

Transport Engineering Report

10775 Warrego Highway, Toowoomba

Prepared for Charprogress Pty Ltd





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Revision Record

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1. Introduction

1.1. Purpose

Colliers International Engineering and Design (TTMC) Pty Ltd has been engaged by Charprogress Pty Ltd to prepare a Traffic Report investigating a proposed industrial subdivision at 10775 Warrego Highway. It is understood this report will accompany a RoL Application to be lodged with Council.

1.2. Background

Prior to the completion of this report, Colliers has consulted with the development team to identify efficient design for the site for traffic operations, noting the constraints of the development and the requirements of other project disciplines.

- An RoL application has previously been submitted on 18 July 2022 and approved by the Toowoomba Regional Council (RAL/2022/3314) on 8 November 2022 to reconfigure 1 into 4 lots (of which the current site is one of the resulting lots).
- An operational works application has been submitted 22 December 2022 and approved for Road work and earthworks (for the construction of Water / Sewage infrastructure) on 12 April 2023.
- An operational works application has been submitted 13 May 2025 and approved for Road work and earthworks (for the construction of Water / Sewage infrastructure) on 26 May 2025.

As part of the approved application, a traffic impact assessment has been prepared by HIG which was received by Toowoomba Regional Council on 8 July 2022.

1.3. Scope

The scope of the transport aspects investigated includes:

- Reviewing the prevailing traffic and transport conditions surrounding the site.
- Assessing the access configuration to provide efficient and safe manoeuvring between the site and the public road network for cars, service vehicles, cyclists and pedestrians.
- Identifying the service vehicle needs for the site
- Assessing the internal service vehicle layouts to provide efficiency and safety for on-site service vehicle operation
- Reviewing access to a suitable level of public and active transport provisions.
- Internal road hierarchy to cater for lot access, vehicle design speeds and road user amenity requirements – for new subdivisions only
- Identification of likely traffic volumes and traffic distribution from the development.

- Identification of likely traffic impacts of development on the surrounding road network.

The development plans have been assessed against the following guidelines and planning documents:

- Toowoomba Regional Council Planning Scheme (City Plan 2026), specifically:
 - Transport, Access, and Parking Code
 - Industrial Use Code
 - Reconfiguration of a Lot Code
 - Planning Scheme Policy 2 Engineering Standards Roads and Drainage Infrastructure v29
 - Charlton Wellcamp Enterprise Area Local Plan Code
- Queensland State Development and Assessment Provisions (SDAP), specifically:
 - State Code 1: Development in a state-controlled road environment
 - State Code 6: Protection of state transport networks
- Australian Standards for Parking Facilities, specifically:
 - Part 1: Off-street car parking (AS2890.1:2004)
 - Part 2: Off-street commercial vehicle facilities (AS2890.2:2018)
 - Part 3: Bicycle parking (AS2890.3:2015)
 - Part 6: Off-street parking for people with disabilities (AS2890.6:2009).
- Department of Transport and Main Roads 'Road Planning and Design Manual' (RPDM)
- Department of Transport and Main Roads 'Guide to Traffic Impact Assessment' (GTIA)
- Austroads 'Guide to Road Design' (GRD)

2. Site Location

The site is located at 10775 Warrego Highway, near the intersection of Warrego Highway and Wirth Road, as shown in Figure 2.1 and Figure 2.2. The site has road frontages to Warrego Highway and Moorebank Road. The property description is Lot 7 on AG3687.



Source: Nearmaps

Figure 2.1: Site location (Surrounding Context)



Source: Nearmaps

Figure 2.2: Site Location (Immediate Context)

Key site characteristics from a planning perspective include:

- 65,944m² site area
- Medium Impact Industry zoning
- Located within the Transport and Warehousing Precinct of the Charlton Wellcamp Enterprise Area Local Plan Area

Site: 10775 Warrego Highway

Reference: 26BRT0414

3. The Proposed Development

3.1. Development Profile

The proposed land uses for this development are summarised in Table 3.1.

