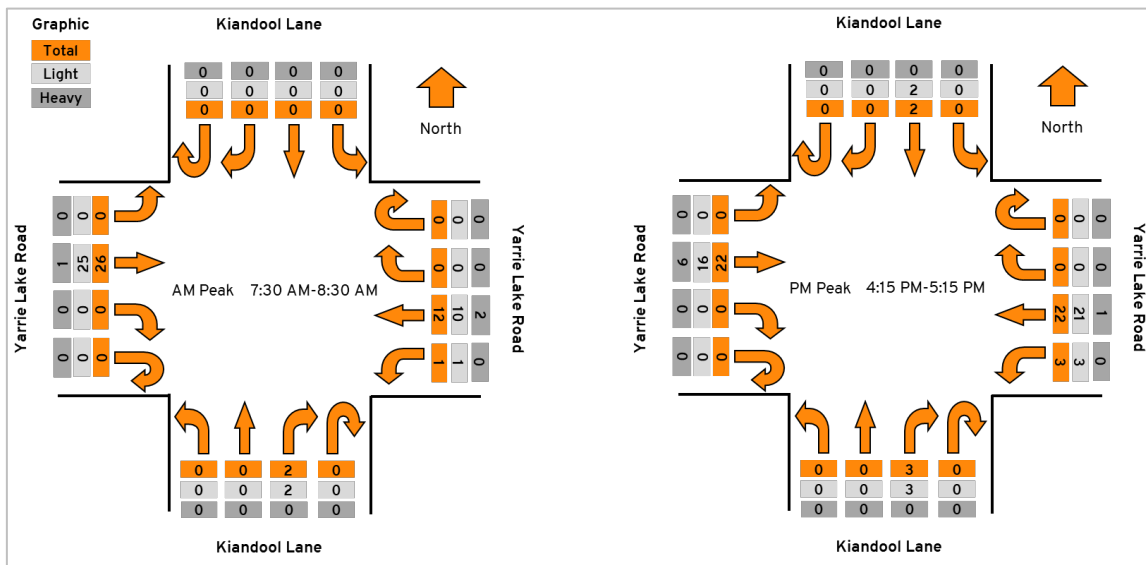
The majority of vehicle trips at this intersection are through traffic movements along Newell Highway, which is to be expected. A very small proportion of traffic was recorded entering or leaving Cains Crossing Road, with five vehicles recorded in the morning peak and two in the afternoon.

Based on a peak hour to daily ratio of 10%, Cains Crossing Road would be expected to carry in the order of 35 vehicles per day.

2.3.1.3 Yarrie Lake Road / Kiandool Lane

A summary of the traffic recorded at the intersection during the morning and peak hour periods is provided in Figure 6.

Figure 6: Turning Movement Count Peak Hour Survey Results - Yarrie Lake Road / Kiandool Lane



The survey results indicate the intersection currently carries a very low level of traffic in the order of 41 vehicles in the morning peak hour and 52 vehicles in the evening peak hour. The morning peak hour was recorded from 7:30am to 8:30am and the evening peak hour was recorded from 4:15pm to 5:15pm.

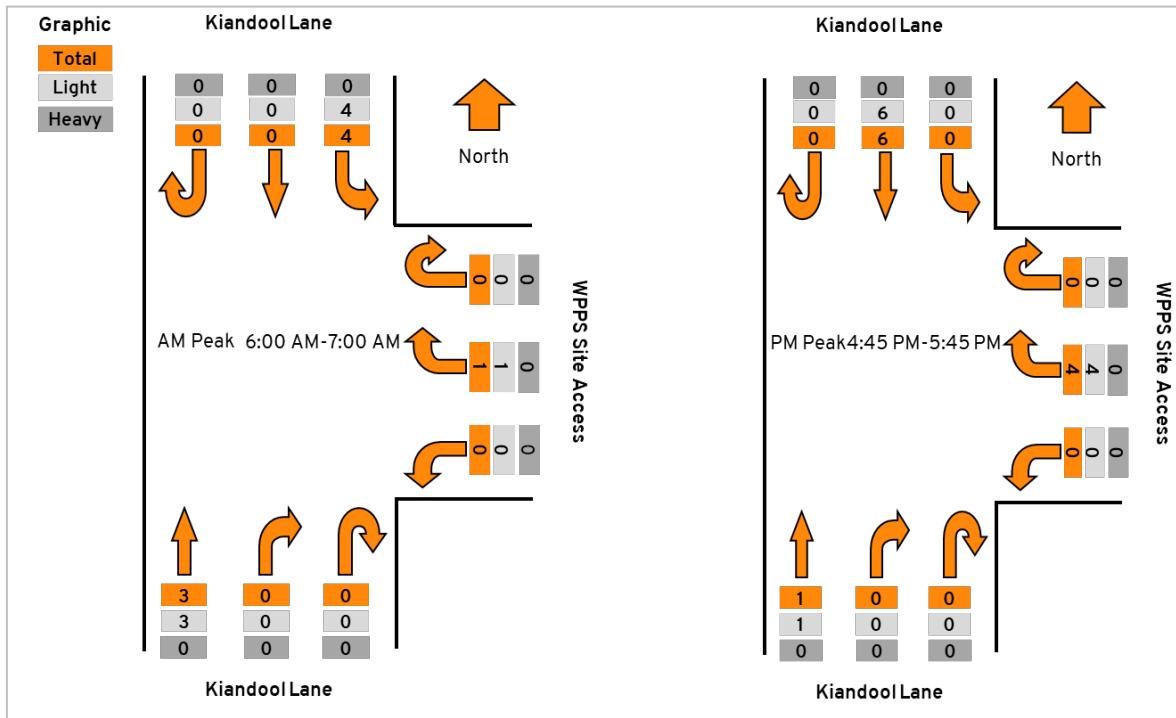
The majority of vehicle trips at this intersection are through traffic movements along Yarrie Lake Road. Three vehicles were recorded using the Kiandool Lane during the morning peak hour and eight vehicles during the afternoon peak period. The majority of these vehicles are turning between the east and south approaches. The proportion of heavy vehicles during the peak hours varied between 7% and 13%.

Overall, the results indicate the intersection accommodates a very low level of traffic which is expected given the surrounding land use environment

2.3.1.4 Kiandool Lane / WPPS Access Road (Private Road)

A summary of the traffic recorded at the intersection during the morning and peak hour periods is provided in Figure 7.

Figure 7: Turning Movement Count Peak Hour Survey Results – Kiandool Lane / WPPS Access Road



The survey results indicate the intersection currently carries a very low level of traffic in the order of 8 vehicles in the morning peak hour and 11 vehicles in the evening peak hour. The morning peak hour was recorded from 6:00am to 7:00am and the evening peak hour was recorded from 4:45pm to 5:45pm.

2.3.2 Mid-block Surveys

Tube count surveys were conducted on two roads near the proposed site access from Wednesday 7 May to Wednesday 14 May 2025. The survey results are summarised in the following sections with the full results provided in Appendix B.

2.3.2.1 Yarrie Lake Road

The tube count survey was undertaken at 960 Yarrie Lake Road, approximately 1.5km east of the intersection with Kiandool Lane. The survey results are summarised in Table 3.

Table 3: Yarrie Lake Road Traffic Volumes – 1.5km east of Kiandool Lane

	Weekday Traffic (vpd)	Weekday AM Peak - 08:00 (vph)	Weekday PM Peak - 16:00 (vph)	85 th Percentile Speed	Heavy Vehicle Percentage
Westbound	231	13	22	102.8 km/hr	14.9%
Eastbound	219	26	20	101.2 km/hr	
Both Directions	450	40	42	102.0 km/hr	

The survey data indicates Yarrie Lake Road currently experiences a low level of daily traffic in the order of 450 vehicles per day which is split between westbound and eastbound vehicles. The 85th percentile speed is marginally higher than the speed limit of 100km/hr.

2.3.2.2 Kiandool Lane

The tube count survey was undertaken near property 1029 on Kiandool Lane, approximately 400m north of the intersection with WPPS Access Road. The survey results are summarised in Table 4.

Table 4: Kiandool Lane Traffic Volumes – 400m north of WPPS Access Road

	Weekday Traffic (vpd)	Weekday AM Peak - 10:00 (vph)	Weekday PM Peak - 17:00 (vph)	85 th Percentile Speed	Heavy Vehicle Percentage
Northbound	27	3	4	68.8 km/hr	20.3%
Southbound	29	3	3	67.0 km/hr	
Both Directions	56	6	7	69.4 km/hr	

The survey data indicates Kiandool Lane currently experiences a very low level of daily traffic in the order of 56 vehicles per day which is split between northbound and southbound vehicles. The 85th percentile speed is considerably lower than the default speed limit of 100km/hr.

Overall, the data indicates Kiandool Lane currently accommodates a very low level of traffic and is able to accommodate an increase in vehicle traffic.

2.3.3 Summary

A review of the traffic surveys shows that:

- The highest volume of traffic was recorded at the intersection of Newell Highway / Mooloolbar Street / Old Turrawan Road which is to be expected given the location within town and the level of traffic carried by the Newell Highway.
- Traffic volumes recorded at other intersections and roads were much lower, particularly along Kiandool Lane and Cains Crossing Road, which carry in the order of 60 and 35¹ vehicles per day, respectively.
- Based on the level of traffic, all intersections and roads would be expected to operate without significant queuing or delays, except potentially the intersection of Newell Highway / Mooloolbar Street / Old Turrawan Road.

Overall, the results show that the intersections and roads that provide access to the Project Area have capacity to accommodate an increase in traffic.

2.4 Public Transport and School Buses

There are no formal public transport facilities in the vicinity of the site.

Two school bus services are provided within the vicinity of the site as outlined in Table 5.

¹ Based on a 10% peak hour to daily ratio

Table 5: Bus Services

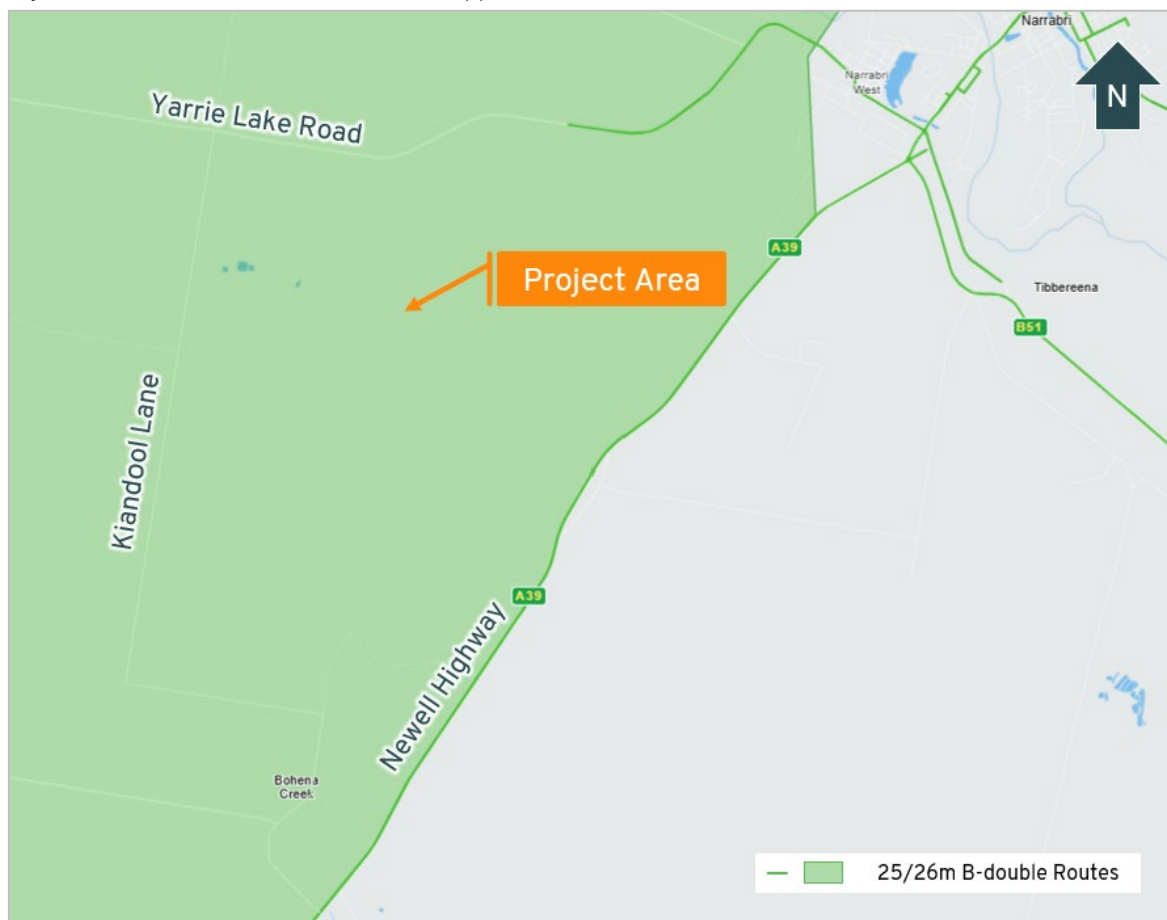
Route No.	Route Name	Services	Schedule / Details
S188	Narrabri to Wee Waa Interchange & Narrabri Schools via Bohena Creek	One service is provided in each direction each school day.	Services travel along Yarrie Lake Road and pass Kiandool Lane at approximately 8:20am in the eastbound direction and approximately 3:50pm in the westbound direction.
S626	Yarrie Lake to Narrabri Schools	One service is provided in each direction each school day.	Services travel along Cains Crossing Road and utilise the intersection with Newell Highway at approximately 8:25am and 3:54pm.

2.5 Restricted Vehicle Access

2.5.1 B-Doubles

The NHVR Restricted Access Vehicle Map for the surrounding area is provided within Figure 8. The green lines and green shaded area indicate approved B-Double routes.

Figure 8: NHVR 26m B-Double Network Approved Roads



Source: NHVR 26m B-Double Network Approved Roads

The surrounding Local and State road networks are B-Double approved routes. Accordingly, the site has access to the B-Double approved road network via Newell Highway from the north and south direction to the Project Area.

2.5.2 Class 1 OSOM Vehicles

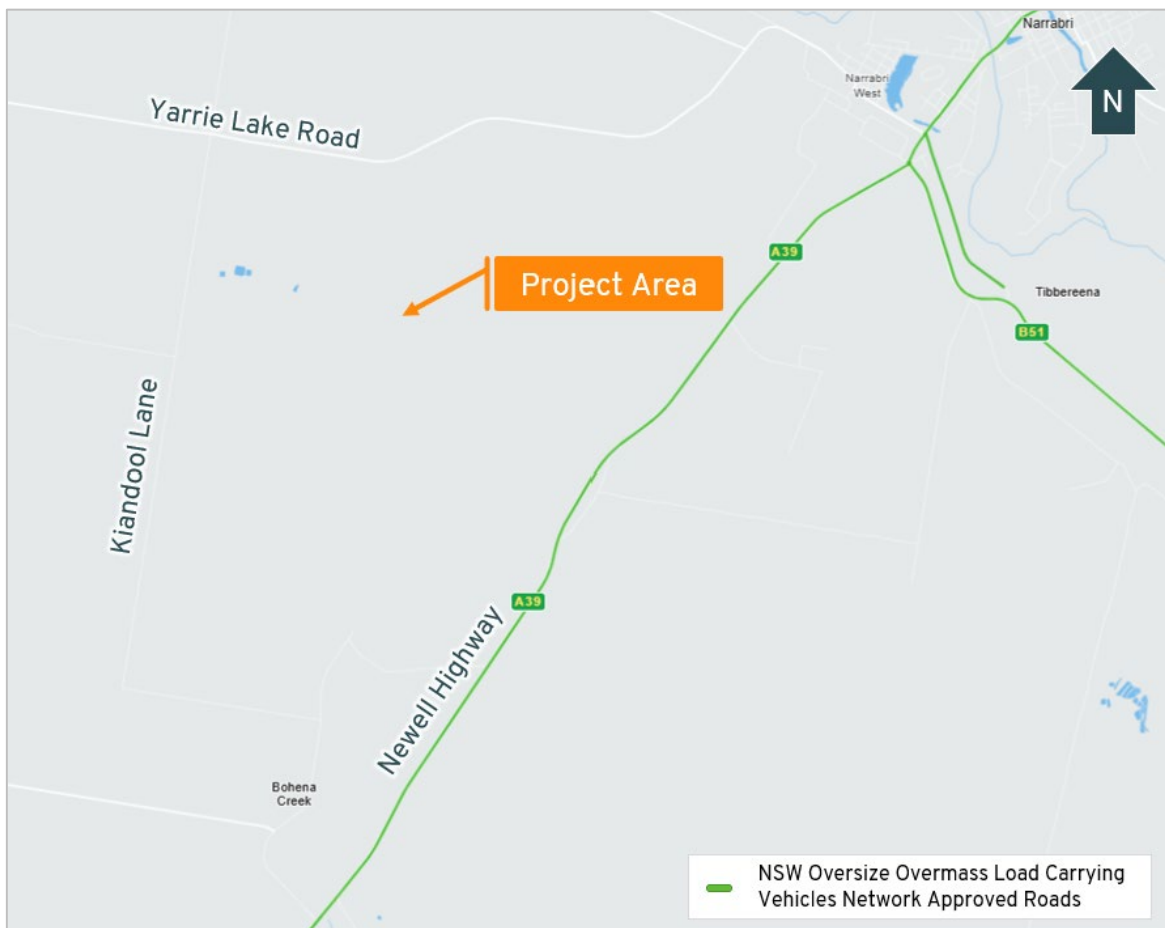
The NHVR Oversize Overmass (OSOM) Load Carrying Vehicles Network map for the surrounding area is provided within Figure 9. The map shows approved routes for eligible vehicles operating under the Multi-State Class 1 Load Carrying Vehicles Mass and Mass Exemption Notices. A summary of the allowances under each exemption within New South Wales is provided below:

- Dimension: up to 5.0m wide, 5.0m high, 30.0m long and 7.5m rear overhang on approved (state owned) routes in NSW.
- Mass: up to 115.0 tonnes for rows of 8 tyres low loaders and up to 77.5 tonnes for rows of 4 tyres low loader combinations.

Vehicles operating in the daytime and not exceeding 3.5m wide or 26m long generally do not require a pilot vehicle.

The green lines indicate approved Class 1 OSOM Vehicle routes. Accordingly, the site has access to the Class 1 OSOM approved road network via Newell Highway. All roads shown on the north-west side of Newell Highway are unrated and would require approval from Narrabri Shire Council for Class 1 OSOM vehicles to operate along these roads.

Figure 9: NHVR Class 1 Oversize Overmass Load Carrying Vehicles Network Approved Roads



Source: NHVR Restricted Access Vehicle Map

2.5.3 Special Purpose Vehicles (SPVs)

Vehicles built for a purpose other than carrying goods such as a mobile crane, a concrete pump or drill rig are defined as Special Purpose Vehicles (SPVs).

The NSW Special Purpose Vehicle Network map provides details of the approved roads as well as conditions of access and travel restrictions for eligible SPVs operating under the:

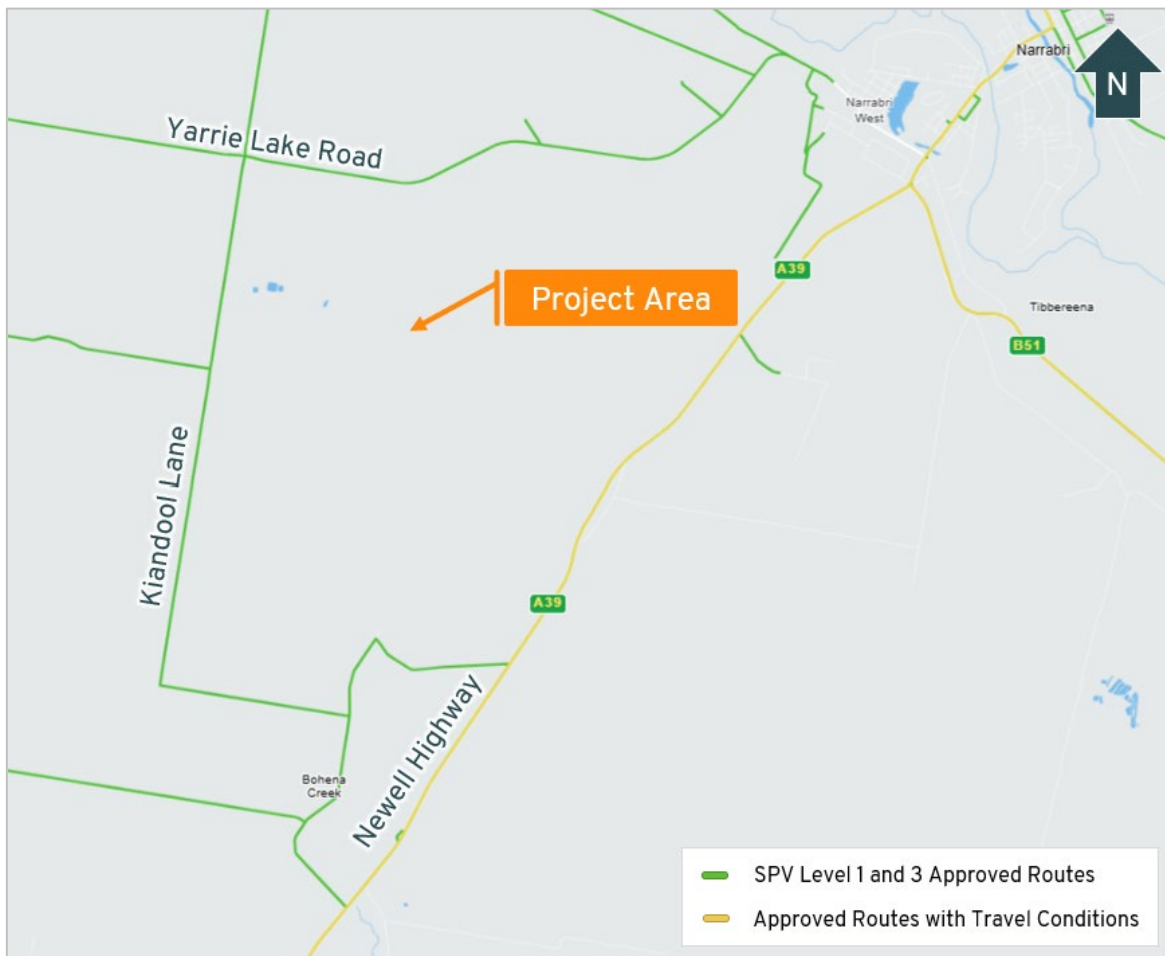
- National Class 1 Special Purpose Vehicle Notice;
- NSW Class 1 4-Axle & 5-Axle All Terrain Mobile Crane Mass and Dimension Exemption Notice; or
- NSW Class 1 All Terrain Mobile Crane and Dolly Combination Mass and Dimension Exemption Notice.

Roads that are not approved on the map require an access permit from the National Heavy Vehicle Regulator or the relevant road manager. There are six SPV access networks for cranes travelling on approved State Roads in NSW:

- SPV Level 1: Cranes and SPVs up to 40 tonnes that comply with the Bridge Formula.
- SPV Level 2: Crane and dolly combinations up to 70 tonnes that comply with the Bridge Formula.
- SPV Level 3: 3-axle All Terrain Cranes up to 36 tonnes and 4-axle All Terrain Cranes up to 43 tonnes.
- SPV Level 4: 4-axle All Terrain Cranes up to 45.8 tonnes and 5-axle All Terrain Cranes up to 50 tonnes.
- SPV Level 4 / 12t per axle: 4-axle All Terrain Cranes up to 48 tonnes and 5-axle All Terrain Cranes up to 50 tonnes.
- SPV Level 6: 5-axle All Terrain Cranes up to 60 tonnes.

The approved routes for SPV Level 1 and 3 travelling within the surrounding area are identified within Figure 10. The yellow lines represent approved routes with travel conditions.

Figure 10: NHVR SPV Level 1 and 3 Network Approved Roads



Source: NHVR Special Purpose Vehicle Access Map

The figure shows that SPV Level 1 and 3 vehicles have approved access to the WPSS Access Road while the Newell Highway is approved with travel conditions. The travel condition applies to all SPV levels and is as follows:

Vehicles exceeding 2.5 metres wide or 22 metres long are not permitted to travel between sunrise and sunset during public holiday periods (including 23 December in one year to 3 January of the following year inclusive).

It should be noted that SPV Level 1 and 3 vehicles do not have approved access via Mooloobar Street, Baranbar Street and Goobar Street in Narrabri West.

Other SPV levels do not have approved access from Newell Highway to the Project Area. SPV Level 6 vehicles are restricted from crossing Spring Creek Bridge, approximately 5.3 kilometres north of the Newell Highway / Cains Crossing Road (south) intersection. Assessment on suitable transport routes for specific vehicles should be undertaken when required vehicles and vehicle origins are known.

2.6 Crash History

Amber has conducted a review of the TfNSW Centre for Road Safety Crash and Casualty Statistics database for all recorded crashes within the surrounding area of the Project. The crash database provides the location and severity of all injury and fatal crashes for the five-year period from 2019 to 2023. The search area included the following roads:

- Newell Highway – 500 metres either side of intersections with Mooloobar Street and Cains Crossing Road;
- Mooloobar Street, Baranbar Street and Goobar Street in Narrabri West;
- Yarrie Lake Road from Narrabri West to Kiandool Lane;
- Kiandool Lane;
- Cains Crossing Road; and
- All respective intersections.

One crash was recorded within the search area approximately 100 metres south of the Cains Crossing Road / Kiandool Lane intersection. The crash resulted in a moderate injury from the vehicle leaving the carriageway and hitting an object.

The crash type is not unexpected on single lane rural roads and does not appear to be reflective of a specific road safety issue at this location given the isolated nature of the crash. Given the results, it is concluded that the road network is currently operating in a relatively safe manner near the proposed site access.

3. Project Description

3.1 Project Overview

The Project includes the construction and operation of a CO₂ plant, which would capture and process exhaust gas from gas generators within the WPPS.

This exhaust gas would be treated to produce a CO₂ product of food grade quality for export and use in the food, beverage, and other markets (the Project). The key activities for the Project are as follows:

- clearing and earthworks for site preparation and to enable construction of the Project
- construction of the Project
- operation of the Project, including export of the CO₂ product via road transport
- decommissioning, rehabilitation, and closure.

The Project is designated development and requires approval under Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The Project meets the requirements for Regionally Significant Development under the *State Environmental Planning Policy (Planning Systems) 2021* (SEPP Planning Systems).

