Traffic and Accessibility Impact Assessment

State Significant Development Application

Project Pluto Data Centre – 132 McCredie Road, Guildford West

23/04/2025

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Revision History

Revision No.	Date	Details	Author	Approved by
v1	14/02/25	Final	J. Wu, A. Tan	R. Hazell
v2	28/02/25	Final – updated to include minor amendments	J. Wu, A. Tan	R. Hazell
v3	23/04/25	Final – updated to include minor updates following Council submissions	J. Wu, A. Tan	R. Hazell

contents

Figures

Tables

APPENDICES

1 Introduction

1.1 Overview

A State Significant Development Application (**SSDA**) has been prepared in support of a proposed data centre at 132 McCredie Road, Guildford West NSW 2161. The site is zoned E4 General Industrial and has a road frontage to McCredie Road. The developable site area is approximately 71,710 sqm.

The proposed development comprises:

- Site preparation works including bulk excavation and removal of existing hard standing and structures on the site, tree and vegetation clearing, and bulk earthworks.
- Construction, fit out and operation of a data centre with an approximate building height of 25.77m and total gross floor area of approximately 29,444 m^2 comprising:
  - At-grade parking for 53 car parking spaces and 2 accessible car parking spaces.
  - Two (2) loading dock spaces.
  - Two (2) levels of technical data hall floor space with incorporating a total of nine (9) data halls.
  - Ancillary office space
- Provision of required utilities, including:
  - Fuel storage.
  - Two (2) switch-rooms.
  - Four (4) industrial water storage tanks.
- Vehicle entry and egress driveways located along McCredie Road.
- Internal access road.
- Associated landscaping and site servicing.
- Installation of services and drainage infrastructure.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) and accompanying cover letter issued for the Project Pluto Data Centre (SSD-69223466) dated 4 April 2024. The SEARs requirements and relevant reference are reproduced in **Table 1**.

TABLE 1: SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Requirement	Reference
Traffic, Transport and Accessibility	
Details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes.	**Section 5** **Section 6**
An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts on existing performance levels of nearby intersections (using industry standard modelling).	**Section 5**
Plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network.	**Appendix B**
Details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards.	**Section 3** **Section 4**
Swept path analysis for the largest vehicle requiring access to the development.	**Appendix B**
Details of road upgrades, infrastructure works, or new roads or access points required for the development if necessary.	**Section 5**
Construction Traffic Management Plan	
Detail predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	**Section 6**
Green Travel Plan	
Prepare Green Travel Plan	**Section 7**

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposed development, including consideration of the following:

- existing traffic and parking conditions surrounding the site
- suitability of the proposed parking in terms of supply (quantum) and layout
- heavy vehicle access and circulation requirements
- pedestrian and bicycle requirements
- the traffic generating characteristics of the proposed development
- suitability of the proposed access arrangements and internal vehicle circulation
- the transport impact of the development proposal on the surrounding road network.

1.3 Key References

In preparing this transport assessment, Ason Group has referenced key planning documents and transport standards and guidelines, including but not limited to:

- Cumberland Local Environmental Plan 2021 (LEP 2021).
- Cumberland Development Control Plan 2021 (DCP 2021).
- Transport for New South Wales, Guide to Traffic Generating Developments 2002 (TfNSW Guide).
- Transport for New South Wales, Guide to Transport Impact Assessment, TS00085 Version 1.1. November 2024 (GTIA).
- NSW Government, Planning guidelines for walking and cycling, December 2004
- Australian Standard 2890.1:2004: Parking Facilities – Off-Street Car Parking.
- Australian Standard 2890.2:2018: Parking Facilities – Off-Street Commercial Vehicle Facilities.
- Australian Standard 2890.3:2015: Parking Facilities – Bicycle Parking.
- Australian Standard 2890.6:2022: Parking Facilities – Off-Street Parking for People with Disabilities.
- Transport for NSW (TfNSW) Traffic Control at Work Sites Technical Manual, Issue No. 6.1, February 2022.
- Architectural plans for the proposed development prepared by Greenbox, dated February 2025.
- Other documents as referenced in this report.

2 Existing Conditions

2.1 Site Location

The site is located on Gandangara Land and is in the Smithfield Industrial Area within the Cumberland Local Government Area (LGA). It is bounded by McCredie Road to the north.

The front part of the site adjoins the Guildford Transmission Substation, which is located immediately to the east and fronts onto McCredie Road. Other industrial uses are located further east, with residential properties beyond. Guildford West Sports Ground, which comprises several playing fields, is located to the south of the Guildford Transmission Substation. The playing fields bound the southern part of the site to the east. The playing fields / public recreation area also abut the southern boundary of the site.

Prospect Creek is located to the south of the public recreation area and is zoned C2 Environmental Protection. The area to the south of Prospect Creek is predominately characterised by low density single storey residential housing.

The site is located in the south eastern corner of the Smithfield Industrial Estate and is within close proximity of the Cumberland Highway (A28) and M4 and M7 motorways, which provide access to Sydney CBD, western Sydney and the south. A range of large format industrial uses are located to the west and north west of the site. The Smithfield Industrial Estate extends across the A28 to Gipps Road (approximately 3km west of the site). It forms part of the broader Smithfield Wetherill Park industrial area, which is one of the largest of its kind in the Southern Hemisphere and makes a significant contribution to the New South Wales and Australian economies.

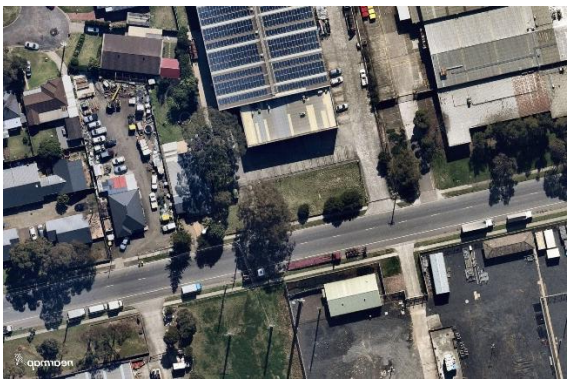
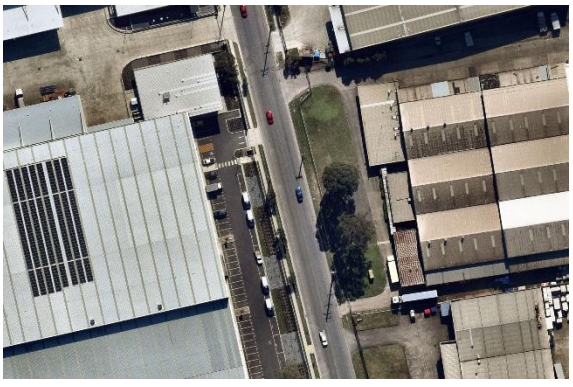
The site has a net developable area of 71,710 sqm and is currently vacant. It previously operated as a Castrol Lubricants facility. However, the majority of the site has now been cleared and subject to category 1 remediation works. A single storey office building is located on the northern portion of the site fronting McCredie Road. The building is vacant. The location of the site and surrounding area is shown in **Figure 1.**

Figure 1: Site location

2.2 Road Network

The key roads surrounding the site are described in **Table 2.**

TABLE 2: ROAD HIERARCHY

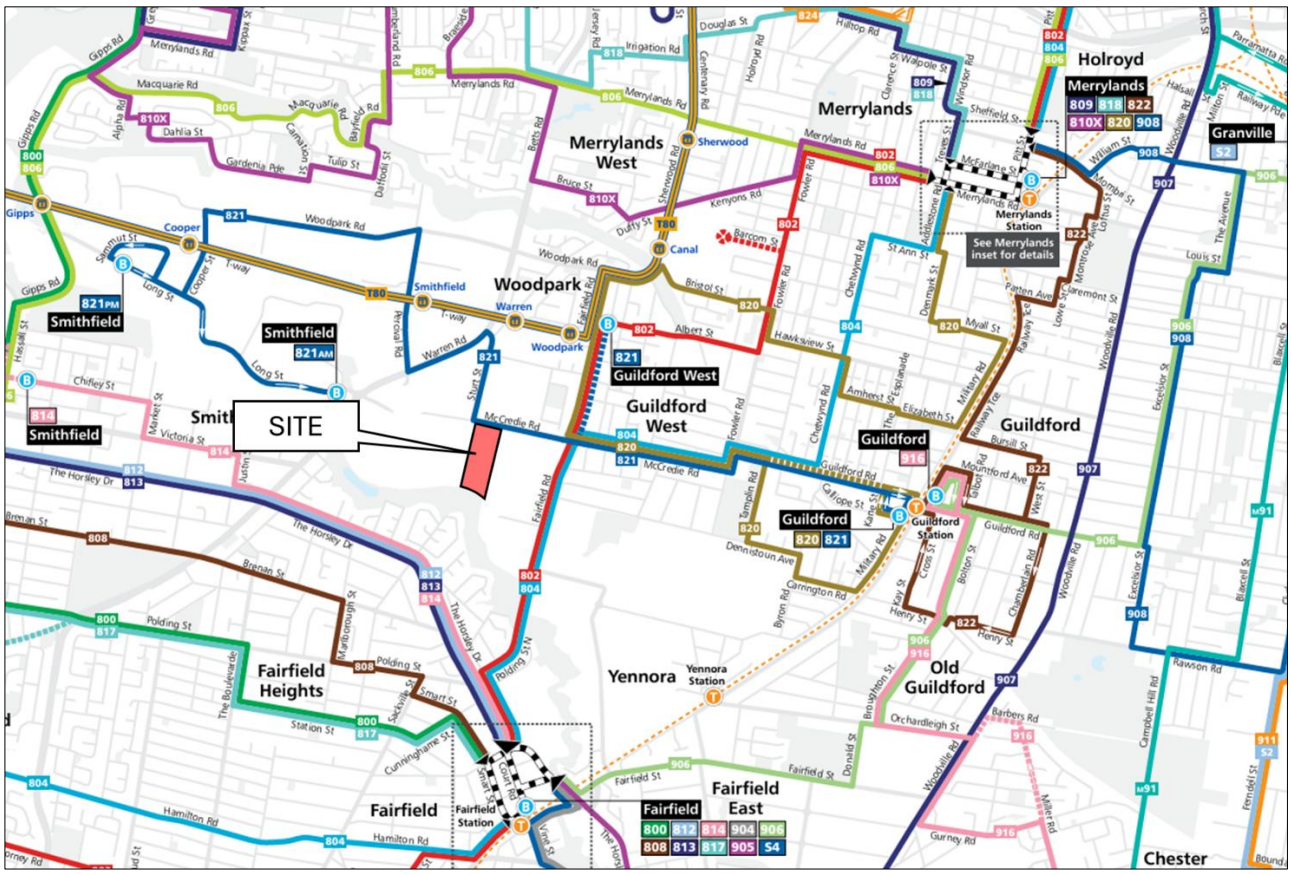
Road	Description	Typical Road Characteristics
Cumberland Highway/ Warren Road	▪ Classified State Road (HW13) ▪ Located north-west of the site and forms the key north-south State Road corridor through the area. ▪ Two-way road providing 3 traffic lanes in each direction with dedicated turn bays at key intersections. ▪ No kerbside parking permitted. ▪ Posted 70km/h speed limit.	
McCredie Road	▪ Classified Regional Road (MR 7252) east of Fairfield Road and local road west of Fairfield Road. ▪ Aligned in an east-west direction along the northern boundary of the site. ▪ Two-way road providing 1 traffic lane in each direction and kerbside parking on the southern side in proximity to the site. ▪ Posted 60km/h speed limit.	
Sturt Street	▪ Local road aligned in a north-south direction north of the site. ▪ Provides access to/ from Cumberland Highway. ▪ Two-way road providing 1 traffic lane in each direction and kerbside parking on the eastern side of the road. ▪ Posted 60km/h speed limit.	

2.3 Public Transport

2.3.1 Bus Services

The *Integrated Public Transport Service Planning Guidelines* states that bus services influence the travel mode choice of areas within a 400-metre walk (about 5-minutes) of a bus stop. In this regard, there are bus stops within walking distance along McCredie Road serviced by bus route 821, shown in **Figure 2**. The site is also a 750m walk from the Liverpool-Parramatta Transitway, serviced by bus route T80.

Bus route 821 provides services every 30 minutes during the morning and afternoon peak hours, with connections to Guildford Station. Bus route T80 operates every 10 minutes, with connections to Parramatta Station and Liverpool Station.



Source: [Western Network Map]

Figure 2: Existing Bus Services

2.3.2 Train Services

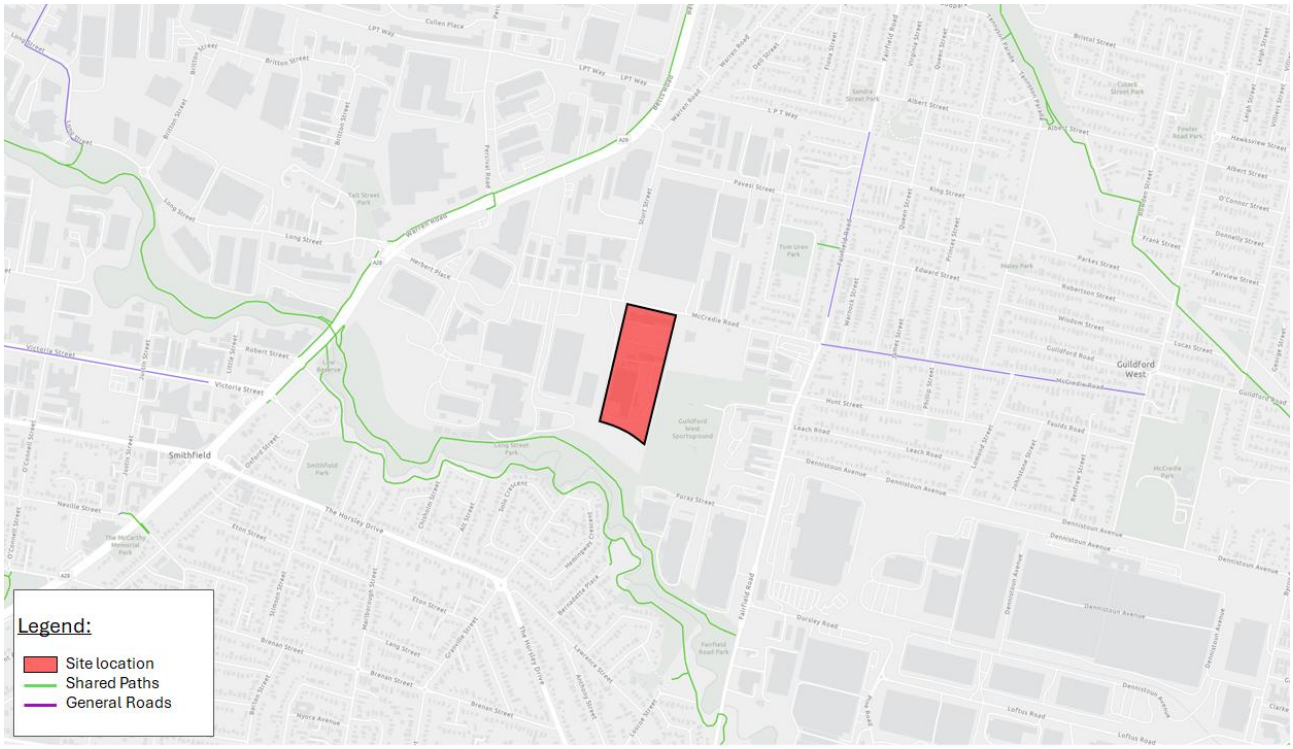
Guilford Railway Station is located approximately 2.5 kilometres to the east of the site. It is serviced by the T2 Inner West & South Line and the T5 Cumberland Line, with connections to several key centres, including Sydney CBD, Parramatta, Liverpool, and Campbelltown.

