10 May 2024
Our Ref: 23BRT0560_LT03_1_240510

Attention: The Sandy Creek Superannuation Fund

To Whom It May Concern,

RE: Proposed Transport Depot Development Application
149 Sandy Creek Rd, Bromelton
Traffic Impact Assessment Development Application

# 1 Background

TTM Consulting (TTM) has been engaged to undertake a traffic engineering assessment of a proposed Development Application (DA) at the above location. It is understood that a Traffic Letter Report is to accompany a development application submission to the Scenic Rim Regional Council ('Council').

# 2 Existing Situation

## 2.1 Site Location

The site is located at 149 Sandy Creek Road, Bromelton, as shown in Figure 2.1 and Figure 2.2. The property description is Lot 3 on RP40309. The subject site is located within the Special Purpose Zone as per the Scenic Rim Planning Scheme 2020.

The subject site comprises a total site area of approximately 40,170m$^2$. Access is currently provided via a single crossover access to Sandy Creek Road at the eastern boundary of the site.

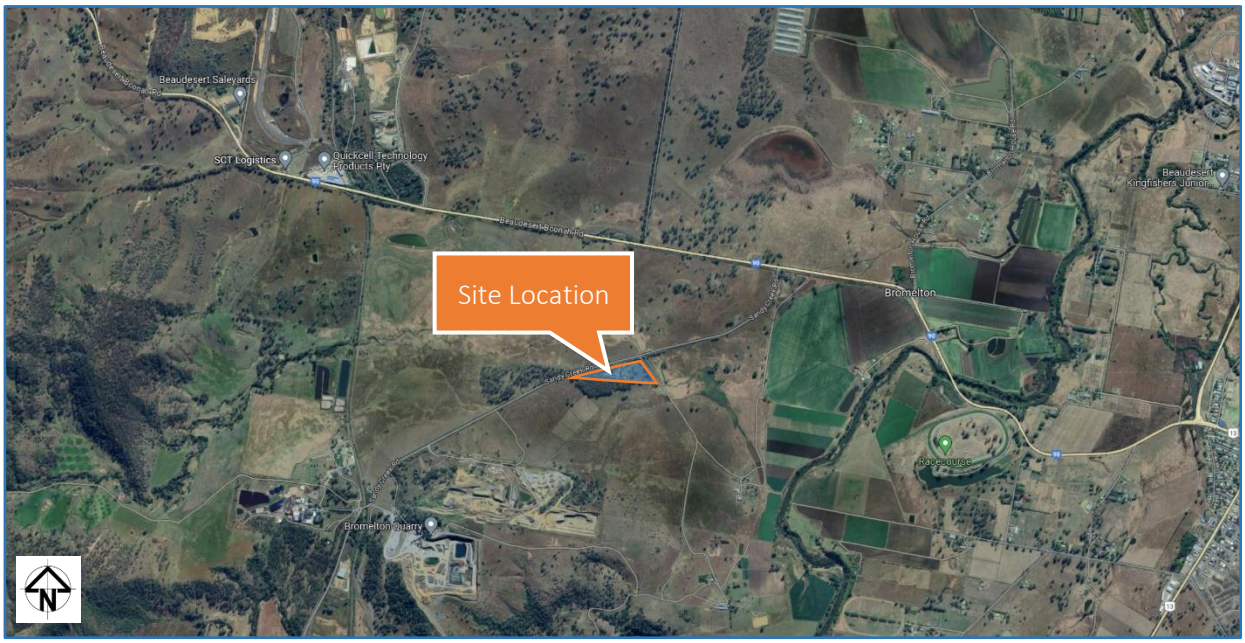



Figure 2.1: Site Location. Source: Google Maps


Figure 2.2: Site Location – Close proximity. Source: Nearmap

## 2.2 Road Network

Roads in the immediate vicinity of the site are administered by the Council, the exception being Beaudesert Boonah Road, which is a State-Controlled road. The road hierarchy and characteristics of roads in the immediate vicinity of the site are shown in Table 1 and Figure 2.

Table 1: Local Road Hierarchy

| Road | Speed Limit | Lanes | Classification | Road Authority |
|---|---|---|---|---|
| Sandy Creek Road | 100 km/h | 2 lanes undivided | Collector | Council |
| Corcoran Road | 50 km/h* | 1 lane – gravel road | Access | Council |
| Beaudesert Boonah Road | 100 km/h | 2 lanes undivided | State-Controlled Road | State-controlled |

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


Figure 2.3: Road Hierarchy

Sandy Creek Road has a 7m wide carriageway and 30m road reserve width. The intersection of Sandy Creek with Beaudesert Boonah Road has a giveaway treatment.

## 2.3 Heavy Vehicles Route

Based on the Queensland Globe – Transportation Layer, Beaudesert Boonah Road and Sandy Creek Road are classified as a 25/26m B-Double and PBS 2A route, as demonstrated in Figure 2.4.