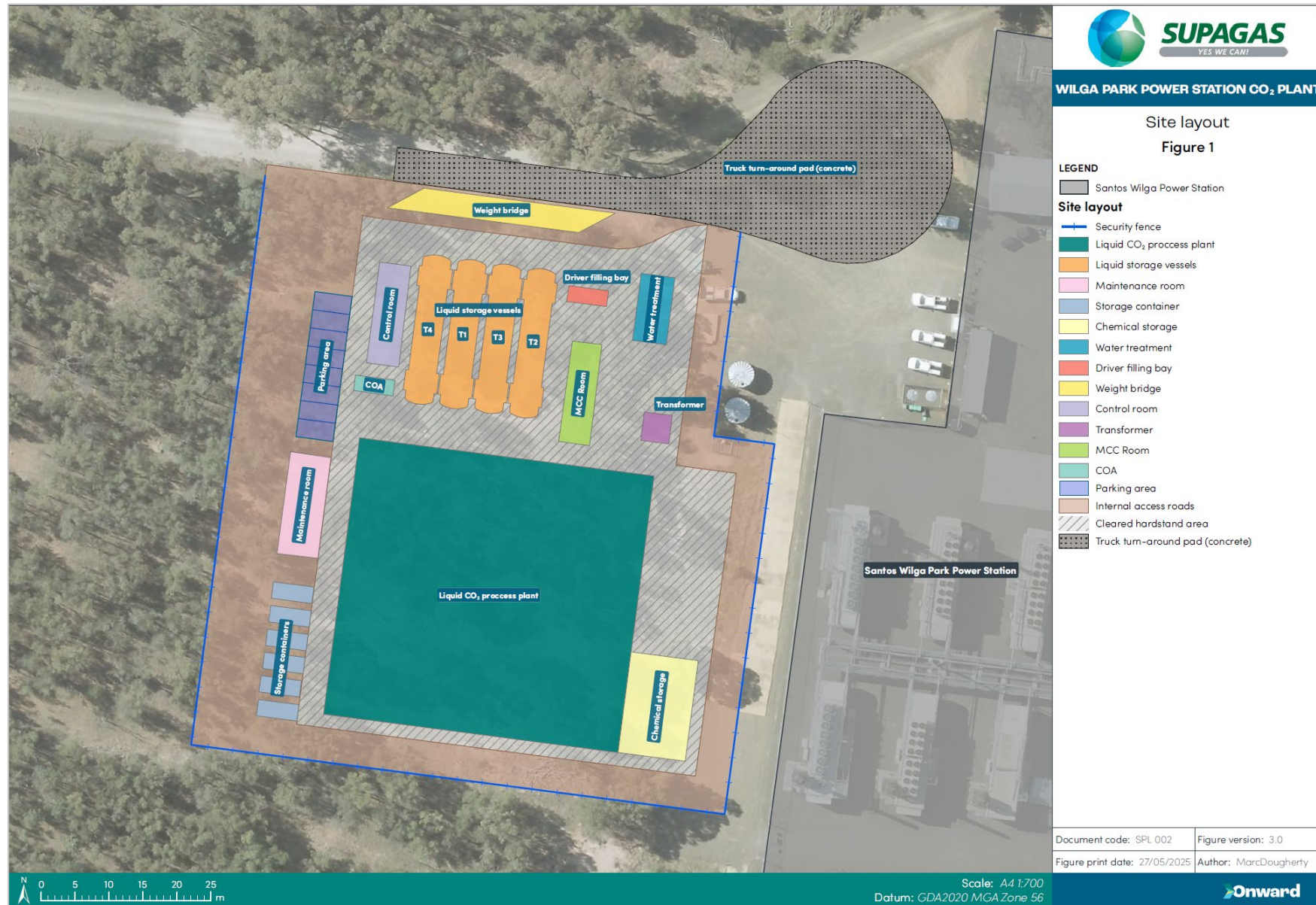
3.2 Proposed Works

Construction activities for the Project are anticipated to comprise:

- Planning and mobilisation:
 - survey, investigations and setting out of the Project Area in accordance with the subdivision and design plans;
 - establishment of construction compound area in the Project Area, including site sheds, parking, equipment laydown areas, waste receptacles, stockpiling areas, storage areas for construction materials;
 - installation of environmental controls including temporary erosion, sediment, and water quality controls (e.g. silt fences and stormwater diversion drains);
 - clear and grub vegetation, where required; and
 - removal and stockpiling of topsoil.
- Construction and installation of a CO₂ plant, including:
 - equipment and structures required for the operation of the CO₂ plant;
 - hardstand areas, including concrete pads, parking (i.e. light and heavy vehicle), internal access roads, and a heavy vehicle turning area;
 - site amenities (i.e. power and water supply, and wastewater management);
 - establishment of operational surface water management infrastructure; and
 - completion of power connection works to the WPPS electrical network.

No changes are proposed to the existing access via the existing WPPS private access road and connection to Kiandool Lane and the broader road network.

Figure 11: Proposed Development



Source: Onward

3.3 Construction Information

The physical construction of the Project is expected to commence in 2026 and take up to 15 months.

A Traffic Management Plan (TMP) would be prepared prior to construction commencing as outlined in Section 7.

3.4 Operation Information

Production operations are proposed to occur on completion of the construction. A total of two full time equivalent (FTE) staff would be expected to operate the Project, during normal business hours, with the occasional visit from maintenance personnel as required.

Heavy vehicles would be used for delivery to and from the site, with up to four trucks expected per day during for collection and deliveries up to B-Double size.

4. Traffic Assessment

Traffic generated by the Project can be separated into two distinct stages: construction and operation. The traffic generated during both stages includes vehicle movements associated with the workforce accessing the Project Area and heavy vehicle movements associated with the transport and delivery of raw materials, plant and end-product.

The following provides an assessment of the potential traffic impacts of the Project on the road network function during construction and operation.

4.1 Definitions

The following terminology is referenced throughout this section and within the remainder of the report.

Table 6: Traffic Assessment Definitions

Terminology	Definition
Vehicle Trip	A trip is defined as a one way vehicular movement from one point to another excluding the return journey. Therefore, a return trip to and from the site is counted as two trips.
Vehicles per Day (vpd)	The volume of traffic (number of trips) occurring within a 24-hour period. For traffic volumes associated with the project, this value is generally an even number to reflect the return trip associated with each vehicle.
Vehicles per Hour (vph)	The volume of traffic (number of trips) occurring within a one hour period.
Heavy Vehicle	A vehicle with a Gross Vehicle Mass (GVM) or Aggregate Trailer Mass (ATM) of more than 4.5 tonnes as defined in the Heavy Vehicle National Law (HVNL).
General Access Vehicle (GAV)	General Access Vehicles (GAV) don't require a permit or notice to access road networks; these vehicles have as-of-right access to the network unless signposted otherwise (e.g. a bridge tonnage restriction).
Restricted Access Vehicle (RAV)	Restricted Access Vehicles (RAV) include Class 1, 2 or 3 vehicles that operate under a notice or permit and vehicles operating under higher mass limits (HML) that have restrictions on the parts of the road network they can access.
Oversize and/or Overmass (OSOM) Vehicle	OSOM vehicles are defined as Class 1 vehicles under the Heavy Vehicle National Law. A vehicle or vehicle combination is considered to be OSOM if it exceeds any general access mass or dimension limits.
High Risk Oversize/Overmass Vehicle	A sub-category of OSOM vehicles that exceed certain criteria for length, height, rear overhang, forward projection, width or total combination weight. These vehicles are subject to Transport Management Plans (TMPs) which provide a comprehensive planning and execution focus to ensure that these movements are carried out in a safe and responsible manner with reduced impact on other road users and road infrastructure. These vehicles also require pilot vehicle escort.

4.2 Construction Phase

The peak hour for construction traffic will occur at the start and end of the day when workers are transported to/from the Project Area. Most workers will typically arrive on-site between 6:00am and 7:00am and depart between 5:00pm and 7:00pm. Workers generally have staggered finish

times which results in the evening peak hour being less pronounced, however for the purposes of this assessment it is conservatively assumed that the evening peak hour Project traffic is the same as the morning peak, and the evening peak hour occurs from 5:00pm to 6:00pm.

The construction traffic volumes for the Project have been provided by the Applicant. It is anticipated that during peak construction the Project would generate up to 60 light vehicle trips and 26 heavy vehicle trips per day. Table 7 summarises the forecast traffic volumes expected to be generated during the construction period of the Project.

Table 7: Traffic Generation During Construction Period

Vehicle Type	Average Construction Periods		Peak Construction Period	
	Vehicle Trips per Day (vpd)	Peak Hour Trips (vph)	Vehicle Trips per Day (vpd)	Peak Hour Trips (vph)
Light Vehicles	40	15	60	25
Heavy Vehicles	10	2	20	2
Class 1 Non-High Risk Oversize / Overmass (OSOM)	0	0	6	2
Total	50	17	86	29

Overall, the Project is expected to generate up to 29 vehicles trips per hour in the morning and evening peak hours during the peak construction period, which would reduce to 17 vehicle trips per hour during the average construction periods.

4.2.1 Class 1 OSOM Vehicles

A mix of OSOM vehicles will be required to transport construction plant and equipment to site, which would include vehicles and plant like:

- Excavators
- Mobile cranes
- Graders
- Dump truck
- Concrete pumps
- Compactors
- Pile driving rig
- Cable trenching and laying equipment

A total of four OSOM vehicle combinations will be required for the specialist plant and equipment for the Project, comprising storage vessels (3) and specialist CO₂ capture equipment.

The largest vehicle combinations will be for the transportation of the storage vessels which have dimensions as outlined in Table 8.

Table 8: Largest Specialist Plant to be Transported

Item	No.	Approx. Vehicle Combination Size (L x W x H)	Approx. Vehicle combination weight (tonnes)	OSOM Vehicle Combination
Storage Vessels	3	24m x 4.9m x 4.6m	101	Units would be transported with a prime mover and trailer,

A visual representation of the storage vessels and vehicle combination is presented in Figure 12.

Figure 12: Example Storage Vessel Vehicle Combination



Source: Onward

It is anticipated that the OSOM vehicles would comply with the Class 1 exemption notices and would be able to operate on the approved NSW Vehicle Networks. The vehicles would access the site from the Newell Highway which is rated to accommodate complying vehicles.

Many of the vehicles listed above would not create daily trips in and out of the Project Area. It is expected that there will be influxes of arrivals and departures from the site depending on the phase of the construction. Once arrived, they would remain until not required, before being removed from the site. The trips would be generated outside of peak site access hours.

It is important to note that no High-Risk OSOM vehicle combinations² are required for construction of the Project.

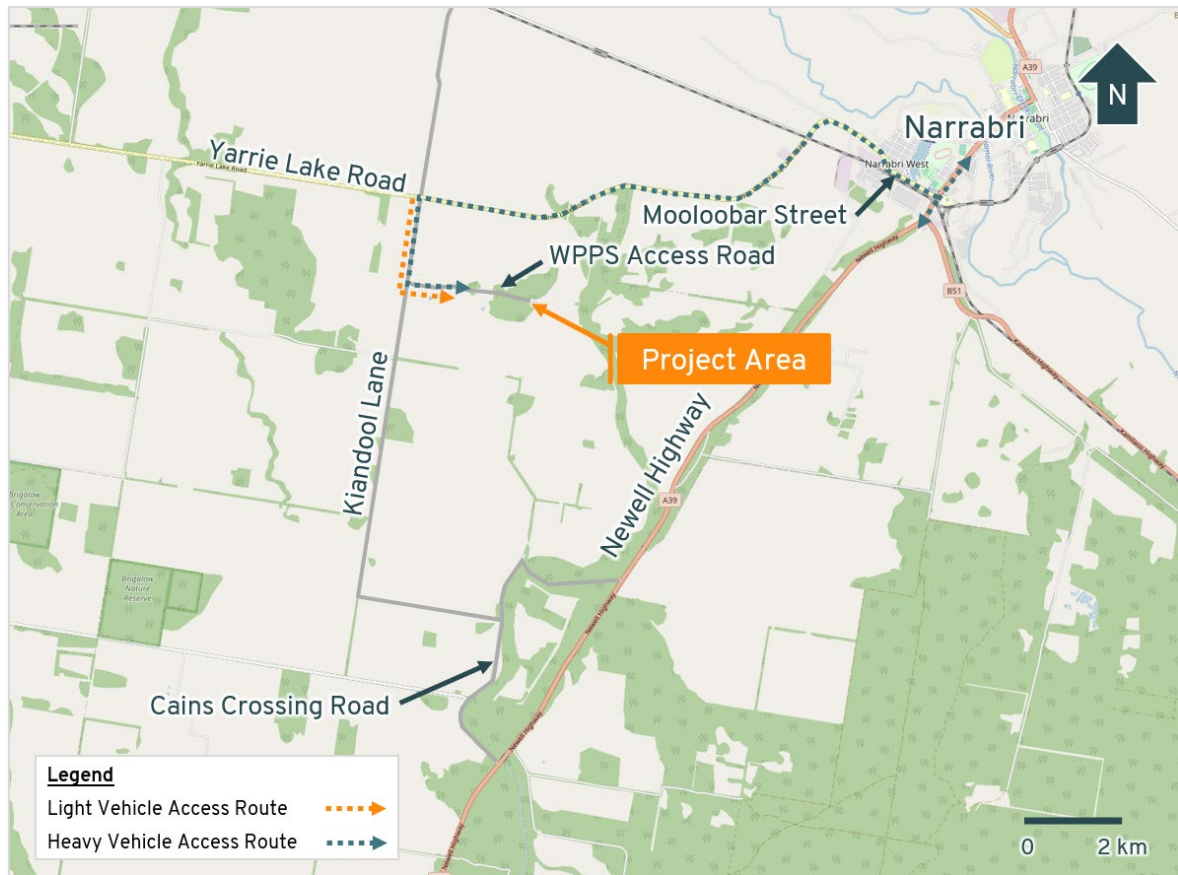
4.2.2 Traffic Distribution

It is anticipated that the majority of the workforce for the construction of the Project would be located in Narrabri and possibly a proportion in Wee Waa. Materials and equipment will generally be sourced from within Narrabri or the surrounding area where practicable, with all larger plant expected to be delivered from Port of Newcastle.

² As defined by TfNSW here: <https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/heavy-vehicles/road-access/oversize-and-or>

All light and heavy vehicle access to the site during construction is to be via Yarrie Lake Road and Kiandool Lane from the north as shown in Figure 13.

Figure 13: Light and Heavy Vehicle Access Routes



Source: OpenStreetMap

The peak hour for construction traffic occurs during the following periods:

- Morning peak hour: 6:00am to 7:00am
- Evening peak hour: 5:00pm to 6:00pm

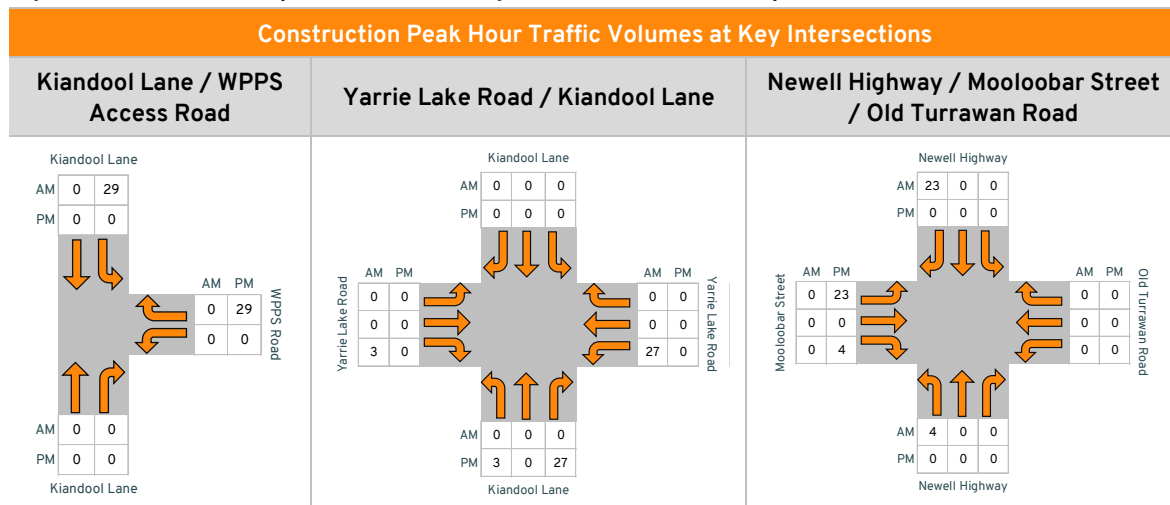
During the morning peak all vehicle trips would be toward the site and in the evening peak all vehicle trips would be away from the site. The majority of heavy vehicle trips would be distributed throughout the day and would be split evenly between inbound and outbound trips.

The following distribution for the peak hour has been adopted:

- **Light vehicles:** 90% from the east, 10% from the west
- **Heavy Vehicles including OSOMs:** 100% via the Newell Highway, with 90% from the south and 10% from the north.

Based on the traffic distribution above the estimated vehicle trips generated by the site during the construction peak hours on the three intersections on the access route to site are shown in Figure 14.

Figure 14: Peak Hour Project Volumes During Peak Construction – Key Intersections



The anticipated traffic volumes through the intersections shown in the figure have been used for further assessment of the intersection performance as presented below.

4.3 Traffic Assessment

An assessment has been carried out for the key intersections and midblock road sections that form part of the proposed travel routes identified in Figure 13.

4.3.1 Intersection Performance

In order to determine the ability of the road network to accommodate the traffic expected to be generated during the peak construction period, a traffic modelling exercise has been undertaken for the following intersections using the SIDRA intersection modelling software:

- Kiandool Lane / WPPS Access Road
- Yarrie Lake Road / Kiandool Lane
- Newell Highway / Mooloobar Street / Old Turrawan Road

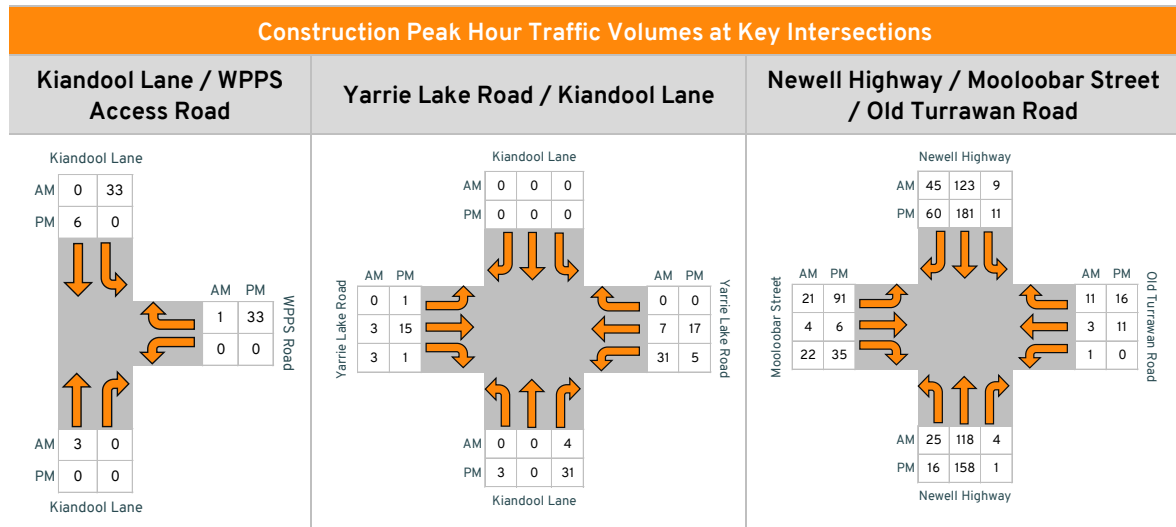
Level of Service is a qualitative measure used to describe the operating conditions of a section of road or an intersection. Levels of Service are designated from A to F from best (free flow conditions) to worst (forced flow with stop start operation, long queues and delays) and represent the perception of the road conditions by motorists including speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience, and safety. The assessment of the level of service for sign-controlled intersections is based on the average delay (seconds/vehicle) of the critical movement.

The modelled traffic volumes at the intersection have been based on the morning and evening peak of construction traffic which occur from 6:00am to 7:00am and 5:00pm to 6:00pm, respectively. The traffic volumes consist of the sum of the following:

- existing surveyed traffic volumes as described in Section 2.2.1, and
- construction traffic volumes outlined above and shown in Figure 14.

The resulting total traffic volumes used for the assessment are provided in Figure 15.

Figure 15: Peak Hour Total Volumes During Peak Construction – Key Intersections



The results of the SIDRA analysis for the construction peak hours at each intersection are provided within and summarised in Table 9 to Table 11 with the full set of results shown for reference in Appendix C.

Table 9: SIDRA Analysis Results Summary - Kiandool Lane / WPPS Access Road

Approach / Movement		Construction Morning Peak Hour			Construction Evening Peak Hour		
		Average Delay (sec)	95% Queue (m)	Level of Service	Average Delay (sec)	95% Queue (m)	Level of Service
Kiandool Lane (South)	Through	0	0	A	0	0	A
	Right	5.7	0	A	5.6	0	A
WPPS Site Access Road (East)	Left	5.7	0	A	5.7	0.8	A
	Right	5.6	0	A	5.6	0.8	A
Kiandool Lane (North)	Left	5.7	0	A	5.7	0	A
	Through	0	0	A	0	0	A

Table 10: SIDRA Analysis Results Summary - Yarrie Lake Road / Kiandool Lane

Approach / Movement		Construction Morning Peak Hour			Construction Evening Peak Hour		
		Average Delay (sec)	95% Queue (m)	Level of Service	Average Delay (sec)	95% Queue (m)	Level of Service
Kiandool Lane (South)	Left	5.7	0.2	A	5.8	0.9	A
	Through	4.4	0.2	A	4.5	0.9	A
Yarrie Lake Road (East)	Right	5.8	0.2	A	5.8	0.9	A
	Left	8.2	0.1	A	8.2	0.1	A
Kiandool Lane (North)	Through	0	0.1	A	0	0.1	A
	Right	7.8	0.1	A	7.8	0.1	A
Yarrie Lake Road (West)	Left	5.7	0.1	A	5.8	0.1	A
	Through	4.4	0.1	A	4.5	0.1	A

Table 11: SIDRA Analysis Results Summary - Newell Highway / Mooloolbar Street / Old Turrawan Road

Approach / Movement		Construction Morning Peak Hour			Construction Evening Peak Hour		
		Average Delay (sec)	95% Queue (m)	Level of Service	Average Delay (sec)	95% Queue (m)	Level of Service
Newell Highway (South)	Left	4.1	6.1	A	4.2	5.9	A
	Through	4.1	6.1	A	4.3	5.9	A
Old Turrawan Road (East)	Right	9.3	6.1	A	9.5	5.9	A
	Left	4.6	0.5	A	5.1	1	A
Newell Highway (North)	Through	4.7	0.5	A	5.2	1	A
	Right	9.9	0.5	A	10.4	1	A
Mooloolbar Street (West)	Left	4.1	5.9	A	3.9	8.7	A
	Through	4.2	5.9	A	4	8.7	A

Overall, the SIDRA analysis indicates the following:

- Each intersection is expected to operate with minimal queue lengths on all legs.
- The overall average delay at each intersection is below seven seconds during the peak hours which is considered to be minor.
- Each intersection is generally expected to continue to operate with an excellent Level of Service (LOS A).

Accordingly, each intersection is expected to continue to operate efficiently with minimal queuing and delays expected during the peak construction period.

4.3.2 Peak Hour Mid-block Assessment

Table 4.5 of the RTA Guide sets out two-way hourly road capacities for two-lane roads for different levels of service and based on different terrain types. The maximum volume to achieve LOS A for a level terrain rural road with approximately 15% heavy vehicle traffic is in the order of 530 vehicles per hour.

A mid-block assessment of the traffic accommodated on the WPPS Site Access Road, Kiandool Lane and Yarrie Lake Road using the peak hours are shown within Table 12, which is based on the surveyed traffic volumes presented within Section 2.3 and the anticipated traffic volumes generated by the Project during construction.

Table 12: Expected Peak Hour Traffic Volumes During Construction

Road	Construction Morning Peak Hour			Construction Evening Peak Hour		
	Existing Volume	Expected Volume	LOS	Existing Volume	Expected Volume	LOS
WPPS Site Access Road	5	34 (+29)	A	4	33 (+29)	A
Kiandool Lane	8	37 (+29)	A	10	39 (+29)	A
Yarrie Lake Road	18	47 (+29)	A	43	72 (+29)	A

Therefore, during the peak hours of construction, the WPPS Site Access Road, Kiandool Lane and Yarrie Lake Road would accommodate approximately 33 to 72 vehicles per hour during peak construction which is well within the capacity of the road network, and the road is expected to continue to operate with an excellent LOS based on Table 4.5 of the RTA Guide.

During the middle of the day the traffic movements are expected to be predominantly associated with heavy vehicles with approximately two to three heavy vehicle trips per hour. This increase in traffic would be within can be readily accommodated on the road network.

4.3.3 Daily Traffic Volumes

The expected daily traffic volumes on the WPPS Site Access Road, Kiandool Lane and Yarrie Lake Road have been calculated are based on the daily traffic volumes outlined in Section 2.3 and the peak daily construction volumes shown in Table 7.

The expected daily traffic volumes on the access route to site are shown in Table 13.

Table 13: Expected Daily Traffic Volumes During Peak Construction

Road	Daily Traffic Volume two-way during Construction Peak	
	Existing Volume	Expected Volume
WPPS Site Access Road	12	98 (+86)
Kiandool Lane	56	142 (+86)
Yarrie Lake Road	450	536 (+86)

A review of the table shows that Yarrie Lake Road would be expected to carry up to 536 vehicles during the peak construction period, which is well within the capacity of the road. The results also shown that Kiandool Lane and the WPPS Site Access Road will carry between (approximately) 100 and 150 two-way vehicle movements per day.

The *Australian Road Research Board Best Practice Guide for Unsealed Roads 2³* (ARRB Guide), dated October 2020, provides a breakdown of the unsealed road classifications based on a functional classification system which is reflective of the approach taken within the Austroads Guidelines. It is noted that the traffic volumes refer to Average Daily Traffic (two-way). A summary of the classifications outlined within Table 3.9 of the ARRB Guide is provided below.

Table 14: Unsealed Roads Classification System (ARRB Guide)

Road Class	Class Type	Service Function Description	Road Type Description
4A	Main Road > 150 vpd	This type of road is used for major movements between population centres and connection to adjacent areas. High traffic volumes occur, and the road can carry large vehicles.	- All weather road, predominantly two-lane and unsealed. Can be sealed if economically justified. - Operating speed standard of 50–80 km/h according to terrain. - Minimum carriageway width is 7m.
4B	Minor Road 50-150 vpd	This type of road is used for connection between local centres of population and links to the primary network.	- All-weather two-lane road formed and gravelled or single-lane sealed road with gravel shoulders. - Operating speed standard of 30–70 km/h according to terrain. - Minimum carriageway width is 5.5m.
4C	Access Road 10-50 vpd	Provides access to low use areas or individual rural property sites and forest areas. Caters for low travel speed and a range of vehicles and may be seasonally closed.	- Substantially a single lane two-way, generally dry weather, formed road. - Operating speeds standard of < 20–40 km/h according to terrain. - Minimum carriageway width is 4m.
4D	Tracks < 10 vpd	Mainly used for fire protection purposes, management access and limited recreational activities.	- Predominantly a single-lane two-way earth track (unformed) at or near the natural surface level. - Predominantly not conforming to any geometric design standards. - Minimum cleared width is 3m.

A review of the information from the ARRB guide confirms that the during peak construction, Kiandool Lane and the WPPS Site Access Road would operated as 'Class 4B' type roads, which require:

- *All-weather two-lane road formed and gravelled or single-lane sealed road with gravel shoulders.*
- *Operating speed standard of 30–70 km/h according to terrain.*
- *Minimum carriageway width is 5.5m.*

The current configuration of both roads currently meets this requirement and are therefore considered suitable to accommodate the daily traffic volumes during the temporary construction peak period of the Project.

³https://f.hubspotusercontent20.net/hubfs/3003125/ARRB%20Unsealed%20Roads%20Best%20Practice%20Guide_Edition%202.pdf

4.4 Operational Phase

During operation, the Project is expected to generate a much lower level of traffic, which would be associated with the two full-time staff and heavy vehicle delivery movements to and from the site. The expected daily traffic generation during operations is summarised in Table 15.

Table 15: Traffic Generation During Operational Period

Vehicle Type	Operational Phase	
	Vehicle Trips per Day (vpd)	Peak Hour Trips (vph)
Light Vehicles	4	2
Heavy Vehicles	8	0
Total	12	2

The level of traffic is very low and would be expected to have a modest impact on the surrounding local and State Road network.

4.4.1 Operational Traffic Routes

Light vehicles associated with staff would be expected to enter and depart via Yarrie Lake Road and Kiandool Lane, consistent with the construction traffic routes as shown in Figure 13.

Heavy vehicles travelling to or from the south for delivery would access the Project via Cains Crossing Road and the Newell Highway, with heavy vehicles delivering to the north travelling to and from the site via Yarrie Lake Road.

A review of the traffic surveys results recorded at the intersection of Cains Crossing Road and the Newell Highway (refer Section 2.3.1.2) confirms that the intersection and Cains Crossing Road currently carry low levels of traffic with capacity to readily accommodate an increase in traffic without adverse safety or operational impacts.

4.5 Summary

The Project is expected to generate the highest level of traffic during the peak construction period. The assessment presented above indicates that the road network is able to accommodate the Project traffic during the peak construction period within minimal impact based on intersection modelling and mid-block assessments.

During construction the vehicle trips throughout the middle of the day are expected to be predominantly associated with heavy vehicles with approximately 2-3 vehicles per hour. This increase in traffic would be within the daily variation of traffic volumes on the road network and can be readily accommodated.

During operation the increase in traffic of up to 12 vehicle movements per day would result in a modest change to the traffic environment.

Accordingly, the road network is able to readily accommodate the traffic generated by the Project during the construction and operational periods.