2.4 Active Transport

The local area generally provides adequate pedestrian infrastructure throughout. This includes footpaths provided on the northern side of McCredie Road from Sturt Street connecting with Fowler Road to the west. Select portions of the southern side of McCredie Road also provide footpaths, including a connection between Fairfield Road to the eastern site boundary. Sturt Street includes a footpath on the eastern side between McCredie Road and Pavesi Street and on the western side commencing midblock and extending north to the Cumberland Highway.

The shared path on the northern side of the Cumberland Highway is accessed via the pedestrian crossing at the Cumberland Highway/ Sturt Street signalised intersection. The nature reserve south of the site also provides a shared path along Prospect Creek.

The cycle network and shared paths in the vicinity are shown in **Figure 3**.



Source: [TfNSW Cycleway Finder](#)

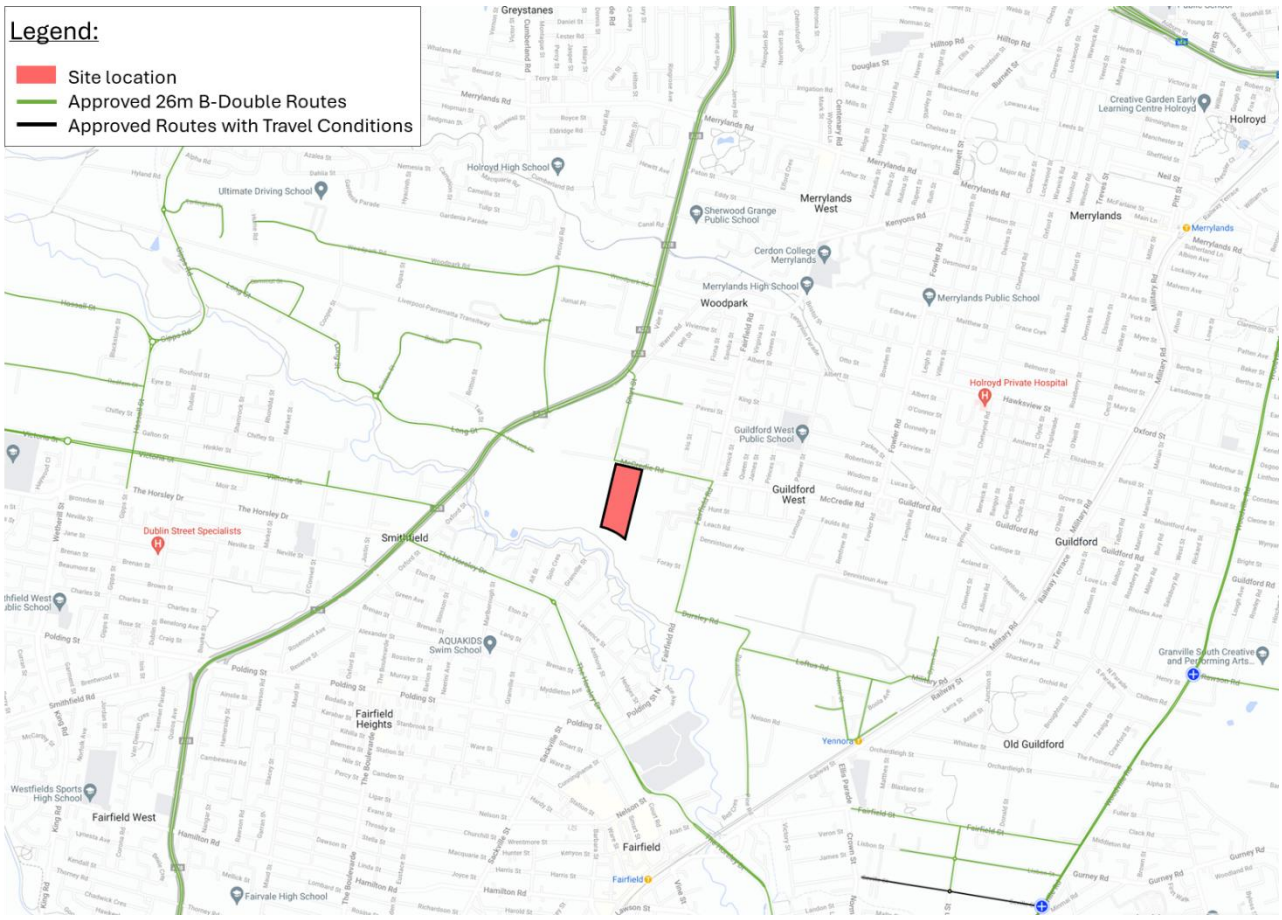
Figure 3: Existing cycling network

2.5 Heavy Vehicle Routes

The approved heavy vehicle routes permitted to carry all vehicles up to and including 26m B-Double vehicles are shown in **Figure 4**. The roads surrounding the site, including McCredie Road, Sturt Street and Cumberland Highway are all 26m B-Double approved routes. The site will accommodate 20-metre-long articulated vehicles for general deliveries and are required as part of typical daily site operations.

During construction and for the purposes of infrequent maintenance, 21m Leibherr mobile cranes and 24.5m low loader vehicles will require access the site. Use of these vehicles would be subject to separate approval, noting the same direct travel paths to and from the Cumberland Highway via McCredie Road and Sturt Street would be necessary to facilitate all movements.

In this regard, the approved heavy vehicle routes ensure that all heavy vehicles that require access to the site can efficiently arrive and depart as necessary.



Source: maps.transport.nsw.gov.au/egeomaps/restricted-access-vehicles-map/

Figure 4: Approved B-Double routes

2.6 Existing Travel Patterns

The existing employee travel patterns within the surrounding area was surveyed within the 2016 Census and presented in the Journey to Work (JTW) data provided by the Australian Bureau of Statistics (ABS). A breakdown of the existing travel mode share is shown in **Table 3**.

TABLE 3: 2016 CENSUS JOURNEY TO WORK TRAVEL MODE SHARE

Travel Mode	Travel mode share
Car as driver	73%
Car as passenger	7%
Train / Metro	2%
Bus	1%
Walked only	1%
Motorbike/Scooter	0.4%
Bicycle	0%
Other	15%

Overall, up to 80 per cent of the statistical area travels to work by car as either a driver or passenger and is generally reflective of the largely industrial employment zone with moderate access to public transport services.

2.7 Existing Traffic

2.7.1 Traffic Volumes

Traffic surveys were completed in September 2022 to determine the existing traffic flows on the surrounding road network. The surveys were completed between 6:00am and 10:00am and between 3:00pm and 7:00pm on a typical weekday at the following intersections:

- Sturt Street/ Cumberland Highway.
- Sturt Street/ McCredie Road.
- Fairfield Road/ McCredie Road.

The peak hours vary slightly from typical road network peak hours and are between 9:00am and 10:00am and between 3:00pm and 4:00pm. The surveyed traffic volumes are summarised in **Figure 5**. McCredie Road generally carries about 630 vehicles per hour two-way past the site during the AM peak hour, with about 870 vehicles passing the site in the PM peak hour.

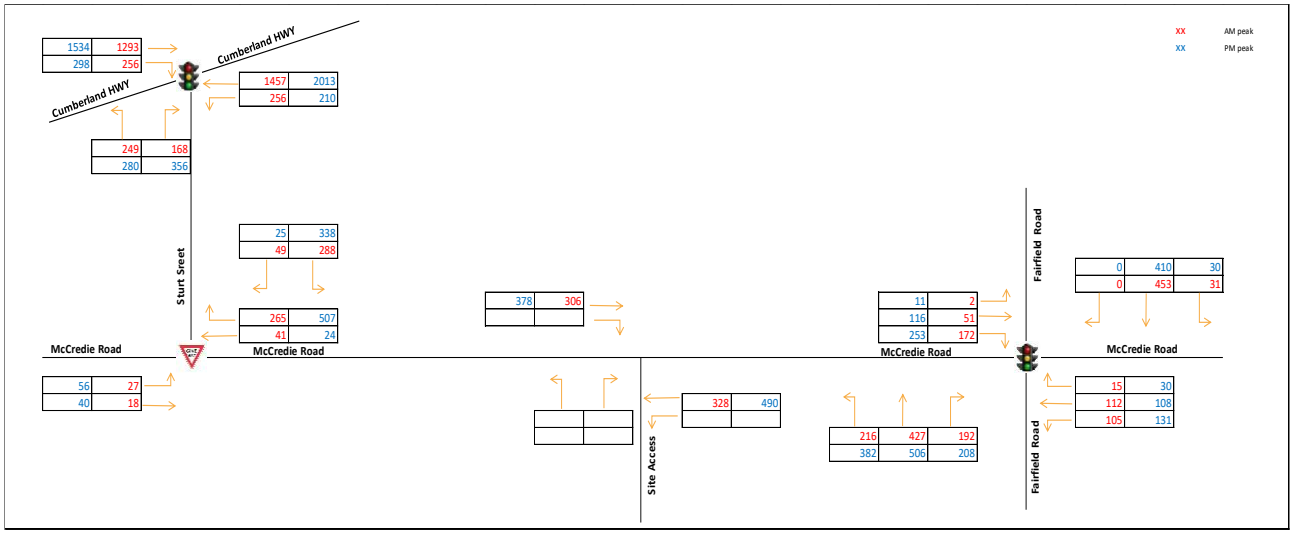


Figure 5: Existing weekday peak hour traffic volumes

2.7.2 Historical Site Traffic Generation

With the site historically operating as a Castrol Lubrication Plant, it is important to estimate the associated traffic generation to ensure an accurate assessment and net change in traffic generation. In this regard, with the historical use has been assessed as a factory use rather than traditional warehousing and logistics uses.

Given that the Guide to Transport Impact Assessment (GTIA) does not provide traffic generation rates specific to factories, reference has been made to the TfNSW Guide which specifies a traffic generation rate of one vehicle trip per 100m^2 GFA during the weekday PM peak hour for factory land uses. As it relates to the office component, reference has been made to GTIA which specifies a rate of 1.2 vehicle trips per 100m^2 GFA in the weekday PM peak hour.

On the basis, it is understood that the previous site use included about 8,900m^2 GFA of factory space and 3,000m^2 of supporting office and on this basis likely generated about 125 vehicle trips in any peak hour. As

the site is vacant, no vehicle trips are generated by the site and the 125 vehicles would not be captured in the traffic surveys completed in September 2022.

2.7.3 Existing Intersection Operation

SIDRA INTERSECTION modelling has been completed to establish the baseline operation of the key study intersections, with the results summarised in **Table 4**. The SIDRA modelling outputs include a range of performance measures relevant to this assessment, including:

- **Average Vehicle Delay (AVD):** AVD (or average delay per vehicle in seconds) for intersections is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection, while for priority intersections and roundabouts it relates to the worst movement.
- **Degree of Saturation (DOS):** DOS is defined as the ratio of demand (arrival) flow to capacity.
- **Level of Service (LOS):** LOS is a comparative measure that provides an indication of the operating performance, based on AVD. As with AVD, LOS for signalised intersections relates to the average of all vehicle movements, while for priority intersections and roundabouts it relates to the movement with the highest delay.

TABLE 4: LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS

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

The results of the SIDRA analysis for the critical intersections are shown **Table 5** with detailed intersection operation outputs included in **Appendix A**.

TABLE 5: EXISTING (2022) INTERSECTION OPERATION

Intersection		Peak Period	AVD (sec)	LOS	DOS
1	Sturt St/ Cumberland Hwy	AM	25.5	B	0.700
		PM	33.4	C	0.875
2	Sturt St/ McCredie Rd	AM	11.5	A	0.074
		PM	14.4	A	0.194
3	Fairfield Rd/ McCredie Rd	AM	30.4	C	0.652
		PM	32.3	C	0.794

As shown, the key intersections in the study network are all operating at acceptable levels with minor average delays and acceptable degree of saturation in the respective peak hours. Each study intersection operates at a good to satisfactory level of level of service (LOS A-C).

3 Proposed Development

3.1 Overview

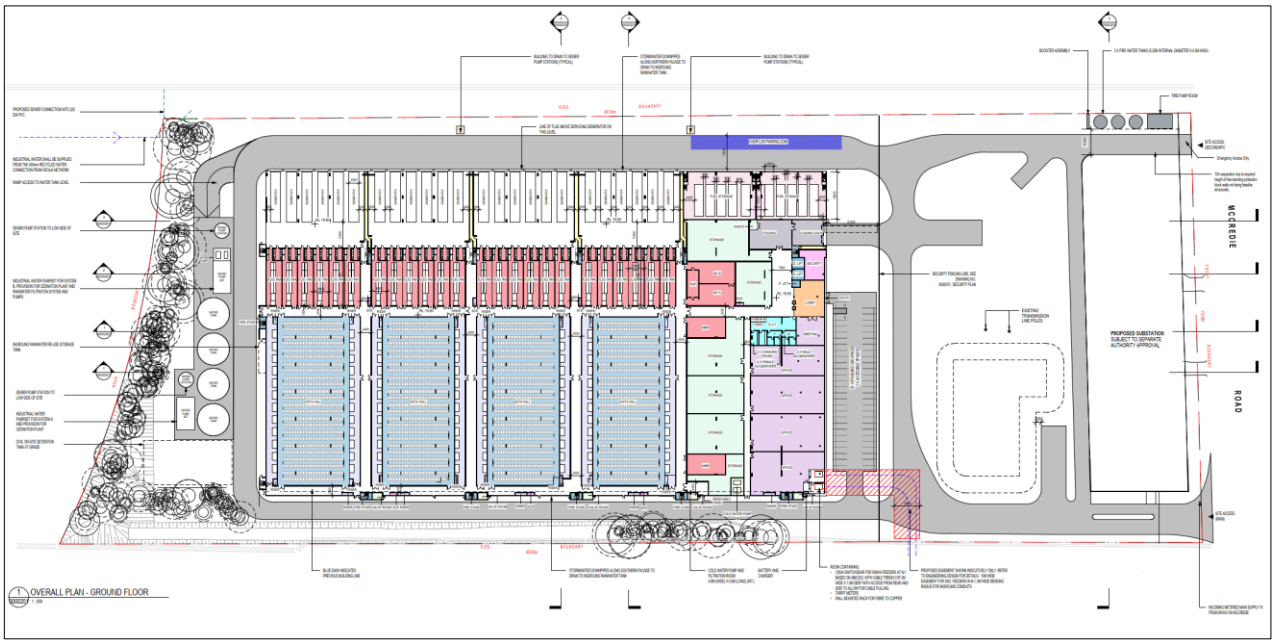
The proposed development involves the construction of a data centre with ancillary office space covering 29,444m^2 GFA across three levels. The production capacity of the proposed data centre is 100 megawatts.

The proposal seeks consent for development to be constructed and operated in two phases to reflect the staged availability power supply. The proposed stages involve the following:

- Stage 1: Construction of the main data centre building as well as the car park, perimeter access road, site access/exit driveways and landscaping. Stage one will involve the fit-out and operation of five of the nine proposed data halls at levels 1 and 2 as well as the associated electrical rooms, generators, storage and office rooms.
- Stage 2: Completion of the ultimate development scheme involving the extension of the building to the south with an additional four data halls, associated electrical rooms and generators, and landscaping and external works. The electrical substations will also be constructed in the north of the site during this phase.