Table 3.1: Proposed land uses

Land Use	Area/Qty
Proposed Industrial Lots	11
Communal Title Access Lot	1

Each individual lot is proposed with an area ranging from 4,860m² to 9,400m². It is anticipated that the development potential across these lots is a plot ratio of 50% maximum, resulting in a gross floor are per lot between 2,430m² and 4,700m².

A copy of the development plans, prepared by RPS Consulting, is included in Appendix A

3.2. Parking

The current application does not include detailed internal lot layouts relating to parking provision, pedestrian circulation, servicing arrangements, loading facilities, or vehicle manoeuvring areas. These matters will be addressed through future Material Change of Use (MCU) applications for individual lots.

Subsequent applications will also confirm driveway configurations, assess design vehicle requirements, and include swept-path analysis where required to demonstrate satisfactory site access and operation.

Internal car parking is to be provided generally in accordance with Council prescribed rates. These however may vary where an application over a lot is made with a specific end user type with more robust parking requirements. Parking is expected to be contained within individual lots. Any potential overflow may however be managed through the internal communal road provision, rather allowing parking overflow to external roads.

3.3. Access

The development plan includes the following access arrangements:

- 15m wide rural driveway (RS-056) access from Warrego Highway on the north side of the frontage which connects to a 2-way internal road. This access will accommodate all vehicles with left-in/left-out movements permitted.
- 12m wide access from concrete driveway crossover from Moorebank Road to the south side of the frontage. This access will accommodate all vehicles with all movements permitted.
- Pedestrian / cyclist access to the site will be provided through the 15m wide proposed internal road.

Further details regarding the proposed access arrangements is included in Section 5

3.4. Servicing

The subdivision layout will generally be configured to accommodate larger freight vehicles including B-double access and PBS vehicle access. However, as the lots are typically under 6,000m², catering for individual GFA per lot of less than 3,000m², design vehicles exceeding a standard 20m long articulated truck (20m AV) are expected to be limited. As such, 20m AV's are assessed as the regular access design vehicle, with 26m b-doubles utilised as a check vehicle.

4. Site Travel Environment

4.1. Public Transport Facilities and Services

Development site is not located in close proximity to any public transport facilities, with the closest train station located 11km east of the site and no bus stops located in proximity to the site.

4.2. Active Transport Facilities

The existing road network surrounding the site provides active transport facilities in the form of footpaths along Piedmont Street as well as Moorebank Road which connects to the site from the south to the Warrego Highway to the north.

4.3. The Road Network

4.3.1. Road Hierarchy

The hierarchy and characteristics of roads in the immediate vicinity of the site are shown in Table 4.1.

Table 4.1: Surrounding Road Hierarchy

Road	Speed Limit	Road Configuration			Classification	Authority
		Reserve Width	Carriageway Width	Lane Configuration		
Warrego Highway	70km/h	48m	14m	4 traffic lanes plus turn lanes. Median separated. No standing on north or south side of road.	National Highway	DTMR
Moorebank Road	50km/h	20m	12m	2 traffic lanes plus shoulder on western side. No standing on east side kerbside lane during morning peak.	Local Street (industrial)	Council

¹Default speed limit on unsigned roads in built up areas in Queensland.

The intersection of Moorebank Road and Piedmont Street is a roundabout controlled intersection.

4.3.2. Road Planning

It is understood that Moorebank Road is intended to be extended eastward in the future to connect with Wirth Road. This extension will complete the local industrial road network in a generally grid-based arrangement, providing direct and efficient access to development sites throughout the Moorebank Road precinct. While the internal community title road will not be restricted from functioning as a through route, the future external road network is expected to provide a more convenient alternative and therefore limit through traffic movements within the development. However, it is noted that in the interim case, vehicles approaching Moorebank Road from the east may utilise the internal road as a convenient access route. This internal road design and pavement capacity will need to consider these interim traffic operations.

5. Access Arrangements

5.1. Vehicular Access

Access to the development will be provided via a new internal community title road connecting directly between the Warrego Highway and Moorebank Road. The proposed 15 m wide community title road reserve is considered sufficient to accommodate a two-way industrial access road, together with verge areas capable of accommodating pedestrian pathways and utility service corridors.