4.6 Mitigation Measures

A TMP is to be developed which is recommended to include the following measures to minimise the impact of construction traffic:

- Prior to construction, a pre-condition survey of the relevant sections of the existing road network should also be undertaken in consultation with Council. During construction the sections of the road network utilised by the proposal are to be monitored and maintained to ensure continued safe use by all road users, and any faults attributed to construction of the Project would be rectified. At the end of construction, a post-condition survey would be undertaken to ensure the road network is left in a condition equivalent to that at the start of construction.
- Heavy vehicles are to avoid travel during peak bus operating times to limit the interaction of larger vehicles and vulnerable road users. School buses operate within Narrabri and along Yarrie Lake Road are outlined in Section 2.4 and will be detailed within the TMP.

Therefore, it is concluded that the road network is suitable to accommodate the future light and heavy vehicle traffic volumes generated by the Project.

5. Site Layout

5.1 Site Access

No changes are proposed to the existing site access arrangements to the WPPS which is considered appropriate given the level of traffic expected and associated impacts outlined in Section 4.3.

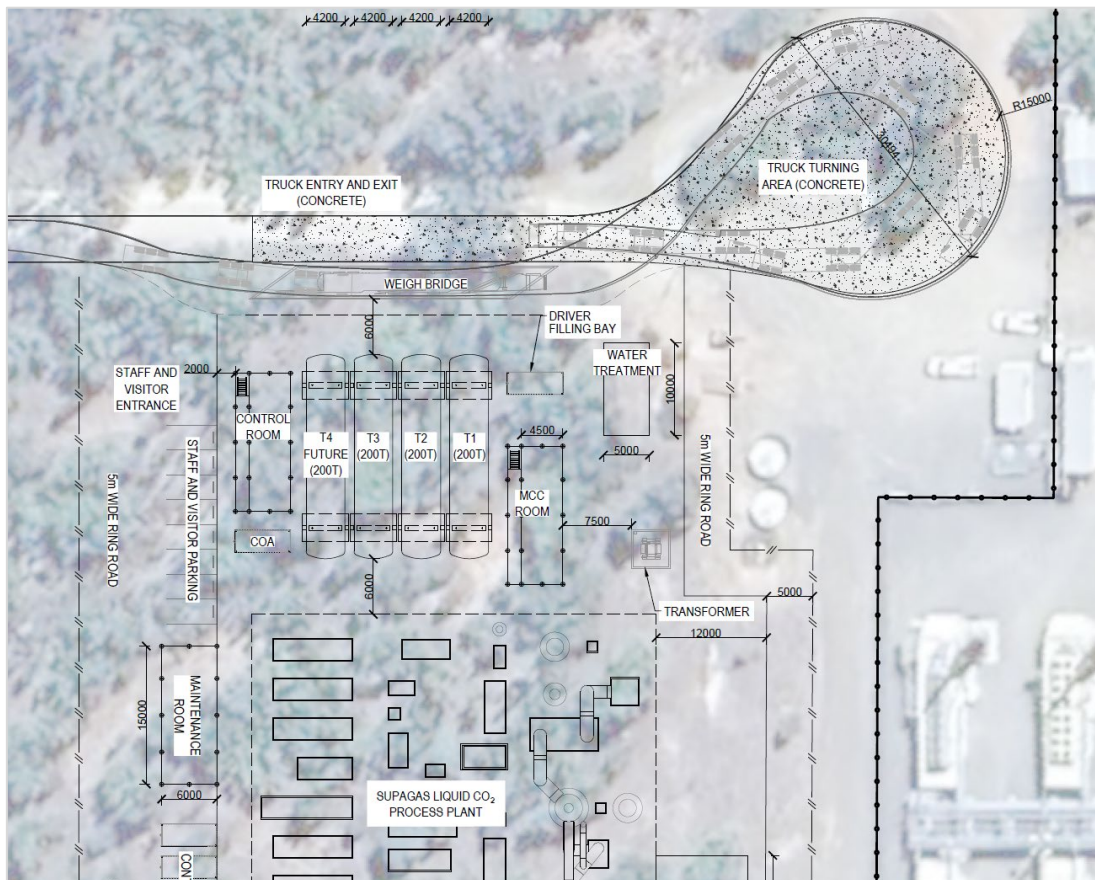
5.2 Car Parking and Layout

Areas for car parking for the Project are shown on the site layout, as well as existing at-grade parking and loading areas adjacent to the Project Area associated with the WPPS (refer Figure 11).

The parking and loading areas are sufficient to accommodate the entirety of the construction and operational parking demands without off-site impacts.

A truck turnaround area and weighbridge are proposed to facilitate collection of the product once the site is operational. A preliminary swept path assessment has been undertaken using a B-Double design vehicle, as shown in the extract of the design plans in Figure 16. A copy of the plan is also included in Appendix D for reference.

Figure 16: Extract of Design Plans



Source: Supagas

Overall, the internal car parking and loading arrangements are considered suitable subject to further detailed design development.

6. Access Arrangements

The primary proposed access route for B-Double vehicles from the State Road network (Newell Highway) is the North Access Route via Moolooobar Street, Baranbar Street, Goobar Street, Yarrie Lake Road and Kiandool Lane as shown in Figure 17.

Figure 17: Proposed B-Double Access Routes



Source: OpenStreetMap

The route measures a total of 16.5km, with all roads between Newell Highway and the site access currently approved for use by B-Doubles. A swept path assessment of intersections where the B-Double vehicles would undertake turning movements has been undertaken and provided in Appendix D.

Alternatively, B-Double vehicles may approach the site from the south via Cains Crossing Road and Kiandool Lane, as shown in Figure 17. This route measures 15.6 kilometres from Newell Highway to the site access with all roads currently approved for use by B-Doubles. The swept path assessment for the intersection of Newell Highway / Cains Crossing Road is also provided in Appendix D.

7. Traffic Management Plan

7.1 Traffic Management

It is recommended that a TMP be prepared prior to commencement of construction of the development. The TMP should be prepared and implemented in accordance with Australian Standard 1742.3 and the Work Health and Safety Regulation 2017. The TMP would provide additional information regarding the traffic volumes and distribution of construction vehicles that is not available at this time including:

- Road transport volumes, distribution and vehicle types broken down into:
 - Hours and days of construction.
 - Schedules for phasing/staging of the Project.
- The origin, destination and routes for:
 - Employee and contractor light vehicles.
 - Heavy vehicle traffic.
 - Oversize/overmass vehicles.
- A map of the primary haulage routes highlighting critical locations.
- An induction process for vehicle operators and regular toolbox meetings.
- A complaint resolution and disciplinary procedure.
- Local climatic conditions that may impact road safety of employees throughout all Project phases (e.g. fog, wet and significant dry, dusty weather).

The following provides recommended measures that should be adopted within the TMP to minimise the impact of construction traffic along the road network.

7.1.1 Signage

If deemed necessary, specific warning signs advising of the changed traffic operations and heavy vehicles are to be appropriately located on approaches to and from the transport routes on Council roads. These should warn existing road users of changed traffic conditions. The use of day warning notices where signs are activated on a specific day to warn local road users of construction activities may also be applied.

7.1.2 On-Site Mitigation Measures

On-site mitigation measures targeted at safety and reducing the impact of on-site transport would include:

- On-site speed restrictions.
- Appropriate dust suppression measures.
- Maintenance program for on-site access tracks to ensure safe access.
- Loading and unloading is proposed to occur within the work area. No street or roads would be used for material storage at any time.

- Sufficient car parking is to be provided on-site to ensure vehicles do not park on the surrounding road network.
- All car parking and loading areas to be designed in accordance with the relevant Australian Standard (2890 series) and Council requirements.

7.1.3 Driver Protocols

Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the workforce. A Driver Code of Conduct is to be implemented as a measure to maintain safety within and around the site:

- All vehicles would enter and exit the site in a forward direction.
- Heavy vehicle movements should avoid peak school bus times to limit the interaction of larger vehicles and vulnerable road users.
- Safety initiatives for impacts to residential areas and/or school bus zones.
- Utilisation of only the designated transport routes.
- Construction vehicle movements are to abide by finalised schedules as agreed by the relevant authorities.

The above recommendations will ensure the construction traffic would have a minimal impact to the capacity and safety of the surrounding road network. The TMP would be prepared in conjunction with consultation with Council.

7.2 Existing Management Plans

It should be noted that the WPPS has a number of existing management plans in place. Specifically, the Construction Management Plan (CMP) has measures relevant to the management of traffic. A selection of measures are outlined below for reference:

- Deliveries will be performed during approved working hours.
- Routes should have firm and even surfaces and be properly drained. The surface should be capable of taking the load of the vehicle.
- Routes should be maintained to provide an effective surface for both vehicles and personnel. Any unsuitable conditions such as overly slick or rough shall be reported.
- All Light Vehicle drivers to have completed a certified 4WD Course.
- Each driver will be individually issued In Vehicle Monitoring System (IVMS) operators electronic Driver Identification Tag daily by task or permanently with a register maintained at issue.
- All frequently used unsealed roads shall be inspected for deterioration and damage following storms, cyclones, prolonged rainy conditions, prolonged dry conditions
- All roads shall be checked for the condition of the road surface and signage, and if the condition of a road has deteriorated significantly, the section of road should be reported to the Downer Site Supervisor for official notification to Santos.

It is recommended that similar measures be included on a future Project-specific TMP.

8. Conclusion

Amber Organisation Pty Ltd has been engaged by Onward on behalf of Supagas to conduct a review of the traffic implications for the proposed CO₂ Plant at the WPPS and prepare a Traffic Impact Assessment.

The Project involves capture and processing of the exhaust gases from the WPPS to produce a high purity CO₂ product.

The Project is located adjacent to the existing WPPS with access via Kiandool Lane and the WPPS (private) site access road. The proposed site access route connects to the State road network at the intersections of Mooloolbar Street / Newell Highway in Narrabri, and Cains Crossing Road / Newell Highway in Bohena Creek.

The construction period is expected to commence in 2026 and take up to 15 months. A construction workforce of up to 30 FTE personnel would be on-site during the peak construction phase and would primarily be located in the nearby town of Narrabri.

The above assessment determined the following:

- The site is expected to generate up to 86 vehicle trips per day during the peak construction period, including 26 heavy vehicle trips.
- Intersection and mid-block capacity assessments confirm that the road network is able to accommodate the traffic generated by the development during the construction without adverse operational impacts.
- A review of the ARRB Guide confirms that the daily traffic generated can be accommodated on suitable all-weather roads consistent with that currently provided on the proposed access routes to and from the Project.
- A small component of the heavy vehicle traffic to site will be OSOM vehicles. These vehicle combinations will not be classed as High-Risk and would operate on suitable pre-approved networks near the Project Area.
- During operations, the Project is anticipated to generate four light vehicles and eight heavy vehicles per day which would be expected to have a negligible impact on the surrounding road network in terms of operation and safety.
- The existing WPPS site access and access routes to site are considered suitable to safely accommodate access to the Project.
- The proposed car parking and loading arrangements are considered suitable subject to further detailed design development.
- In order to mitigate the impacts of the development during construction a TMP would be prepared which should include the recommendations provided within this document.

Accordingly, based on the assessment above and subject to the provision of appropriate management measures as part of a future TMP, it is concluded that the road network is able to accommodate the traffic generated by the development during the construction, operational and decommissioning stages, and safe access is provided to and from the Project.

Appendix A

Response to TfNSW Advice



TfNSW Comment	Response
Hours, days and periods of construction.	<i>The proposed construction hours and project timeframe are provided within Section 3.2 and 3.3.</i>
Schedule for phasing/staging of the project (including pre-construction, accommodation and ancillary infrastructure works) and identify the traffic volumes for each stage	<i>The traffic assessment in Section 4 details the known works associated with the peak construction period</i>
Traffic volumes are to include a description of: • Surveyed existing background traffic at key intersections per Part 3 <i>Austroroads Guide to Traffic Management</i>, with survey raw data included. • Project-related traffic volumes (measured as single vehicle trips per hour, AM/PM peak hour and per day) for each stage, including pre-construction, construction, operation and decommissioning and identifying peak period(s) for traffic volumes. • Ratio of light vehicles to heavy vehicles • Differentiation of Over Size/Over Mass (OSOM) that do or do not require an NHVR permit and proposed times of operation on the State road network. • Peak times for existing traffic and project-related traffic. • Transportation hours. • Distribution split, i.e number turning left and right at each access or intersection. • Number of high-risk OSOM anticipated for the project.	<i>Existing traffic captured in surveys provided in Section 2.3 with the data provided in Appendix B.</i> <i>Project traffic presented in Section 4.2.</i> <i>Section 4 shows different vehicle classifications using the road network, different impacts at differing peak times of day, factoring up of background traffic to proposed peak construction period, and traffic distribution.</i>
The origin, destination and routes (including maps for all stages of the project) for: • Employee and contractor light traffic. • Heavy vehicle traffic. • OSOM vehicle traffic. • OSOM high risk loads. • A description of all non-high risk OSOM vehicles and materials to be transported. The shortest and least trafficked route is to be given priority for the movement of materials and machinery to minimise risk and impact to other motorists, so far as is reasonably practicable. • Identify the location of each new or existing intersection and access point (including GPS coordinates for new locations) that will be used for project traffic and what types of vehicles. • The assessment is to identify high-level enforceable mitigation measures to manage traffic volumes, driver behaviour and site access paths for all project stages.	<i>Routes are outlined in Section 4, specifically Figure 13.</i>



TfNSW Comment	Response
A turn warrant assessment for different scenarios (i.e project peak hour is different to network peak hour, for worst case scenario (i.e overlap of construction, pre-construction works and occupation of stages of workforce accommodation camp). The turn warrant assessments are to be prepared in accordance with section 3.25 of Part 6 of the <i>Austrroads Guide to Traffic Management</i>. A turn warrant assessment will be required for each scenario identified above and for each access, access track and any other access along the project's identified routes with an interface or connection to the state road network. The methodology to be used for the turn warrants assessment is: • AM/PM peak project traffic volumes (including turn direction and traffic type ratios), • Applied to existing AM/PM network peak background traffic, • Include linear growth to the year of peak construction. • Including the cumulative traffic volumes for projects at EIS and approved stages that will be present in the background and turning traffic volumes at the site access or intersection. <i>Note: In rural agricultural areas, harvest periods must be factored into the traffic analysis and turn warrant assessments.</i> <i>Note: SIDRA Analysis may be required in locations with higher populations, accesses or intersections used by other existing high traffic-generating land uses or accesses that are located close to railways lines or traffic signals.</i>	<i>Intersection assessments have been undertaken by way of SIDRA analysis as outlined in Section 4.3.</i> <i>The analysis confirms that the intersections on the routes to site can readily accommodate the project traffic.</i>



TIA is to detail the required intersection treatments and scope of upgrades at each intersection and proposed access point that is required to facilitate workforce accommodation facilities, transmission lines, compounds, ancillary infrastructure access, emergency access must be designed to facilitate the traffic volumes and safe turning of project traffic for each identified access or intersection with the State Road network. All strategic concept designs must be developed to demonstrate compliance with Austroads, TfNSW supplements, and TfNSW technical directions.

The list below (but not limited to) is provided to assist with common questions and issues that may arise with the preparation and review of strategic concept design for renewable projects, and is provided as helpful tips to assist in the preparation of the strategic concept design.

- The 2D section of the TfNSW strategic concept design fact sheet will inform the level of detail required to be captured within the strategic concept designs for each access or intersection that is required to be upgraded.
- An assessment of the Safe Intersection Sight Distance (SISD) at each access point or intersection to be used by the project traffic is to be included within the TIA. TfNSW adopts within the TfNSW supplement to Austroads a 2.5 second reaction time for design speeds 110km/hr. The outcome of the SISD assessments must be incorporated into the scope of the strategic concept designs (where required).
- Strategic concept designs are to include swept path analysis for the largest heavy vehicle and high-risk OSOM configuration (design and check) required to use each intersection or access point. Must be prepared in accordance with *Austroads Design Vehicles and Turning Path Templates*.
- The posted speed zone +10km/hr is the design speed that is to be used to inform the strategic concept designs.
- Typical sections are to be included for the drainage and must be designed to provide a 6:1 batter and table drain.
- Sealed shoulder width requirements are informed by the Average Annual Daily Traffic volumes (AADTs), which will be obtained from the traffic count data collected within the traffic count survey.
- The strategic concept designs are to factor in any existing accesses, intersections or TfNSW planned works and will need to consider within the designs how the accesses or interaction with TfNSW will be accommodated or impacted by the design.
- Culvert extensions and clear zone requirements will need to be addressed within the strategic concept designs for each access and intersection.
- Any other geometric or infrastructure constraints (i.e railways, proximity to accesses, intersections, rest areas, stockpiles. Embankments) will need to be addressed within the strategic concept designs.
- Road train gazetted routes will need to incorporate additional widening within the design of the intersection treatments refer to the relevant intersection treatment type within *Austroads Guide to Road Design Part 4A*.
- Left in left out proposed arrangements will need to prepare in accordance with Austroads Guide to Traffic Management Part 6 for the design requirements for these arrangements any proposed U-turn location will need to be designed or provide suitable existing intersection treatments to accommodate the design heavy vehicle and proposed project traffic volumes during the peak of construction (or other relevant stage) that will use the U-turn facility.
- Acceleration lanes will be required based on the identified reasons for needing an acceleration lane within the *Austroads Guide to Traffic Management Part 6*.
- Any street lighting that requires relocation is to be designed following TfNSW Technical Direction. Required changes to street lighting must be designed in accordance with R0600 Street Lighting, AS 1158.1, and TfNSW supplements.
- Any access via TfNSW assets (i.e stockpiles and rest areas) is to be discussed with TfNSW prior to consideration of use of these

Not applicable – the SIDRA analysis undertaken confirms that the project traffic can be readily undertaken at all intersections on the routes to site.



TfNSW Comment	Response
locations. • Relocation or modification to bus stops, safety barriers and rest areas etc is to be identified on the strategic concept designs and discussed with TfNSW. • Consideration of radii and adjustment for crests and curved road geometry. • Pavement widening for high-risk OSOM is to be consistent with the existing pavement of the state road network. • Emergency access points are to include gates to prevent access for project traffic, designed to accommodate the storage of the largest emergency vehicle, assess SISD and provide a compliant (sealed) rural property access in accordance with the requirements of <i>Part 4 of Austroads Guide to Road Design</i>. <i>Note: It is the proponent's responsibility to acquire and dedicate land required to accommodate road infrastructure including, but not limited to, footways, structures, stormwater drainage, batters, maintenance access and utilities.</i> <i>Note: Works Authorisation Deeds are required for intersection upgrades on the state road network.</i> <i>Note: TfNSW is not the landowner of the state road network. The relevant council is the landowner of the state road network (with the exclusion of freeways).</i>	
Traffic safety assessment: • Local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the project (eg fog, wet weather, snow etc). • A review of crash data along the identified transport route/s for the most recent 5-year reporting period and an assessment of road safety along the proposed transport route(s). • Measures to be employed to ensure a high level of road safety for daily staff commutes between accommodation and construction site(s), specifically addressing impacts of unsafe driver behaviour and driver fatigue for all project stages and how measures employed will be enforced.	<i>Refer Section 2.6</i>



TfNSW Comment	Response
Pre-construction minor works assessment (prior to construction of intersection upgrade): - Identify the traffic volumes. - Traffic types, inclusive of the largest design vehicle. - Provide a swept path analysis of the existing intersection for the largest heavy vehicle, prepared following Austroads Design Vehicles and Turning Path Templates. The swept path analysis must demonstrate that the largest heavy vehicle can turn within the existing pavement and concurrently. If the design vehicle cannot turn, concurrently enforceable mitigation measures or additional temporary works will need to be implemented to manage and mitigate the impacts. - Provide an assessment of the existing SISD and measures that will be implemented to achieve a compliant SISD, i.e prohibition of turning movements, left in left out or vegetation removal. - Identify the AM/PM peak hour and proposed traffic volumes during this period. - Identify measures to reduce the project traffic and impacts during this period i.e carpooling, shuttle buses, staggering of traffic. - Identify mitigation measures to monitor and enforce the traffic volumes during this period. - Provide a schedule of the proposed pre-construction minor works and program of works. - The AM/PM peak hour must be consistent with the traffic volumes that would be generated during this period by the existing land use. Avoid network peak hours where possible. - Include measures to inform the community and key stakeholders of the increased traffic during this period. - Identify the hours for pre-construction minor works. - Identify the traffic volumes for any temporary workforce accommodation that will be occupied during this period. - Identify any temporary widening or works that may be required to accommodate swept paths for the design vehicle during this period within a strategic concept design. - Any overlap of construction and pre-construction minor works periods must be included in the traffic assessment for this stage, prior to completion of the intersection upgrade. - No OSOM will be permitted during this period, unless swept paths are provided that demonstrate that the intersection or access will be able to accommodate the turn of the OSOM movement within the existing pavement. - The sealing of the throat of the intersection (if unsealed) or access point may be required before the commencement of use of the intersection or access point for this stage. - Temporary traffic controls will not be permitted to be used at the intersection or access point for pre-construction minor works that is occurring before commencing the required road upgrades. <i>Note: Consultation should occur with the relevant roads authority (Council) for any use of local or regional roads for pre-construction minor works.</i> <i>Note: The use of the intersections where the road upgrades are under construction will be dependent on the Traffic Guidance Schemes prepared per AS1742.3 and the Austroads Guide to Temporary Traffic Management. Generally, this will involve implementing reduced speed zones, installing signage, and using stop/go traffic control, among other measures. During this period, the use of the intersections will only be permitted while stop/go traffic control is in place and during daylight construction hours.</i>	<i>Not applicable – intersection upgrades are proposed.</i>



TfNSW Comment	Response
Gas Pipelines and transmission lines (where applicable) • In relation to the EIS, TfNSW requires the identification of ancillary infrastructures, such as Gas Pipelines that are crossing or near the state-classified road network or rail infrastructure within TfNSW remit. With respect to this matter the following information is required: • The depths (under boring) and locations of the pipeline infrastructure in relation to the road reserve. Clear zones are to be complied with for all proposed pipeline infrastructure and it is TfNSW to have the pipelines located outside of the road reserves (for transverse alignments). • Demonstrate compliance with all relevant Austroads, TfNSW supplements and technical directions. • The method for construction of the pipelines and identifying, assessing and detailing specific mitigation measures to minimise the impacts to the state road network during the construction of the pipeline infrastructure. TfNSW preference is for intermittent road closures of no more than 10 minutes per a closure, outside of network peak hours. • Location of infrastructure and impacts (excavation or fill) relative to the road reserve, including demarcation of local and state-classified road reserves. • Identify and assess new and existing access points, tracks and routes (inclusive of existing intersections) with the state road network that are required for the construction and maintenance of the pipeline infrastructure. Access points or access tracks required for the pipeline will require the same level of assessment as the primary project access point. • Any trenchless excavation of the pipeline or any transmission lines near or crossing the State road network must comply with TfNSW Technical Direction-Geotechnical (GTD 2018 002) for Trenchless Excavation with the Road and Maritime Infrastructure. • Strategic concept designs for each gas pipeline crossing the road network must be provided.	<i>Not Applicable</i>



The route assessment is required for high risk OSOM (as defined on TfNSW website) delivering components to the project. The concept level route analysis must include:

- Port or point of origin for the entire route to the site access and intersections required to facilitate high risk OSOM movements required for the project.
- The high-risk OSOM laden loads, class and vehicle configuration must include the following
- information regarding the dimensions, weight and length:
 - NHVR route ID,
 - Overall dimensions (width, height and length) of the laden load (laden load is the vehicle combination and the load to be transported),
 - Total weight of laden load,
 - GSM,
 - Payload,
 - deck height,
 - axle configuration,
 - axle spacing, including from the prime mover, and
 - axle masses (including split axle and group axle masses).
- The TIA is required to include details of all high risk OSOM loads and vehicle configurations for the project.
- The location of pull-over bays / rest areas along high risk OSOM routes (including GPS coordinates) and demonstrate through swept paths that high risk OSOMs can be physically accommodated for the project (in terms of size, width and accessibility).
- Bridge Assessments for any at risk bridges on classified roads due to dimensions and weight of OSOM vehicles, contact spu@transport.nsw.gov.au to request a bridge assessment of TfNSW assets.
- g. The design vehicle templates used in the swept path analysis software are also requested in order for TfNSW to review the performance within the software (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN) or alternatively include within the swept paths the wheel track, body of the OSOM component, offset, the start and completion of the movement around to manoeuvre a pinch point, the speed, steering arrangement and demonstrate compliance with *Austroads Design Vehicles and Turning Path Templates*.
- Highlighting each at-risk road structures that the haulage route crosses including bridges, traffic signals, medians, pedestrian refugees, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads or could be impacted by the high-risk OSOM movements.
- Traffic mitigation measures or road works, modifications, or road upgrades to facilitate the movement of the high risk OSOM(s) associated with the project.
- Potential high level mitigation measures or commitments to mitigate known traffic, safety and impacts to road users along the high risk OSOM route (i.e school bus routes, mining shift changes, TSRs, harvest periods and events).
- Include any surveys or pavement investigations as part of the high-risk route analysis.
- Identify and assess implications of any road and rail projects under construction during the indicative schedule for project related OSOM movements.
- Identify any rail level crossing along the route.
- Consider the time frames to complete manoeuvres of pinch points or to travel through rural areas with narrow travel lanes and

Not Applicable – No High Risk OSOM vehicles are required or proposed for the project.