The proposed development will require access by a range of oversize vehicles with the largest being a 24.5-metre-long low loader vehicle and 21-metre long Leibherr mobile crane. Use of these vehicles will be necessary throughout both stages; construction as part of generator installation and infrequently throughout site operation for maintenance and/ or generator replacement. The low loader will require traffic management on approach to and departure from the site. The entry lane has been designed to be sufficiently wide (minimum 6m) to accommodate this vehicle, together with provision of the necessary secure and access controls. 20-metre-long articulated vehicles will also require general site access as part of typical daily site operations with independent access maintained as necessary.

A total of 55 at-grade parking spaces (including two accessible spaces) are proposed within the at-grade car park adjacent to the northern side of the main building, with capacity for an additional 30 cars to park along the wide hardstand area close to the western site boundary. The proposed data centre site plan is shown in **Figure 6**.



Source: Greenbox, Ground Floor Plan, issue A, dated 28/02/25

Figure 6: Proposed Site Layout Plan

3.2 Key Scenarios from Staged Approach

As detailed in Section 3.1, the proposal will be developed over two stages. In this regard, there are four key scenarios to consider as part of this traffic assessment:

- **Scenario 1** – Stage 1 construction.
- **Scenario 2** – Stage 1 operation.
- **Scenario 3** – Stage 1 operation during Stage 2 construction.
- **Scenario 4** – Stage 1 & 2 operation.

The parking and traffic assessments are detailed **Section 4** and **Section 5** respectively, and consider completion of both Stage 1 and 2. This is reflective of Scenario 4, which can be considered a 'worst case' and hence, any interim scenarios would generate comparatively less parking demand and traffic generation.

The other key period is Scenario 3 when Stage 2 is under construction and Stage 1 is operational. The key considerations during this period will be to manage the mix of construction traffic and operational traffic both on site and when using the access driveway, obvious separation of construction zones, and construction worker parking. These considerations are detailed **Section 6**.

3.3 Site Access and Internal Circulation

The main site access driveway is located on McCredie Road in the north-east corner of the site and in the same location as the existing driveway. All light and heavy vehicles will use this driveway to access the site with an emergency vehicle only driveway (with bollards and secure fencing/ gate) in the north-west corner. Security access measures will be in place to ensure appropriate use, including a raised central median, security fencing and gates together with boom gates. A dedicated turnaround bay located between the two security gate locations will facilitate any such vehicle turnaround requirements (in the event that vehicle entry is not permitted). All security control points are adequately recessed into the site to avoid any such risk of queuing onto McCredie Road.

The main site access driveway has also been designed to accommodate access by the 24.5-metre-long low loader and 21m Leibherr mobile crane which may require infrequent access for maintenance and in the unlikely event of generator replacement. The western driveway is permitted for 12.5m long aerial fire appliance access only with appropriate security measures in place.

The site is laid out in a simple and clear manner with the perimeter access road ensuring full access around the main building. The access road along the eastern boundary is a minimum six metres wide and allows for the spatial requirements of the aerial appliance as defined by NSW Fire and Rescue Guidelines. This includes widths to accommodate the stabilizers in the event of an emergency. The southern access road is typically seven metres wide and the western access road a minimum nine metres wide. Both the eastern and western access roads together with hardstand areas for manoeuvring have been designed to accommodate practical access by the 21m Leibherr mobile crane with outriggers deployed and low loader for generator replacement.

All key vehicle swept paths have been completed to confirm appropriate site access arrangements and internal circulation. They are included in **Appendix B**.

4 Parking Requirements

4.1 Car Parking

4.1.1 Council Parking Rates

Cumberland City Council DCP 2021, GTIA and the TfNSW Guide do not specify car parking rates for data centres. The most similar land use defined in DCP 2021 is warehousing land uses which require parking to be provided at a rate of one space per 300m^2 GFA. Application of this rate to the proposed 29,444 m^2 GFA results in the need for 99 parking spaces and is considered excessive given data centres require significantly fewer staff than traditional warehouse developments.

On this basis, an assessment of surveys completed at comparative data centres is the best approach to accurately ascertain an appropriate car parking supply. This is consistent with DCP 2021, which states that '*where a parking rate has not been specified in the table, the Guide to Traffic Generating Developments shall be used to calculate the parking requirements for the proposed development. Alternatively, a parking study may be used to determine the parking, subject to prior approval by Council.*'

In this regard, the following includes a detailed parking assessment to understand an appropriate quantum of parking necessary to accommodate the parking demand associated with the proposed development.

4.1.2 Ason Group Data Centre Surveys

In May 2024, Ason Group completed detailed traffic and parking surveys at eight separate data centres across Sydney. The locations of the surveyed sites are shown in **Figure 7** with a summary of the surveyed sites, including car parking provision included in **Table 3**.

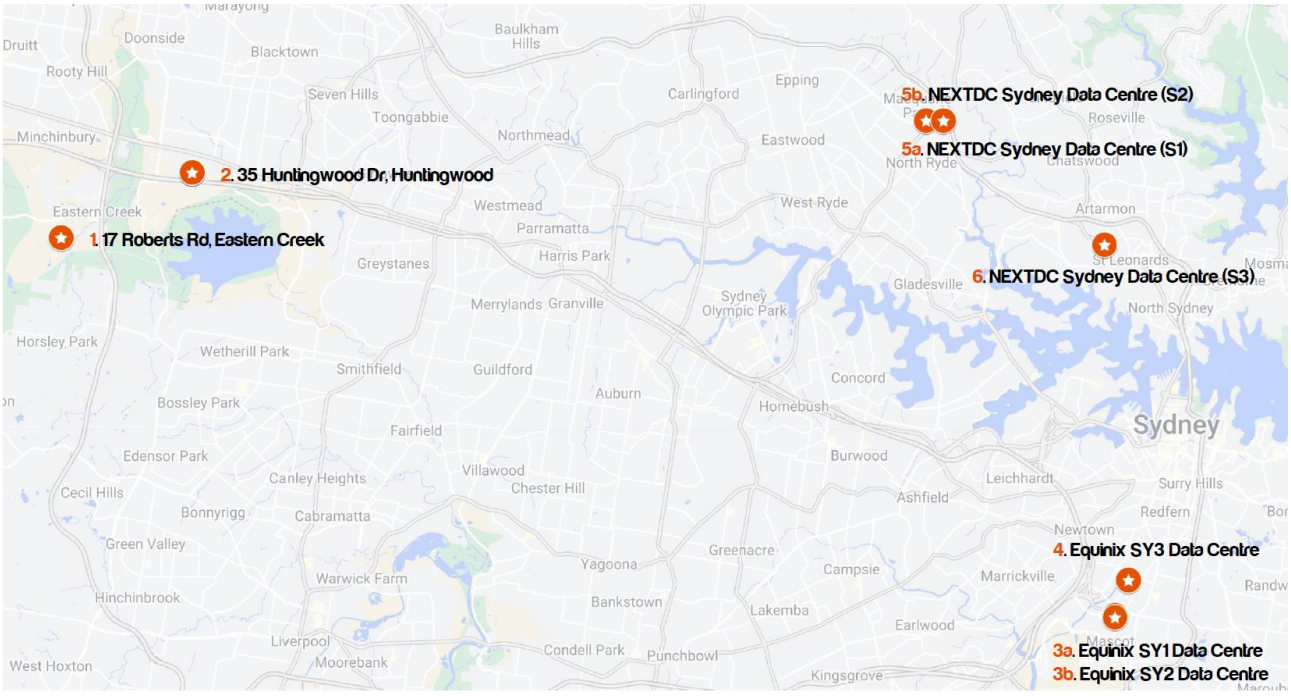


Figure 7: Ason Group data centre survey locations

TABLE 6: DATA CENTRE PARKING SURVEY DATA

Identifier	Site location	GFA (m^2)	Parking supply
1	17 Roberts Rd, Eastern Creek	44,330	90
2	35 Huntingwood Dr, Huntingwood	28,530	50
3a & 3b[1]	SY1 & SY2 Equinix, 369 Gardeners Rd, Mascot		
4	SY3 Equinix, 47 Bourke Rd, Alexandria	18,063	60
5a	NEXTDC Sydney Data Centre (S1), 4 Eden Park Drive, Macquarie Park	10,391	24
5b	NEXTDC Sydney Data Centre (S2), 8 Giffnock Ave, Macquarie Park	15,726	28
6	NEXTDC Sydney Data Centre (S3), 2 Broadcast Way, Artarmon	33,799	100

1) Site 3a & 3b has an unaffiliated office tenancy on-site and has therefore been omitted from the data set.

The survey results indicate an average parking rate of about one space per 430m^2 GFA. Application of this to the proposed development results in the need for 69 parking spaces. Such provision has been provided in the 55 space at-grade car park fronting the main building and 30 spaces in the overflow parking hardstand area along the western boundary. With capacity for up to 85 on-site spaces, the anticipated demand of up to 69 spaces would be readily met across any peak day and week. The provision of two accessible spaces (located close to the main building entrance) also meets National Construction Code (NCC) requirements.

All on-site parking has been designed to the minimum requirements of a User Class 1A car park, in accordance with AS2890.1:2004 and AS2890.6:2022.

4.2 Service Vehicle Requirements

Service vehicles will require access to the site for the purposes of general maintenance and any such minor deliveries needs. The two formal on-site loading bays and adjacent hardstand area have been designed to facilitate access by all vehicles up to 20m articulated vehicles. These dock facilities are appropriate and able to accommodate service vehicle demands associated with daily operations. As discussed, any such specific maintenance and infrequent generator replacement requirements would occur along the east and west perimeter roads, with no need for use of the two loading bays.

4.3 End-of-Trip Facilities

Cumberland City Council DCP 2021 does not specify bicycle parking rates for data centres, nor does it provide any rates for industrial and warehouse developments generally. As such, reference has been made to the *Planning guidelines for walking and cycling* which provides recommended rates of 3 to 5 per cent of total staff as long-term secure bicycle racks and provision for some short-term racks.

With the proposed development expected to accommodate around 80 to 100 staff when fully operational, there may be demand for a maximum of about 10 bicycle racks. This requirement is exceeded with provision of 12 racks as part of the end of trip facilities internal to the main building.

The Planning Guidelines also specifies the following recommended provision for end of trip facilities:

- Lockers – 1 per 3 bicycle racks.
- Showers – 4 total (2 male and 2 female).
- Change rooms – 2 total (1 male and 1 female).

On this basis, the proposal also includes provision of four lockers, four showers and two change rooms in a separate end of trip facility adjacent to the commercial space. This meets the recommended provision and is appropriate as part of the proposed development.

5 Traffic Assessment

5.1 Traffic Generation

Given the general absence of guidance on data centre operations with respect to parking and traffic, reference to other comparable data centres across Sydney is necessary to best estimate the likely traffic generation of the proposed development.

In this regard and as discussed in **Section 4.1.2**, Ason Group has completed detailed surveys of several data centres across the Sydney metropolitan area, with a summary of the surveyed sites as it relates to trip rates presented in **Table 7**.

TABLE 7: DATA CENTRE TRAFFIC GENERATION SURVEY DATA

Identifier	Site location	GFA (m^2)	AM peak (veh/hr)	PM peak (veh/hr)	Daily (veh/day)
1	17 Roberts Rd, Eastern Creek	44,330	33	34	307
2	35 Huntingwood Dr, Huntingwood	28,530	45	35	281
4	SY3 Equinix, 47 Bourke Rd, Alexandria	18,063	9	6	288
5a	NEXTDC Data Centre (S1), 4 Eden Park Dr, Macquarie Park	10,391	1	2	165
5b	NEXTDC Data Centre (S2), 8 Giffnock Ave, Macquarie Park	15,726	4	5	68
6	NEXTDC Data Centre (S3), 2 Broadcast Way, Artarmon	33,799	28	16	63

The survey results indicate that the average vehicle trip rate for the data centres is 0.09 trips and 0.07 trips per $100m^2$ GFA in the AM and PM peak hours, respectively, with the average daily vehicle trip rate being 0.78 trips per $100m^2$ GFA. Application of these rates to the ultimate (Stage 2) development scheme, results in a total traffic generation of 26 vehicle trips in the AM peak hour and 20 trips in the PM peak hour with about 230 trips across the day. Such volumes are low and equate to less than one vehicle movement (in or out) every two to three minutes during any peak hour. It is noted that the Stage 1 interim scenario would have less GFA and is therefore expected to generate fewer trips.

A daily vehicle profile has been developed to estimate the future generation of the site based on the average profiles of the surveyed sites detailed in **Table 7.** , and has been produced in (noting the data has been presented on an hourly basis). The hourly breakdown of the data is presented in **Figure 8** and indicates that the site could generate up to three heavy vehicle movements (in or out) during any peak hour, with most activity likely to be between 7:00am and 3:00pm. Such minor volumes are not expected to materially impact the surrounding road network, with the site layout and secure access arrangements able to accommodate such demand.

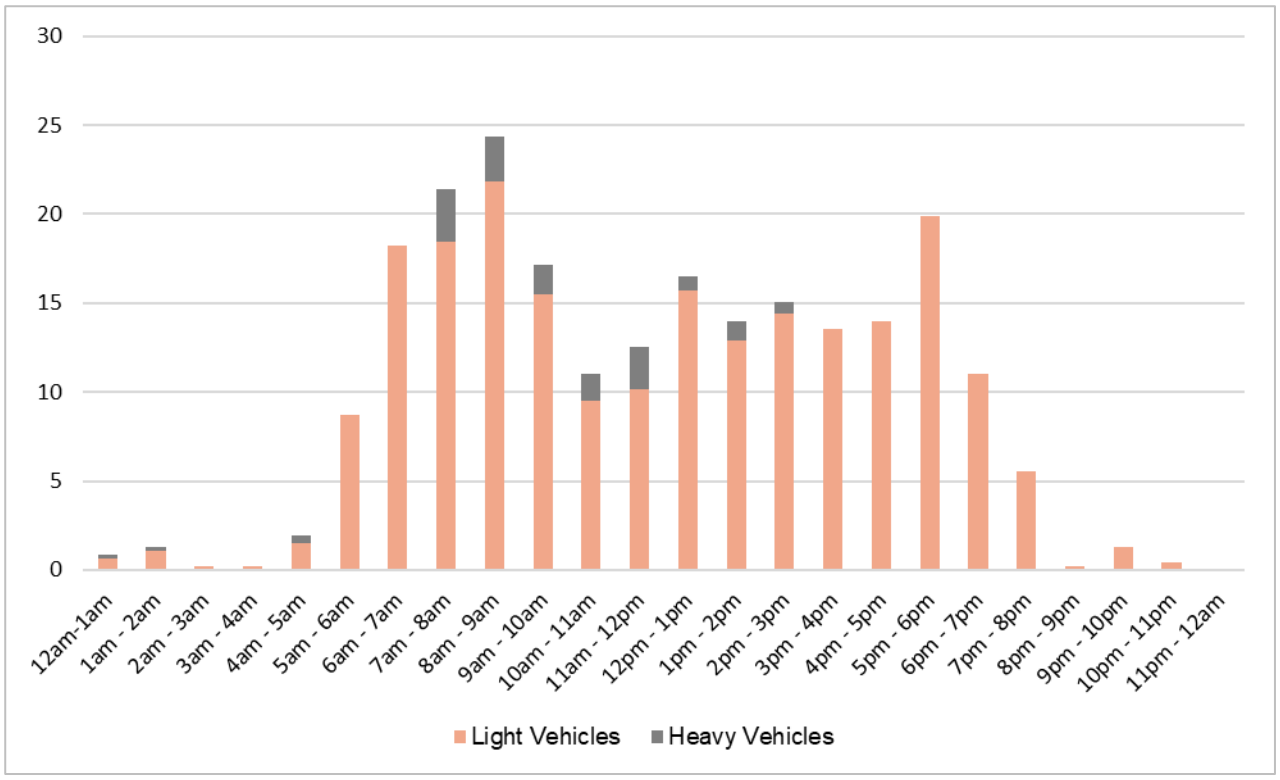


Figure 8: Estimated daily profile (hourly)

As discussed in **Section 2.7.2**, historical use of the site likely generated up to 125 vehicle trips in any weekday peak hour and on this basis, the proposal represents a significant reduction in traffic generation. With the site remaining vacant for several years, the traffic surveys completed in September 2022 would not have been captured the 125 vehicles trips historically generated by the site. Nevertheless, this assessment is robust and conservatively high in considering the uplift in traffic based on the site currently being vacant. This is detailed in the following sections.