Each proposed lot will be provided with adequate frontage to facilitate an all-turns driveway connection to the internal community title road. This includes Lot 81, which is proposed as a battle-axe lot and will be accessed via a minimum 8 m wide driveway extending from the internal access road.

Moorebank Road currently terminates at the eastern extent of the site frontage and will include a temporary cul-de-sac turning facility. Temporary easements will be established over the subject site and the adjoining proposed Lot 8 to the south to accommodate a 25 m diameter cul-de-sac head. This facility will be capable of accommodating U-turn manoeuvres by industrial vehicles.

Further details in relation to the design provisions of each access is provided as follows.

5.1.1. Warrego Highway Access

The Warrego Hwy access will be from an existing 18m wide crossover, which is formed as a channelised left turn into the site, and a left turn exit lane with give way provision. This access has been reviewed to cater for regular access vehicles to an industrial development as shown in the swept paths in **Appendix B**.

The design provisions of the Warrego Highway access are assessed against the provisions in Australian Standard 2890.1, as specified in A07.1 of the Transport, Access and Parking Code. This is detailed in Table 5.1.

Table 5.1: Warrego Highway Access Arrangements

Design Aspect	AS2890.1 Provision	Proposed Provision	Compliance
Width / Crossover Type	Category 4 access, Intersection configuration, suitable to cater for design vehicle swept paths	Channelized lane 18m wide crossover suitable for design vehicles	Compliant
Intersection Separation	6m from tangent point Clear of intersection Queuing	230m	Compliant
Sight Distance ^{1 2}	190m	250m	Compliant
Driveway Sight Splays	2.0m wide x 5m deep (on each side)	3.0m wide x 10.0m deep	Compliant
Maximum Driveway grade	1:8.3 (12%)	>4%	Compliant

Overall, the proposed Warrego Highway access is designed in accordance with the Toowoomba Regional Council TAP Code and AS2890.1 Provisions

5.1.2. Moorebank Road Access

The design provisions of the Moorebank Road access and the respective provisions of the TAP Code are detailed in Table 5.2.

Table 5.2: Moorebank Road Access Arrangements

Design Aspect	AS2890.1 Provision	Proposed Provision	Compliance
Width / Crossover Type	Category 3 access, 12.5m wide	17m at boundary, wide channelized crossover	Compliant
Intersection Separation	6m from tangent point Clear of intersection Queuing	230m	Compliant
Sight Distance ^{1 2}	83m	250m	Compliant
Driveway Sight Splays	2.0m wide x 5m deep (on each side)	3.0m wide x 10.0m deep	Compliant
Maximum Driveway grade	1:8.3 (12%)	>4%	Compliant

Overall, the proposed Warrego Highway access is designed generally in accordance with the Toowoomba Regional Council TAP Code and AS2890.1 Provisions

5.2. Lot Access

Access to each individual lots will be provided via concrete crossovers from the communal access road. From this access, the proposed minimum width to access lots are to be established:

- 6.5m wide driveways for light vehicles
- 9m wide heavy vehicle crossovers where either 1 way, or where low turnover allowing design vehicles to occupy the full two way access width
- 12.5m wide heavy vehicle crossovers for general 2 way movement

The minimum 9m width is demonstrated in the swept path analysis in Appendix B for the Lot 81 access. This identifies that a 20m AV can access the 10m wide allotment, with clearance either side, utilising the full width of a 9m the crossover. This will require that the driveway is provided with appropriate flares for the swept path of vehicles over the communal access road verges.

It is proposed that no access is provided from the internal road to Lots 71 or 80 within 30m of the site frontage to the Warrego Hwy. This will provide sufficient internal queuing to allow free influx of vehicles turning left from the highway.

As lot access is from an internal circulation road, the number of access points is not limited. This may result in more than 1 driveway to each lot. It is considered appropriate that access to each lot from the internal access road is provided from 2 driveways (excluding Lot 81) to allow for separate light vehicle and heavy vehicle access. This does not preclude a single crossover servicing all vehicles being established as suitable for lots, depending on internal layouts and vehicle requirements.