TfNSW Comment	Response
minimal overtaking opportunities. Traffic modelling may be required to understand the optimal timing for high-risk OSOM movements to occur. <i>Note: Narrow travel lanes, minimal existing overtaking lanes or pull over bays, high proportion of background traffic or heavy vehicles and constrained road geometry may warrant the requirement for additional pull over or rest area locations to manage the impacts to through traffic.</i> • The Hexham Straight is a notable project impacting Route 2. The route assessment must assess the alternative route via Newcastle Inner City Bypass to Newcastle Road for high-risk OSOM loads that do not exceed the vertical clearance limitations of 5.25m. • Where the EnergyCo P2R road upgrades are relied on to facilitate the project's high-risk OSOM movements, the pavement extents, scope of work, and bridge assessments for the P2R project are to be reviewed and assessed concerning the project's proposed high-risk OSOM vehicle configuration and loads, to confirm that the loads will be able to move within the design envelope that this project will deliver. Evidence of the consistency check with the EnergyCo P2R project is to form part of the high-risk route assessment. <i>Note: It is the responsibility of the project to include any further road upgrades if the high-risk OSOM cannot be delivered within the design envelope for the Port to REZ project.</i> <i>Note: NHVR permits do not cover road works or upgrades and environmental approvals required</i>	



Appendix B

Traffic Survey Data



TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY



Intersection of Old Turrawan Rd and Newell Hwy, Narrabri

GPS -30.344153, 149.762360

Date:	Wed 07/05/25
Weather:	Fine
Suburban:	Narrabri
Customer:	Amber

North:	Newell Hwy
East:	Old Turrawan Rd
South:	Newell Hwy
West:	Mooloobar St

Survey	AM: 6:00 AM-10:00 AM
Period	PM: 2:00 PM-6:00 PM
Traffic	AM: 8:30 AM-9:30 AM
Peak	PM: 2:45 PM-3:45 PM

All Vehicles

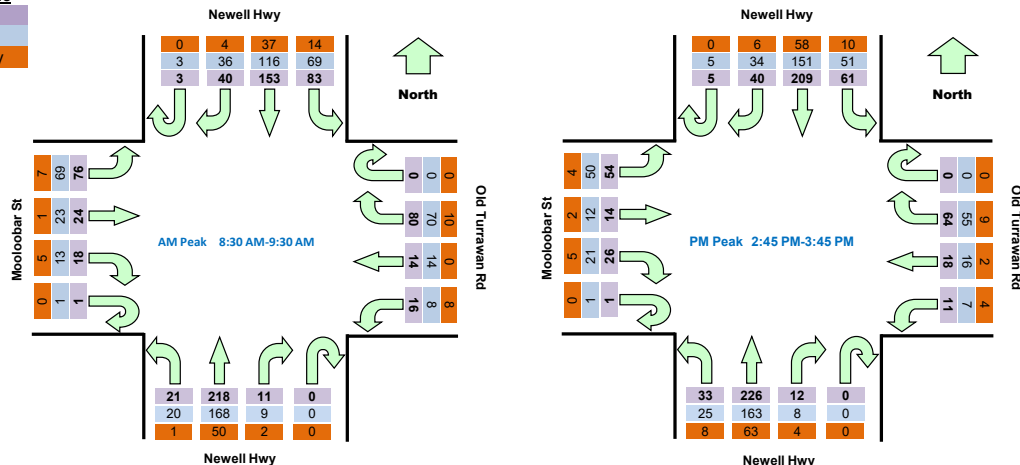
Time		North Approach Newell Hwy				East Approach Old Turrawan Rd				South Approach Newell Hwy				West Approach Mooloobar St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:00	6:15	0	3	19	1	0	1	0	0	0	1	21	4	0	5	3	3	359	
6:15	6:30	0	4	38	4	0	4	0	0	0	0	26	5	0	10	0	5	385	
6:30	6:45	0	5	34	2	0	4	2	0	0	3	32	8	0	5	0	9	419	
6:45	7:00	0	10	32	2	0	2	1	1	0	0	39	4	0	2	1	4	421	
7:00	7:15	1	8	21	3	0	3	0	0	0	5	25	6	0	7	2	6	460	
7:15	7:30	0	7	32	9	0	4	3	1	0	2	32	11	0	8	1	20	503	
7:30	7:45	0	2	25	2	0	5	2	0	0	1	47	9	0	3	0	10	500	
7:45	8:00	0	5	34	6	0	4	0	1	0	0	53	9	0	4	4	17	590	
8:00	8:15	1	4	32	5	0	3	1	0	0	0	48	10	0	5	3	18	685	
8:15	8:30	0	2	35	9	0	6	0	2	0	2	48	7	0	7	0	9	738	
8:30	8:45	0	8	31	17	0	17	4	3	0	3	75	5	0	5	7	21	758	Peak
8:45	9:00	2	8	43	35	0	28	6	6	0	1	60	8	0	5	7	23	700	
9:00	9:15	0	13	33	25	0	30	2	5	0	6	42	3	1	5	6	12	615	
9:15	9:30	1	11	46	6	0	5	2	2	0	1	41	5	0	3	4	20		
9:30	9:45	2	10	33	2	0	13	3	1	1	0	49	5	0	5	3	11		
9:45	10:00	0	11	46	4	0	5	2	0	0	0	62	5	0	1	1	10		
14:00	14:15	1	10	48	0	0	4	1	0	0	0	35	6	0	5	2	9	547	
14:15	14:30	1	5	38	4	0	3	0	0	0	1	42	7	0	3	0	8	591	
14:30	14:45	1	18	36	4	0	5	2	2	0	1	59	4	0	8	0	16	677	
14:45	15:00	1	8	54	8	0	2	0	1	0	0	62	4	0	4	3	11	774	Peak
15:00	15:15	2	6	49	15	0	1	2	1	0	6	55	2	1	7	5	13	769	
15:15	15:30	2	18	51	26	0	1	1	1	0	6	53	16	0	6	4	13	770	
15:30	15:45	0	8	55	12	0	60	15	8	0	0	56	11	0	9	2	17	736	
15:45	16:00	1	16	48	5	0	3	3	2	0	0	44	9	1	6	3	12	675	
16:00	16:15	2	19	50	6	0	6	1	0	0	0	45	13	0	6	8	10	681	
16:15	16:30	1	13	35	11	0	17	3	2	0	2	46	4	0	10	3	17	689	
16:30	16:45	1	16	59	13	0	14	4	2	0	1	44	9	1	12	0	16	680	
16:45	17:00	1	11	52	5	0	9	1	0	0	0	52	10	0	3	2	13	611	
17:00	17:15	0	22	55	6	0	5	5	0	0	0	44	6	0	9	4	18	566	
17:15	17:30	2	14	46	1	0	6	4	0	0	0	41	4	0	13	2	22		
17:30	17:45	1	11	50	2	0	2	2	0	0	0	32	3	0	4	0	16		
17:45	18:00	3	13	30	2	0	3	0	0	1	1	41	3	0	5	0	12		

Peak Time		North Approach Newell Hwy				East Approach Old Turrawan Rd				South Approach Newell Hwy				West Approach Mooloobar St				Peak total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L		
8:30	9:30	3	40	153	83	0	80	14	16	0	11	218	21	1	18	24	76	758	
14:45	15:45	5	40	209	61	0	64	18	11	0	12	226	33	1	26	14	54	774	

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Newell Hwy				East Approach Old Turrawan Rd				South Approach Newell Hwy				West Approach Mooloobar St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	2	16	1	0	0	0	0	0	1	18	2	0	4	3	3
6:15	6:30	0	3	32	4	0	2	0	0	0	0	17	4	0	10	0	4
6:30	6:45	0	5	21	2	0	4	0	0	0	3	25	8	0	5	0	6
6:45	7:00	0	6	27	1	0	1	1	1	0	0	31	3	0	2	1	4
7:00	7:15	1	8	18	3	0	3	0	0	0	3	19	6	0	6	2	5
7:15	7:30	0	5	24	8	0	3	2	0	0	0	23	6	0	5	0	19
7:30	7:45	0	1	22	1	0	4	2	0	0	1	31	7	0	2	0	10
7:45	8:00	0	4	26	6	0	4	0	1	0	0	43	5	0	2	4	16
8:00	8:15	1	4	21	5	0	2	1	0	0	0	41	5	0	5	3	16
8:15	8:30	0	2	26	8	0	3	0	2	0	2	39	4	0	6	0	9
8:30	8:45	0	7	20	14	0	14	4	1	0	2	61	5	0	3	6	19
8:45	9:00	2	8	35	26	0	24	6	2	0	1	44	8	0	3	7	20
9:00	9:15	0	11	25	23	0	27	2	3	0	5	29	3	1	5	6	12
9:15	9:30	1	10	36	6	0	5	2	2	0	1	34	4	0	2	4	18
9:30	9:45	1	10	25	2	0	12	3	1	1	0	35	5	0	3	3	8
9:45	10:00	0	10	37	4	0	5	1	0	0	0	46	2	0	0	0	10
14:00	14:15	1	9	32	0	0	4	1	0	0	0	25	3	0	4	2	6
14:15	14:30	1	5	29	4	0	3	0	0	0	0	33	7	0	3	0	8
14:30	14:45	1	17	25	3	0	5	2	2	0	0	31	4	0	6	0	15
14:45	15:00	1	7	44	8	0	2	0	1	0	0	39	3	0	3	2	10
15:00	15:15	2	6	37	13	0	0	2	0	0	3	39	1	1	5	5	12
15:15	15:30	2	13	30	24	0	1	1	1	0	5	41	12	0	4	4	12
15:30	15:45	0	8	40	6	0	52	13	5	0	0	44	9	0	9	1	16
15:45	16:00	1	14	37	1	0	3	3	0	0	0	38	8	1	4	2	12
16:00	16:15	2	15	39	5	0	6	1	0	0	0	30	12	0	6	7	6
16:15	16:30	0	11	26	10	0	16	2	2	0	2	34	4	0	7	3	15
16:30	16:45	1	14	48	11	0	14	4	2	0	1	29	8	1	11	0	16
16:45	17:00	1	11	36	4	0	9	1	0	0	0	34	8	0	3	2	11
17:00	17:15	0	22	44	5	0	5	5	0	0	0	30	5	0	6	4	17
17:15	17:30	2	14	37	1	0	6	4	0	0	0	25	4	0	11	2	21
17:30	17:45	1	9	32	2	0	2	2	0	0	0	19	3	0	4	0	16
17:45	18:00	3	13	19	2	0	3	0	0	0	0	22	3	0	5	0	12

Peak Time		North Approach Newell Hwy				East Approach Old Turrawan Rd				South Approach Newell Hwy				West Approach Mooloobar St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:30	9:30	3	36	116	69	0	70	14	8	0	9	168	20	1	13	23	69	619
14:45	15:45	5	34	151	51	0	55	16	7	0	8	163	25	1	21	12	50	599

Heavy Vehicles

Time		North Approach Newell Hwy				East Approach Old Turrawan Rd				South Approach Newell Hwy				West Approach Mooloolobar St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	1	3	0	0	1	0	0	0	0	3	2	0	1	0	0
6:15	6:30	0	1	6	0	0	2	0	0	0	0	9	1	0	0	0	1
6:30	6:45	0	0	13	0	0	0	2	0	0	0	7	0	0	0	0	3
6:45	7:00	0	4	5	1	0	1	0	0	0	0	8	1	0	0	0	0
7:00	7:15	0	0	3	0	0	0	0	0	0	2	6	0	0	1	0	1
7:15	7:30	0	2	8	1	0	1	1	1	0	2	9	5	0	3	1	1
7:30	7:45	0	1	3	1	0	1	0	0	0	0	16	2	0	1	0	0
7:45	8:00	0	1	8	0	0	0	0	0	0	0	10	4	0	2	0	1
8:00	8:15	0	0	11	0	0	1	0	0	0	0	7	5	0	0	0	2
8:15	8:30	0	0	9	1	0	3	0	0	0	0	9	3	0	1	0	0
8:30	8:45	0	1	11	3	0	3	0	2	0	1	14	0	0	2	1	2
8:45	9:00	0	0	8	9	0	4	0	4	0	0	16	0	0	2	0	3
9:00	9:15	0	2	8	2	0	3	0	2	0	1	13	0	0	0	0	0
9:15	9:30	0	1	10	0	0	0	0	0	0	0	7	1	0	1	0	2
9:30	9:45	1	0	8	0	0	1	0	0	0	0	14	0	0	2	0	3
9:45	10:00	0	1	9	0	0	0	1	0	0	0	16	3	0	1	1	0
14:00	14:15	0	1	16	0	0	0	0	0	0	0	10	3	0	1	0	3
14:15	14:30	0	0	9	0	0	0	0	0	0	1	9	0	0	0	0	0
14:30	14:45	0	1	11	1	0	0	0	0	0	1	28	0	0	2	0	1
14:45	15:00	0	1	10	0	0	0	0	0	0	0	23	1	0	1	1	1
15:00	15:15	0	0	12	2	0	1	0	1	0	3	16	1	0	2	0	1
15:15	15:30	0	5	21	2	0	0	0	0	0	1	12	4	0	2	0	1
15:30	15:45	0	0	15	6	0	8	2	3	0	0	12	2	0	0	1	1
15:45	16:00	0	2	11	4	0	0	0	2	0	0	6	1	0	2	1	0
16:00	16:15	0	4	11	1	0	0	0	0	0	0	15	1	0	0	1	4
16:15	16:30	1	2	9	1	0	1	1	0	0	0	12	0	0	3	0	2
16:30	16:45	0	2	11	2	0	0	0	0	0	0	15	1	0	1	0	0
16:45	17:00	0	0	16	1	0	0	0	0	0	0	18	2	0	0	0	2
17:00	17:15	0	0	11	1	0	0	0	0	0	0	14	1	0	3	0	1
17:15	17:30	0	0	9	0	0	0	0	0	0	0	16	0	0	2	0	1
17:30	17:45	0	2	18	0	0	0	0	0	0	0	13	0	0	0	0	0
17:45	18:00	0	0	11	0	0	0	0	0	1	1	19	0	0	0	0	0

Peak Time		North Approach Newell Hwy				East Approach Old Turrawan Rd				South Approach Newell Hwy				West Approach Mooloolobar St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:30	9:30	0	4	37	14	0	10	0	8	0	2	50	1	0	5	1	7	139
14:45	15:45	0	6	58	10	0	9	2	4	0	4	63	8	0	5	2	4	175

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au



Intersection of Cains Crossing Rd and Newell Hwy, Boh

GPS -30.413712, 149.695978

Date:	Wed 07/05/25
Weather:	Fine
Suburban:	Bohena Creek
Customer:	Amber

North:	Newell Hwy
East:	N/A
South:	Newell Hwy
West:	Cains Crossing Rd

Survey	AM:	6:00 AM-10:00 AM
Period	PM:	2:00 PM-6:00 PM
Traffic	AM:	8:30 AM-9:30 AM
Peak	PM:	2:00 PM-3:00 PM

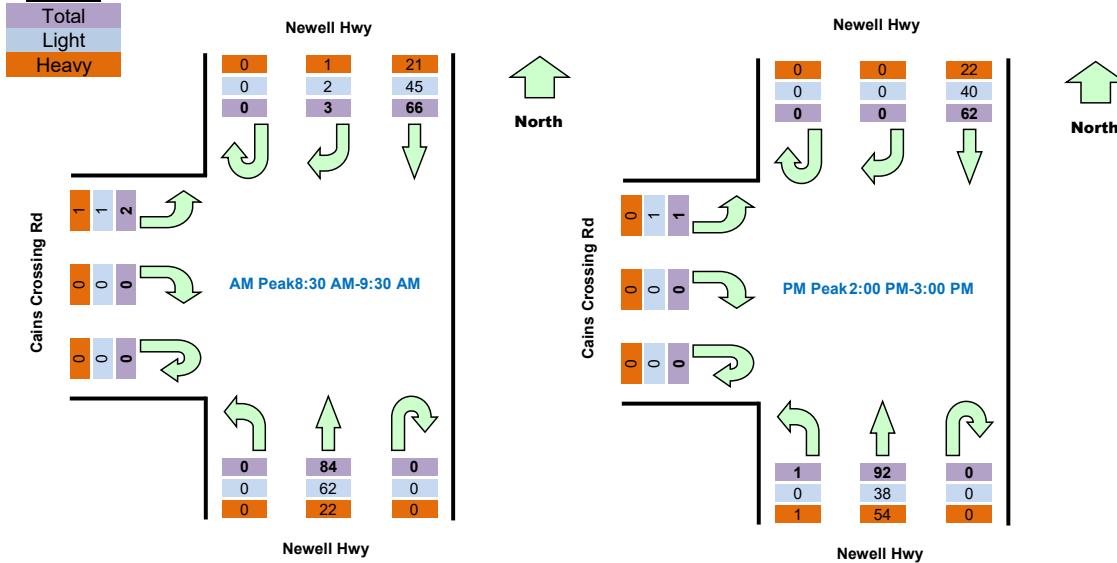
All Vehicles

Time		North Approach Newell Hwy			South Approach Newell Hwy			West Approach Cains Crossing			Hourly Total	
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	Hour	Peak
6:00	6:15	0	0	6	0	6	0	0	0	0	44	
6:15	6:30	0	0	3	0	4	0	0	0	1	49	
6:30	6:45	0	0	6	0	6	0	0	0	1	59	
6:45	7:00	0	0	7	0	3	0	0	0	1	72	
7:00	7:15	0	0	14	0	3	0	0	0	0	88	
7:15	7:30	0	0	9	0	9	0	0	0	0	94	
7:30	7:45	0	0	15	0	10	0	0	0	1	95	
7:45	8:00	0	0	16	0	11	0	0	0	0	97	
8:00	8:15	0	1	6	0	16	0	0	0	0	132	
8:15	8:30	0	0	7	0	9	0	0	0	3	139	
8:30	8:45	0	1	13	0	14	0	0	0	0	155	Peak
8:45	9:00	0	0	27	0	35	0	0	0	0	155	Peak
9:00	9:15	0	2	12	0	15	0	0	0	1	122	
9:15	9:30	0	0	14	0	20	0	0	0	1		
9:30	9:45	0	1	10	1	15	0	0	0	1		
9:45	10:00	0	0	7	0	22	0	0	0	0		
14:00	14:15	0	0	19	0	23	0	0	0	0	156	Peak
14:15	14:30	0	0	18	0	30	0	0	0	1	152	
14:30	14:45	0	0	13	0	21	0	0	0	0	135	
14:45	15:00	0	0	12	0	18	1	0	0	0	136	
15:00	15:15	0	0	13	0	25	0	0	0	0	132	
15:15	15:30	0	1	14	0	17	0	0	0	0	132	
15:30	15:45	0	0	11	0	24	0	0	0	0	127	
15:45	16:00	0	1	11	0	14	0	1	0	0	132	
16:00	16:15	0	2	15	0	21	0	0	0	0	132	
16:15	16:30	0	0	9	0	17	0	0	1	0	123	
16:30	16:45	0	0	13	0	25	0	0	1	1	124	
16:45	17:00	0	1	16	0	10	0	0	0	0	125	
17:00	17:15	0	1	16	0	12	0	0	0	0	129	
17:15	17:30	0	3	4	0	21	0	0	0	0		
17:30	17:45	0	0	17	0	24	0	0	0	0		
17:45	18:00	0	0	17	0	14	0	0	0	0		

Peak Time		North Approach Newell Hwy			South Approach Newell Hwy			West Approach Cains Crossing			Peak
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	total
8:30	9:30	0	3	66	0	84	0	0	0	2	155
14:00	15:00	0	0	62	0	92	1	0	0	1	156

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic



Light Vehicles

Time		North Approach Newell Hwy			South Approach Newell Hwy			Approach Cains Crossing		
Period Start	Period End	U	R	SB	U	NB	L	U	R	L
6:00	6:15	0	0	1	0	2	0	0	0	0
6:15	6:30	0	0	0	0	2	0	0	0	1
6:30	6:45	0	0	2	0	3	0	0	0	1
6:45	7:00	0	0	4	0	0	0	0	0	1
7:00	7:15	0	0	8	0	2	0	0	0	0
7:15	7:30	0	0	7	0	5	0	0	0	0
7:30	7:45	0	0	9	0	6	0	0	0	1
7:45	8:00	0	0	12	0	7	0	0	0	0
8:00	8:15	0	1	4	0	10	0	0	0	0
8:15	8:30	0	0	4	0	7	0	0	0	2
8:30	8:45	0	1	9	0	10	0	0	0	0
8:45	9:00	0	0	17	0	25	0	0	0	0
9:00	9:15	0	1	9	0	12	0	0	0	0
9:15	9:30	0	0	10	0	15	0	0	0	1
9:30	9:45	0	1	7	1	10	0	0	0	1
9:45	10:00	0	0	6	0	19	0	0	0	0
14:00	14:15	0	0	12	0	11	0	0	0	0
14:15	14:30	0	0	8	0	12	0	0	0	1
14:30	14:45	0	0	10	0	9	0	0	0	0
14:45	15:00	0	0	10	0	6	0	0	0	0
15:00	15:15	0	0	8	0	15	0	0	0	0
15:15	15:30	0	1	7	0	9	0	0	0	0
15:30	15:45	0	0	7	0	22	0	0	0	0
15:45	16:00	0	0	5	0	7	0	1	0	0
16:00	16:15	0	2	9	0	9	0	0	0	0
16:15	16:30	0	0	5	0	8	0	0	0	0
16:30	16:45	0	0	7	0	11	0	0	1	1
16:45	17:00	0	1	4	0	1	0	0	0	0
17:00	17:15	0	1	8	0	5	0	0	0	0
17:15	17:30	0	3	2	0	5	0	0	0	0
17:30	17:45	0	0	9	0	4	0	0	0	0
17:45	18:00	0	0	4	0	6	0	0	0	0

Peak Time		North Approach Newell Hwy			South Approach Newell Hwy			Approach Cains Crossing			Peak total
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	
8:30	9:30	0	2	45	0	62	0	0	0	1	110
14:00	15:00	0	0	40	0	38	0	0	0	1	79

Heavy Vehicles

Time		North Approach Newell Hw			South Approach Newell Hw			Approach Cains Crossing		
Period Start	Period End	U	R	SB	U	NB	L	U	R	L
6:00	6:15	0	0	5	0	4	0	0	0	0
6:15	6:30	0	0	3	0	2	0	0	0	0
6:30	6:45	0	0	4	0	3	0	0	0	0
6:45	7:00	0	0	3	0	3	0	0	0	0
7:00	7:15	0	0	6	0	1	0	0	0	0
7:15	7:30	0	0	2	0	4	0	0	0	0
7:30	7:45	0	0	6	0	4	0	0	0	0
7:45	8:00	0	0	4	0	4	0	0	0	0
8:00	8:15	0	0	2	0	6	0	0	0	0
8:15	8:30	0	0	3	0	2	0	0	0	1
8:30	8:45	0	0	4	0	4	0	0	0	0
8:45	9:00	0	0	10	0	10	0	0	0	0
9:00	9:15	0	1	3	0	3	0	0	0	1
9:15	9:30	0	0	4	0	5	0	0	0	0
9:30	9:45	0	0	3	0	5	0	0	0	0
9:45	10:00	0	0	1	0	3	0	0	0	0
14:00	14:15	0	0	7	0	12	0	0	0	0
14:15	14:30	0	0	10	0	18	0	0	0	0
14:30	14:45	0	0	3	0	12	0	0	0	0
14:45	15:00	0	0	2	0	12	1	0	0	0
15:00	15:15	0	0	5	0	10	0	0	0	0
15:15	15:30	0	0	7	0	8	0	0	0	0
15:30	15:45	0	0	4	0	2	0	0	0	0
15:45	16:00	0	1	6	0	7	0	0	0	0
16:00	16:15	0	0	6	0	12	0	0	0	0
16:15	16:30	0	0	4	0	9	0	0	1	0
16:30	16:45	0	0	6	0	14	0	0	0	0
16:45	17:00	0	0	12	0	9	0	0	0	0
17:00	17:15	0	0	8	0	7	0	0	0	0
17:15	17:30	0	0	2	0	16	0	0	0	0
17:30	17:45	0	0	8	0	20	0	0	0	0
17:45	18:00	0	0	13	0	8	0	0	0	0

Peak Time		North Approach Newell Hw			South Approach Newell Hw			Approach Cains Crossing			Peak total
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	
8:30	9:30	0	1	21	0	22	0	0	0	1	45
14:00	15:00	0	0	22	0	54	1	0	0	0	77

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au



Intersection of Yarrie Lake Rd and Kiandool Ln, Narrabri

GPS -30.344063, 149.653838

Date:	Wed 07/05/25
Weather:	Overcast
Suburban:	Narrabri
Customer:	Amber

North:	Kiandool Ln
East:	Yarrie Lake Rd
South:	Kiandool Ln
West:	Yarrie Lake Rd

Survey Period	AM: 6:00 AM-10:00 AM
	PM: 2:00 PM-6:00 PM
Traffic Peak	AM: 7:30 AM-8:30 AM
	PM: 4:15 PM-5:15 PM

All Vehicles

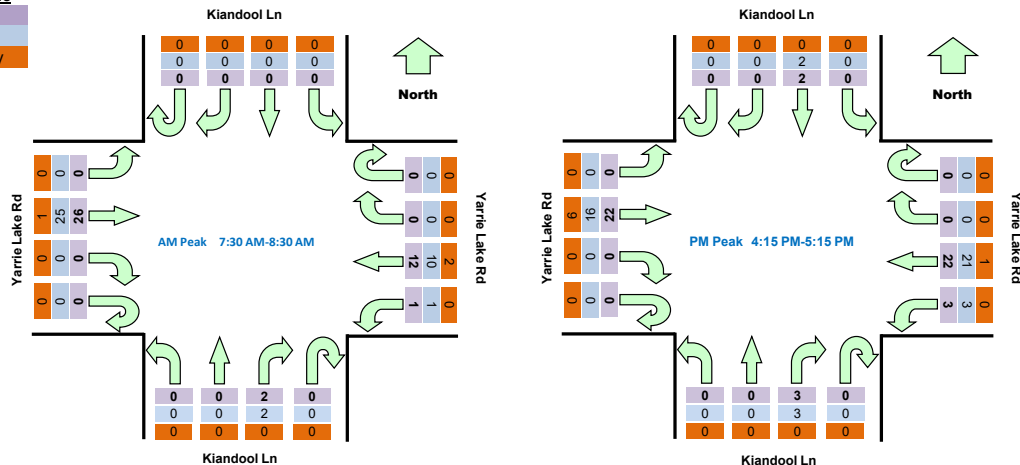
Time		North Approach Kiandool Ln				East Approach Yarrie Lake Rd				South Approach Kiandool Ln				West Approach Yarrie Lake Rd				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:00	6:15	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	18	
6:15	6:30	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	21	
6:30	6:45	0	0	0	0	0	0	4	0	0	1	0	0	0	0	0	0	26	
6:45	7:00	0	0	0	0	0	0	3	0	0	2	0	0	0	0	2	0	31	
7:00	7:15	0	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	37	
7:15	7:30	0	0	0	0	0	0	0	1	0	2	0	0	0	0	5	0	38	
7:30	7:45	0	0	0	0	0	0	2	1	0	0	0	0	0	0	7	0	41	Peak
7:45	8:00	0	0	0	0	0	0	8	0	0	0	0	0	0	0	5	0	34	
8:00	8:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	5	0	28	
8:15	8:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	9	0	27	
8:30	8:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	26	
8:45	9:00	0	0	0	0	0	0	2	0	0	1	0	0	0	0	4	0	27	
9:00	9:15	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	26	
9:15	9:30	0	0	0	0	0	0	6	0	0	0	0	0	0	0	4	0		
9:30	9:45	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0		
9:45	10:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0		
14:00	14:15	0	0	0	0	0	0	3	0	0	2	0	0	0	0	0	0	28	
14:15	14:30	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	33	
14:30	14:45	0	0	0	0	0	0	4	1	0	1	0	0	0	0	2	0	35	
14:45	15:00	0	0	0	0	0	0	4	2	0	0	0	0	0	0	2	0	33	
15:00	15:15	0	0	0	0	0	0	3	0	0	0	0	0	0	0	7	0	36	
15:15	15:30	0	0	0	0	0	0	5	0	0	1	0	0	0	0	3	0	35	
15:30	15:45	0	0	0	0	0	0	3	1	0	0	0	0	0	0	2	0	40	
15:45	16:00	0	0	0	0	0	0	4	0	0	1	0	0	0	0	6	0	45	
16:00	16:15	0	0	0	0	0	0	6	0	0	0	0	0	0	0	3	0	46	
16:15	16:30	0	0	1	0	0	0	6	1	0	1	0	0	0	0	5	0	52	Peak
16:30	16:45	0	0	1	0	0	0	7	1	0	0	0	0	0	0	2	0	47	
16:45	17:00	0	0	0	0	0	0	5	0	0	1	0	0	0	0	6	0	47	
17:00	17:15	0	0	0	0	0	0	4	1	0	1	0	0	0	0	9	0	43	
17:15	17:30	0	0	0	0	0	0	5	1	0	0	0	0	0	0	3	0		
17:30	17:45	0	0	0	0	0	0	2	3	0	3	0	0	0	1	2	0		
17:45	18:00	0	0	0	0	0	0	6	0	0	0	0	0	0	0	1	1		

Peak Time		North Approach Kiandool Ln				East Approach Yarrie Lake Rd				South Approach Kiandool Ln				West Approach Yarrie Lake Rd				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
7:30	8:30	0	0	0	0	0	0	12	1	0	2	0	0	0	0	0	0	41
16:15	17:15	0	0	2	0	0	0	22	3	0	3	0	0	0	0	22	0	52

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Kiandool Ln				East Approach Yarrie Lake Rd				South Approach Kiandool Ln				West Approach Yarrie Lake Rd			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0
6:15	6:30	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0
6:30	6:45	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0
6:45	7:00	0	0	0	0	0	0	3	0	0	2	0	0	0	0	2	0
7:00	7:15	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
7:15	7:30	0	0	0	0	0	0	0	1	0	2	0	0	0	0	5	0
7:30	7:45	0	0	0	0	0	0	2	1	0	0	0	0	0	0	7	0
7:45	8:00	0	0	0	0	0	0	6	0	0	0	0	0	0	0	5	0
8:00	8:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	5	0
8:15	8:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	8	0
8:30	8:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
8:45	9:00	0	0	0	0	0	0	2	0	0	1	0	0	0	0	4	0
9:00	9:15	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
9:15	9:30	0	0	0	0	0	0	6	0	0	0	0	0	0	0	4	0
9:30	9:45	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0
9:45	10:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0
14:00	14:15	0	0	0	0	0	0	3	0	0	2	0	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0
14:30	14:45	0	0	0	0	0	0	4	1	0	1	0	0	0	0	2	0
14:45	15:00	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2	0
15:00	15:15	0	0	0	0	0	0	3	0	0	0	0	0	0	0	6	0
15:15	15:30	0	0	0	0	0	0	5	0	0	1	0	0	0	0	3	0
15:30	15:45	0	0	0	0	0	0	3	1	0	0	0	0	0	0	2	0
15:45	16:00	0	0	0	0	0	0	3	0	0	1	0	0	0	0	6	0
16:00	16:15	0	0	0	0	0	0	5	0	0	0	0	0	0	0	3	0
16:15	16:30	0	0	1	0	0	0	6	1	0	1	0	0	0	0	3	0
16:30	16:45	0	0	1	0	0	0	6	1	0	0	0	0	0	0	1	0
16:45	17:00	0	0	0	0	0	0	5	0	0	1	0	0	0	0	5	0
17:00	17:15	0	0	0	0	0	0	4	1	0	1	0	0	0	0	7	0
17:15	17:30	0	0	0	0	0	0	5	1	0	0	0	0	0	0	3	0
17:30	17:45	0	0	0	0	0	0	2	3	0	3	0	0	0	1	2	0
17:45	18:00	0	0	0	0	0	0	5	0	0	0	0	0	0	0	1	1