5.2 Trip Distribution and Assignment

The directional distribution and assignment of traffic generated by the site will be influenced by several factors, including the:

- Configuration of the surrounding road network.
- Existing operation of the intersections providing access between the local and arterial road network.
- Configuration of the site access driveway.
- Travel patterns evident from the surveyed traffic volumes through the nearby key intersections.
- Journey to Work census data.
- Existing heavy vehicle routes in the vicinity of the site.

An 80:20 split between inbound and outbound traffic has been adopted for the AM peak, reversed in the PM peak.

5.3 Traffic Impacts

With consideration to the estimated traffic generation and distribution, the post development intersection operation has been assessed, with the SIDRA results summarised in **Table 8** and outputs included in **Appendix A**.

TABLE 8: EXISTING + DEVELOPMENT TRAFFIC INTERSECTION OPERATION

Intersection		Peak Period	AVD (sec)	LOS	DOS
1	Sturt St/ Cumberland Hwy	AM	25.8	B	0.702
		PM	34.1	C	0.885
2	Sturt St/ McCredie Rd	AM	11.8	A	0.076
		PM	14.6	B	0.196
3	Fairfield Rd/ McCredie Rd	AM	30.5	C	0.652
		PM	32.4	C	0.794

As shown in **Table 8**, the proposed development would have a minor impact on the operation of all study intersections. The average delay and degree of saturation are not materially different from existing conditions, with the overall level of service retained at all locations apart from the Sturt Street/ McCredie Road intersection during the PM peak (LOS A to LOS B). This is minor and represents an overall satisfactory level of service. It is noted that the modelling results consider the development when fully operational (completion of Stage 2), with the Stage 1 modelling results logically presenting less traffic impact as it relates to average delay and degree of saturation.

Overall, the study intersections would continue to operate at an acceptable level, with the proposed development not materially impacting the operation and function of the surrounding road network. No discernible impacts to road safety are identified as part of this assessment, with no intersection upgrades necessary. All vehicles, including heavy vehicles would travel through the surveyed study intersections on approach and departure.

Consideration has also been given to other approved developments in the surrounding area to determine any such need to assess the likelihood of cumulative traffic impacts. There are two identified approved developments in the surrounding area, with each relatively minor in terms of traffic generation and well removed from the site location to ensure no real impacts on traffic volumes along McCredie Road past the site nor through the study intersections.

Other State Significant Developments are either in early planning or currently under assessment. This includes the Yennora Intermodal Terminal east of the site, the Percival Road Multi-Level warehouse in Smithfield further to the west and Woolworths Distribution Centre in Wetherill Park, also to the west. In combination and should these developments be approved, could result in a minor increase in traffic volumes through the study intersections. Vehicles associated with the Intermodal Terminal in particular would use McCredie Road on approach and departure and has potential to affect traffic volumes through the area. It is however understood that this incorporates a modification to a previous approval and unlikely to result in materially different traffic volumes. In any event, the traffic modelling confirms additional capacity through the study intersections and any such change in traffic volumes would be unlikely result in a noticeable decline in the overall operation of the surrounding road network.

On this basis, the proposed development is supported on traffic grounds with nominal traffic effects expected as a result of peak hour traffic generation.

6 Preliminary Construction Traffic Management Plan

6.1 Overview

This section seeks to provide an overview of the Construction and Pedestrian Traffic Management Plan (CPTMP) initiatives to be implemented as part of the construction works associated with the proposed development. Specifically, this overview CPTMP considers the following:

- truck routes to/ from the site
- anticipated truck volumes during construction stages
- construction site access arrangements
- works zone details
- pedestrian and cyclist access
- worker parking (if any)
- traffic control measures
- overview of CPTMP requirements.

The appointed contractor will formulate a detailed CPTMP outlining the measures for traffic and pedestrian management throughout all construction works.

The general principles of traffic management during construction activities includes:

- minimizing disruptions to pedestrian movements
- maintaining appropriate public transport access
- mitigating impacts on existing traffic along adjacent roads and intersections
- ensuring continued access to and from adjacent properties
- maintaining construction vehicle movements along designated routes to and from the site
- exercising control over construction vehicle activity in proximity to the site
- adhering to Council approved hours of work for construction activities.

6.2 Work Hours

The construction works will be carried out during the approved work hours with the anticipated work hours as follows:

- Weekdays: 7:00am to 6:00pm
- Saturdays: 8:00am to 4:00pm
- Sundays and public holidays: no work.

The details of the work hours will be provided to construction workers during induction. Any construction activities conducted outside of the approved work hours would be subject to specific prior approval from the

relevant authorities. Such activities might involve the delivery of cranes, large machinery or equipment essential for the site that require oversize vehicle access.

6.3 Construction Staff Parking

It is anticipated that there will be up to 490 workers during peak activities, which will occur during construction of Stage 1. It is anticipated that the peak worker activity during Stage 2 construction will be marginally less than during Stage 1.

These are initial estimates and subject to change based on the final site establishment and construction staging which will to be confirmed by the appointed contractor. Final worker numbers, detailed by construction staging will form part of the detailed CPTMP.

All worker parking will be accommodated wholly within the site. The area north of the building under and around the electrical transmission lines will be used for contractor parking and can likely accommodate about 230 spaces, with a further 30 spaces able to be achieved across the site. As such, the site can likely accommodate around 260 on-site worker parking spaces. With consideration to sick leave, active and public transport use and carpooling, around 350 cars spaces may be required to accommodate the maximum anticipated construction workers. In this regard, use of up to 90 spaces off-site may be necessary during the peak construction periods. Goodman owns and operates several large lot industrial sites in the vicinity and will work with the appointed contractor to confirm any such off-site parking provision, together with transport arrangements (such as minibuses) to transport works to and from the site.

During site induction, workers will be informed of the existing bus network servicing the site with appropriate arrangements to be made for any equipment/ tool storage and drop-off requirements.

6.4 Worker Induction

All workers and subcontractors engaged on-site will be required to complete site induction. The induction will include permitted arrival and departure routes for all vehicle types, as well as standard environmental, work, health and safety (WHS), driver protocols and emergency procedures.

Any workers required to undertake works or traffic control within the public domain will be suitably qualified and covered by all necessary insurances.

6.5 Site Access and Loading

All construction vehicles will enter and exit the construction site via the existing access driveway on McCredie Road during construction of both stages. No on-street work zone will be required with all construction vehicles to enter the site without delay, circulate and exit in forward direction. Construction site access gates will be setback from the McCredie Road boundary to ensure no risk of construction vehicles affecting traffic on McCredie Road.

Qualified site personnel will manage construction vehicle access, if required. Appropriate signage will be installed at the construction site access to notify the general public of construction vehicle activity.

6.6 Construction and Operational Traffic Management

As outlined in Section 3.2, Scenario 3 will necessitate the mix of construction and operational traffic in and out of the site and internal to the site. Construction activity will be managed to ensure no such overlap of construction vehicle arrivals and departures with that associated with operational staff. The approved construction hours are expected to facilitate worker arrivals early in the morning (around 7am) and prior to operational staff arriving (around 8-9am), with a similar separation of activity in the afternoon.

Importantly, heavy vehicle activity for Stage 1 operations will also be low across the day. This will allow construction vehicles to access the site and travel through security under traffic control measures without materially impacting site operations.

Separation of constructions will also be required and will require hoarding/ fencing and access gates to separate work areas from the Stage 1 operational areas. Use of typical wayfinding and construction signage will also be important to clearly demarcate construction and operational zones.

6.7 Construction Vehicle Types and Estimated Traffic Volumes

Construction traffic will generally incorporate a range of vehicles including 12.5m heavy rigid vehicles, 18.1m truck and dog combinations and 20m articulated vehicles throughout all construction stages. This includes for the removal of spoil and transportation of material, delivery of structural beams and on concrete pour days.

Due to the size of the generators, delivery will require use of 24.5m long low loader vehicles. The low loader vehicle can transport the 6m wide generators and will likely require traffic management on approach and departure. Such details will be subject to separate application, when necessary. The site layout and hardstand areas have been specifically designed to accommodate the manoeuvring requirements of the low loader, with access along the eastern and western boundaries necessary to install the generators and other large components. Access by the 21m Leihbherr crane has similarly been accommodated. No access around the southern extent of the perimeter road will be necessary by these vehicles throughout all construction stages.

The site will remain operational throughout all Stage 2 construction with all construction site fencing/ hoarding, signage and traffic management measures key to minimising any such operational impacts. Such details would be confirmed as part of the detailed CTMP.

It is anticipated that construction works would generate up to approximately 50 trucks per day during construction of Stage 1, with slightly fewer trucks generated during construction of Stage 2. The volumes are subject to change and pending development of a detailed construction staging plan by the appointed contractor. Notwithstanding, the number of trips is expected to be well within acceptable limits, with only minor impacts expected on the surrounding road network and mostly outside the road network peak hours. This detail will be discussed and confirmed as part of the detailed CTMP, to be completed post approval and once a contractor has been appointed.

6.8 Heavy Vehicle Access Routes

All construction vehicles will be restricted to specific arrival and departure routes and on approach heavy vehicle routes. The distribution of construction traffic will be influenced by a range of factors including the origin and destination of construction materials and the surrounding road network.

With consideration to the approved heavy vehicle routes, all trucks will only use the Cumberland Highway (and Sturt Street and McCredie Road) when travelling to and from the site. This will ensure efficient connection with the M4 and M7 motorways and minimise any such local area impacts.

6.9 Pedestrian and Cyclist Management

Site fencing will be erected around the site perimeter to provide physical separation on all sides, including activity along McCredie Road. It is anticipated that pedestrian and cyclist activities along the site frontage will not be noticeably affected especially given the absence of a footpath along the southern side of McCredie Road. While temporary measures for pedestrian and cyclist management may be required during specific periods of construction vehicle activity, the detailed CPTMP will incorporate strategies to regulate and preserve pathways.

6.10 Emergency Access

Emergency vehicle access will always be retained throughout all construction stages. This process would be implemented through emergency protocols on the site which will be developed by the appointed contractor.

Any potential disruptions to emergency access will be addressed as necessary throughout the construction process. Ongoing communication and coordination with police and emergency services agencies will be maintained at all times throughout all construction stages, with a 24-hour contact available for emergencies and access outside regular hours.

7 Preliminary Green Travel Plan

7.1 Travel Plan Framework

Transport is an essential aspect of daily life, impacting the economy, public health, and the environment. The transportation sector stands out as one of the rapidly growing sources of emissions in Australia, presenting a significant opportunity for reducing greenhouse gases. Beyond environmental considerations, offering diverse travel options, prioritising walking, cycling, and public transport, holds substantial public health advantages and contributes to the development of a strong and prosperous community.

While the physical infrastructure integrated into the development is a crucial component, it represents only a portion of the overall solution. A Green Travel Plan (GTP) will ensure that the transportation infrastructure, services, and policies, both within and beyond the site, are tailored to user needs and strategically coordinated to achieve the highest level of sustainability.

7.2 Purpose of a GTP

A GTP encompasses a set of strategies aimed at fostering eco-friendly travel choices and decreasing reliance on private vehicle use. Its purpose is not to be 'anti-car,' but rather to inspire and assist individuals in pursuing their daily activities in a more sustainable manner. Such plans can include:

- Measures limiting car usage (disincentives or 'sticks').
- Measures encouraging or supporting sustainable travel, decreasing the necessity for travel, or enhancing travel efficiency (incentives or 'carrots').

Travel plans seek to advocate for transport alternatives to private car use, offering employees the flexibility to opt for more sustainable and environmentally conscious commuting options. The report outlines various non-car transport alternatives available and given the objective to sustainably minimise private travel to the location, the adoption of a GTP would prove advantageous.

7.3 Key Objectives

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

The primary objectives of the GTP will be to:

- Promote the use of ‘active transport’ modes such as walking and cycling, particularly for short-medium distance journeys.
- Reduce reliance on the use of private vehicles for all journeys.
- Promote use of private vehicles in an efficient manner.

The intention is that the travel plan will deliver the following benefits:

- Reduce the environmental footprint of the site.
- Improve access, amenity, convenience, and safety of sustainable transport modes to/ from the site.
- Encourage a healthier, happier, and more active and public transport use culture.

7.4 Site Specific Measures

Numerous possibilities exist to incentivize employees and visitors to consider alternative travel modes to and from the site. The following potential measures and initiatives could be implemented to encourage more sustainable travel modes:

Active Travel

- Establish high-quality, prominent bicycle parking and change/shower facilities.
- Foster cultural change through initiatives such as:
  - Creating a bike user group, targeting employees residing within five kilometres of the site.
  - Organising events like an annual 'ride to work' day.
  - Providing information outlining opportunities and facilities available to employees, including maps of available cycling routes.

Promote Carpooling

- Allocate prioritised carpool parking spaces on-site, considering incentives like pricing, location, and proximity to services.
- Encourage employees who drive to work to participate in carpooling through the establishment of a carpooling club or registry/ forum.

Public Transport

- Develop a Travel Access Guide (TAG) incorporating details on site facilities and surrounding public transport services and active transport initiatives. Updates are to be made to the TAG as the surrounding transport environment evolve.
- Install public transport information boards/apps to inform staff about alternative transport options, utilising the TAG as a reference.

7.4.2 Travel Access Guide

A TAG provides employees with details on utilising sustainable transport modes, including walking and public transport, to reach the site. This information is conveyed visually through a map or mobile app, detailing the site's location and nearby transport options and emphasising accessible pedestrian paths and cycling routes. Typically, the guide is formatted as a brochure or app, either included in a welcome pack or incorporated into company stationery and business cards.

7.4.3 Communication Strategy

Numerous opportunities exist to provide employees with details regarding nearby transport choices. Disseminating information to employees can aid in journey planning and enhance awareness of convenient and cost-effective travel alternatives that encourage shifts in travel behaviour. These opportunities encompass:

- Transport NSW, offering public transport timetables and journey planning through their Transport Info website: www.transportnsw.info.

Furthermore, engaging employees through social media channels might serve as a platform for informally testing new initiatives, establishing travel-buddy networks, and fostering communication.

7.4.4 Monitoring the GTP

To record the overall success, as well as the effectiveness of the individual measures, monitoring and review of the GTP is to be conducted at regular intervals. The appointed Travel Plan Co-ordinator (TPC) will act as the primary point of contact for all enquiries relating to the GTP's progress.

The GTP should be monitored on a regular basis, e.g. yearly, by carrying out travel surveys. Travel mode surveys would determine the proportion of employees travelling to/ from the site by each transport mode. This will be in the form of annual travel mode questionnaire surveys to be completed by all persons attending the site, as far as practicable.

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

7.5 Summary

The proposed development has the potential to formulate and implement a travel plan aimed at actively encouraging greater reliance on sustainable modes of transport. While it's challenging to anticipate the specific measures that could be identified, the outlined initiatives offer a foundation for the site and the eventual implementation of a comprehensive GTP.

A detailed GTP will be developed in future stages and prior to opening.