Additionally, access is not limited to 2 access points. Additional crossovers may be established to each lot where it is demonstrated that further distribution of traffic (including separation of inbound and outbound movements) would be more appropriately altered for by multiple lot access points.

Additionally, the provision of the internal communal access road should not preclude Lots 75 and 76 having direct access from Moorebank Road. Moorebank Road is of an appropriate design and hierarchy to cater for direct lot access. As such, no condition restricting access to this frontage is envisaged. However, as this is a public road, access to Moorebank Road would be limited to 1 driveway per lot, with any additional crossovers to these lots attained from the internal road.

6. Internal Access Road

The internal access road will be provided as a 12m wide carriageway, within a 15m wide community titled reserve.

The 12m carriageway width is consistent with the form of an industrial access street, ensuring it is appropriate for two way operation of heavy vehicles in a 50km/hr design environment. Investigations of the site topography suggest that sight distance will be clear along this road section along its full length, allowing for safe manoeuvring to and from each lot.

It is suggested that the verges are provided as 2m wide on one side and 1m wide on the other. The 2m verge will allow the provision of a 1.5m wide footpath, constructed along the property boundary to the lots, with a 500mm clearance to the roadway. The 1m opposing verge is sufficient such that a pedestrian can step off the internal road as a clearance zone if necessary.

The 12m wide carriageway will present an opportunity for a parking lane to be established and retain suitable lane widths for thoroughfare use. It would be considered inappropriate to allow uncontrolled parking within this area as this may result in ad hoc trailer parking, impacting sight distances and safe operation. It is proposed that each MCU is accompanied by a signs and line marking plan aimed at restricting or managing parking along the communal internal road.

This is required at MCU stage as this will determine access locations to each lot, which will then impact where parking may appropriately be located, or require restrictions. However, as a minimum, there should be a no standing zone, supported by yellow line marking, along both sides of the internal road within 30m of the Warrego Hwy frontage and 15m of the Moorebank Road frontage.

7. Traffic Impact Assessment

A traffic assessment was undertaken as part of the 4 lot subdivision application submitted in 2022, to evaluate the impact of the proposed development on the surrounding road network. The assessment concluded that the development is compliant with the relevant traffic requirements and does not adversely impact the existing road network.

This previous RoL application was supported by a traffic impact assessment has been approved by the Toowoomba Regional Council on 18 July 2022, for the purposes of this application, reference is made to that assessment which has addressed the traffic and transport impacts of the previous development.

This proposal further subdivides one of the resulting lots from the previous development application into a number of smaller industrial lots, together with the provision of a central community title access road. This reduced the effective developable footprint as the communal road is no longer part of the potential yield for the site. This will therefore reduce the scale and intensity of development that could otherwise occur under the existing subdivision layout. Consequently, overall parking demand and traffic generation are anticipated to be lower than would be associated with larger-format industrial development across the site.

The external works conditioned in association with the previous approval were land dedication and the construction of Moorebank Road through the site, including the provision of temporary turn facilities. No additional works are considered necessary with the current plan, given the equal or lessor traffic to result from the development of the site.

Given Moorebank Road was extended as part of the plan sealing for the previous approval and given the existing AUL treatment along the site frontage for access, no further external road works are considered necessary as part of this approval.

8. Summary and Conclusions

8.1. Proposed Development

The proposed development is an 11-lot industrial subdivision with a total area of 65,944m², with each individual lot assigned an area ranging from 4,860m² to 9,400m².

The current application does not include any details on the internal lot layouts relating to parking, pedestrian circulation, servicing, loading bay provisions, and vehicle manoeuvring areas, as these matters will be addressed through future MCU applications.

8.2. Access Arrangements

Access to the development is provided via one crossover into Warrego Highway and one crossover into Moorebank Road which will accommodate both light and heavy vehicles.

The access arrangements have been assessed against the Toowoomba Regional Council TAP Code and AS2890.1-2 requirements. All accesses proposed provide access configurations as well as suitable separation from surrounding intersections and sufficient internal queuing capacity.