Figure 2.4: 25/26m B-Double Route. Source: Queensland Globe

# 3 Development Proposal

The proposal seeks to apply for a Transport Depot development, with four sheds being proposed within the site area. The plans demonstrate an internal road connecting the site road frontage Sandy Creek Road to the internal sheds. Based on the nature of the development and for Sandy Creek Road being a 25/26m B-Double route, the internal road is expected to cater for vehicles up to the size of a 26m B-Double.

Table 2 summarises the proposed lots and sheds details:

Table 2: Proposed Lot Configuration.

| Use | Lot Area | Shed Area |
|---|---|---|
| Lease Lot 1 | 11,953m$^2$ | 800m$^2$ |
| Lease Lot 2 | 7,012.7m$^2$ | 800m$^2$ |
| Lease Lot 3 | 7,872.6m$^2$ | 800m$^2$ |
| Lease Lot 4 | 9,378.7m$^2$ | 800m$^2$ |

A copy of the development plans is provided in Attachment 1.

## 4 Car Parking Arrangements

As detailed in Table 9.4.5.3.3 of the Parking and Access Code – *Scenic Rim Planning Scheme,* 1 car parking space per heavy vehicle space and 1 space per 2 employees. It is understood that the details of these will be provided in the individual detailed planning application for each site.

Therefore, the proposed parking arrangements are considered acceptable.

## 5 Service Vehicle Arrangements

Table 9.4.5.3.3 – Parking and Access Code from the Council's planning scheme doesn't nominate a design vehicle for Transport Depot developments. However, provisions are proposed for 26m B-Double vehicles to access the site from Sandy Creek Road, as it is a B-Double route.

TTM Figures in Attachment 2 of this assessment provide swept paths analysis for the access and circulation of a 26m B-Double design service vehicle ingressing/egressing the site and manoeuvring within a lot. These swept paths illustrate adequate provisions for circulation and access for the designed vehicle.

It is noted that the location of the proposed sheds is indicative only and will be further addressed during the following phases.

Overall, the service vehicle arrangements are deemed suitable and appropriate for the intended purpose.

## 6 Access Arrangements

The development access arrangements have been reviewed against the requirements of the AS2890.2 as required by the Council planning scheme, and a summary is provided in Table 3.

Table 3: Access arrangements compliance table.

| Design Aspect | AS2890.2 Requirement | Proposed Provisions | Compliance |
|---|---|---|---|
| Driveway Width / Type | 14.5m separated | 11m modified flare | Performance Solution |
| Minimum sight lines | 153m min | >160m in both directions | Compliant |
| Driveway Gradient | 1:20 (5%) max | Plans do not include grades | Intend to Comply |

The proposed access arrangements generally comply with the AS2890.2 requirements; however, the following items are resolved with alternative solutions.

### Driveway width/type

AS2890.2 requires a 14.5m wide crossover, which consists of two 6.5m wide lanes separated by a 1.5m island. However, TTM prepared a set of swept paths to demonstrate that an 11m wide crossover with extended flares will better fit the proposed access to the development. As demonstrated in the development plans in Attachment 2.

With the proposed crossover, vehicles up to the size of 26m B-double will access the site without any constraints, as demonstrated in the swept paths prepared by TTM. Refer to TTM Drawing 23BRT0560-01, 02 & 03. Furthermore, cars can queue clear of the carriageway when trucks are accessing the site, as shown in TTM Drawing 23BRT0560-01. Therefore, the proposed driveway width/type is deemed fit for the purpose.

Overall, the access arrangements provisions for the proposed development are considered acceptable.

## 7 Estimated Development Traffic

To estimate the traffic-generated expectations of the proposed land use, reference is made to the Roads and Traffic Authority *Guide to Traffic Generating Developments (RTA GTGD).* This indicates the following traffic generation rates are appropriate for Road Transport Facilities development:

- 5 per 100m$^2$ GFA vehicles per day
- 1 per 100m$^2$ GFA vehicles per hour – Peak hour.

Taking into consideration that each Transport Depot will have the same GFA (800m$^2$). The estimated traffic generation for this development will be 32 vph – Peak Time and 160 vpd.

Traffic distribution:

- AM – 80% in/20% out
- PM – 20% in/80% out
- 80% to/from north, 20% to/from south.

This results in approximately 20 vehicles on average during the peak hour on any approach or departure movement. This will then be distributed at Boonah-Beaudesert Road, primarily left-in/right-out. This will result in negligible additional right turns to Sandy Creek Rd.

Furthermore, the traffic generation for the proposed development is expected to be relatively low, given the nature of the development. Based on the information given to TTM by Beaudesert & Boonah Cranes, each shed is expected to generate 30 vehicle movements per day (10 light vehicles and 20 heavy vehicles) based on a similar shed owned by the same company. Therefore, for the development that proposes 4 sheds, the traffic generation is expected to be 160 vpd. Overall, TTM considers that the proposed development will not significantly impact the adjacent road network.

## 8 Conclusion

TTM trusts this traffic letter will be sufficient to assist the progression of the site's development plans. Overall, there are no traffic-related items that would prevent the relevant approvals for the proposed development being granted.