Peak Time		North Approach Kiandool Ln				East Approach Yarrie Lake Rd				South Approach Kiandool Ln				West Approach Yarrie Lake Rd				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
7:30	8:30	0	0	0	0	0	0	10	1	0	2	0	0	0	0	25	0	38
16:15	17:15	0	0	2	0	0	0	21	3	0	3	0	0	0	0	16	0	45

Time		North Approach Kiandool Ln				East Approach Yarrie Lake Rd				South Approach Kiandool Ln				West Approach Yarrie Lake Rd			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	6:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:45	7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	7:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15	7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
8:00	8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30	8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:30	16:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Kiandool Ln				East Approach Yarrie Lake Rd				South Approach Kiandool Ln				West Approach Yarrie Lake Rd				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
7:30	8:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	3
16:15	17:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0	7

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY



Intersection of Private Rd and Kiandool Ln, Narrabri

GPS -30.359727, 149.650849

Date:	Wed 07/05/25
Weather:	Fine
Suburban:	Narrabri
Customer:	Amber

North:	Kiandool Ln
East:	Private Rd
South:	Kiandool Ln
West:	Private Rd

Survey Period	AM: 6:00 AM-10:00 AM
	PM: 2:00 PM-6:00 PM
Traffic Peak	AM: 6:00 AM-7:00 AM
	PM: 4:45 PM-5:45 PM

All Vehicles

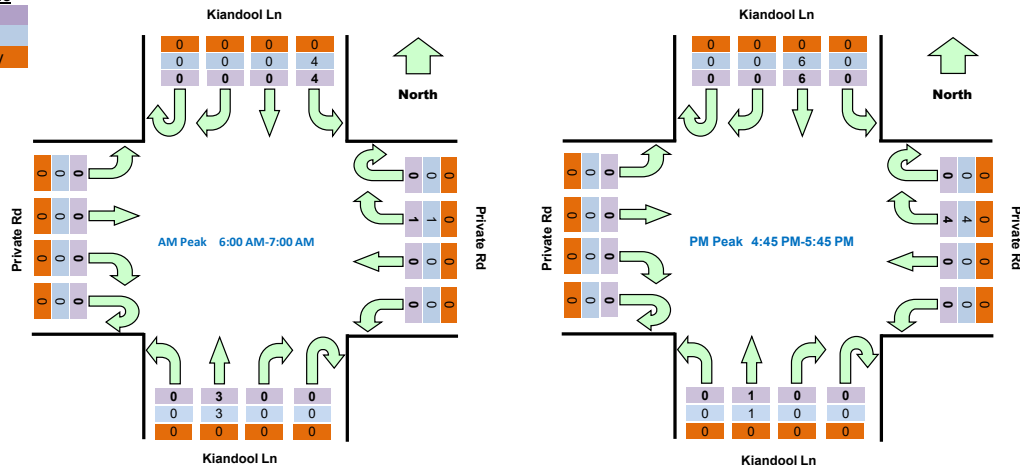
Time		North Approach Kiandool Ln				East Approach Private Rd				South Approach Kiandool Ln				West Approach Private Rd				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:00	6:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8	Peak
6:15	6:30	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	7	
6:30	6:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	6	
6:45	7:00	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	6	
7:00	7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
7:15	7:30	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	6	
7:30	7:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	
7:45	8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
8:00	8:15	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	
8:15	8:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
8:30	8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:45	9:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30	9:45	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0		
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:00	14:15	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	7	
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
14:30	14:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	5	
14:45	15:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
15:45	16:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6	
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
16:15	16:30	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	
16:30	16:45	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	8	
16:45	17:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	11	Peak
17:00	17:15	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	10	
17:15	17:30	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0		
17:30	17:45	0	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0		
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Peak Time		North Approach Kiandool Ln				East Approach Private Rd				South Approach Kiandool Ln				West Approach Private Rd				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
6:00	7:00	0	0	0	4	0	1	0	0	0	0	3	0	0	0	0	0	8
16:45	17:45	0	0	6	0	0	4	0	0	0	0	1	0	0	0	0	0	11

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Kiandool Ln				East Approach Private Rd				South Approach Kiandool Ln				West Approach Private Rd			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
6:15	6:30	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0
6:30	6:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:45	7:00	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
7:00	7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	7:30	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
7:30	7:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:30	8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	14:15	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	14:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
14:45	15:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
17:00	17:15	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Kiandool Ln				East Approach Private Rd				South Approach Kiandool Ln				West Approach Private Rd				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
6:00	7:00	0	0	0	4	0	1	0	0	0	0	3	0	0	0	0	0	8
16:45	17:45	0	0	6	0	0	4	0	0	0	0	1	0	0	0	0	0	11

[illegible][illegible]

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

T. 1300 82 88 82 - F. 1300 83 88 83 - E. traffic@trafficsurvey.com.au - W. www.trafficsurvey.com.au

AUTOMATIC COUNT SUMMARY

Street Name :	Yarrie Lake Rd	Location :	Outside Property 960
Suburb :	Narrabri	Start Date :	00:00 Wed 07/May/2025
Machine ID:	ZT02ER65	Finish Date :	00:00 Wed 14/May/2025
Site ID:	3892	Speed Zone :	100 km/h
Prepared By :	Vo Son Binh	Email:	binh@trafficsurvey.com.au

GPS information		Lat	30° 20' 47.08 South	Direction of Travel		
				Both directions	Westbound	Eastbound
Traffic Volume : (Vehicles/Day)			Weekdays Average	450	231	219
			7 Day Average	431	220	211
Weekday	AM		08:00	40	13	26
Peak hour start	PM		16:00	42	22	20
Speeds : (Km/Hr)			85th Percentile	102.0	102.8	101.2
			Average	93.9	93.7	93.7
Classification % :			Light Vehicles up to 5.5m	85.1%	85.0%	84.4%

Location

GPS Information [Load Google Map \(internet required\)](#)

(Latitude, Longitude) -30.346411, 149.669732



[Speed Data](#)

[Speed Graph](#)

[Speed Bin](#)

[Volume Data](#)

[Volume Graph](#)

[Classification](#)



QUALITY ASSURED COMPANY BY ISO 9001:2015

OH&S SYSTEM CERTIFIED TO ISO 4801:2001

ENVIRONMENT MANAGEMENT SYSTEM CERTIFIED TO ISO14001:2015



Site Yarrie Lake Rd

Direction ▼[Back to Site Summary Page](#)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	12/05/2025	13/05/2025	7/05/2025	8/05/2025	9/05/2025	10/05/2025	11/05/2025	Total	Average	Total	Average	Total	Average
AM Peak	10:00	11:00	07:00	07:00	10:00	11:00	09:00	N/A	11:00	N/A	07:00	N/A	11:00
PM Peak	16:00	17:00	16:00	17:00	16:00	16:00	14:00	N/A	16:00	N/A	16:00	N/A	14:00
00:00	2	0	0	0	2	0	0	4	1	4	1	0	0
01:00	0	1	0	0	1	1	1	4	1	2	0	2	1
02:00	1	0	0	1	1	0	1	4	1	3	1	1	1
03:00	0	1	1	0	1	0	0	3	0	3	1	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	3	3	7	6	1	1	22	3	20	4	2	1
06:00	11	8	11	10	5	5	2	52	7	45	9	7	4
07:00	16	16	16	20	16	6	7	97	14	84	17	13	7
08:00	17	14	5	17	14	9	11	87	12	67	13	20	10
09:00	13	16	13	14	16	11	14	97	14	72	14	25	13
10:00	23	11	15	19	19	11	12	110	16	87	17	23	12
11:00	14	20	15	17	18	23	14	121	17	84	17	37	19
12:00	15	21	9	14	21	22	15	117	17	80	16	37	19
13:00	15	6	18	22	22	24	11	118	17	83	17	35	18
14:00	17	15	19	12	18	21	20	122	17	81	16	41	21
15:00	15	20	16	15	21	13	14	114	16	87	17	27	14
16:00	24	20	26	17	23	26	10	146	21	110	22	36	18
17:00	21	24	22	23	21	12	14	137	20	111	22	26	13
18:00	13	9	10	7	14	8	4	65	9	53	11	12	6
19:00	8	7	4	5	11	7	4	46	7	35	7	11	6
20:00	4	2	5	10	4	5	3	33	5	25	5	8	4
21:00	5	0	1	2	2	1	1	12	2	10	2	2	1
22:00	1	0	0	2	3	4	3	13	2	6	1	7	4
23:00	0	2	0	1	4	1	0	8	1	7	1	1	1
Total	236	216	209	235	263	211	162	1532	219	1159	232	373	187
% Heavy	17.37%	13.43%	18.18%	15.74%	15.59%	9.00%	8.64%	14.30%		16.05%		8.85%	

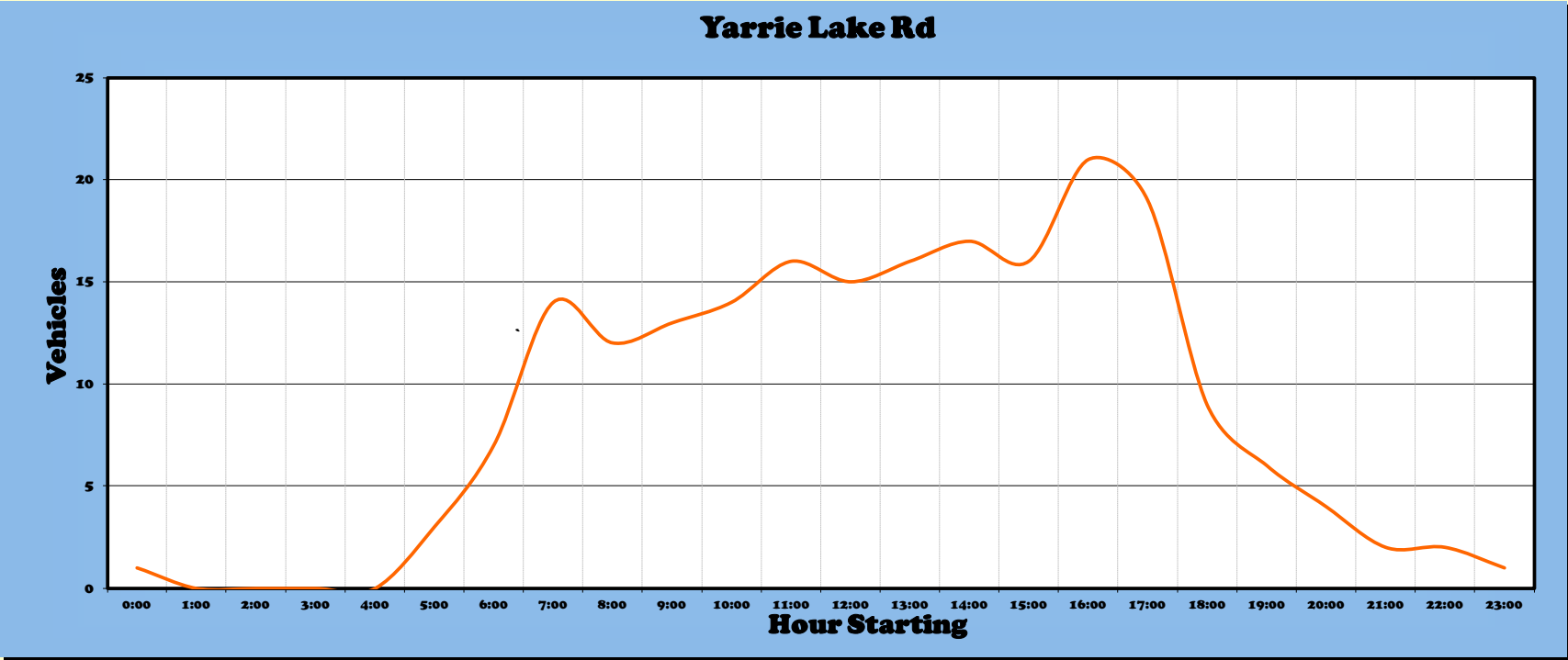


SiteYarrie Lake Rd

DirectionWestbound

Day7 Days

[Back to Site Summary Page](#)





Site Yarrie Lake Rd

Direction ▼[Back to Site Summary Page](#)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	12/05/2025	13/05/2025	7/05/2025	8/05/2025	9/05/2025	10/05/2025	11/05/2025	Total	Average	Total	Average	Total	Average
AM Peak	08:00	08:00	08:00	08:00	07:00	08:00	09:00	N/A	08:00	N/A	08:00	N/A	10:00
PM Peak	16:00	12:00	15:00	16:00	16:00	15:00	12:00	N/A	16:00	N/A	16:00	N/A	15:00
00:00	0	0	0	0	1	0	0	1	0	1	0	0	0
01:00	1	0	0	0	1	1	0	3	0	2	0	1	1
02:00	0	0	0	1	1	0	0	2	0	2	0	0	0
03:00	0	0	2	1	1	1	0	5	1	4	1	1	1
04:00	5	5	4	4	4	2	2	26	4	22	4	4	2
05:00	4	6	4	10	4	1	1	30	4	28	6	2	1
06:00	11	8	7	7	8	3	6	50	7	41	8	9	5
07:00	17	20	21	20	21	7	4	110	16	99	20	11	6
08:00	32	26	23	32	18	21	8	160	23	131	26	29	15
09:00	12	15	13	14	18	19	15	106	15	72	14	34	17
10:00	23	15	13	28	21	21	14	135	19	100	20	35	18
11:00	14	25	12	11	17	20	15	114	16	79	16	35	18
12:00	13	18	14	11	16	13	17	102	15	72	14	30	15
13:00	13	10	14	12	15	15	11	90	13	64	13	26	13
14:00	7	13	9	14	17	8	12	80	11	60	12	20	10
15:00	14	14	20	13	16	20	12	109	16	77	15	32	16
16:00	25	17	18	21	21	8	15	125	18	102	20	23	12
17:00	21	15	19	18	19	19	13	124	18	92	18	32	16
18:00	2	2	7	3	9	8	10	41	6	23	5	18	9
19:00	3	2	4	0	7	5	3	24	3	16	3	8	4
20:00	2	1	2	2	3	2	2	14	2	10	2	4	2
21:00	0	1	1	1	2	3	1	9	1	5	1	4	2
22:00	0	0	0	0	2	7	0	9	1	2	0	7	4
23:00	0	0	1	1	1	8	0	11	2	3	1	8	4
Total	219	213	208	224	243	212	161	1480	211	1107	221	373	187
% Heavy	16.89%	18.31%	18.27%	21.43%	14.40%	9.91%	9.32%	15.74%		17.80%		9.65%	

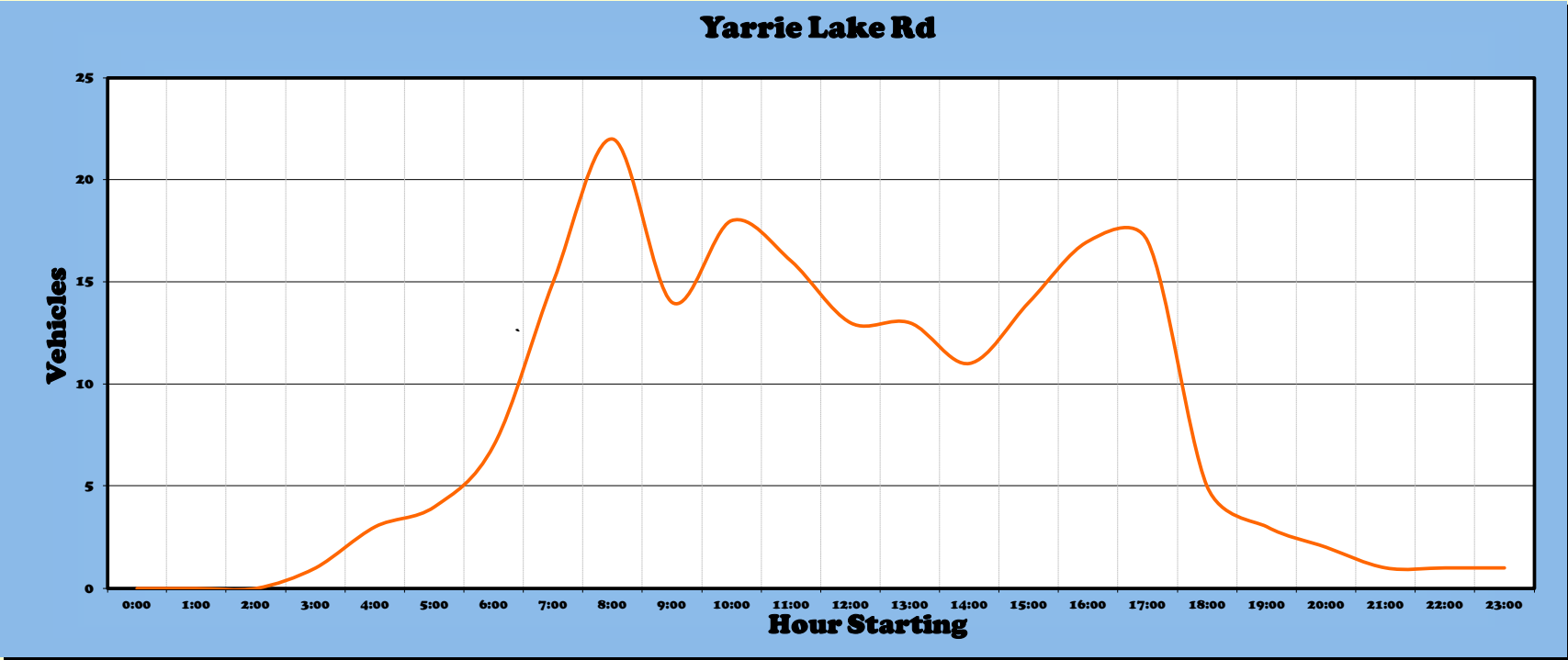


SiteYarrie Lake Rd

DirectionEastbound

Day7 Days

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Site Yarrie Lake Rd

Direction Both directions ▼

[Back to Site Summary Page](#)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	12/05/2025	13/05/2025	7/05/2025	8/05/2025	9/05/2025	10/05/2025	11/05/2025	Total	Average	Total	Average	Total	Average
AM Peak	08:00	11:00	07:00	08:00	10:00	11:00	09:00	N/A	08:00	N/A	08:00	N/A	11:00
PM Peak	16:00	12:00	16:00	17:00	16:00	13:00	12:00	N/A	16:00	N/A	16:00	N/A	12:00
00:00	2	0	0	0	3	0	0	5	1	5	1	0	0
01:00	1	1	0	0	2	2	1	7	1	4	1	3	2
02:00	1	0	0	2	2	0	1	6	1	5	1	1	1
03:00	0	1	3	1	2	1	0	8	1	7	1	1	1
04:00	5	5	4	4	4	2	2	26	4	22	4	4	2
05:00	5	9	7	17	10	2	2	52	7	48	10	4	2
06:00	22	16	18	17	13	8	8	102	15	86	17	16	8
07:00	33	36	37	40	37	13	11	207	30	183	37	24	12
08:00	49	40	28	49	32	30	19	247	35	198	40	49	25
09:00	25	31	26	28	34	30	29	203	29	144	29	59	30
10:00	46	26	28	47	40	32	26	245	35	187	37	58	29
11:00	28	45	27	28	35	43	29	235	34	163	33	72	36
12:00	28	39	23	25	37	35	32	219	31	152	30	67	34
13:00	28	16	32	34	37	39	22	208	30	147	29	61	31
14:00	24	28	28	26	35	29	32	202	29	141	28	61	31
15:00	29	34	36	28	37	33	26	223	32	164	33	59	30
16:00	49	37	44	38	44	34	25	271	39	212	42	59	30
17:00	42	39	41	41	40	31	27	261	37	203	41	58	29
18:00	15	11	17	10	23	16	14	106	15	76	15	30	15
19:00	11	9	8	5	18	12	7	70	10	51	10	19	10
20:00	6	3	7	12	7	7	5	47	7	35	7	12	6
21:00	5	1	2	3	4	4	2	21	3	15	3	6	3
22:00	1	0	0	2	5	11	3	22	3	8	2	14	7
23:00	0	2	1	2	5	9	0	19	3	10	2	9	5
Total	455	429	417	459	506	423	323	3012	430	2266	453	746	373
% Heavy	17.14%	15.85%	18.23%	18.52%	15.02%	9.46%	8.98%	15.01%		16.90%		9.25%	

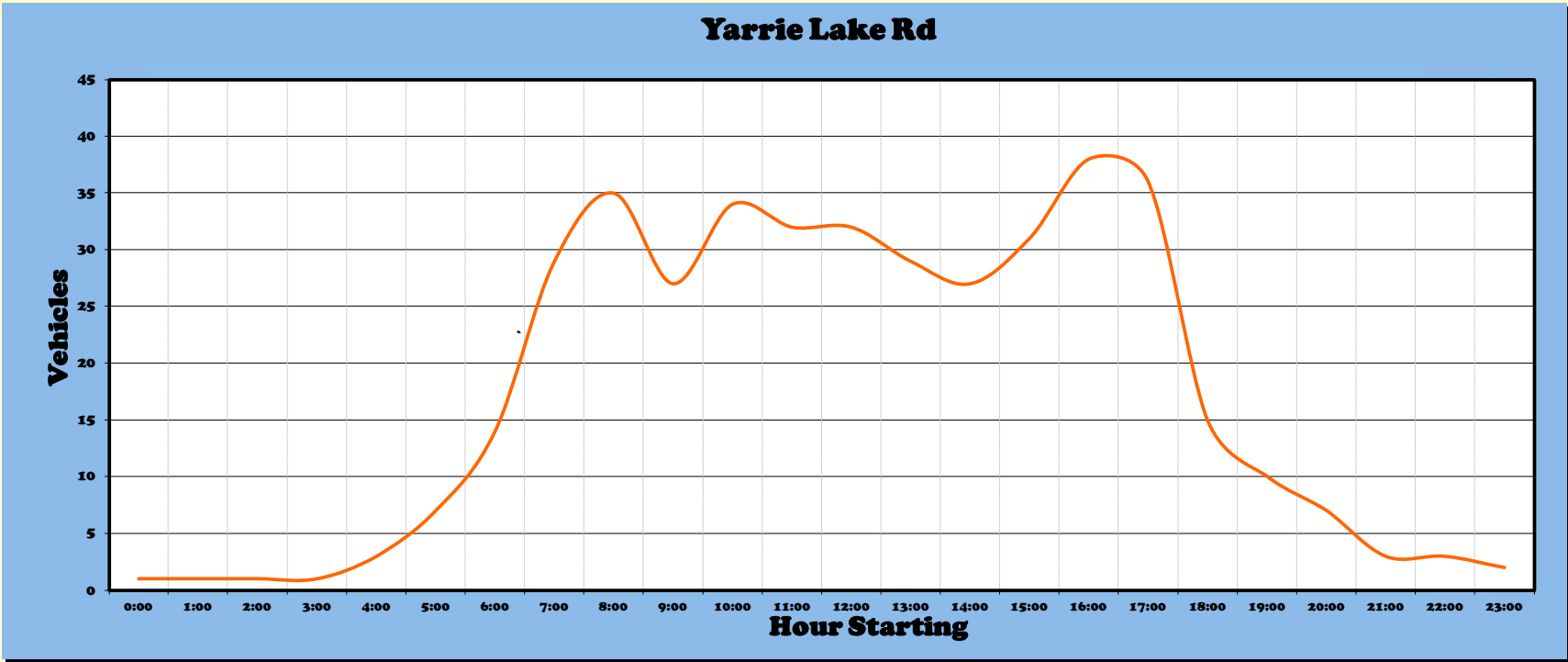


SiteYarrie Lake Rd

DirectionBoth directions

Day7 Days

[Back to Site Summary Page](#)



TRANS TRAFFIC SURVEY

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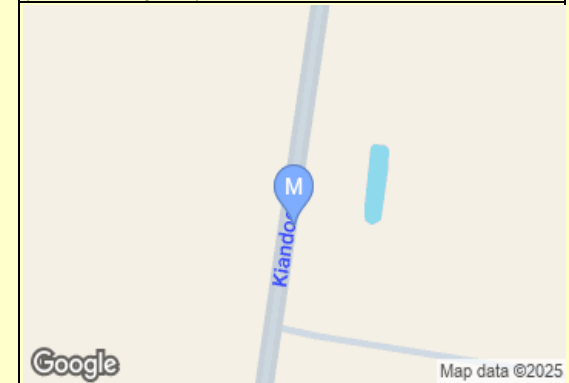
AUTOMATIC COUNT SUMMARY

Street Name :	Kiandool Ln	Location :	Near Property 1029
Suburb :	Bohena Creek	Start Date :	00:00 Wed 07/May/2025
Machine ID:	ZS85Y8BZ	Finish Date :	00:00 Wed 14/May/2025
Site ID:	3891	Speed Zone :	100 km/h
Prepared By :	Vo Son Binh	Email:	binh@trafficsurvey.com.au

GPS information		Direction of Travel		
Lat 30° 21' 31.07 South				
Long 149° 39' 4.10 East				
		Both directions	Northbound	Southbound
Traffic Volume : (Vehicles/Day)	Weekdays Average	56	27	29
	7 Day Average	60	29	31
Weekday	AM 10:00	6	3	3
Peak hour starts	PM 17:00	7	4	3
Speeds : (Km/Hr)	85th Percentile	69.4	68.8	67.0
	Average	63.7	61.7	61.6
Classification % :	Light Vehicles up to 5.5m	79.7%	79.3%	80.0%

Location

GPS Information [Load Google Map \(internet required\)](#)
(Latitude, Longitude) -30.358630, 149.651138



[Speed Data](#) [Speed Graph](#) [Speed Bin](#)
[Volume Data](#) [Volume Graph](#) [Classification](#)



QUALITY ASSURED COMPANY BY ISO 9001:2015
OH&S SYSTEM CERTIFIED TO ISO 4801:2001
ENVIRONMENT MANAGEMENT SYSTEM CERTIFIED TO ISO14001:2015



Site Kiandool Ln

Direction ▼[Back to Site Summary Page](#)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	12/05/2025	13/05/2025	7/05/2025	8/05/2025	9/05/2025	10/05/2025	11/05/2025	Total	Average	Total	Average	Total	Average
AM Peak	07:00	10:00	06:00	10:00	07:00	08:00	10:00	N/A	10:00	N/A	07:00	N/A	08:00
PM Peak	15:00	16:00	17:00	15:00	17:00	17:00	17:00	N/A	17:00	N/A	17:00	N/A	17:00
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	1	1	1	1	0	0	5	1	5	1	0	0
05:00	1	2	1	1	1	0	1	7	1	6	1	1	1
06:00	0	0	4	1	0	1	0	6	1	5	1	1	1
07:00	2	3	2	3	3	0	1	14	2	13	3	1	1
08:00	1	0	4	4	0	4	1	14	2	9	2	5	3
09:00	2	2	1	2	3	2	0	12	2	10	2	2	1
10:00	2	5	2	6	1	0	4	20	3	16	3	4	2
11:00	2	2	0	2	3	2	4	15	2	9	2	6	3
12:00	0	2	2	2	1	1	4	12	2	7	1	5	3
13:00	1	2	2	0	1	1	3	10	1	6	1	4	2
14:00	2	0	3	1	1	3	4	14	2	7	1	7	4
15:00	4	2	2	4	2	4	3	21	3	14	3	7	4
16:00	2	3	1	1	4	2	3	16	2	11	2	5	3
17:00	4	3	4	3	5	7	7	33	5	19	4	14	7
18:00	2	0	0	0	0	0	0	2	0	2	0	0	0
19:00	1	1	0	0	0	0	0	2	0	2	0	0	0
20:00	0	1	0	0	0	1	0	2	0	1	0	1	1
21:00	0	0	0	0	1	1	1	3	0	1	0	2	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	27	29	29	31	27	29	36	208	30	143	29	65	33
% Heavy	22.22%	31.03%	17.24%	25.81%	18.52%	13.79%	16.67%	20.67%		23.08%		15.38%	