It is also noted that Moorebank Road is intended to be extended eastward in the future to connect with Wirth Road.

8.3. Traffic Impact Assessment

Overall, the proposed development is not expected to result in any adverse impacts on the operation of the surrounding road network and therefore no upgrades are considered necessary as part of the proposed development.

8.4. Conclusion

Based on the assessment contained within this report, Colliers see no traffic engineering reason why the relevant approvals should not be granted.

Appendix A Development Plans

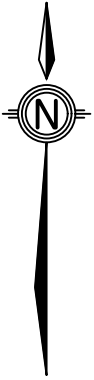
PRELIMINARY ONLY

Note

All dimensions and areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

The boundaries shown on this plan should not be used for final detailed engineers design.



1
SP281378

7.5m Wide
Easement

14.0m Wide
Easement

5
SP323014

Legend

Site Boundary/ Stage 1

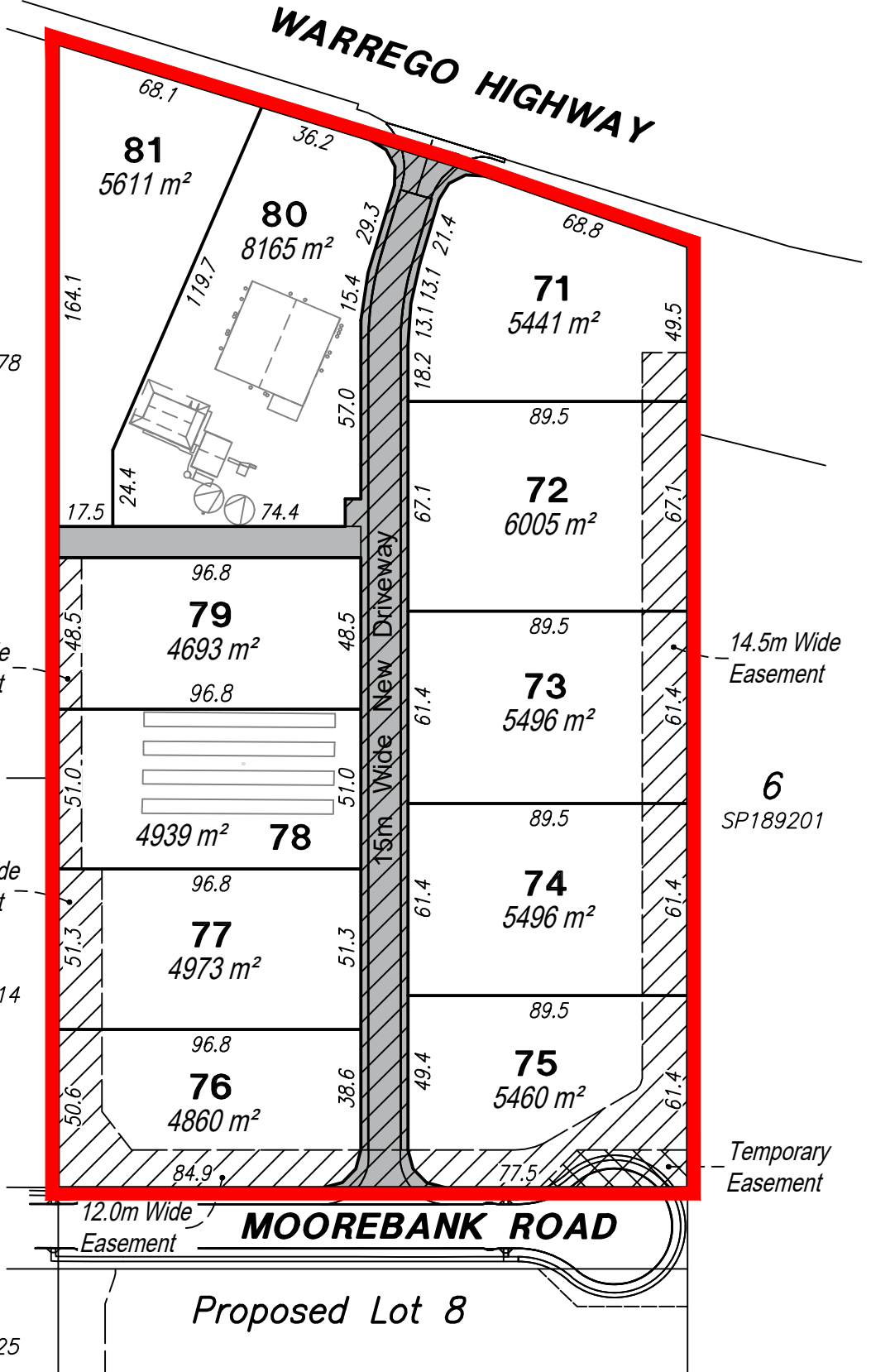
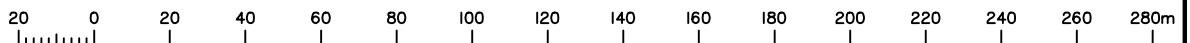
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Denotes Stormwater Drainage/
Access Easement