8 Conclusion

This Traffic and Accessibility Impact Assessment has been prepared as part of the State Significant Development submitted as prescribed by Part 8 of the Environmental Planning and Assessment Regulation 2021 and the State Significant Development Guidelines. The key findings of this transport assessment are:

- The proposed development includes a 29,444m^2 GFA data centre at 132 McCredie Road, Guildford West. The site is zoned E4 General Industrial and has a road frontage to McCredie Road. The developable site area covers 71,710m^2 and is currently vacant. It previously operated as a Castrol Lubricants facility and is now cleared with the exception of a single storey vacant office building on the northern portion of the site fronting McCredie Road.
- The site will be developed across two stages. Stage 1 comprises the construction of the main data centre building, car park, internal roads, site access driveways and landscaping. Five out of nine data halls will be fit out for operation, as well as associated electrical rooms, generators, storage and office rooms. Stage 2 will involve the extension of the building south with the remaining four data halls (and associated electrical rooms and generators), landscaping, external works and substations to be installed/ constructed.
- The site access driveway is proposed in the same location as the existing driveway and designed to accommodate a 24.5-metre-long low loader vehicle and 21m Leibherr mobile crane, which may both require infrequent access for maintenance purposes and generator replacement. The western driveway is for dedicated use by emergency vehicles only with the largest vehicle the 12.5m long aerial fire appliance.
- The site is laid out in a simple and clear manner with the perimeter access road providing access to all sides of the building. This allows for the aerial appliance and 20m articulated vehicles to circulate the site in a forward direction.
- With the applicable statutory documents not including relevant car parking rates for data centres a first principles assessment has been completed to determine the most appropriate on-site parking supply. This is consistent with the requirements of Cumberland City Council DCP 2021 which states the need for a parking study to determine parking requirements at times when statutory rates are not available.
- In May 2024, Ason Group completed detailed traffic and parking surveys at eight separate data centres across Sydney. With reference to this study, the average parking rate across the surveyed sites was confirmed to be one space per 430m^2 GFA. Application of this rate to the proposed development results in the need for 69 spaces.
- Such provision has been provided in practical locations across the site and includes within the 55 space at-grade car park (including two accessible spaces) close to the main building plus up to 30 spaces along the western boundary as part of the hardstand area. Such car parking provision is appropriate and will ensure all parking demands are accommodated on-site. All parking areas have been designed in accordance with a User Class 1A car park as defined by AS2890.1:2004 and AS2890.6:2022 for the accessible spaces.
- The proposal includes provision of two formal loading bays capable of accommodating all service vehicles up to 20m long articulated vehicles. Most service vehicles would require access to the site for the purposes of general maintenance and daily deliveries, with use of the hardstand areas around the perimeter equally important.
- Bicycle parking and end-of-trip facilities has been provided in accordance with the Planning guidelines for walking and cycling, noting the absence of relevant rates within Cumberland City Council DCP 2021. In this regard, the proposal includes 12 bicycle spaces and end-of-trip facilities comprising four lockers, four showers and two separate change rooms located adjacent to the main lobby.
- Detailed traffic surveys of several data centres across Sydney have allowed for the accurate estimation of traffic generation of the proposed development. With the applicable average vehicle trip rates of 0.09 trips and 0.07 trips per 100m^2 GFA applied, the proposal is likely to generate 26 vehicle trips in the AM

peak hour and 20 trips in the PM peak hour once the site is fully operational. Such volumes are low and equate to less than one vehicle per minute (in or out) during any peak hour.

- Historical use of the site likely generated up to 125 vehicle trips in any weekday peak hour and on this basis, the proposal represents a noticeable reduction in traffic generation.
- With consideration to the estimated traffic generation and distribution, the post development intersection operation has been assessed using SIDRA Intersection. The results indicate that the proposed development would result in minor changes to intersection delay and degree of saturation, with all study intersections retaining the same overall level of service with the exception of the Sturt Street/ McCredie Road intersection during the weekday PM peak (LOS A to LOS B). This is minor and ensures an overall satisfactory level of service is retained.
- With the study intersections retaining spare capacity, inclusion of any such additional traffic generated by other submitted and approved developments in the surrounding area, there would not be a material decline in overall traffic conditions throughout the surrounding local area.
- On this basis, the proposed development is supported on traffic grounds with nominal traffic effects expected as a result of peak traffic generation of the site.
- The site access driveways, security arrangements, on-site layout and circulation, at-grade car parking and hardstand areas have all been designed in accordance with relevant Australian Standards (AS2890 series).
- The proposed development would be able to further develop and utilise a detailed Green Travel Plan in addition to that detailed as part of this transport assessment to actively promote increased use of sustainable transport modes, taking advantage of the site's location proximate to established public transport services.
- The anticipated construction traffic impact is expected to be appropriately managed to minimise the impacts on pedestrians, cyclists and traffic.
- Overall, the proposed development is well considered and supported from a traffic and parking perspective.

Appendix A. SIDRA Outputs

MOVEMENT SUMMARY

Site: 101 [AM-Cumberland Hwy/Sturt Street (Site Folder: 2022 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 136 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Sturt Sreet															
21	L2	All MCs	262	29.7	262	29.7	0.582	20.7	LOS B	8.0	70.2	0.73	0.78	0.73	43.1
23	R2	All MCs	177	37.5	177	37.5	* 0.582	59.5	LOS E	10.7	99.1	0.95	0.82	0.95	29.7
Approach			439	32.9	439	32.9	0.582	36.3	LOS C	10.7	99.1	0.82	0.79	0.82	36.5
NorthEast: Cumberland Hwy															
24	L2	All MCs	269	27.7	269	27.7	0.700	18.7	LOS B	29.2	236.6	0.85	0.81	0.85	37.8
25	T1	All MCs	1534	10.4	1534	10.4	* 0.700	32.6	LOS C	31.7	241.7	0.85	0.77	0.85	40.3
Approach			1803	13.0	1803	13.0	0.700	30.5	LOS C	31.7	241.7	0.85	0.78	0.85	39.9
SouthWest: Cumberland Hwy															
31	T1	All MCs	1361	10.4	1361	10.4	0.348	8.2	LOS A	11.4	87.3	0.42	0.38	0.42	52.9
32	R2	All MCs	269	28.1	269	28.1	* 0.673	61.9	LOS E	12.0	104.2	0.96	0.82	0.98	29.2
Approach			1631	13.4	1631	13.4	0.673	17.1	LOS B	12.0	104.2	0.51	0.45	0.51	46.6
All Vehicles			3873	15.4	3873	15.4	0.700	25.5	LOS B	31.7	241.7	0.70	0.64	0.70	42.0

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.
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 Green.
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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
SouthEast: Sturt Sreet												
P5	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
SouthWest: Cumberland Hwy												
P8	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
All Pedestrians		100	105	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM-Cumberland Hwy/Sturt Street (Site Folder: 2022 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 136 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Sturt Sreet															
21	L2	All MCs	295	18.9	295	18.9	0.782	28.9	LOS C	16.2	130.5	0.94	0.88	1.00	37.8
23	R2	All MCs	375	11.2	375	11.2	* 0.782	60.6	LOS E	20.6	158.0	0.99	0.89	1.06	30.5
Approach			669	14.6	669	14.6	0.782	46.7	LOS D	20.6	158.0	0.97	0.89	1.03	33.3
NorthEast: Cumberland Hwy															
24	L2	All MCs	221	25.2	221	25.2	0.875	22.5	LOS B	48.0	369.5	0.97	0.94	1.04	34.3
25	T1	All MCs	2119	5.8	2119	5.8	* 0.875	42.3	LOS C	50.4	370.1	0.97	0.94	1.03	36.3
Approach			2340	7.6	2340	7.6	0.875	40.4	LOS C	50.4	370.1	0.97	0.94	1.03	36.1
SouthWest: Cumberland Hwy															
31	T1	All MCs	1615	4.0	1615	4.0	0.414	10.4	LOS A	15.7	113.4	0.49	0.44	0.49	51.3
32	R2	All MCs	314	11.4	314	11.4	* 0.841	70.6	LOS F	15.6	119.7	0.98	0.90	1.12	27.4
Approach			1928	5.2	1928	5.2	0.841	20.2	LOS B	15.7	119.7	0.57	0.51	0.59	44.9
All Vehicles			4938	7.6	4938	7.6	0.875	33.4	LOS C	50.4	370.1	0.81	0.77	0.86	38.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
SouthEast: Sturt Sreet												
P5	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
SouthWest: Cumberland Hwy												
P8	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
All Pedestrians		100	105	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [AM-McCredie Road/Sturt Street (Site Folder: 2022 Base)]

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 veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: McCredie Road															
5	T1	All MCs	43	4.9	43	4.9	0.224	0.3	LOS A	1.2	11.2	0.19	0.47	0.19	54.3
6	R2	All MCs	279	39.2	279	39.2	0.224	6.3	LOS A	1.2	11.2	0.19	0.47	0.19	48.7
Approach			322	34.6	322	34.6	0.224	5.5	NA	1.2	11.2	0.19	0.47	0.19	49.3
North: Sturt Sreet															
7	L2	All MCs	303	46.2	303	46.2	0.226	5.0	LOS A	0.4	3.5	0.05	0.51	0.05	47.5
9	R2	All MCs	52	14.3	52	14.3	0.226	4.8	LOS A	0.4	3.5	0.05	0.51	0.05	46.8
Approach			355	41.5	355	41.5	0.226	5.0	NA	0.4	3.5	0.05	0.51	0.05	47.4
West: McCredie Road															
10	L2	All MCs	28	37.0	28	37.0	0.074	7.7	LOS A	0.3	2.3	0.52	0.68	0.52	44.4
11	T1	All MCs	19	22.2	19	22.2	0.074	11.5	LOS A	0.3	2.3	0.52	0.68	0.52	48.4
Approach			47	31.1	47	31.1	0.074	9.3	LOS A	0.3	2.3	0.52	0.68	0.52	45.9
All Vehicles			724	37.8	724	37.8	0.226	5.5	NA	1.2	11.2	0.14	0.50	0.14	48.1

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.

MOVEMENT SUMMARY

Site: 101 [PM McCredie Road/Sturt Street (Site Folder: 2022 Base)]

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 veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: McCredie Road															
5	T1	All MCs	25	8.3	25	8.3	0.350	0.2	LOS A	2.2	18.2	0.14	0.51	0.14	53.7
6	R2	All MCs	534	19.9	534	19.9	0.350	5.9	LOS A	2.2	18.2	0.14	0.51	0.14	48.7
Approach			559	19.4	559	19.4	0.350	5.7	NA	2.2	18.2	0.14	0.51	0.14	48.8
North: Sturt Sreet															
7	L2	All MCs	356	31.1	356	31.1	0.232	4.8	LOS A	0.2	1.9	0.02	0.52	0.02	48.0
9	R2	All MCs	26	28.0	26	28.0	0.232	4.8	LOS A	0.2	1.9	0.02	0.52	0.02	46.3
Approach			382	30.9	382	30.9	0.232	4.8	NA	0.2	1.9	0.02	0.52	0.02	47.9
West: McCredie Road															
10	L2	All MCs	59	8.9	59	8.9	0.194	8.7	LOS A	0.7	5.0	0.64	0.84	0.64	43.5
11	T1	All MCs	42	5.0	42	5.0	0.194	14.4	LOS A	0.7	5.0	0.64	0.84	0.64	47.4
Approach			101	7.3	101	7.3	0.194	11.1	LOS A	0.7	5.0	0.64	0.84	0.64	45.0
All Vehicles			1042	22.4	1042	22.4	0.350	5.9	NA	2.2	18.2	0.15	0.55	0.15	48.2

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.

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 [AM- Fairfield Road/McCredie Road (Site Folder: 2022 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 92 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Fairfield Road															
1	L2	All MCs	227	45.8	227	45.8	0.200	7.4	LOS A	1.5	14.7	0.24	0.61	0.24	48.2
2	T1	All MCs	449	2.1	449	2.1	0.533	19.9	LOS B	14.6	104.3	0.78	0.68	0.78	37.3
3	R2	All MCs	202	2.1	202	2.1	* 0.649	45.4	LOS D	8.8	62.8	0.98	0.83	1.01	29.3
Approach			879	13.4	879	13.4	0.649	22.5	LOS B	14.6	104.3	0.69	0.70	0.69	37.1
East: McCredie Road															
4	L2	All MCs	111	1.9	111	1.9	0.161	25.7	LOS B	3.3	23.2	0.70	0.74	0.70	37.0
5	T1	All MCs	118	4.5	118	4.5	* 0.514	40.9	LOS C	5.8	41.8	0.97	0.78	0.97	35.7
6	R2	All MCs	16	0.0	16	0.0	0.514	46.5	LOS D	5.8	41.8	0.97	0.78	0.97	31.1
Approach			244	3.0	244	3.0	0.514	34.4	LOS C	5.8	41.8	0.85	0.76	0.85	35.9
North: Fairfield Road															
7	L2	All MCs	33	0.0	33	0.0	0.652	42.7	LOS D	10.8	76.5	0.97	0.82	0.98	32.5
8	T1	All MCs	477	1.5	477	1.5	* 0.652	37.1	LOS C	10.8	76.6	0.97	0.82	0.98	28.0
Approach			509	1.4	509	1.4	0.652	37.5	LOS C	10.8	76.6	0.97	0.82	0.98	28.3
West: McCredie Road															
10	L2	All MCs	2	0.0	2	0.0	0.125	37.0	LOS C	1.9	13.8	0.84	0.64	0.84	34.9
11	T1	All MCs	54	5.9	54	5.9	* 0.627	31.9	LOS C	7.9	78.2	0.85	0.66	0.85	39.1
12	R2	All MCs	181	49.4	181	49.4	0.627	42.9	LOS D	7.9	78.2	0.96	0.83	0.98	28.2
Approach			237	39.1	237	39.1	0.627	40.4	LOS C	7.9	78.2	0.93	0.79	0.95	30.6
All Vehicles			1869	12.0	1869	12.0	0.652	30.4	LOS C	14.6	104.3	0.82	0.75	0.82	33.5

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.
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 Green.
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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Fairfield Road												
P1	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
East: McCredie Road												
P2	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

North: Fairfield Road											
P3	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
West: McCredie Road											
P4	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
All Pedestrians		200	211	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM- Fairfield Road/McCredie Road (Site Folder: 2022 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 92 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Fairfield Road															
1	L2	All MCs	402	20.4	402	20.4	0.316	7.2	LOS A	3.0	24.9	0.27	0.63	0.27	49.1
2	T1	All MCs	533	2.4	533	2.4	0.741	27.2	LOS B	21.1	150.3	0.93	0.83	0.94	32.7
3	R2	All MCs	219	0.5	219	0.5	* 0.794	51.3	LOS D	10.5	73.6	1.00	0.92	1.19	27.6
Approach			1154	8.3	1154	8.3	0.794	24.8	LOS B	21.1	150.3	0.71	0.78	0.76	36.1
East: McCredie Road															
4	L2	All MCs	138	2.3	138	2.3	0.214	27.6	LOS B	4.3	30.7	0.73	0.75	0.73	36.0
5	T1	All MCs	114	4.6	114	4.6	* 0.563	41.3	LOS C	6.3	46.0	0.98	0.79	0.98	35.4
6	R2	All MCs	32	3.3	32	3.3	0.563	46.9	LOS D	6.3	46.0	0.98	0.79	0.98	30.6
Approach			283	3.3	283	3.3	0.563	35.3	LOS C	6.3	46.0	0.86	0.77	0.86	35.1
North: Fairfield Road															
7	L2	All MCs	32	10.0	32	10.0	0.769	49.5	LOS D	10.8	78.9	1.00	0.92	1.15	30.0
8	T1	All MCs	432	4.6	432	4.6	* 0.769	43.8	LOS D	10.9	79.0	1.00	0.92	1.15	25.5
Approach			463	5.0	463	5.0	0.769	44.2	LOS D	10.9	79.0	1.00	0.92	1.15	25.9
West: McCredie Road															
10	L2	All MCs	12	0.0	12	0.0	0.150	32.2	LOS C	2.8	19.6	0.79	0.63	0.79	36.8
11	T1	All MCs	122	2.6	122	2.6	* 0.752	30.5	LOS C	14.0	125.3	0.86	0.74	0.90	39.0
12	R2	All MCs	266	37.9	266	37.9	0.752	41.7	LOS C	14.0	125.3	0.97	0.89	1.06	29.3
Approach			400	26.1	400	26.1	0.752	38.0	LOS C	14.0	125.3	0.93	0.84	1.00	32.5
All Vehicles			2300	10.1	2300	10.1	0.794	32.3	LOS C	21.1	150.3	0.83	0.82	0.89	33.1