Site

Kiandool Ln

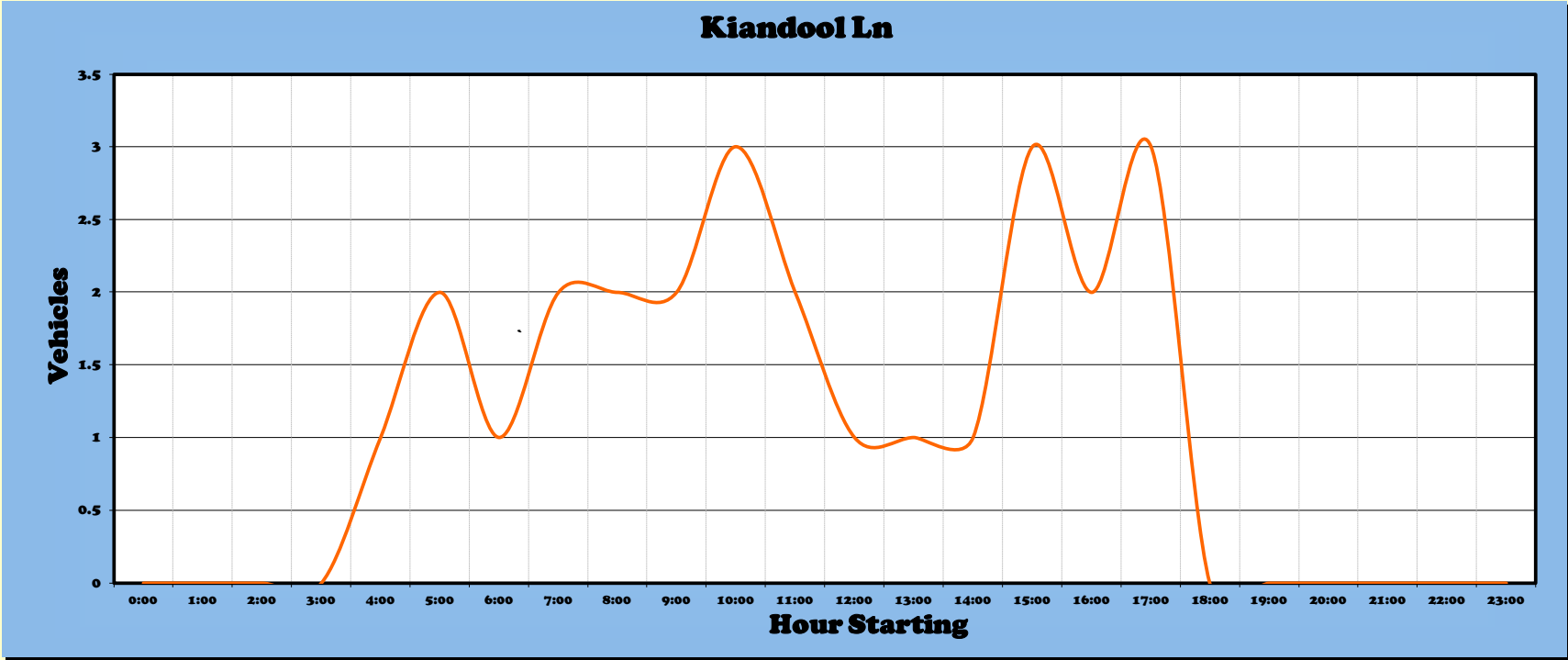
Direction

Northbound

Day

Weekdays (Monday to Friday)

[Back to Site Summary Page](#)





Site Kiandool Ln

Direction ▼[Back to Site Summary Page](#)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	12/05/2025	13/05/2025	7/05/2025	8/05/2025	9/05/2025	10/05/2025	11/05/2025	Total	Average	Total	Average	Total	Average
AM Peak	08:00	06:00	06:00	06:00	10:00	06:00	09:00	N/A	06:00	N/A	06:00	N/A	06:00
PM Peak	15:00	15:00	17:00	17:00	16:00	14:00	12:00	N/A	15:00	N/A	15:00	N/A	14:00
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	1	0	0	1	0	1	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	3	4	4	3	3	3	2	22	3	17	3	5	3
07:00	3	1	2	1	0	2	3	12	2	7	1	5	3
08:00	5	0	1	2	0	3	3	14	2	8	2	6	3
09:00	1	4	1	2	1	2	4	15	2	9	2	6	3
10:00	3	2	1	3	4	1	0	14	2	13	3	1	1
11:00	2	0	3	3	3	1	1	13	2	11	2	2	1
12:00	2	2	0	2	2	1	5	14	2	8	2	6	3
13:00	2	1	1	2	2	2	4	14	2	8	2	6	3
14:00	1	2	4	0	0	5	3	15	2	7	1	8	4
15:00	5	4	1	3	2	2	2	19	3	15	3	4	2
16:00	1	2	4	0	5	1	2	15	2	12	2	3	2
17:00	1	4	6	4	1	4	1	21	3	16	3	5	3
18:00	4	2	1	1	2	0	1	11	2	10	2	1	1
19:00	0	1	0	0	0	3	1	5	1	1	0	4	2
20:00	1	1	1	3	0	0	0	6	1	6	1	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	2	0	0	2	0	2	0	0	0
Total	34	30	30	29	28	30	32	213	30	151	30	62	31
% Heavy	26.47%	26.67%	10.00%	24.14%	17.86%	6.67%	18.75%	18.78%		21.19%		12.90%	



Site

Kiandool Ln

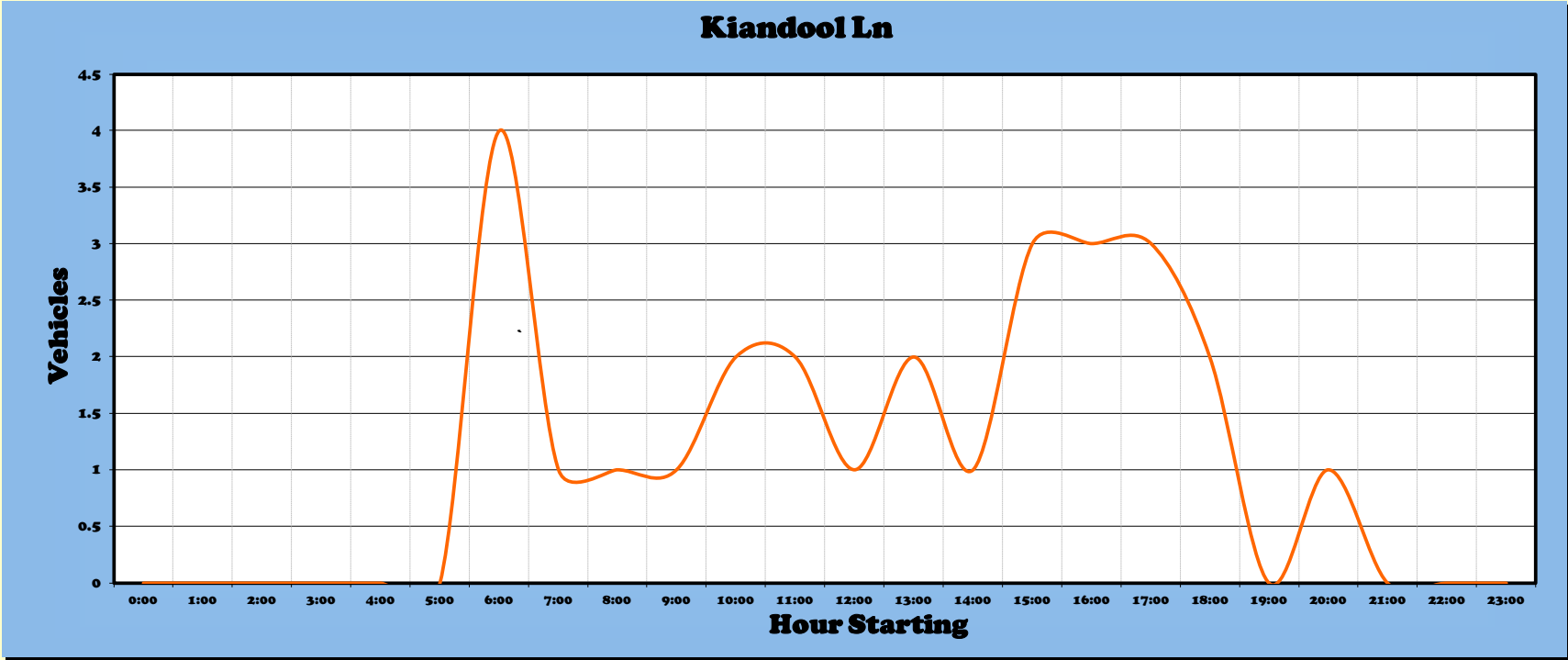
Direction

Southbound

Day

Weekdays (Monday to Friday)

[Back to Site Summary Page](#)





Site Kiandool Ln

Direction Both directions ▼

[Back to Site Summary Page](#)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	12/05/2025	13/05/2025	7/05/2025	8/05/2025	9/05/2025	10/05/2025	11/05/2025	Total	Average	Total	Average	Total	Average
AM Peak	08:00	10:00	06:00	10:00	11:00	08:00	11:00	N/A	10:00	N/A	10:00	N/A	08:00
PM Peak	15:00	17:00	17:00	15:00	16:00	17:00	12:00	N/A	17:00	N/A	17:00	N/A	17:00
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	1	0	0	1	0	1	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	1	1	1	1	0	0	5	1	5	1	0	0
05:00	1	2	1	1	1	0	1	7	1	6	1	1	1
06:00	3	4	8	4	3	4	2	28	4	22	4	6	3
07:00	5	4	4	4	3	2	4	26	4	20	4	6	3
08:00	6	0	5	6	0	7	4	28	4	17	3	11	6
09:00	3	6	2	4	4	4	4	27	4	19	4	8	4
10:00	5	7	3	9	5	1	4	34	5	29	6	5	3
11:00	4	2	3	5	6	3	5	28	4	20	4	8	4
12:00	2	4	2	4	3	2	9	26	4	15	3	11	6
13:00	3	3	3	2	3	3	7	24	3	14	3	10	5
14:00	3	2	7	1	1	8	7	29	4	14	3	15	8
15:00	9	6	3	7	4	6	5	40	6	29	6	11	6
16:00	3	5	5	1	9	3	5	31	4	23	5	8	4
17:00	5	7	10	7	6	11	8	54	8	35	7	19	10
18:00	6	2	1	1	2	0	1	13	2	12	2	1	1
19:00	1	2	0	0	0	3	1	7	1	3	1	4	2
20:00	1	2	1	3	0	1	0	8	1	7	1	1	1
21:00	0	0	0	0	1	1	1	3	0	1	0	2	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	2	0	0	2	0	2	0	0	0
Total	61	59	59	60	55	59	68	421	60	294	59	127	64
% Heavy	24.59%	28.81%	13.56%	25.00%	18.18%	10.17%	17.65%	19.71%		22.11%		14.17%	



Site

Kiandool Ln

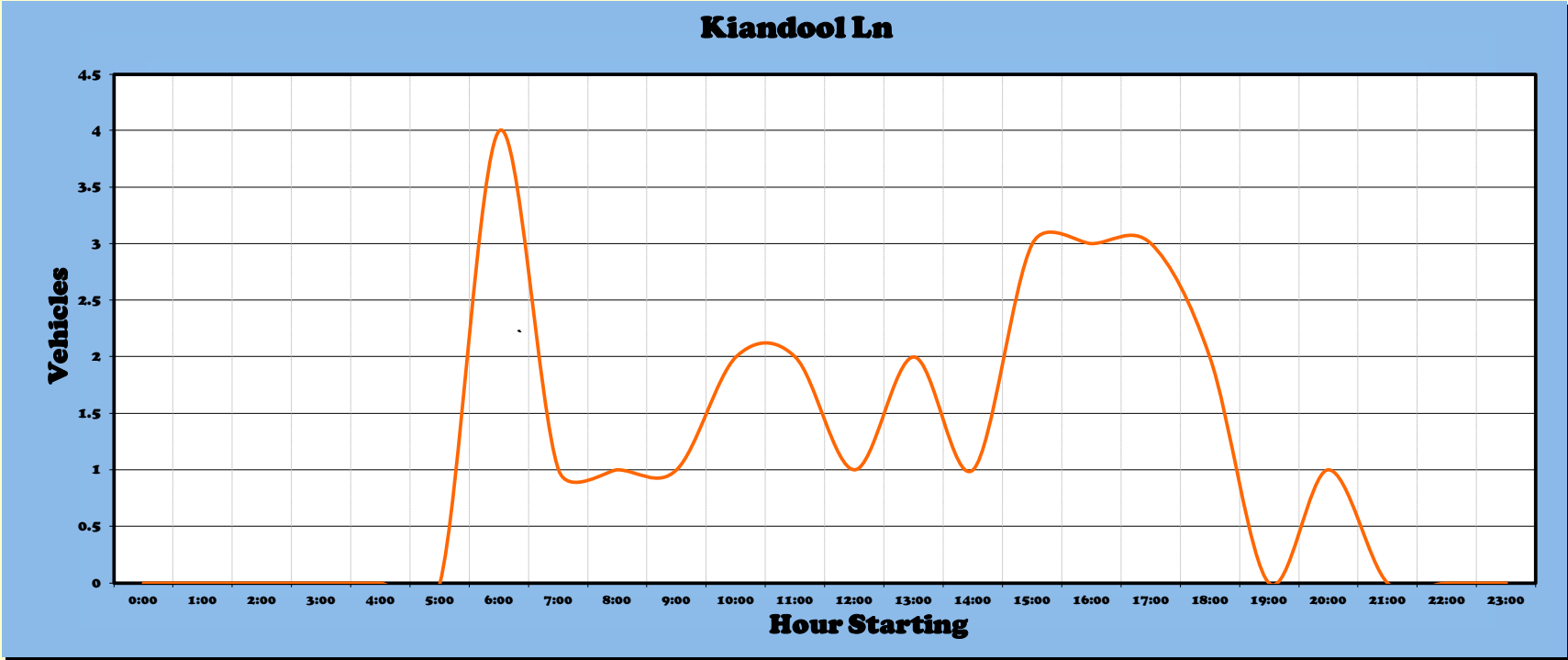
Direction

Southbound

Day

Weekdays (Monday to Friday)

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Appendix C

SIDRA Modelling Output

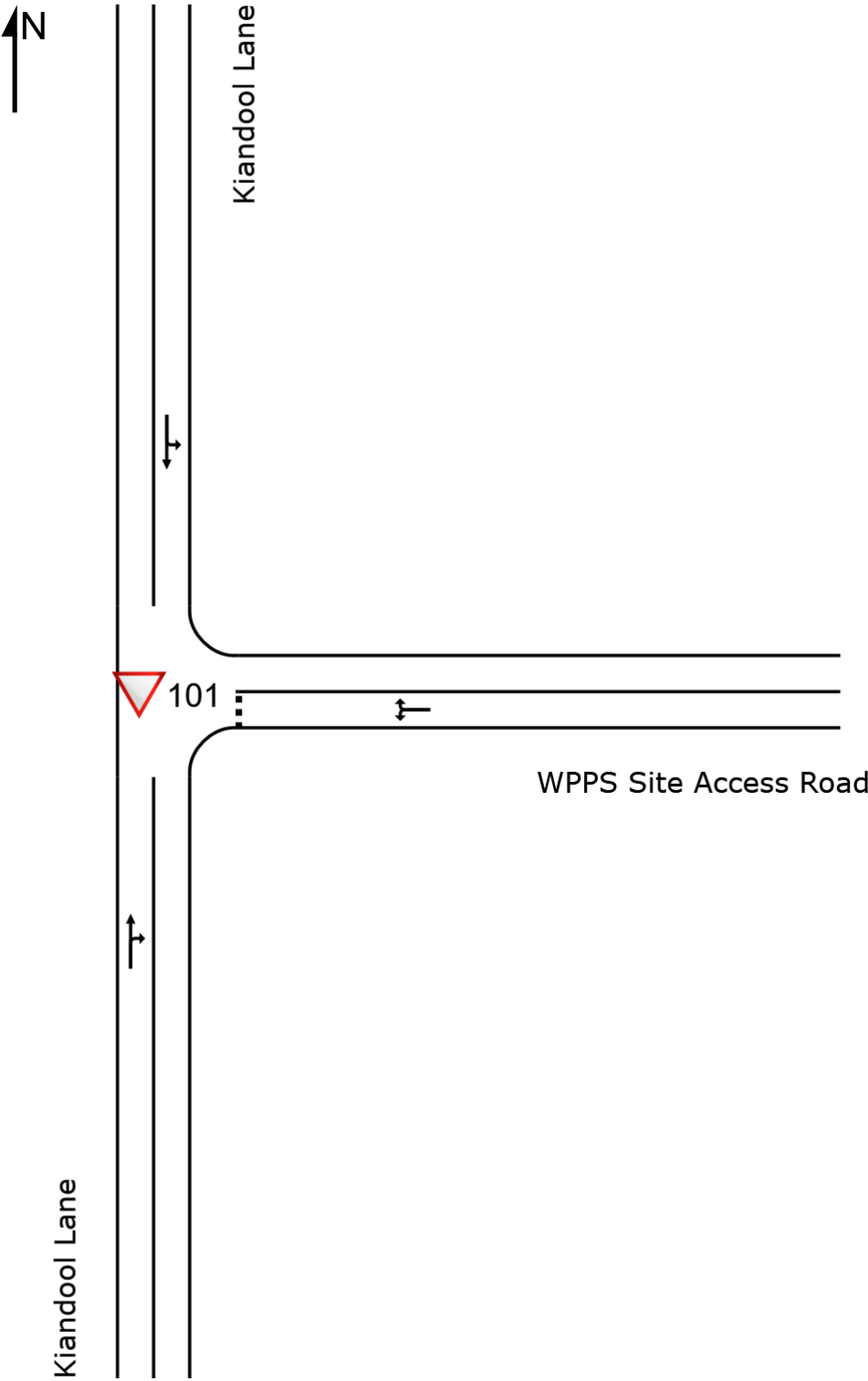


SITE LAYOUT

▼ Site: 101 [Kiandool Lane / WPPS Site Access Road (Site Folder: Base Layouts)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Kiandool Lane / WPPS Site Access Road (Site Folder: 6:00AM Exisitng)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
2	T1	All MCs	3	15.0	3	15.0	0.002	0.0	LOS A	0.0	0.0	0.02	0.15	0.02	58.6
3	R2	All MCs	1	15.0	1	15.0	0.002	5.6	LOS A	0.0	0.0	0.02	0.15	0.02	55.1
Approach			4	15.0	4	15.0	0.002	1.4	NA	0.0	0.0	0.02	0.15	0.02	57.7
East: WPPS Site Access Road															
4	L2	All MCs	1	15.0	1	15.0	0.002	5.7	LOS A	0.0	0.0	0.02	0.58	0.02	52.2
6	R2	All MCs	1	15.0	1	15.0	0.002	5.6	LOS A	0.0	0.0	0.02	0.58	0.02	51.9
Approach			2	15.0	2	15.0	0.002	5.7	LOS A	0.0	0.0	0.02	0.58	0.02	52.1
North: Kiandool Lane															
7	L2	All MCs	4	15.0	4	15.0	0.003	5.7	LOS A	0.0	0.0	0.00	0.46	0.00	53.1
8	T1	All MCs	1	15.0	1	15.0	0.003	0.0	LOS A	0.0	0.0	0.00	0.46	0.00	55.9
Approach			5	15.0	5	15.0	0.003	4.6	NA	0.0	0.0	0.00	0.46	0.00	53.6
All Vehicles			12	15.0	12	15.0	0.003	3.6	NA	0.0	0.0	0.01	0.37	0.01	54.7

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Kiandool Lane / WPPS Site Access Road (Site Folder: 6:00AM With Construction)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
2	T1	All MCs	3	15.0	3	15.0	0.002	0.0	LOS A	0.0	0.0	0.06	0.16	0.06	58.4
3	R2	All MCs	1	15.0	1	15.0	0.002	5.7	LOS A	0.0	0.0	0.06	0.16	0.06	55.0
Approach			4	15.0	4	15.0	0.002	1.5	NA	0.0	0.0	0.06	0.16	0.06	57.5
East: WPPS Site Access Road															
4	L2	All MCs	1	15.0	1	15.0	0.002	5.7	LOS A	0.0	0.0	0.02	0.58	0.02	52.2
6	R2	All MCs	1	15.0	1	15.0	0.002	5.6	LOS A	0.0	0.0	0.02	0.58	0.02	51.9
Approach			2	15.0	2	15.0	0.002	5.7	LOS A	0.0	0.0	0.02	0.58	0.02	52.1
North: Kiandool Lane															
7	L2	All MCs	35	15.0	35	15.0	0.021	5.7	LOS A	0.0	0.0	0.00	0.56	0.00	52.4
8	T1	All MCs	1	15.0	1	15.0	0.021	0.0	LOS A	0.0	0.0	0.00	0.56	0.00	55.1
Approach			36	15.0	36	15.0	0.021	5.6	NA	0.0	0.0	0.00	0.56	0.00	52.5
All Vehicles			42	15.0	42	15.0	0.021	5.1	NA	0.0	0.0	0.01	0.52	0.01	52.9

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Kiandool Lane / WPPS Site Access Road (Site Folder: 5:00PM Exisitng)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
2	T1	All MCs	1	15.0	1	15.0	0.001	0.0	LOS A	0.0	0.0	0.04	0.30	0.04	57.3
3	R2	All MCs	1	15.0	1	15.0	0.001	5.6	LOS A	0.0	0.0	0.04	0.30	0.04	54.0
Approach			2	15.0	2	15.0	0.001	2.8	NA	0.0	0.0	0.04	0.30	0.04	55.6
East: WPPS Site Access Road															
4	L2	All MCs	1	15.0	1	15.0	0.004	5.7	LOS A	0.0	0.1	0.04	0.58	0.04	52.2
6	R2	All MCs	4	15.0	4	15.0	0.004	5.6	LOS A	0.0	0.1	0.04	0.58	0.04	51.9
Approach			5	15.0	5	15.0	0.004	5.7	LOS A	0.0	0.1	0.04	0.58	0.04	51.9
North: Kiandool Lane															
7	L2	All MCs	1	15.0	1	15.0	0.004	5.7	LOS A	0.0	0.0	0.00	0.08	0.00	56.1
8	T1	All MCs	6	15.0	6	15.0	0.004	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	59.2
Approach			7	15.0	7	15.0	0.004	0.8	NA	0.0	0.0	0.00	0.08	0.00	58.8
All Vehicles			15	15.0	15	15.0	0.004	2.8	NA	0.0	0.1	0.02	0.29	0.02	55.7

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Kiandool Lane / WPPS Site Access Road (Site Folder: 5:00PM With Construction)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
2	T1	All MCs	1	15.0	1	15.0	0.001	0.0	LOS A	0.0	0.0	0.04	0.30	0.04	57.3
3	R2	All MCs	1	15.0	1	15.0	0.001	5.6	LOS A	0.0	0.0	0.04	0.30	0.04	54.0
Approach			2	15.0	2	15.0	0.001	2.8	NA	0.0	0.0	0.04	0.30	0.04	55.6
East: WPPS Site Access Road															
4	L2	All MCs	1	15.0	1	15.0	0.030	5.7	LOS A	0.1	0.8	0.04	0.58	0.04	52.2
6	R2	All MCs	35	15.0	35	15.0	0.030	5.6	LOS A	0.1	0.8	0.04	0.58	0.04	51.9
Approach			36	15.0	36	15.0	0.030	5.6	LOS A	0.1	0.8	0.04	0.58	0.04	51.9
North: Kiandool Lane															
7	L2	All MCs	1	15.0	1	15.0	0.004	5.7	LOS A	0.0	0.0	0.00	0.08	0.00	56.1
8	T1	All MCs	6	15.0	6	15.0	0.004	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	59.2
Approach			7	15.0	7	15.0	0.004	0.8	NA	0.0	0.0	0.00	0.08	0.00	58.8
All Vehicles			45	15.0	45	15.0	0.030	4.7	NA	0.1	0.8	0.04	0.49	0.04	53.1

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

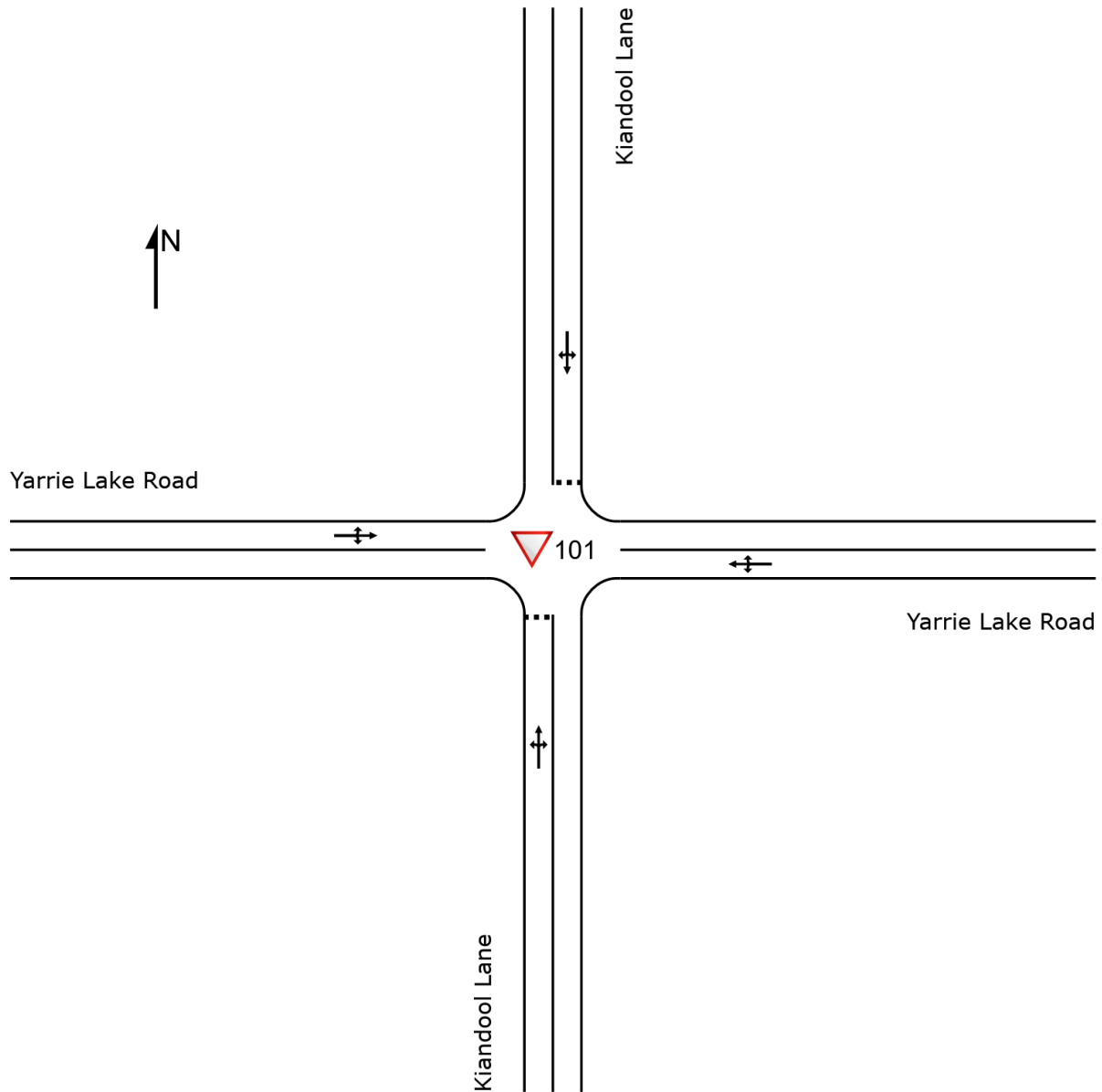
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▽ Site: 101 [Yarrie Lake Road / Kiandool Lane (Site Folder: Base Layouts)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Yarrie Lake Road / Kiandool Lane (Site Folder: 6:00AM Exisitng)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
1	L2	All MCs	1	15.0	1	15.0	0.006	5.7	LOS A	0.0	0.1	0.06	0.56	0.06	52.3
2	T1	All MCs	1	15.0	1	15.0	0.006	4.3	LOS A	0.0	0.1	0.06	0.56	0.06	52.8
3	R2	All MCs	4	15.0	4	15.0	0.006	5.7	LOS A	0.0	0.1	0.06	0.56	0.06	52.0
Approach			6	15.0	6	15.0	0.006	5.5	LOS A	0.0	0.1	0.06	0.56	0.06	52.2
East: Yarrie Lake Road															
4	L2	All MCs	4	15.0	4	15.0	0.007	8.2	LOS A	0.0	0.1	0.01	0.28	0.01	74.8
5	T1	All MCs	7	15.0	7	15.0	0.007	0.0	LOS A	0.0	0.1	0.01	0.28	0.01	91.8
6	R2	All MCs	1	15.0	1	15.0	0.007	7.8	LOS A	0.0	0.1	0.01	0.28	0.01	74.4
Approach			13	15.0	13	15.0	0.007	3.4	NA	0.0	0.1	0.01	0.28	0.01	83.8
North: Kiandool Lane															
7	L2	All MCs	1	15.0	1	15.0	0.003	5.7	LOS A	0.0	0.1	0.04	0.55	0.04	52.5
8	T1	All MCs	1	15.0	1	15.0	0.003	4.3	LOS A	0.0	0.1	0.04	0.55	0.04	53.0
9	R2	All MCs	1	15.0	1	15.0	0.003	5.7	LOS A	0.0	0.1	0.04	0.55	0.04	52.2
Approach			3	15.0	3	15.0	0.003	5.2	LOS A	0.0	0.1	0.04	0.55	0.04	52.6
West: Yarrie Lake Road															
10	L2	All MCs	1	15.0	1	15.0	0.003	8.2	LOS A	0.0	0.1	0.03	0.27	0.03	74.9
11	T1	All MCs	3	15.0	3	15.0	0.003	0.0	LOS A	0.0	0.1	0.03	0.27	0.03	91.9
12	R2	All MCs	1	15.0	1	15.0	0.003	7.8	LOS A	0.0	0.1	0.03	0.27	0.03	74.5
Approach			5	15.0	5	15.0	0.003	3.2	NA	0.0	0.1	0.03	0.27	0.03	84.2
All Vehicles			27	15.0	27	15.0	0.007	4.0	NA	0.0	0.1	0.03	0.37	0.03	69.4