Denotes Temporary Easement

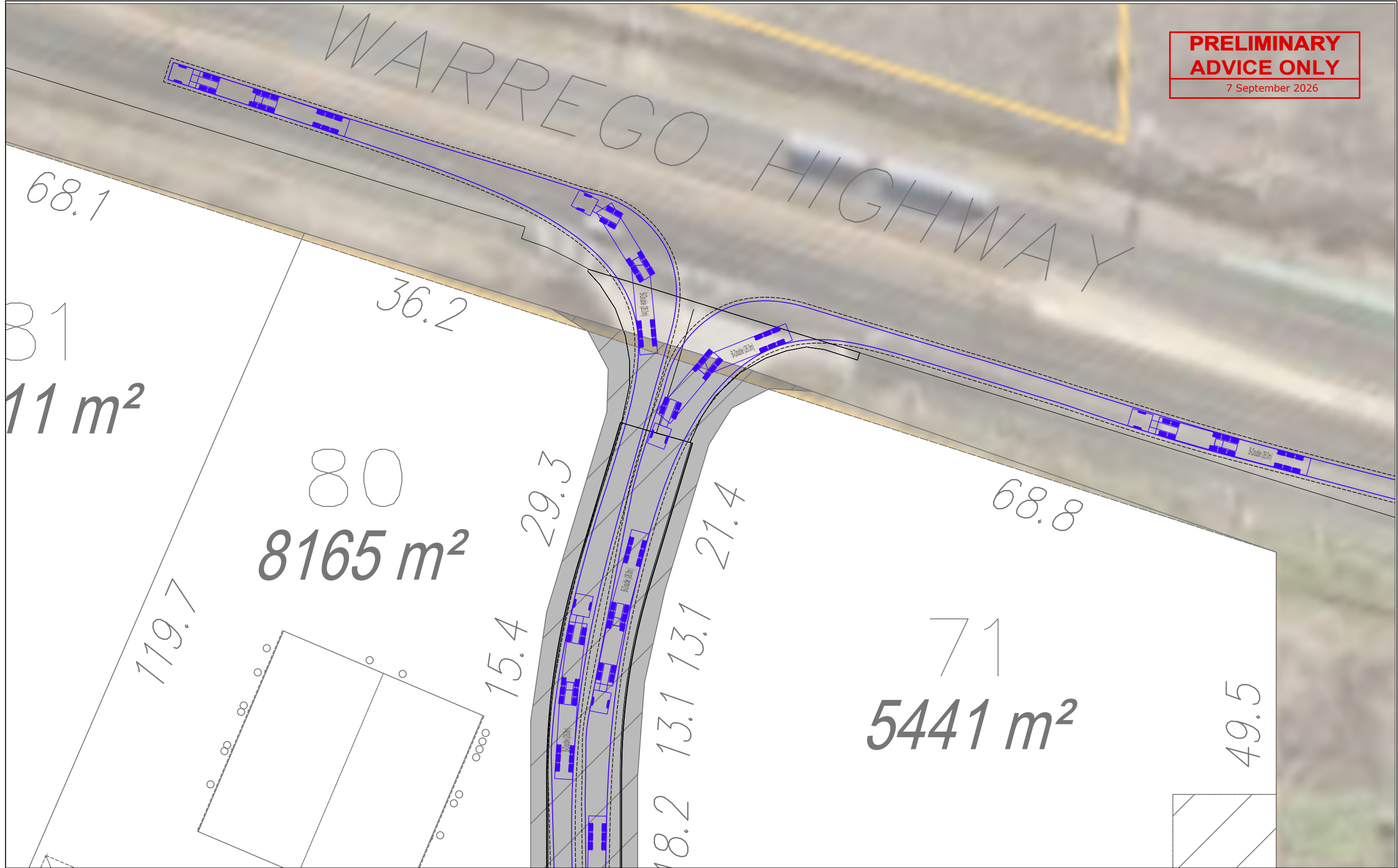


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SP322025



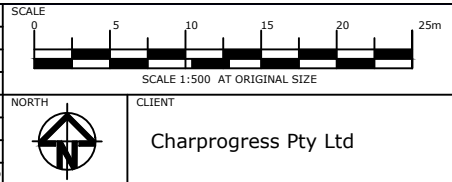
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Job Ref	TLX401198	Date	2-Sep-26	<i>10775 Warrego Highway Lots 71-81, 1000 and Common Property Cancelling of Lot 7 on AG3687</i>			
Level Datum		Comp By	TJE				
Origin		Checked By	TJE				
		DWG Name	TLX401198-1	©COPYRIGHT PROTECTS THIS PLAN Unauthorised reproduction or amendment not permitted. Please contact the author.			