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Fairfield Road												
P1	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
East: McCredie Road												
P2	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

North: Fairfield Road											
P3	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
West: McCredie Road											
P4	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
All Pedestrians		200	211	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [AM-Cumberland Hwy/Sturt Street (Site Folder: 2022 Base plus Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 136 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Sturt Sreet															
21	L2	All MCs	264	29.5	264	29.5	0.594	22.2	LOS B	8.4	73.3	0.74	0.78	0.74	42.5
23	R2	All MCs	178	37.3	178	37.3	* 0.589	59.5	LOS E	10.9	100.3	0.96	0.82	0.96	29.6
Approach			442	32.6	442	32.6	0.594	37.2	LOS C	10.9	100.3	0.83	0.80	0.83	36.1
NorthEast: Cumberland Hwy															
24	L2	All MCs	276	27.1	276	27.1	0.702	18.9	LOS B	29.3	237.7	0.85	0.81	0.85	37.7
25	T1	All MCs	1534	10.4	1534	10.4	* 0.702	32.7	LOS C	31.9	242.9	0.85	0.77	0.85	40.2
Approach			1809	13.0	1809	13.0	0.702	30.6	LOS C	31.9	242.9	0.85	0.78	0.85	39.8
SouthWest: Cumberland Hwy															
31	T1	All MCs	1361	10.4	1361	10.4	0.348	8.2	LOS A	11.4	87.3	0.42	0.38	0.42	52.9
32	R2	All MCs	277	27.4	277	27.4	* 0.689	62.3	LOS E	12.4	107.3	0.96	0.82	0.99	29.1
Approach			1638	13.3	1638	13.3	0.689	17.3	LOS B	12.4	107.3	0.51	0.45	0.52	46.5
All Vehicles			3889	15.3	3889	15.3	0.702	25.8	LOS B	31.9	242.9	0.70	0.64	0.71	41.9

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.
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 Green.
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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
SouthEast: Sturt Sreet												
P5	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
SouthWest: Cumberland Hwy												
P8	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
All Pedestrians		100	105	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [AM-McCredie Road/Sturt Street (Site Folder: 2022 Base plus Dev)]

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 veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: McCredie Road															
5	T1	All MCs	43	4.9	43	4.9	0.226	0.3	LOS A	1.2	11.3	0.19	0.47	0.19	54.3
6	R2	All MCs	282	38.8	282	38.8	0.226	6.3	LOS A	1.2	11.3	0.19	0.47	0.19	48.7
Approach			325	34.3	325	34.3	0.226	5.5	NA	1.2	11.3	0.19	0.47	0.19	49.3
North: Sturt Sreet															
7	L2	All MCs	316	44.3	316	44.3	0.233	5.0	LOS A	0.4	3.5	0.04	0.51	0.04	47.5
9	R2	All MCs	52	14.3	52	14.3	0.233	4.8	LOS A	0.4	3.5	0.04	0.51	0.04	46.8
Approach			367	40.1	367	40.1	0.233	4.9	NA	0.4	3.5	0.04	0.51	0.04	47.4
West: McCredie Road															
10	L2	All MCs	28	37.0	28	37.0	0.076	7.7	LOS A	0.3	2.3	0.52	0.69	0.52	44.3
11	T1	All MCs	19	22.2	19	22.2	0.076	11.8	LOS A	0.3	2.3	0.52	0.69	0.52	48.3
Approach			47	31.1	47	31.1	0.076	9.4	LOS A	0.3	2.3	0.52	0.69	0.52	45.8
All Vehicles			740	37.0	740	37.0	0.233	5.5	NA	1.2	11.3	0.14	0.50	0.14	48.2

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.

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 [AM- Fairfield Road/McCredie Road (Site Folder: 2022 Base plus Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 92 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Fairfield Road															
1	L2	All MCs	229	45.4	229	45.4	0.202	7.4	LOS A	1.5	14.8	0.24	0.61	0.24	48.2
2	T1	All MCs	449	2.1	449	2.1	0.533	19.9	LOS B	14.6	104.3	0.78	0.68	0.78	37.3
3	R2	All MCs	202	2.1	202	2.1	* 0.649	45.4	LOS D	8.8	62.8	0.98	0.83	1.01	29.3
Approach			881	13.4	881	13.4	0.649	22.5	LOS B	14.6	104.3	0.68	0.70	0.69	37.2
East: McCredie Road															
4	L2	All MCs	111	1.9	111	1.9	0.161	25.7	LOS B	3.3	23.2	0.70	0.74	0.70	37.0
5	T1	All MCs	124	4.2	124	4.2	* 0.537	41.1	LOS C	6.1	43.9	0.98	0.78	0.98	35.6
6	R2	All MCs	16	0.0	16	0.0	0.537	46.6	LOS D	6.1	43.9	0.98	0.78	0.98	31.1
Approach			251	2.9	251	2.9	0.537	34.7	LOS C	6.1	43.9	0.85	0.76	0.85	35.8
North: Fairfield Road															
7	L2	All MCs	33	0.0	33	0.0	0.652	42.7	LOS D	10.8	76.5	0.97	0.82	0.98	32.5
8	T1	All MCs	477	1.5	477	1.5	* 0.652	37.1	LOS C	10.8	76.6	0.97	0.82	0.98	28.0
Approach			509	1.4	509	1.4	0.652	37.5	LOS C	10.8	76.6	0.97	0.82	0.98	28.3
West: McCredie Road															
10	L2	All MCs	2	0.0	2	0.0	0.126	37.0	LOS C	1.9	13.9	0.84	0.64	0.84	34.9
11	T1	All MCs	55	5.8	55	5.8	* 0.631	32.0	LOS C	8.0	78.9	0.85	0.66	0.85	39.1
12	R2	All MCs	182	49.1	182	49.1	0.631	43.0	LOS D	8.0	78.9	0.96	0.83	0.98	28.2
Approach			239	38.8	239	38.8	0.631	40.4	LOS C	8.0	78.9	0.93	0.79	0.95	30.6
All Vehicles			1880	12.0	1880	12.0	0.652	30.5	LOS C	14.6	104.3	0.82	0.75	0.83	33.5

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.
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 Green.
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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Fairfield Road												
P1	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
East: McCredie Road												
P2	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

North: Fairfield Road											
P3	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
West: McCredie Road											
P4	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
All Pedestrians		200	211	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM-Cumberland Hwy/Sturt Street (Site Folder: 2022 Base plus Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 136 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Sturt Sreet															
21	L2	All MCs	298	18.7	298	18.7	0.801	31.9	LOS C	15.9	128.4	0.95	0.89	1.04	37.0
23	R2	All MCs	379	11.1	379	11.1	* 0.801	61.7	LOS E	22.1	169.3	0.99	0.90	1.08	30.0
Approach			677	14.5	677	14.5	0.801	48.6	LOS D	22.1	169.3	0.98	0.90	1.06	32.7
NorthEast: Cumberland Hwy															
24	L2	All MCs	222	25.1	222	25.1	0.876	22.0	LOS B	48.1	370.0	0.97	0.94	1.04	34.3
25	T1	All MCs	2119	5.8	2119	5.8	* 0.876	42.4	LOS C	50.4	370.6	0.97	0.94	1.04	36.2
Approach			2341	7.6	2341	7.6	0.876	40.5	LOS C	50.4	370.6	0.97	0.94	1.04	36.0
SouthWest: Cumberland Hwy															
31	T1	All MCs	1615	4.0	1615	4.0	0.419	10.9	LOS A	16.0	116.0	0.50	0.45	0.50	51.0
32	R2	All MCs	315	11.4	315	11.4	* 0.885	74.8	LOS F	16.4	125.7	0.98	0.93	1.17	26.6
Approach			1929	5.2	1929	5.2	0.885	21.3	LOS B	16.4	125.7	0.58	0.53	0.61	44.3
All Vehicles			4947	7.6	4947	7.6	0.885	34.1	LOS C	50.4	370.6	0.82	0.77	0.87	38.3

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.
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 Green.
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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
SouthEast: Sturt Sreet												
P5	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
SouthWest: Cumberland Hwy												
P8	Full	50	53	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93
All Pedestrians		100	105	62.3	LOS F	0.2	0.2	0.96	0.96	216.1	200.0	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM McCredie Road/Sturt Street (Site Folder: 2022 Base plus Dev)]

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 veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: McCredie Road															
5	T1	All MCs	25	8.3	25	8.3	0.354	0.2	LOS A	2.3	18.4	0.14	0.51	0.14	53.7
6	R2	All MCs	540	19.7	540	19.7	0.354	5.9	LOS A	2.3	18.4	0.14	0.51	0.14	48.7
Approach			565	19.2	565	19.2	0.354	5.7	NA	2.3	18.4	0.14	0.51	0.14	48.8
North: Sturt Sreet															
7	L2	All MCs	358	30.9	358	30.9	0.233	4.8	LOS A	0.2	1.9	0.02	0.52	0.02	48.0
9	R2	All MCs	26	28.0	26	28.0	0.233	4.8	LOS A	0.2	1.9	0.02	0.52	0.02	46.3
Approach			384	30.7	384	30.7	0.233	4.8	NA	0.2	1.9	0.02	0.52	0.02	47.9
West: McCredie Road															
10	L2	All MCs	59	8.9	59	8.9	0.196	8.8	LOS A	0.7	5.0	0.65	0.84	0.65	43.4
11	T1	All MCs	42	5.0	42	5.0	0.196	14.6	LOS B	0.7	5.0	0.65	0.84	0.65	47.3
Approach			101	7.3	101	7.3	0.196	11.2	LOS A	0.7	5.0	0.65	0.84	0.65	44.9
All Vehicles			1051	22.2	1051	22.2	0.354	5.9	NA	2.3	18.4	0.15	0.55	0.15	48.2

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.

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 [PM- Fairfield Road/McCredie Road (Site Folder: 2022 Base plus Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 92 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Fairfield Road															
1	L2	All MCs	403	20.4	403	20.4	0.316	7.2	LOS A	3.0	25.0	0.27	0.63	0.27	49.1
2	T1	All MCs	533	2.4	533	2.4	0.741	27.2	LOS B	21.1	150.3	0.93	0.83	0.94	32.7
3	R2	All MCs	219	0.5	219	0.5	* 0.794	51.3	LOS D	10.5	73.6	1.00	0.92	1.19	27.6
Approach			1155	8.3	1155	8.3	0.794	24.8	LOS B	21.1	150.3	0.71	0.78	0.75	36.2
East: McCredie Road															
4	L2	All MCs	138	2.3	138	2.3	0.214	27.6	LOS B	4.3	30.7	0.73	0.75	0.73	36.0
5	T1	All MCs	115	4.6	115	4.6	* 0.567	41.3	LOS C	6.4	46.4	0.98	0.79	0.98	35.4
6	R2	All MCs	32	3.3	32	3.3	0.567	46.9	LOS D	6.4	46.4	0.98	0.79	0.98	30.6
Approach			284	3.3	284	3.3	0.567	35.3	LOS C	6.4	46.4	0.86	0.77	0.86	35.1
North: Fairfield Road															
7	L2	All MCs	32	10.0	32	10.0	0.769	49.5	LOS D	10.8	78.9	1.00	0.92	1.15	30.0
8	T1	All MCs	432	4.6	432	4.6	* 0.769	43.8	LOS D	10.9	79.0	1.00	0.92	1.15	25.5
Approach			463	5.0	463	5.0	0.769	44.2	LOS D	10.9	79.0	1.00	0.92	1.15	25.9
West: McCredie Road															
10	L2	All MCs	12	0.0	12	0.0	0.153	32.2	LOS C	2.8	20.0	0.79	0.64	0.79	36.8
11	T1	All MCs	126	2.5	126	2.5	* 0.767	30.9	LOS C	14.6	129.6	0.87	0.75	0.91	38.9
12	R2	All MCs	272	37.2	272	37.2	0.767	42.4	LOS C	14.6	129.6	0.98	0.90	1.08	29.2
Approach			409	25.4	409	25.4	0.767	38.6	LOS C	14.6	129.6	0.94	0.85	1.02	32.3
All Vehicles			2312	10.1	2312	10.1	0.794	32.4	LOS C	21.1	150.3	0.83	0.82	0.89	33.1

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

* Critical Movement (Signal Timing)

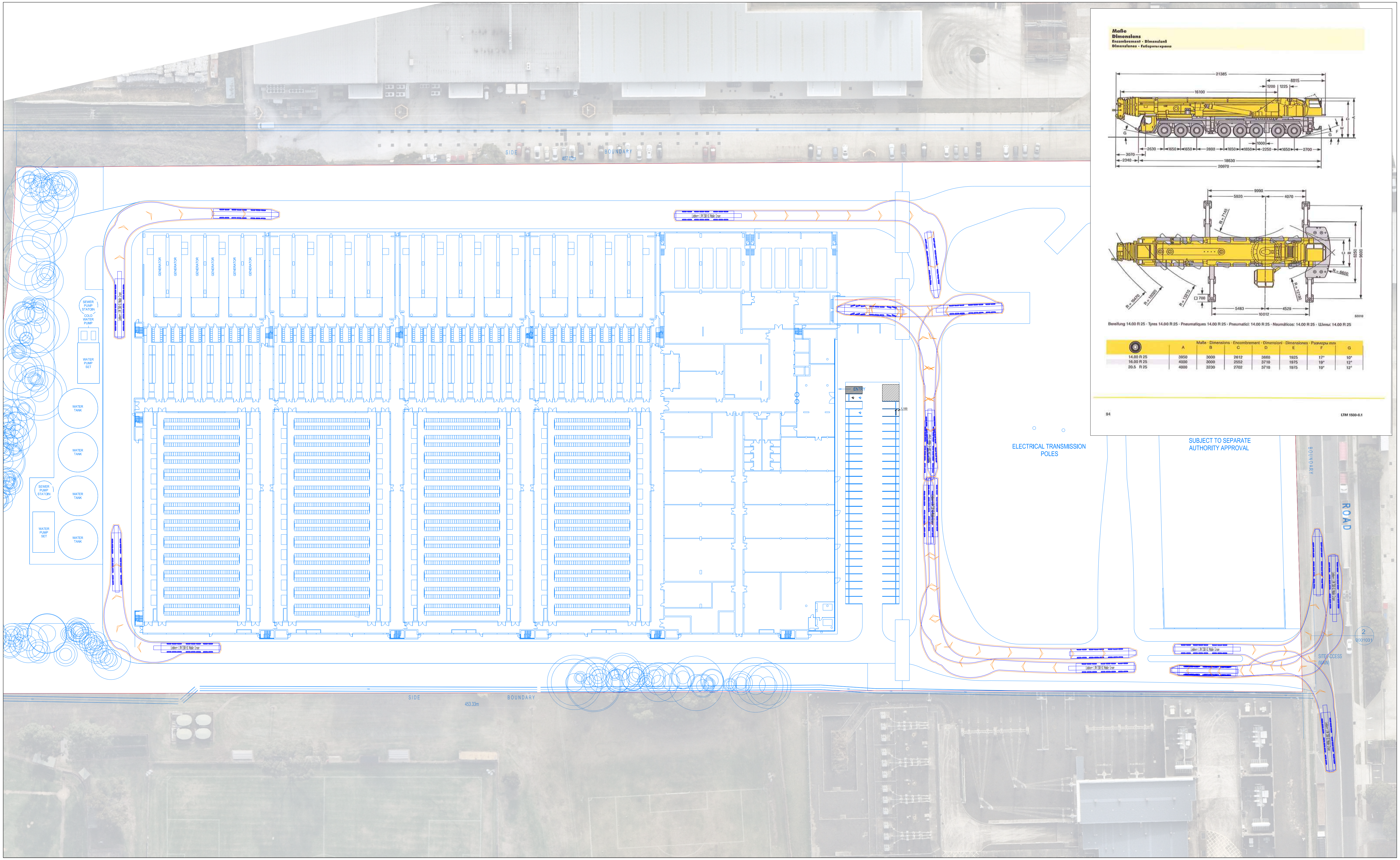
Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Fairfield Road												
P1	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
East: McCredie Road												
P2	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

North: Fairfield Road											
P3	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
West: McCredie Road											
P4	Full	50	53	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03
All Pedestrians		200	211	40.3	LOS E	0.1	0.1	0.94	0.94	194.1	200.0	1.03

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Appendix B. Vehicle Swept Paths



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Aerial photograph (taken 13 Mar 2024) obtained from Nearmaps.