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\Users\Tom Dwyer\OneDrive - Amber Organisation Pty Ltd\Amber\Jobs\1250 - Wilga Park Power Station Carbon Dioxide Plant
Modelling\1250 SID01A.sip9

MOVEMENT SUMMARY

Site: 101 [Yarrie Lake Road / Kiandool Lane (Site Folder: 6:00AM With Construction)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] [Total HV] veh/h %		Arrival Flows [Total HV] [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
1	L2	All MCs	1	15.0	1	15.0	0.006	5.7	LOS A	0.0	0.2	0.08	0.56	0.08	52.2
2	T1	All MCs	1	15.0	1	15.0	0.006	4.4	LOS A	0.0	0.2	0.08	0.56	0.08	52.8
3	R2	All MCs	4	15.0	4	15.0	0.006	5.8	LOS A	0.0	0.2	0.08	0.56	0.08	51.9
Approach			6	15.0	6	15.0	0.006	5.6	LOS A	0.0	0.2	0.08	0.56	0.08	52.1
East: Yarrie Lake Road															
4	L2	All MCs	35	15.0	35	15.0	0.025	8.2	LOS A	0.0	0.1	0.00	0.55	0.00	70.2
5	T1	All MCs	7	15.0	7	15.0	0.025	0.0	LOS A	0.0	0.1	0.00	0.55	0.00	84.9
6	R2	All MCs	1	15.0	1	15.0	0.025	7.8	LOS A	0.0	0.1	0.00	0.55	0.00	69.9
Approach			43	15.0	43	15.0	0.025	6.8	NA	0.0	0.1	0.00	0.55	0.00	72.3
North: Kiandool Lane															
7	L2	All MCs	1	15.0	1	15.0	0.003	5.7	LOS A	0.0	0.1	0.04	0.55	0.04	52.5
8	T1	All MCs	1	15.0	1	15.0	0.003	4.4	LOS A	0.0	0.1	0.04	0.55	0.04	53.0
9	R2	All MCs	1	15.0	1	15.0	0.003	5.7	LOS A	0.0	0.1	0.04	0.55	0.04	52.2
Approach			3	15.0	3	15.0	0.003	5.2	LOS A	0.0	0.1	0.04	0.55	0.04	52.6
West: Yarrie Lake Road															
10	L2	All MCs	1	15.0	1	15.0	0.003	8.3	LOS A	0.0	0.1	0.07	0.27	0.07	74.7
11	T1	All MCs	3	15.0	3	15.0	0.003	0.0	LOS A	0.0	0.1	0.07	0.27	0.07	91.6
12	R2	All MCs	1	15.0	1	15.0	0.003	7.9	LOS A	0.0	0.1	0.07	0.27	0.07	74.3
Approach			5	15.0	5	15.0	0.003	3.3	NA	0.0	0.1	0.07	0.27	0.07	83.9
All Vehicles			58	15.0	58	15.0	0.025	6.3	NA	0.0	0.2	0.02	0.53	0.02	68.9

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Yarrie Lake Road / Kiandool Lane (Site Folder: 5:00PM Exisitng)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
1	L2	All MCs	1	15.0	1	15.0	0.006	5.8	LOS A	0.0	0.2	0.11	0.55	0.11	52.2
2	T1	All MCs	1	15.0	1	15.0	0.006	4.5	LOS A	0.0	0.2	0.11	0.55	0.11	52.7
3	R2	All MCs	4	15.0	4	15.0	0.006	5.8	LOS A	0.0	0.2	0.11	0.55	0.11	51.9
Approach			6	15.0	6	15.0	0.006	5.6	LOS A	0.0	0.2	0.11	0.55	0.11	52.1
East: Yarrie Lake Road															
4	L2	All MCs	5	15.0	5	15.0	0.014	8.2	LOS A	0.0	0.1	0.01	0.18	0.01	76.7
5	T1	All MCs	18	15.0	18	15.0	0.014	0.0	LOS A	0.0	0.1	0.01	0.18	0.01	94.6
6	R2	All MCs	1	15.0	1	15.0	0.014	7.8	LOS A	0.0	0.1	0.01	0.18	0.01	76.3
Approach			24	15.0	24	15.0	0.014	2.1	NA	0.0	0.1	0.01	0.18	0.01	89.1
North: Kiandool Lane															
7	L2	All MCs	1	15.0	1	15.0	0.003	5.8	LOS A	0.0	0.1	0.09	0.54	0.09	52.4
8	T1	All MCs	1	15.0	1	15.0	0.003	4.5	LOS A	0.0	0.1	0.09	0.54	0.09	52.9
9	R2	All MCs	1	15.0	1	15.0	0.003	5.8	LOS A	0.0	0.1	0.09	0.54	0.09	52.1
Approach			3	15.0	3	15.0	0.003	5.3	LOS A	0.0	0.1	0.09	0.54	0.09	52.4
West: Yarrie Lake Road															
10	L2	All MCs	1	15.0	1	15.0	0.010	8.2	LOS A	0.0	0.1	0.01	0.08	0.01	78.5
11	T1	All MCs	16	15.0	16	15.0	0.010	0.0	LOS A	0.0	0.1	0.01	0.08	0.01	97.4
12	R2	All MCs	1	15.0	1	15.0	0.010	7.8	LOS A	0.0	0.1	0.01	0.08	0.01	78.0
Approach			18	15.0	18	15.0	0.010	0.9	NA	0.0	0.1	0.01	0.08	0.01	94.7
All Vehicles			52	15.0	52	15.0	0.014	2.3	NA	0.0	0.2	0.03	0.21	0.03	80.3

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Yarrie Lake Road / Kiandool Lane (Site Folder: 5:00PM With Construction)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Kiandool Lane															
1	L2	All MCs	1	15.0	1	15.0	0.036	5.8	LOS A	0.1	0.9	0.12	0.57	0.12	52.0
2	T1	All MCs	1	15.0	1	15.0	0.036	4.5	LOS A	0.1	0.9	0.12	0.57	0.12	52.5
3	R2	All MCs	35	15.0	35	15.0	0.036	5.8	LOS A	0.1	0.9	0.12	0.57	0.12	51.7
Approach			37	15.0	37	15.0	0.036	5.8	LOS A	0.1	0.9	0.12	0.57	0.12	51.7
East: Yarrie Lake Road															
4	L2	All MCs	5	15.0	5	15.0	0.014	8.2	LOS A	0.0	0.1	0.01	0.18	0.01	76.7
5	T1	All MCs	18	15.0	18	15.0	0.014	0.0	LOS A	0.0	0.1	0.01	0.18	0.01	94.6
6	R2	All MCs	1	15.0	1	15.0	0.014	7.8	LOS A	0.0	0.1	0.01	0.18	0.01	76.3
Approach			24	15.0	24	15.0	0.014	2.1	NA	0.0	0.1	0.01	0.18	0.01	89.1
North: Kiandool Lane															
7	L2	All MCs	1	15.0	1	15.0	0.003	5.8	LOS A	0.0	0.1	0.09	0.54	0.09	52.4
8	T1	All MCs	1	15.0	1	15.0	0.003	4.5	LOS A	0.0	0.1	0.09	0.54	0.09	52.9
9	R2	All MCs	1	15.0	1	15.0	0.003	5.8	LOS A	0.0	0.1	0.09	0.54	0.09	52.1
Approach			3	15.0	3	15.0	0.003	5.3	LOS A	0.0	0.1	0.09	0.54	0.09	52.4
West: Yarrie Lake Road															
10	L2	All MCs	1	15.0	1	15.0	0.010	8.2	LOS A	0.0	0.1	0.01	0.08	0.01	78.5
11	T1	All MCs	16	15.0	16	15.0	0.010	0.0	LOS A	0.0	0.1	0.01	0.08	0.01	97.4
12	R2	All MCs	1	15.0	1	15.0	0.010	7.8	LOS A	0.0	0.1	0.01	0.08	0.01	78.0
Approach			18	15.0	18	15.0	0.010	0.9	NA	0.0	0.1	0.01	0.08	0.01	94.7
All Vehicles			82	15.0	82	15.0	0.036	3.6	NA	0.1	0.9	0.06	0.34	0.06	66.6

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

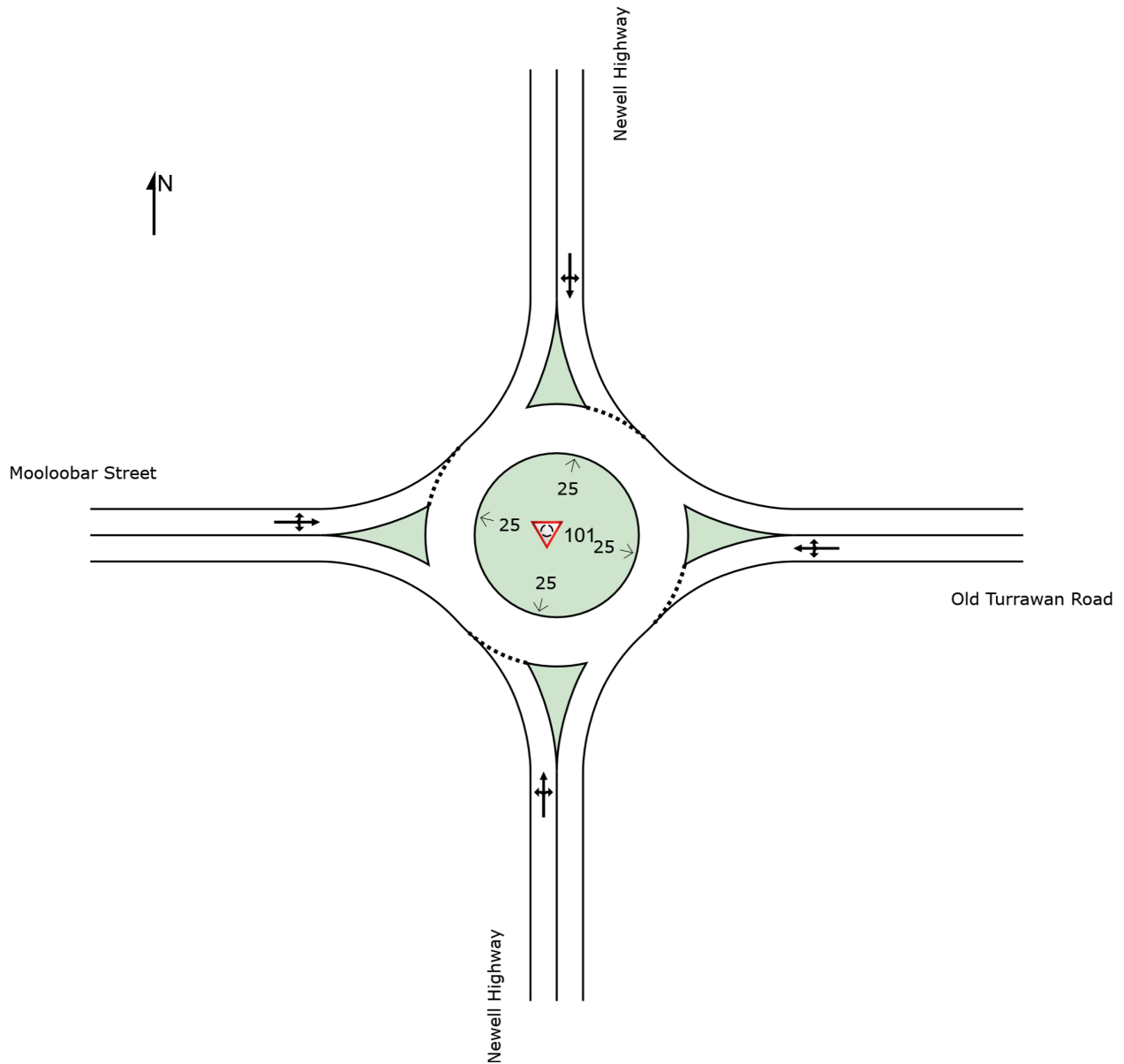
 **Site: 101 [Newell Highway / Mooloobar Street / Old Turrawan Road (Site Folder: Base Layouts)]**

New Site

Site Category: (None)

Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: C:\Users\Tom Dwyer\OneDrive - Amber Organisation Pty Ltd\Amber\Jobs\1250 - Wilga Park Power Station Carbon Dioxide Plant
Modelling\1250 SID01A.sip9

MOVEMENT SUMMARY

 **Site: 101 [Newell Highway / Mooloolobar Street / Old Turrawan Road (Site Folder: 6:00AM Exisitng)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Newell Highway															
1	L2	All MCs	22	15.0	22	15.0	0.138	3.9	LOS A	0.7	5.6	0.15	0.45	0.15	53.3
2	T1	All MCs	124	15.0	124	15.0	0.138	4.0	LOS A	0.7	5.6	0.15	0.45	0.15	53.8
3	R2	All MCs	48	10.0	48	10.0	0.138	9.2	LOS A	0.7	5.6	0.15	0.45	0.15	52.8
Approach			195	13.8	195	13.8	0.138	5.3	LOS A	0.7	5.6	0.15	0.45	0.15	53.5
East: Old Turrawan Road															
4	L2	All MCs	1	10.0	1	10.0	0.013	4.5	LOS A	0.1	0.5	0.33	0.56	0.33	51.2
5	T1	All MCs	3	10.0	3	10.0	0.013	4.6	LOS A	0.1	0.5	0.33	0.56	0.33	51.6
6	R2	All MCs	12	10.0	12	10.0	0.013	9.8	LOS A	0.1	0.5	0.33	0.56	0.33	50.6
Approach			16	10.0	16	10.0	0.013	8.4	LOS A	0.1	0.5	0.33	0.56	0.33	50.9
North: Newell Highway															
7	L2	All MCs	9	10.0	9	10.0	0.125	4.1	LOS A	0.6	5.0	0.23	0.43	0.23	53.5
8	T1	All MCs	129	15.0	129	15.0	0.125	4.2	LOS A	0.6	5.0	0.23	0.43	0.23	53.9
9	R2	All MCs	23	15.0	23	15.0	0.125	9.5	LOS A	0.6	5.0	0.23	0.43	0.23	52.7
Approach			162	14.7	162	14.7	0.125	5.0	LOS A	0.6	5.0	0.23	0.43	0.23	53.7
West: Mooloolobar Street															
10	L2	All MCs	22	15.0	22	15.0	0.045	4.7	LOS A	0.2	1.7	0.34	0.55	0.34	52.1
11	T1	All MCs	6	15.0	6	15.0	0.045	4.7	LOS A	0.2	1.7	0.34	0.55	0.34	52.5
12	R2	All MCs	23	15.0	23	15.0	0.045	10.0	LOS A	0.2	1.7	0.34	0.55	0.34	51.4
Approach			52	15.0	52	15.0	0.045	7.1	LOS A	0.2	1.7	0.34	0.55	0.34	51.8
All Vehicles			424	14.1	424	14.1	0.138	5.5	LOS A	0.7	5.6	0.21	0.46	0.21	53.2

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

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

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

Roundabout Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\Users\Tom Dwyer\OneDrive - Amber Organisation Pty Ltd\Amber\Jobs\1250 - Wilga Park Power Station Carbon Dioxide Plant
Modelling\1250 SID01A.sip9

MOVEMENT SUMMARY

 **Site: 101 [Newell Highway / Mooloolbar Street / Old Turrawan Road (Site Folder: 6:00AM With Construction)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Newell Highway															
1	L2	All MCs	26	15.0	26	15.0	0.148	4.1	LOS A	0.8	6.1	0.21	0.45	0.21	53.1
2	T1	All MCs	124	15.0	124	15.0	0.148	4.1	LOS A	0.8	6.1	0.21	0.45	0.21	53.6
3	R2	All MCs	48	10.0	48	10.0	0.148	9.3	LOS A	0.8	6.1	0.21	0.45	0.21	52.6
Approach			199	13.8	199	13.8	0.148	5.4	LOS A	0.8	6.1	0.21	0.45	0.21	53.3
East: Old Turrawan Road															
4	L2	All MCs	1	10.0	1	10.0	0.014	4.6	LOS A	0.1	0.5	0.36	0.56	0.36	51.2
5	T1	All MCs	3	10.0	3	10.0	0.014	4.7	LOS A	0.1	0.5	0.36	0.56	0.36	51.6
6	R2	All MCs	12	10.0	12	10.0	0.014	9.9	LOS A	0.1	0.5	0.36	0.56	0.36	50.6
Approach			16	10.0	16	10.0	0.014	8.5	LOS A	0.1	0.5	0.36	0.56	0.36	50.8
North: Newell Highway															
7	L2	All MCs	9	10.0	9	10.0	0.144	4.1	LOS A	0.7	5.9	0.23	0.46	0.23	53.1
8	T1	All MCs	129	15.0	129	15.0	0.144	4.2	LOS A	0.7	5.9	0.23	0.46	0.23	53.5
9	R2	All MCs	49	15.0	49	15.0	0.144	9.5	LOS A	0.7	5.9	0.23	0.46	0.23	52.3
Approach			188	14.7	188	14.7	0.144	5.6	LOS A	0.7	5.9	0.23	0.46	0.23	53.1
West: Mooloolbar Street															
10	L2	All MCs	22	15.0	22	15.0	0.045	4.7	LOS A	0.2	1.7	0.35	0.55	0.35	52.1
11	T1	All MCs	6	15.0	6	15.0	0.045	4.7	LOS A	0.2	1.7	0.35	0.55	0.35	52.5
12	R2	All MCs	23	15.0	23	15.0	0.045	10.0	LOS A	0.2	1.7	0.35	0.55	0.35	51.4
Approach			52	15.0	52	15.0	0.045	7.1	LOS A	0.2	1.7	0.35	0.55	0.35	51.8
All Vehicles			455	14.2	455	14.2	0.148	5.8	LOS A	0.8	6.1	0.24	0.47	0.24	52.9

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

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

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

Roundabout Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Modelling\1250 SID01A.sip9

MOVEMENT SUMMARY

 **Site: 101 [Newell Highway / Mooloolbar Street / Old Turrawan Road (Site Folder: 5:00PM Exisitng)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Newell Highway															
1	L2	All MCs	17	15.0	17	15.0	0.144	4.2	LOS A	0.7	5.9	0.26	0.40	0.26	53.7
2	T1	All MCs	166	15.0	166	15.0	0.144	4.3	LOS A	0.7	5.9	0.26	0.40	0.26	54.2
3	R2	All MCs	1	10.0	1	10.0	0.144	9.5	LOS A	0.7	5.9	0.26	0.40	0.26	53.2
Approach			184	15.0	184	15.0	0.144	4.3	LOS A	0.7	5.9	0.26	0.40	0.26	54.2
East: Old Turrawan Road															
4	L2	All MCs	1	10.0	1	10.0	0.027	5.1	LOS A	0.1	1.0	0.42	0.57	0.42	51.5
5	T1	All MCs	12	10.0	12	10.0	0.027	5.1	LOS A	0.1	1.0	0.42	0.57	0.42	51.9
6	R2	All MCs	17	10.0	17	10.0	0.027	10.4	LOS A	0.1	1.0	0.42	0.57	0.42	50.9
Approach			29	10.0	29	10.0	0.027	8.1	LOS A	0.1	1.0	0.42	0.57	0.42	51.3
North: Newell Highway															
7	L2	All MCs	12	10.0	12	10.0	0.187	3.9	LOS A	1.1	8.6	0.18	0.44	0.18	53.4
8	T1	All MCs	191	15.0	191	15.0	0.187	4.0	LOS A	1.1	8.6	0.18	0.44	0.18	53.8
9	R2	All MCs	63	15.0	63	15.0	0.187	9.3	LOS A	1.1	8.6	0.18	0.44	0.18	52.6
Approach			265	14.8	265	14.8	0.187	5.3	LOS A	1.1	8.6	0.18	0.44	0.18	53.5
West: Mooloolbar Street															
10	L2	All MCs	72	15.0	72	15.0	0.096	4.7	LOS A	0.5	3.9	0.37	0.54	0.37	52.6
11	T1	All MCs	6	15.0	6	15.0	0.096	4.8	LOS A	0.5	3.9	0.37	0.54	0.37	53.0
12	R2	All MCs	33	15.0	33	15.0	0.096	10.1	LOS A	0.5	3.9	0.37	0.54	0.37	51.9
Approach			111	15.0	111	15.0	0.096	6.3	LOS A	0.5	3.9	0.37	0.54	0.37	52.4
All Vehicles			589	14.6	589	14.6	0.187	5.3	LOS A	1.1	8.6	0.25	0.45	0.25	53.4

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

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

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

Roundabout Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Modelling\1250 SID01A.sip9

MOVEMENT SUMMARY

 **Site: 101 [Newell Highway / Mooloolbar Street / Old Turrawan Road (Site Folder: 5:00PM With Construction)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Newell Highway															
1	L2	All MCs	17	15.0	17	15.0	0.144	4.2	LOS A	0.7	5.9	0.26	0.40	0.26	53.7
2	T1	All MCs	166	15.0	166	15.0	0.144	4.3	LOS A	0.7	5.9	0.26	0.40	0.26	54.2
3	R2	All MCs	1	10.0	1	10.0	0.144	9.5	LOS A	0.7	5.9	0.26	0.40	0.26	53.2
Approach			184	15.0	184	15.0	0.144	4.3	LOS A	0.7	5.9	0.26	0.40	0.26	54.2
East: Old Turrawan Road															
4	L2	All MCs	1	10.0	1	10.0	0.027	5.1	LOS A	0.1	1.0	0.43	0.57	0.43	51.5
5	T1	All MCs	12	10.0	12	10.0	0.027	5.2	LOS A	0.1	1.0	0.43	0.57	0.43	51.9
6	R2	All MCs	17	10.0	17	10.0	0.027	10.4	LOS A	0.1	1.0	0.43	0.57	0.43	50.8
Approach			29	10.0	29	10.0	0.027	8.2	LOS A	0.1	1.0	0.43	0.57	0.43	51.3
North: Newell Highway															
7	L2	All MCs	12	10.0	12	10.0	0.189	3.9	LOS A	1.1	8.7	0.19	0.44	0.19	53.4
8	T1	All MCs	191	15.0	191	15.0	0.189	4.0	LOS A	1.1	8.7	0.19	0.44	0.19	53.7
9	R2	All MCs	63	15.0	63	15.0	0.189	9.3	LOS A	1.1	8.7	0.19	0.44	0.19	52.5
Approach			265	14.8	265	14.8	0.189	5.3	LOS A	1.1	8.7	0.19	0.44	0.19	53.4
West: Mooloolbar Street															
10	L2	All MCs	98	15.0	98	15.0	0.123	4.8	LOS A	0.6	5.1	0.37	0.53	0.37	52.7
11	T1	All MCs	6	15.0	6	15.0	0.123	4.8	LOS A	0.6	5.1	0.37	0.53	0.37	53.2
12	R2	All MCs	37	15.0	37	15.0	0.123	10.1	LOS A	0.6	5.1	0.37	0.53	0.37	52.0
Approach			141	15.0	141	15.0	0.123	6.2	LOS A	0.6	5.1	0.37	0.53	0.37	52.5
All Vehicles			620	14.7	620	14.7	0.189	5.3	LOS A	1.1	8.7	0.26	0.45	0.26	53.3

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

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

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

Roundabout Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

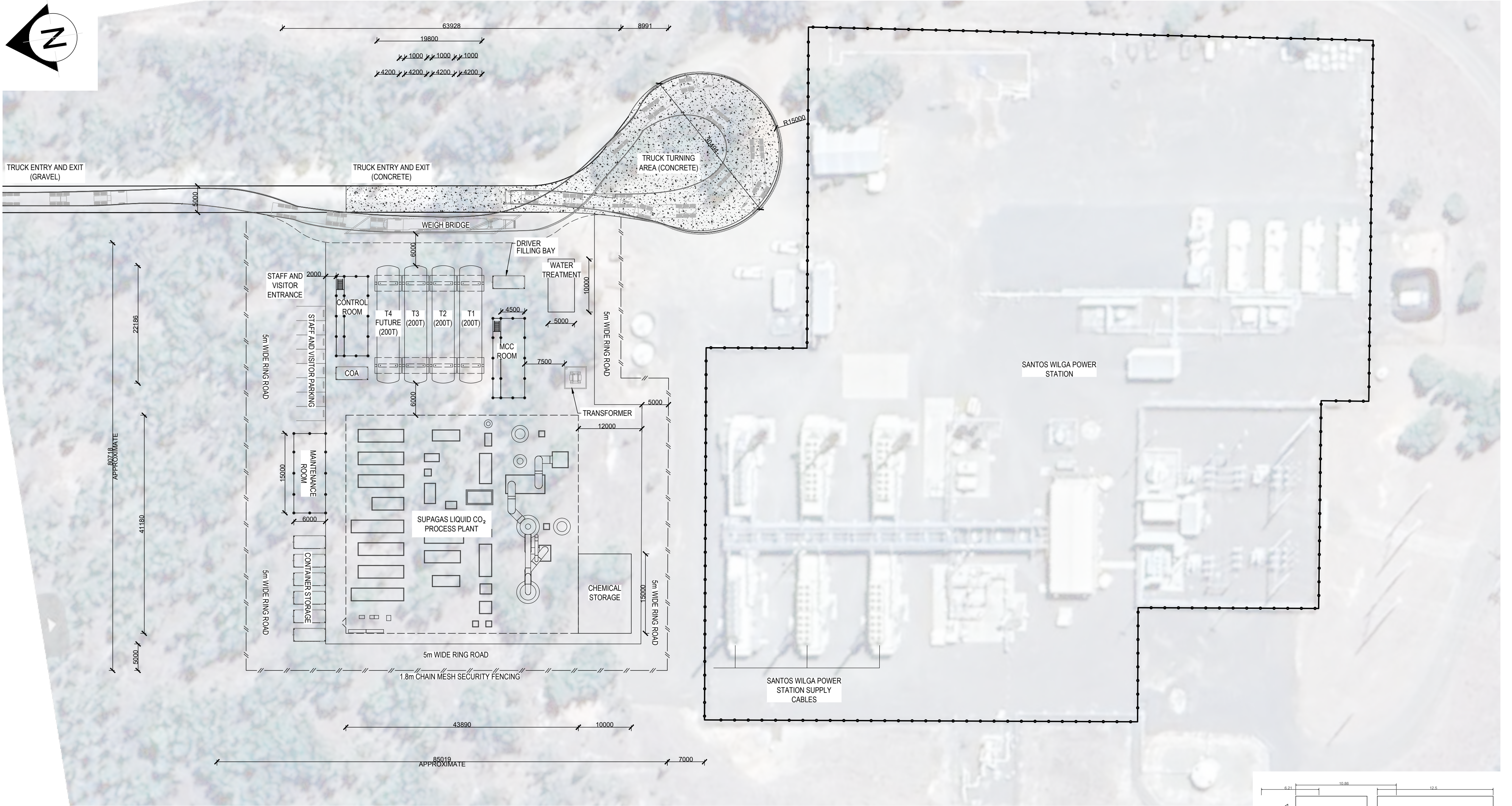
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Appendix D

Design Plan and Swept Path

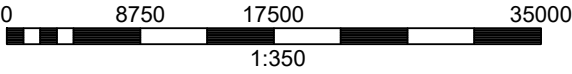


LEGEND

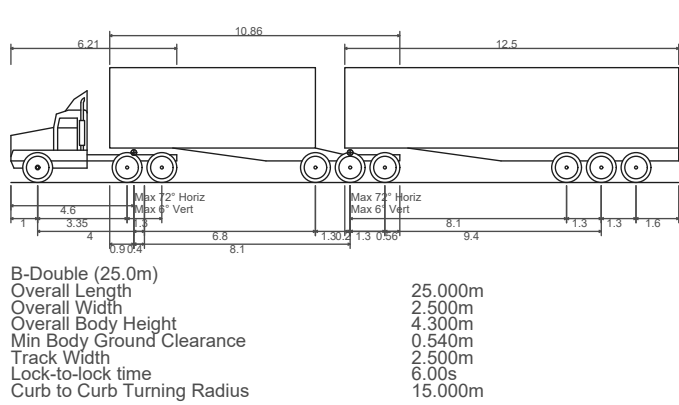
- SUPAGAS PLANT.
- SANTOS POWER STATION.