		Locality	CHARLTON				
		Local Authority	TOOWOOMBA REGIONAL COUNCIL	Scale	Sht	Plan Ref	Rev
				1:2000	A4	TLX401198-1	G

Appendix B Colliers Drawings



**PRELIMINARY
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7 September 2026

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	07-09-26	ORIGINAL ISSUE (DRAFT)	---	---	---



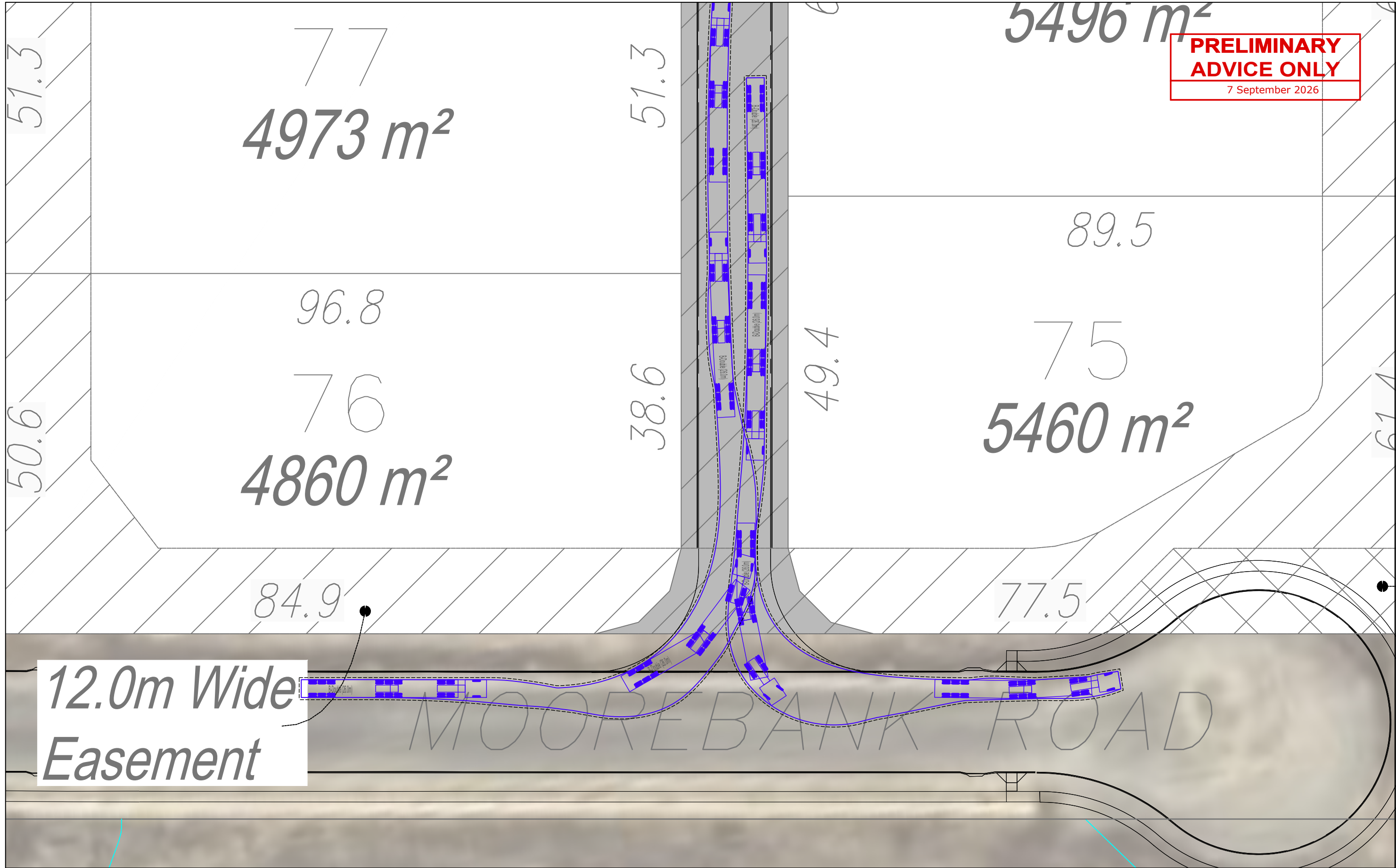
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PROJECT	10775 Warrego Highway
DRAWING TITLE	SWEPT PATH ANALYSIS - WARREGO HIGHWAY SITE ACCESS 26.0m B-Double