DESIGNED	PAPER SIZE
Connor Hoang	A3
APPROVED BY	DATE
R. Hazell	24.04.2025
SCALE	
1:1100	

CLIENT

Goodman Property Services (Aust) Pty Limited

PROJECT

P1597B

132 McCredie Rd, Smithfield

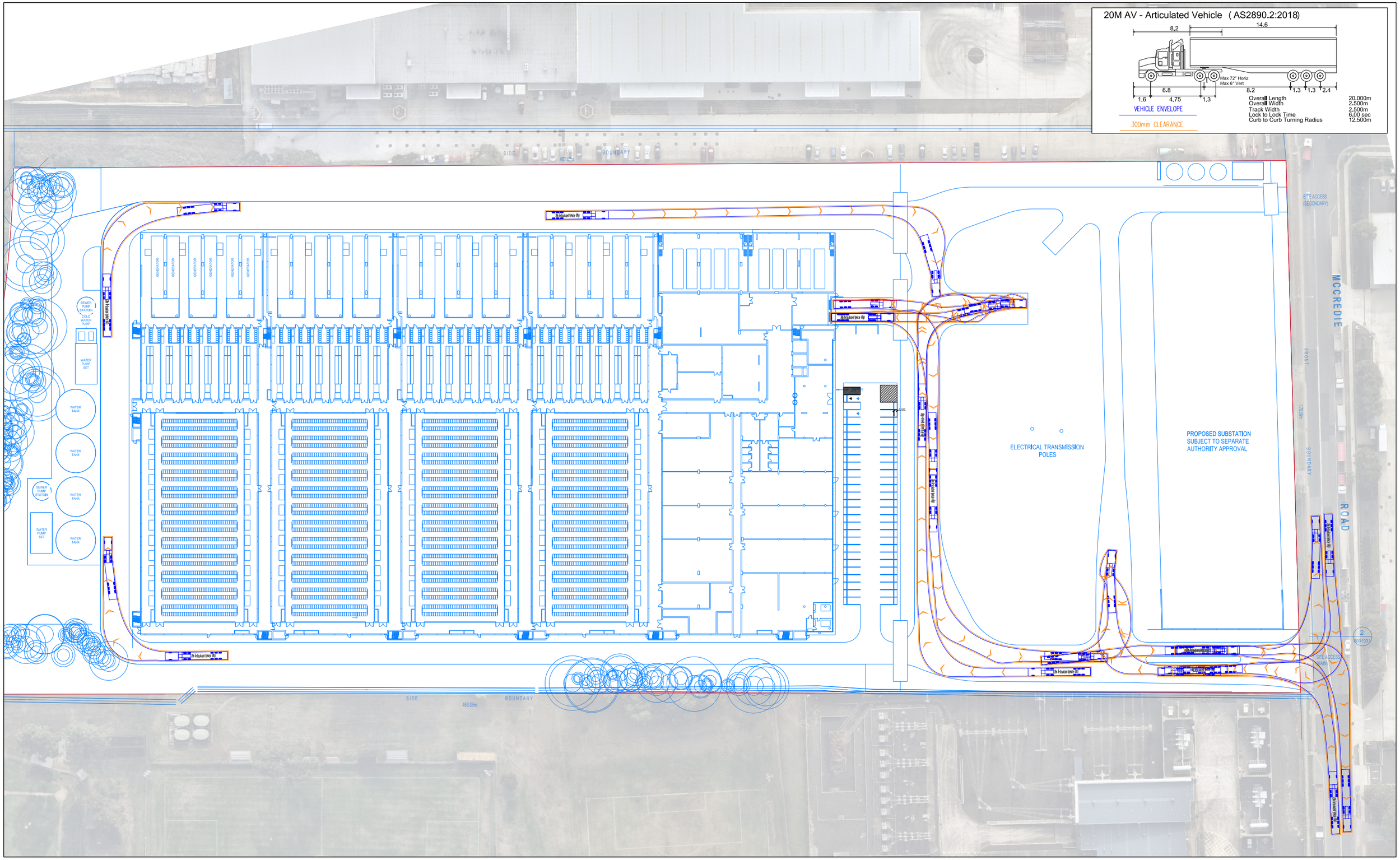
DOCUMENT INFORMATION

Vehicle swept path analysis

Mobile crane site access & circulation

FILE NAME	SHEET
AG1597B-01v09.dwg	AG01

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



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DATE	24.04.2025
SCALE	1:1250

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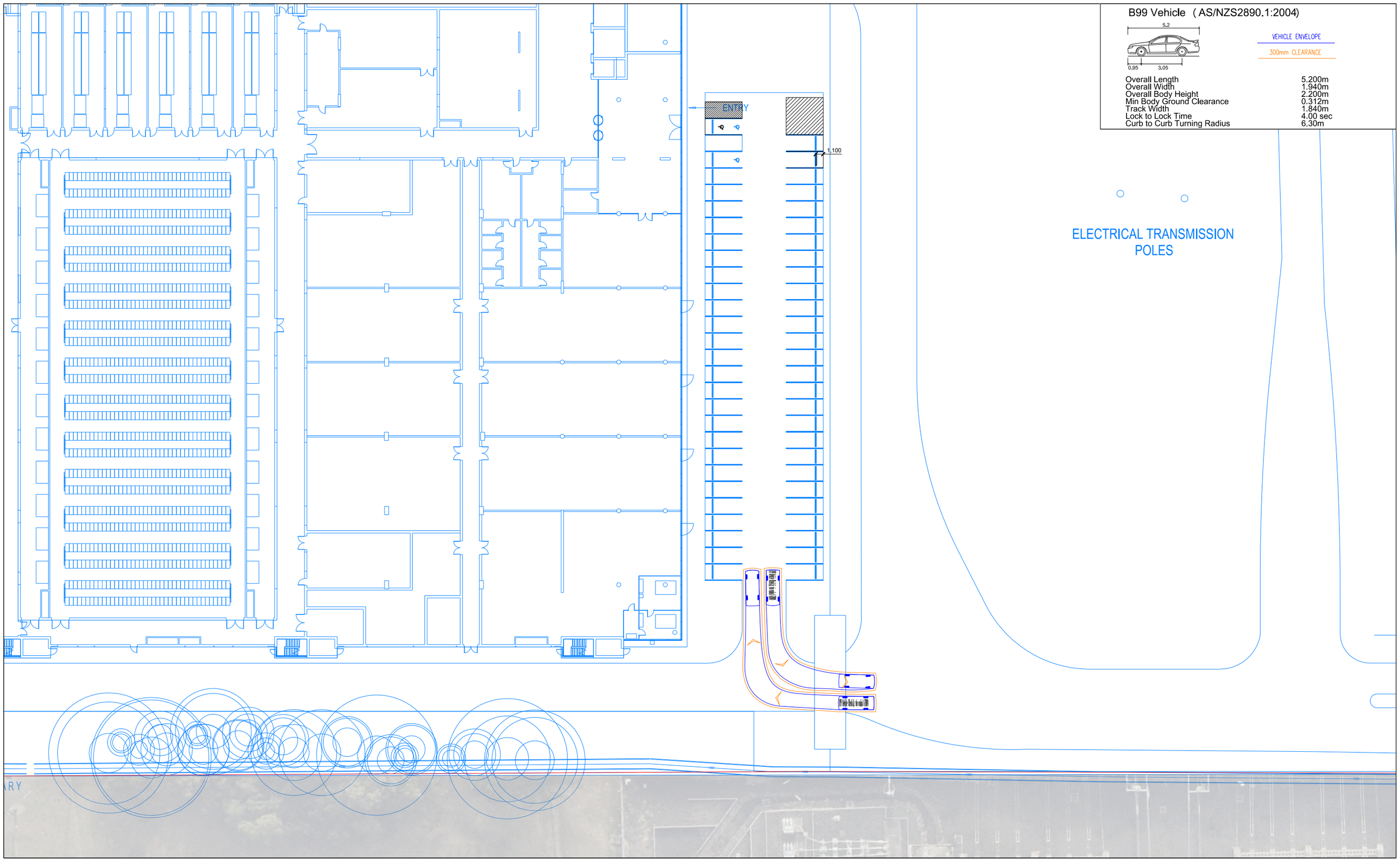
Goodman Property Services (Aust) Pty Limited

PROJECT
P1597B
132 McCredie Rd, Smithfield

DOCUMENT INFORMATION
Vehicle swept path analysis
20m articulated vehicle site access & circulation

FILE NAME	SHEET
AG1597B-01v09.dwg	AG02

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



B99 Vehicle (AS/NZS2890.1:2004)

VEHICLE ENVELOPE

300mm CLEARANCE

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.312m
Track Width	1.840m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.30m

GENERAL NOTES

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SCALE: 1:500	

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Goodman Property Services (Aust) Pty Limited

PROJECT
P1597B
132 McCredie Rd, Smithfield

DOCUMENT INFORMATION
Vehicle swept path analysis
B99 designvehicle car park access

FILE NAME	SHEET
AG1597B-01v09.dwg	AG03

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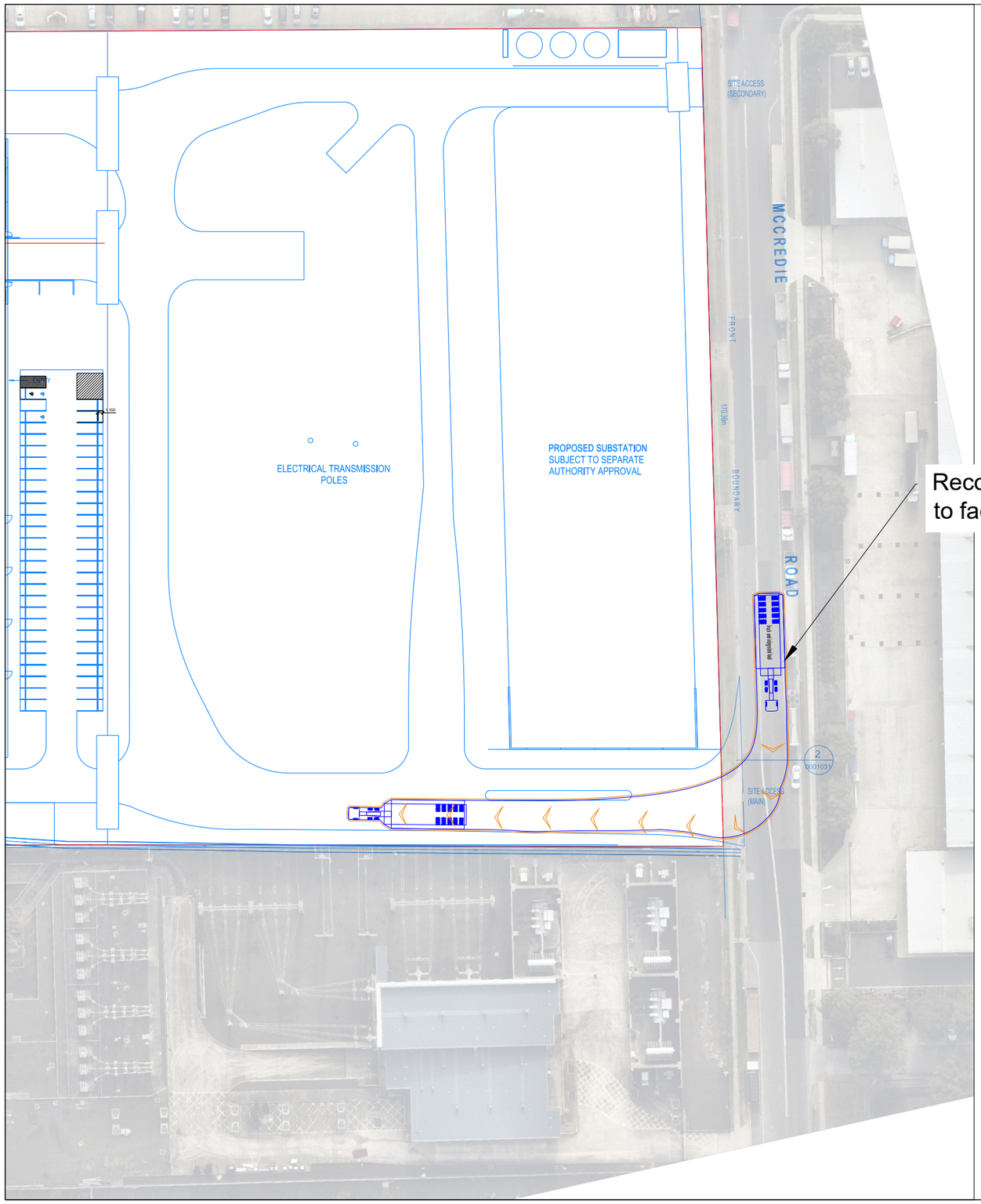