NOTES:

1. ALL DIMENSION IN mm UNLESS OTHERWISE NOTED.



SITE LOCATION - PLAN
SCALE 1:350



						DESIGNED	SUPAGAS	
						DATE	13.03.25	
						DRAWN	JASON LITTLE	
						DATE	13.03.25	
						CHECKED	YOGESH SHARMA	
						DATE	13.03.25	
						APPROVED BY	BEN VOCALE	
						DATE	13.03.25	
						PRO APP'D	REZA POURDARVISH	
						DATE	13.03.25	
						SCALE	AS SHOWN	
BRA-LAY-IND-NSW-01	PROPOSED PLANT SITE LAYOUT	A	13.03.25	INITIAL ISSUE	JL	YS		A1
DRAWING NUMBER	DRAWING DESCRIPTION	REV	DATE	REVISION DESCRIPTION	DRN	CHK		



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5 Benson Rd, Ingleburn NSW 2565
Phone: (02) 8788 4413
email: rezapour@supagas.com.au
web: www.supagas.com.au

SHEET
PROPOSED PLANT SITE LAYOUT
SITE
KIANDOOL LANE,
BOHENA CREEK
NSW 2390 (AUSTRALIA)

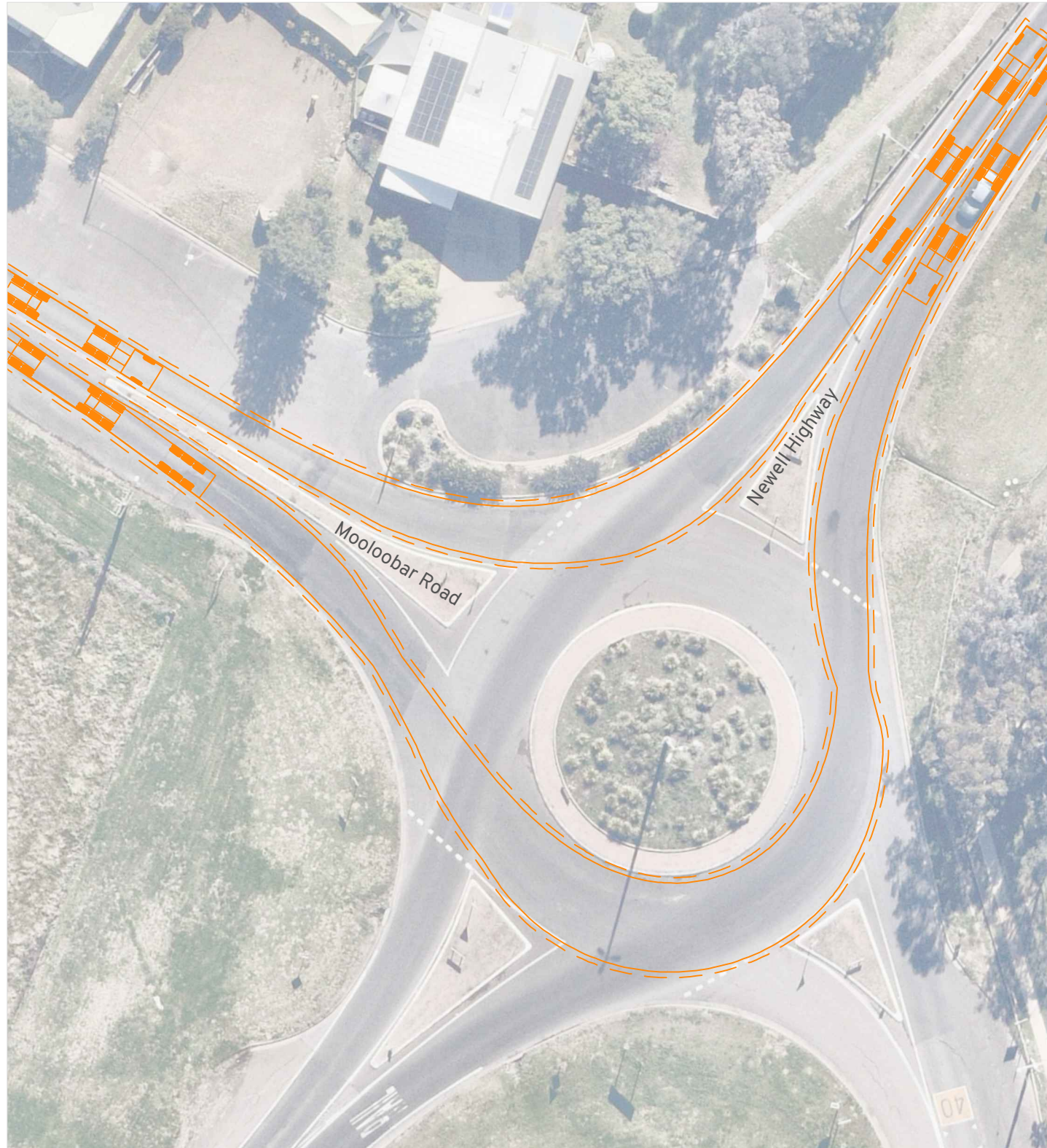
DWG NO
BRA-LAY-IND-NSW-01

REV
0

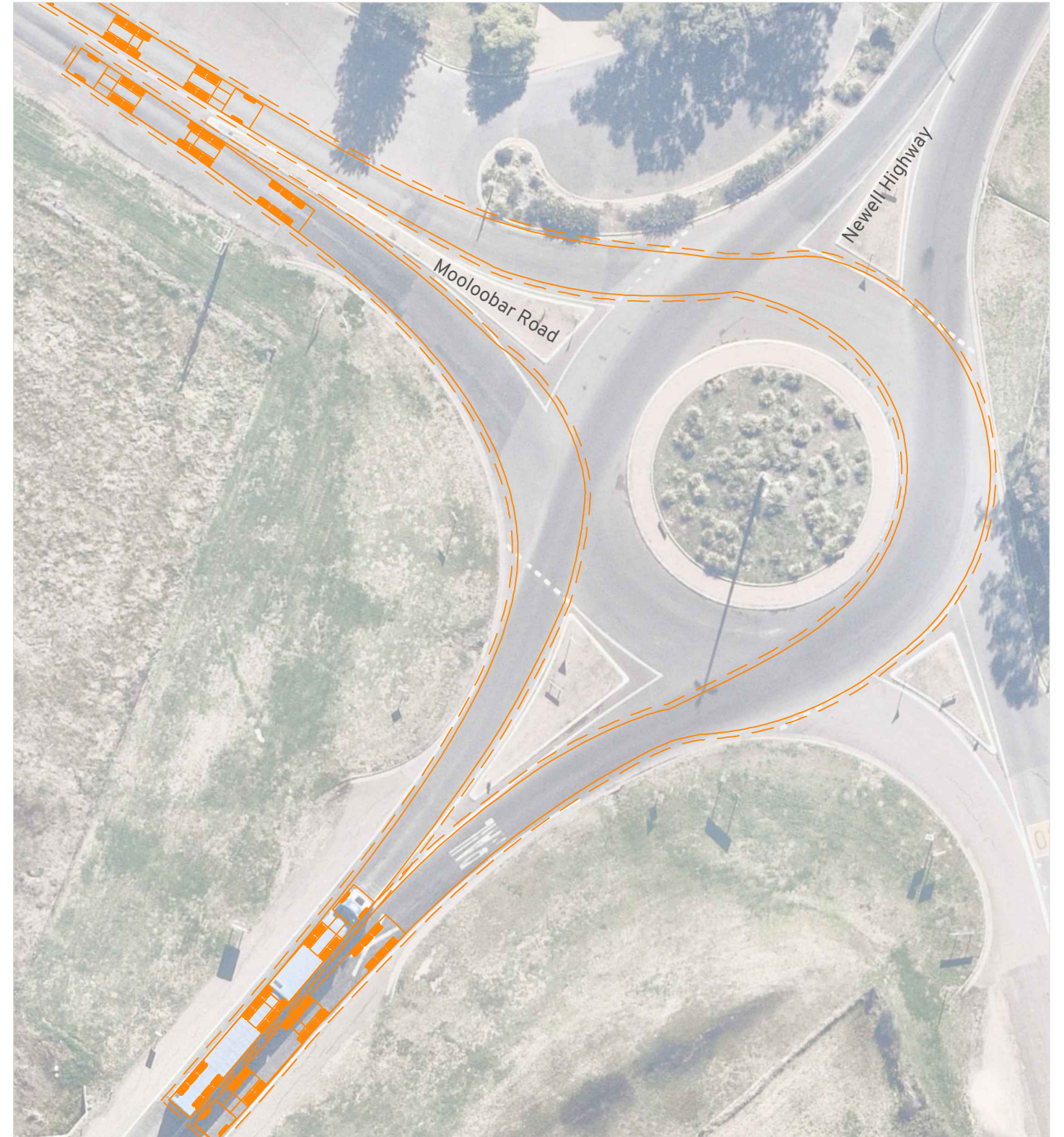
Appendix E

Swept Path Assessments

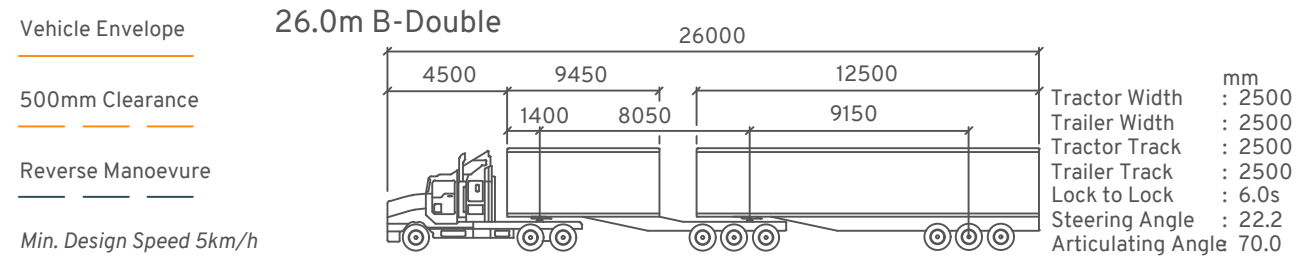




Access to/from North



Access to/from South



Carbon Dioxide Plant At The Wilga Park Power Station

B-Double Vehicle Access Route

Swept Path Assessment - North Access Route

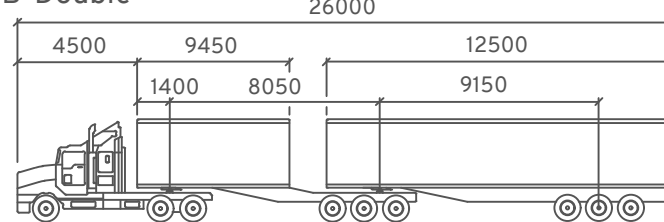
DRAWN: SE
DATE: 03/10/2025
DWG NO: 1250 S01A
SCALE at A3: 1:500m



Entry Manoeuvre

Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double



Tractor Width : 2500
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle : 70.0



Carbon Dioxide Plant At The Wilga Park Power Station
 B-Double Vehicle Access Route
 Swept Path Assessment - North Access Route

DRAWN: SE
 DATE: 03/10/2025
 DWG NO: 1250 S01A
 SCALE at A3: 1:500m

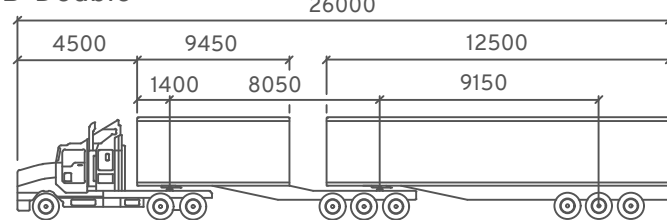
Amber 02a



Exit Manoeuvre

Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double



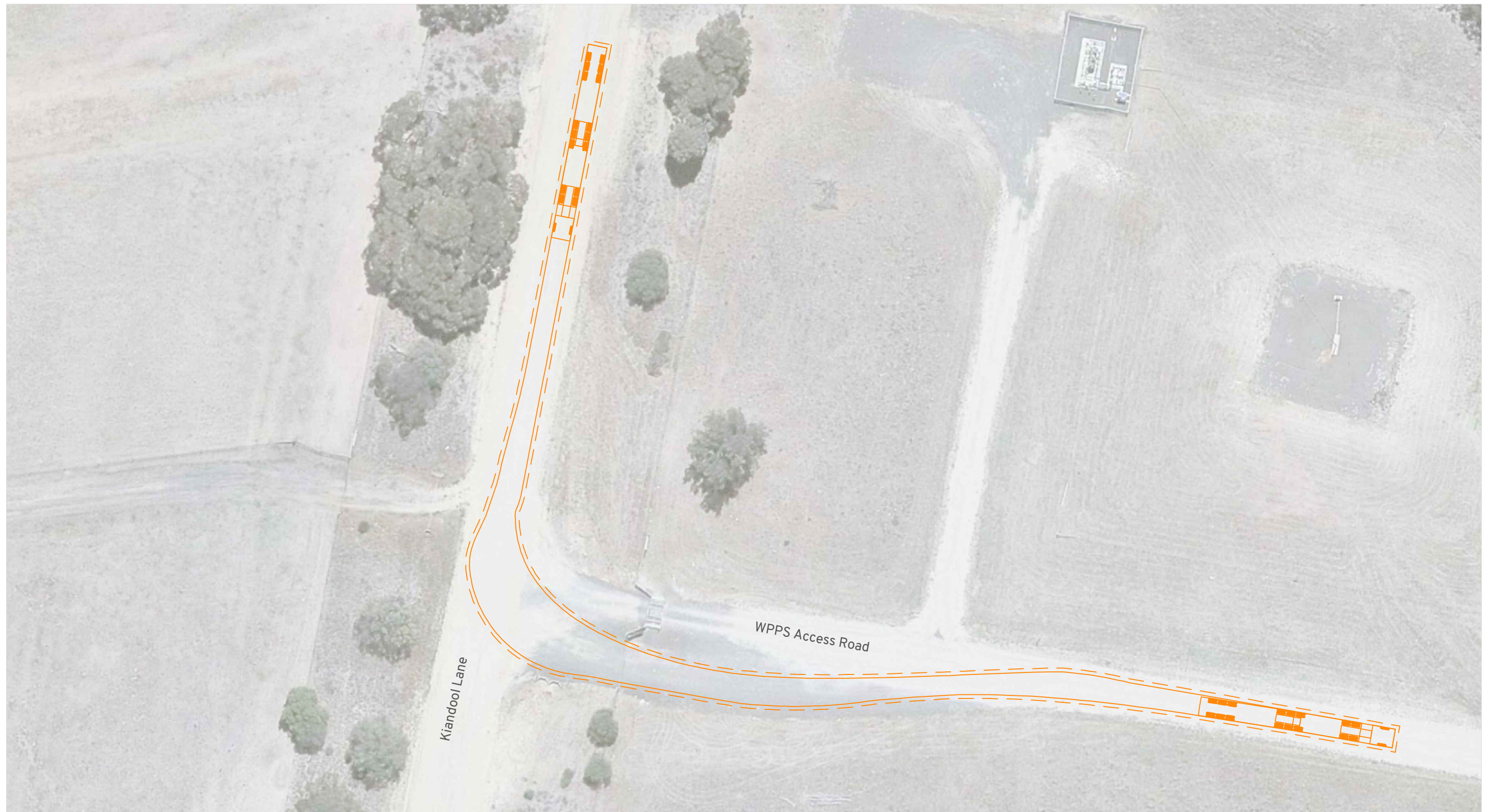
Tractor Width : 2500
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle : 70.0



Carbon Dioxide Plant At The Wilga Park Power Station
 B-Double Vehicle Access Route
 Swept Path Assessment - North Access Route

DRAWN: SE
 DATE: 03/10/2025
 DWG NO: 1250 S01A
 SCALE at A3: 1:500m

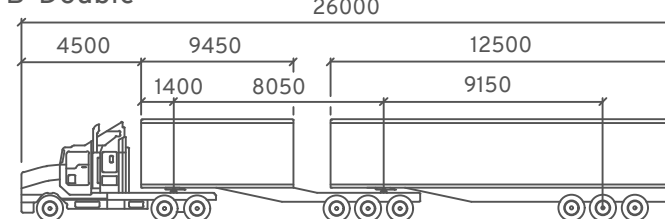
Amber 02b



Entry Manoeuvre

Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double



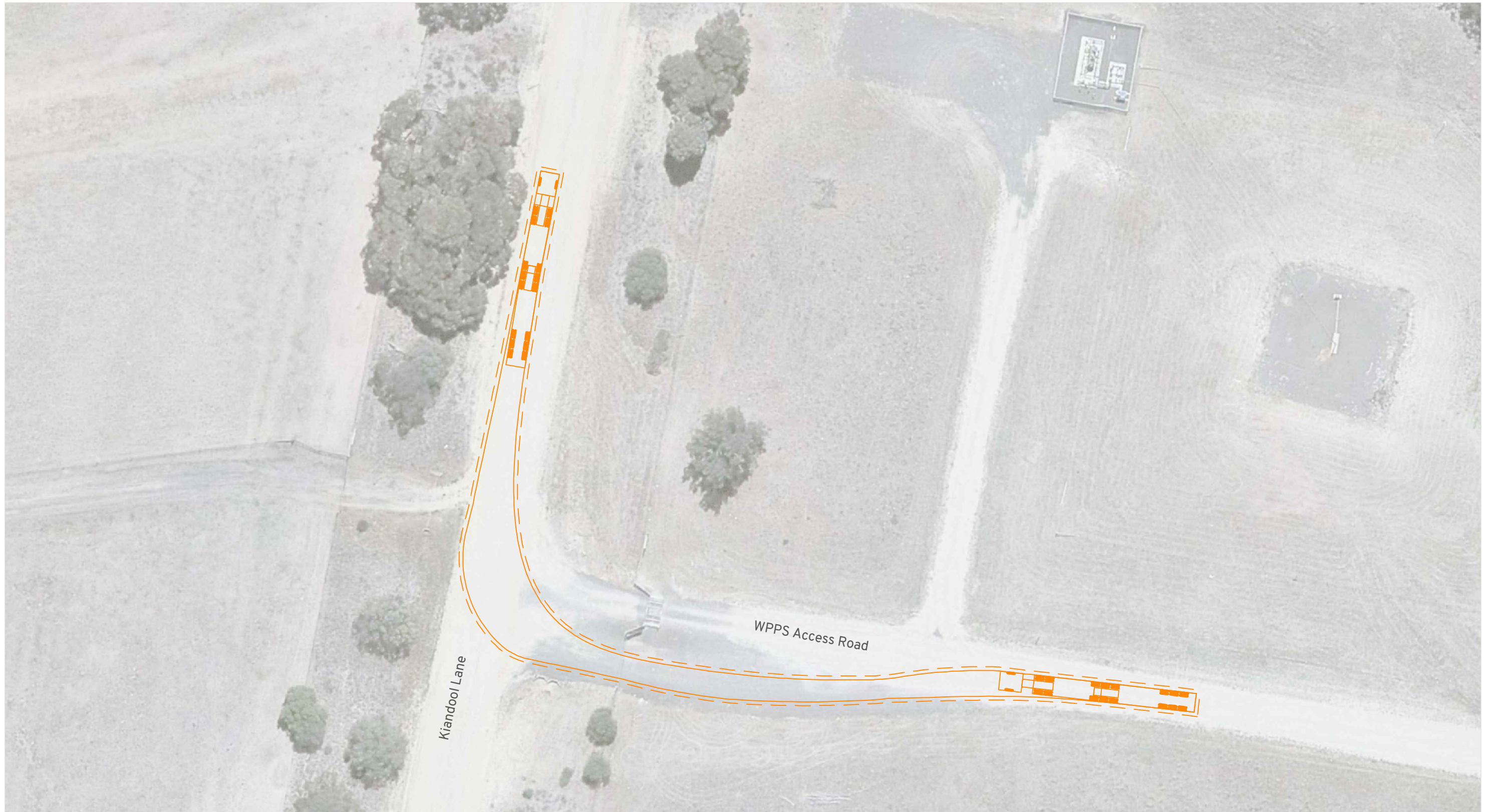
Tractor Width : 2500
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle : 70.0



Carbon Dioxide Plant At The Wilga Park Power Station
 B-Double Vehicle Access Route
 Swept Path Assessment - North Access Route

DRAWN: SE
 DATE: 03/10/2025
 DWG NO: 1250 S01A
 SCALE at A3: 1:500m

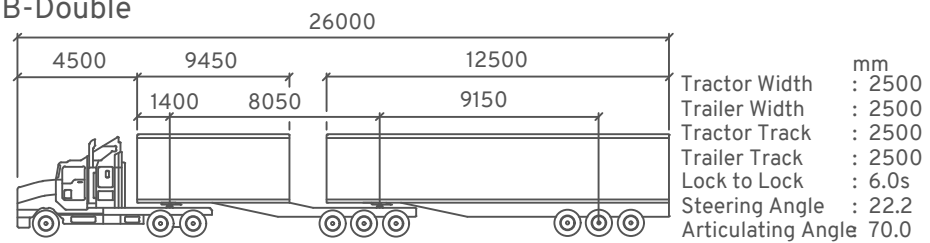
Amber 03a



Exit Manoeuvre

Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double



Carbon Dioxide Plant At The Wilga Park Power Station
 B-Double Vehicle Access Route
 Swept Path Assessment - North Access Route

DRAWN: SE
 DATE: 03/10/2025
 DWG NO: 1250 S01A
 SCALE at A3: 1:500m

Amber 03b

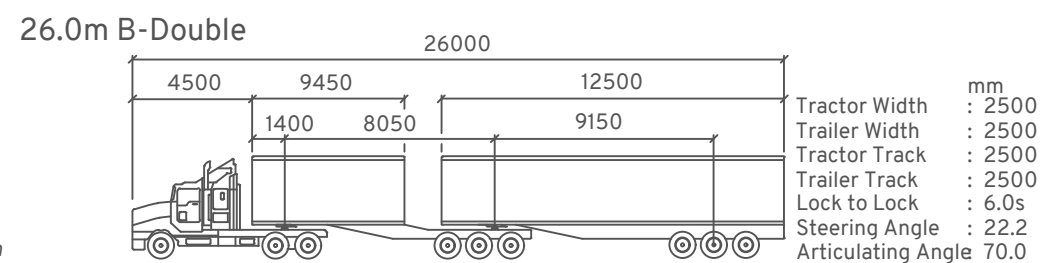


Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

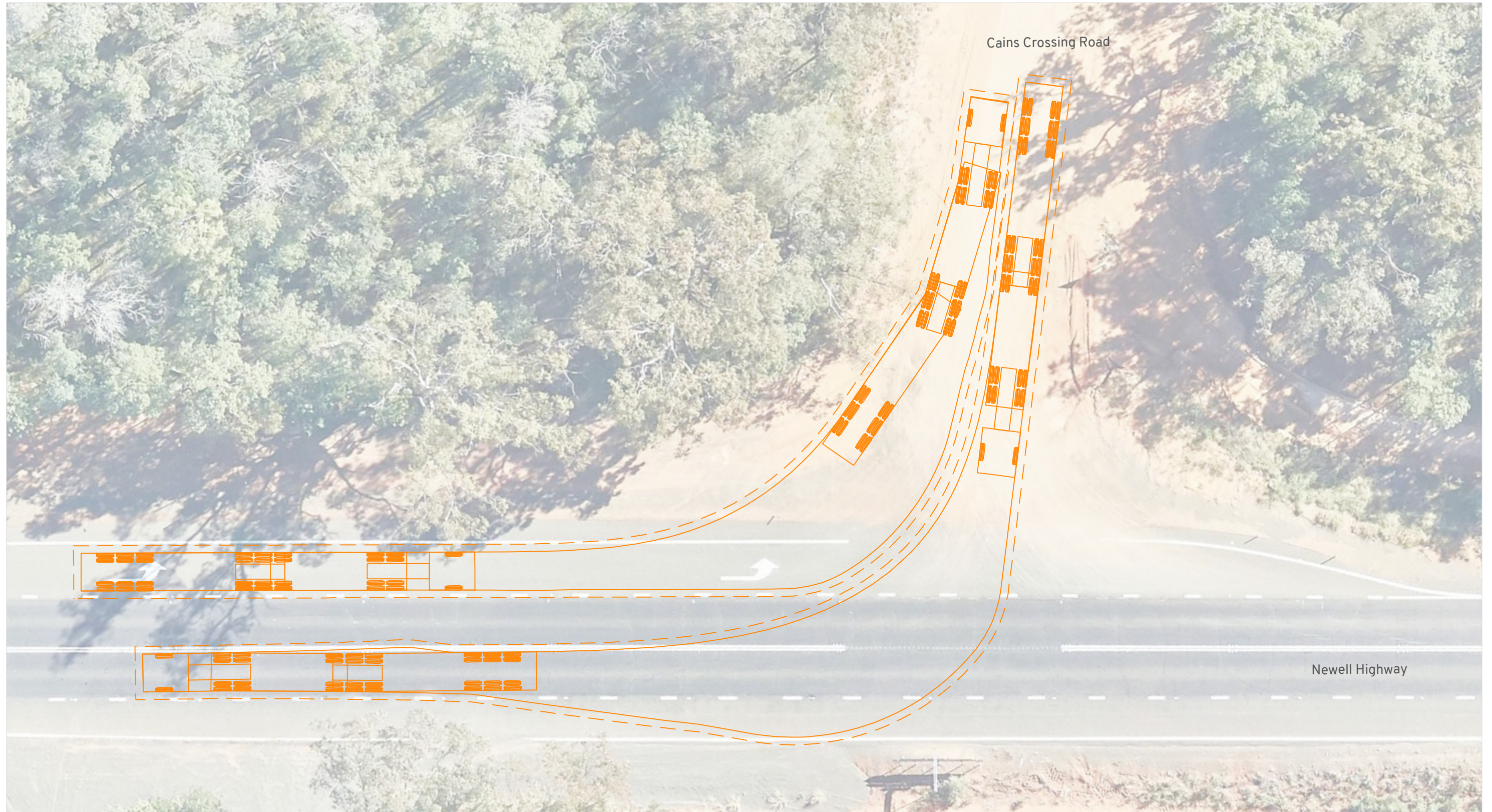


Carbon Dioxide Plant At The Wilga Park Power Station

B-Double Vehicle Access Route

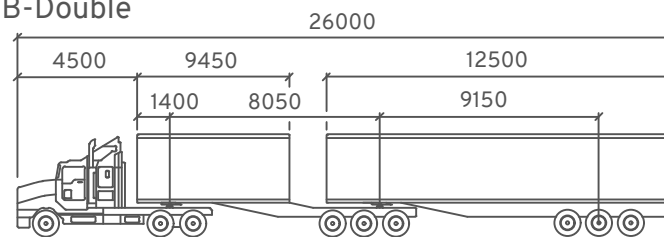
Swept Path Assessment

DRAWN: SE
DATE: 03/10/2025
DWG NO: 1250 S01A
SCALE at A3: 1:500m



Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double



mm
 Tractor Width : 2500
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle : 70.0



Carbon Dioxide Plant At The Wilga Park Power Station

B-Double Vehicle Access Route

Swept Path Assessment - South Access Route

DRAWN: SE
 DATE: 03/10/2025
 DWG NO: 1250 S01A
 SCALE at A3: 1:250m