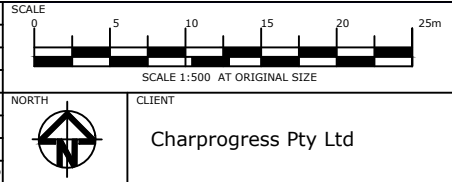
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DRAWING NUMBER	26BRT0414-1	REVISION	A
DATE	7 Sep 2026	SHEET	1 OF 1



**PRELIMINARY
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7 September 2026

**12.0m Wide
Easement**

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	07-09-26	ORIGINAL ISSUE (DRAFT)	---	---	---



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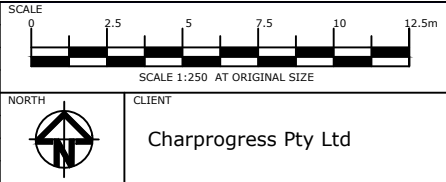
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DRAWING TITLE	SWEPT PATH ANALYSIS - MOOREBANK ROAD SITE ACCESS 26.0m B-Double

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DRAWING NUMBER	26BRT0414-2	REVISION	A
DATE	7 Sep 2026	SHEET	1 OF 1



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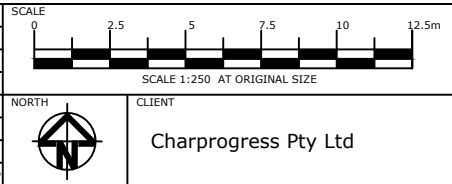
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PROJECT NUMBER 26BRT0414	ORIGINAL SIZE A3
DRAWING NUMBER 26BRT0414-1	REVISION A
DATE 7 Sep 2026	SHEET 1 OF 1



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PROJECT 10775 Warrego Highway
DRAWING TITLE SWEPT PATH ANALYSIS - WARREGO HIGHWAY SITE ACCESS 26.0m B-Double

PROJECT NUMBER 26BRT0414	ORIGINAL SIZE A3
DRAWING NUMBER 26BRT0414-1	REVISION A
DATE 7 Sep 2026	SHEET 1 OF 1