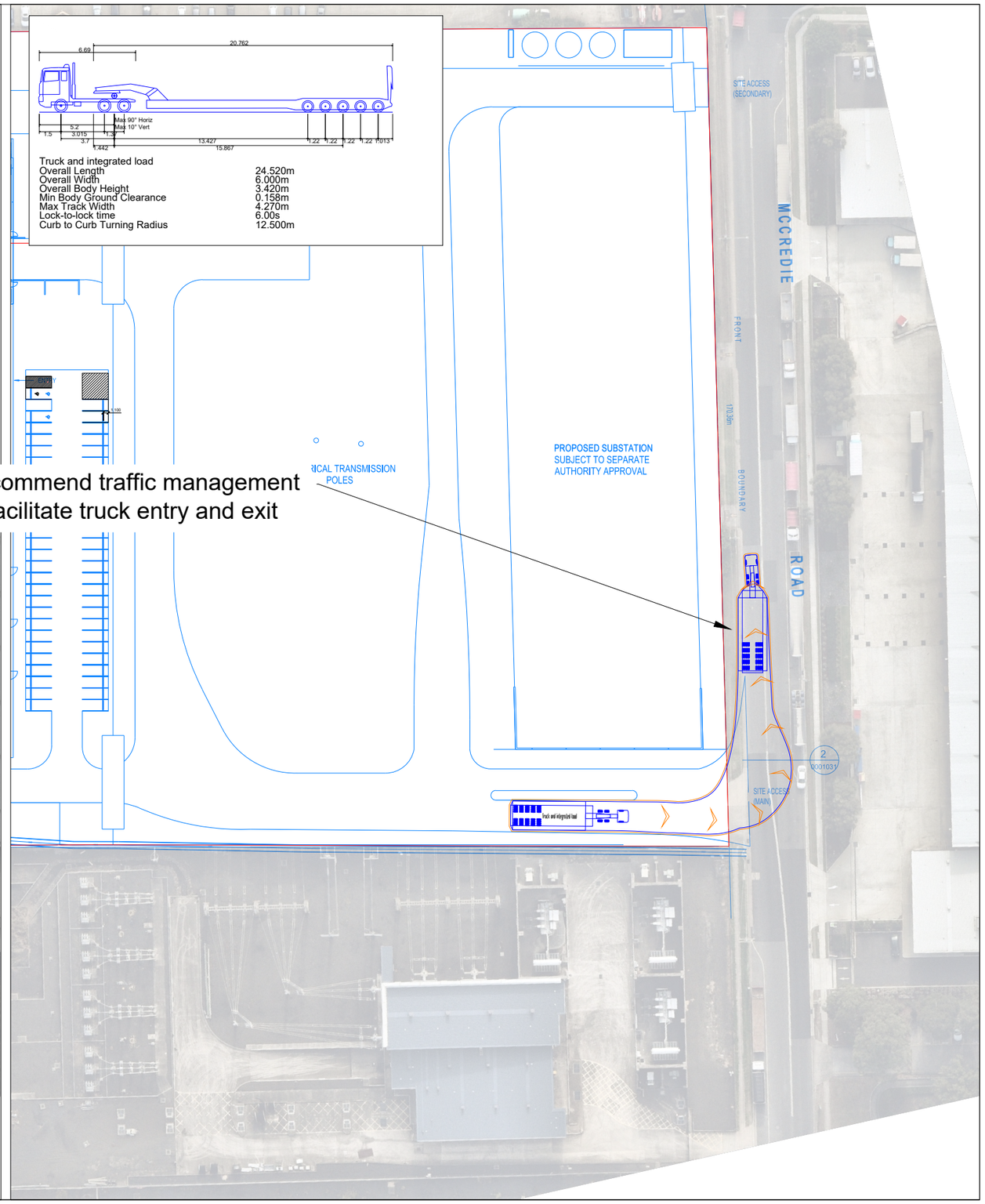

Recommend traffic management to facilitate truck entry and exit

Truck and integrated load

Overall Length	24.520m
Overall Width	6.000m
Overall Body Height	3.420m
Min Body Ground Clearance	0.158m
Max Track Width	4.270m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

GENERAL NOTES

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SCALE: 1:1000	

CLIENT: Goodman Property Services (Aust) Pty Limited

PROJECT: P1597B

132 McCredie Rd, Smithfield

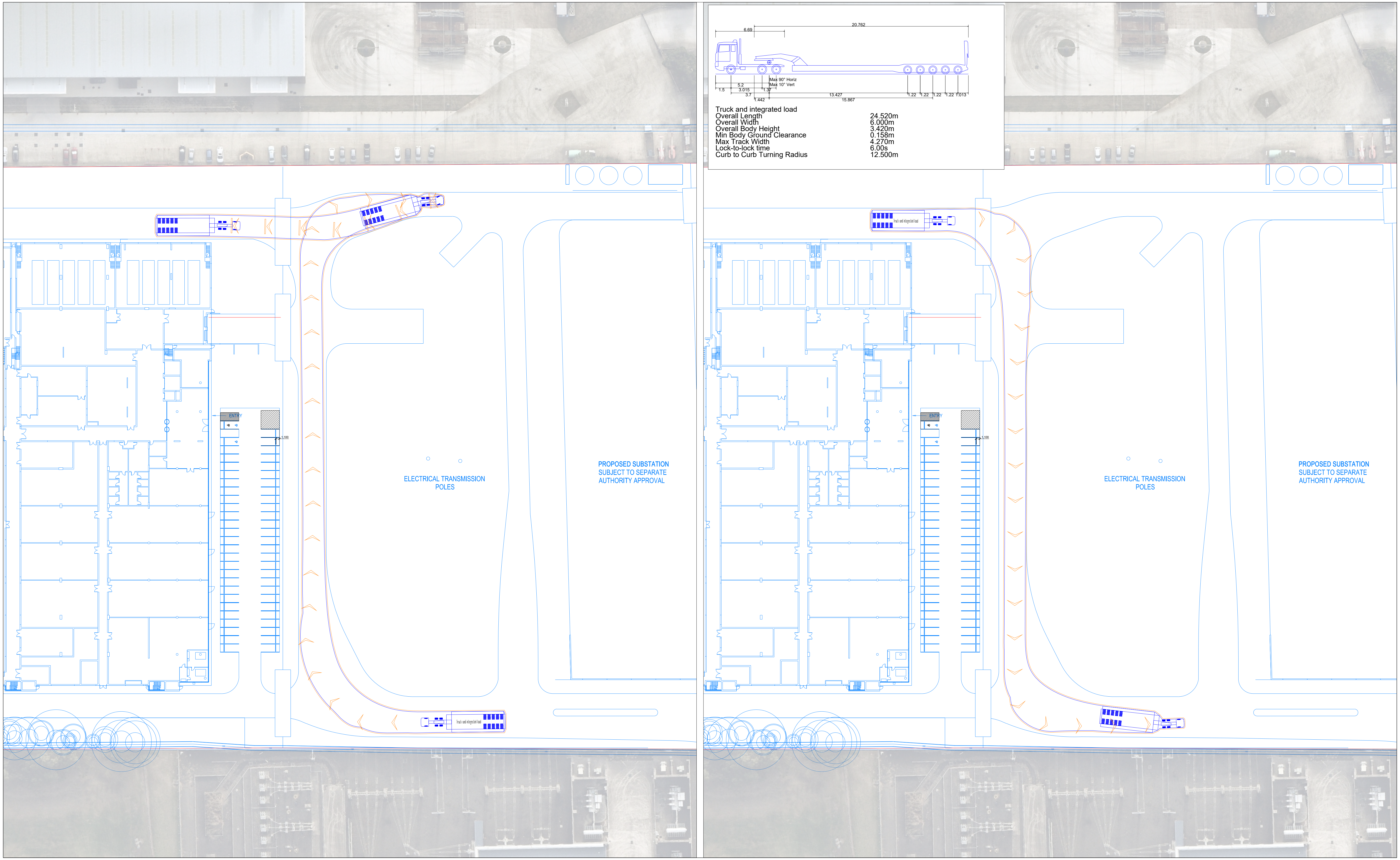
DOCUMENT INFORMATION

Vehicle swept path analysis

6m wide flat bed truck access

FILE NAME	SHEET
AG1597B-01v09.dwg	AG04

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



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Aerial photograph (taken 13 Mar 2024) obtained from Nearmaps.

DESIGNED	PAPER SIZE
Connor Hoang	A3
APPROVED BY	DATE
R. Hazell	24.04.2025
SCALE	
1:1000	

CLIENT

Goodman Property Services (Aust) Pty Limited

PROJECT

P1597B

132 McCredie Rd, Smithfield

DOCUMENT INFORMATION

Vehicle swept path analysis

6m wide flat bed truck access & circulation

FILE NAME	SHEET
AG1597B-01v09.dwg	AG05

asongroup

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

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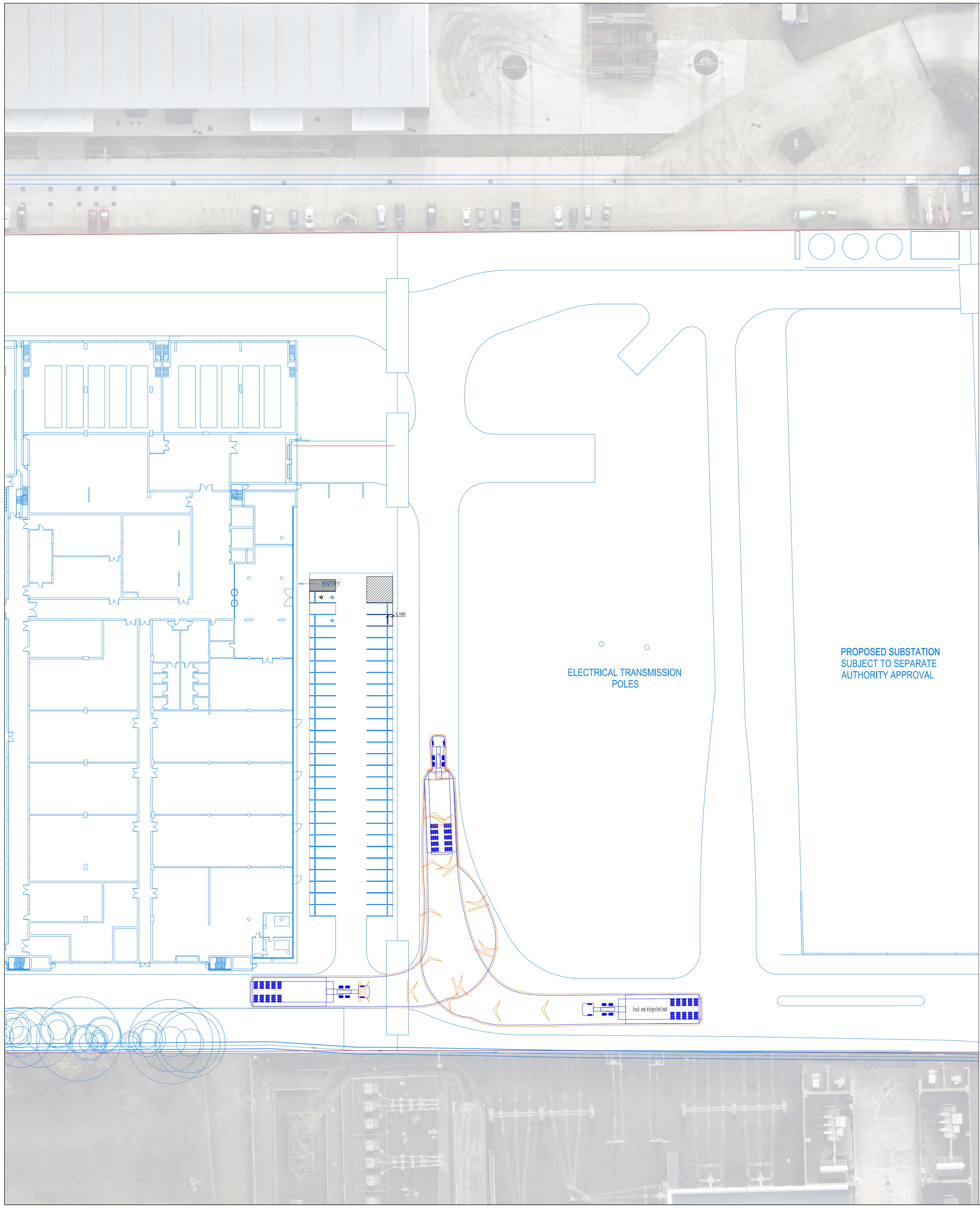
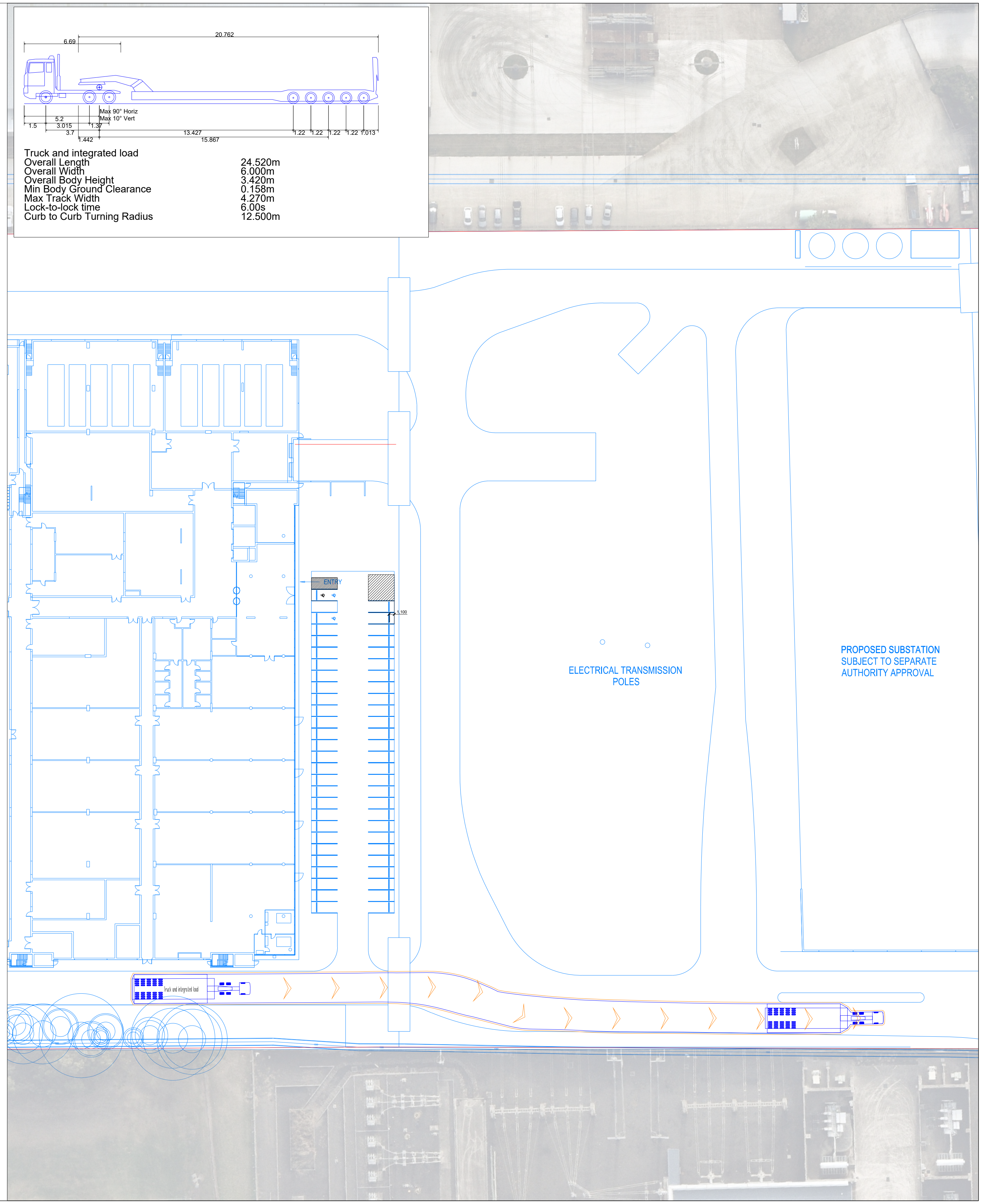
PLOT DATE: 24/04/2025 10:10:25 AM | CAD REFERENCE: C:\Users\Connor Hoang\OneDrive - Ason Group\ACTIVE PROJECTS\1597B - Project Pluto Data Centre, 132 McCredie Road, Guilford West\Projects\Design\AG1597B-01v09.dwg | Connor Hoang |





GENERAL NOTES

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Aerial photograph (taken 13 Mar 2024) obtained from Nearmaps.

DESIGNED	PAPER SIZE
Connor Hoang	A3
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R. Hazell	24.04.2025
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1:1000	

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Goodman Property Services (Aust) Pty Limited

PROJECT

P1597B

132 McCredie Rd, Smithfield

DOCUMENT INFORMATION

Vehicle swept path analysis

6m wide flat bed truck access & circulation

FILE NAME	SHEET
AG1597B-01v09.dwg	AG06

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