Yours sincerely,

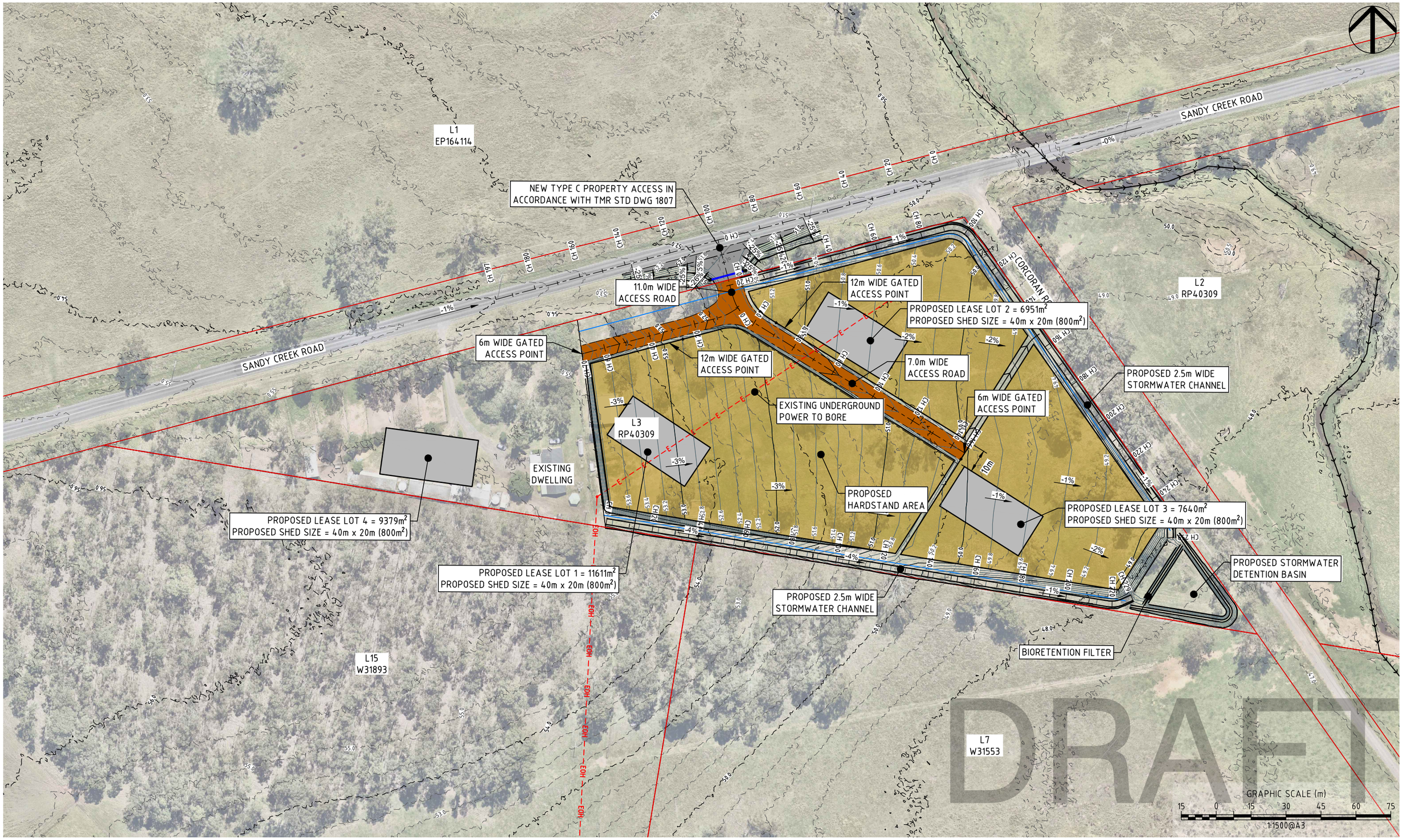
Bruno Vanetti

Consultant - Transport
TTM Consulting Pty Ltd

Reviewed by,

Matt Grierson
RPEQ: 31037
Principal Consultant - Transport
TTM Consulting Pty Ltd

# Attachment 1 – Development Plans




| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | SURVEY DATA | BEAUDESERT & BOONAH CRANES | OVERALL LAYOUT PLAN |
| | | | | DATUM | 48 KOOROOMBA DRIVE, MT ALFORD QLD 4310 | |
| | | | | MAP GRID | | |
| | | | | HEIGHT ORIGIN | BEAUDESERT & BOONAH CRANES | |
| | | | | SURVEY BOOKS | | |
| 1 | PRELIMINARY | NJF | 28/09/23 | | 149 SANDY CREEK ROAD, BROMELTON QLD 4285 | |
| REVISION/DETAILS | | DWN | DATE | DES DATE | | |

FILE: C:\12DS\DATA\ACSSYN\230068 BEAUDESERT & BOONAH CRANES - 149 SANDY CREEK ROAD, BROMELTON__681\DESIGN\DRAWING FILES\ACS-230068-GEN.DWG PLOT TIME: 13/12/2023 - 1:47PM BY USER: ACSENGINEER

ENGINEERING CERTIFICATION (RPEQ)

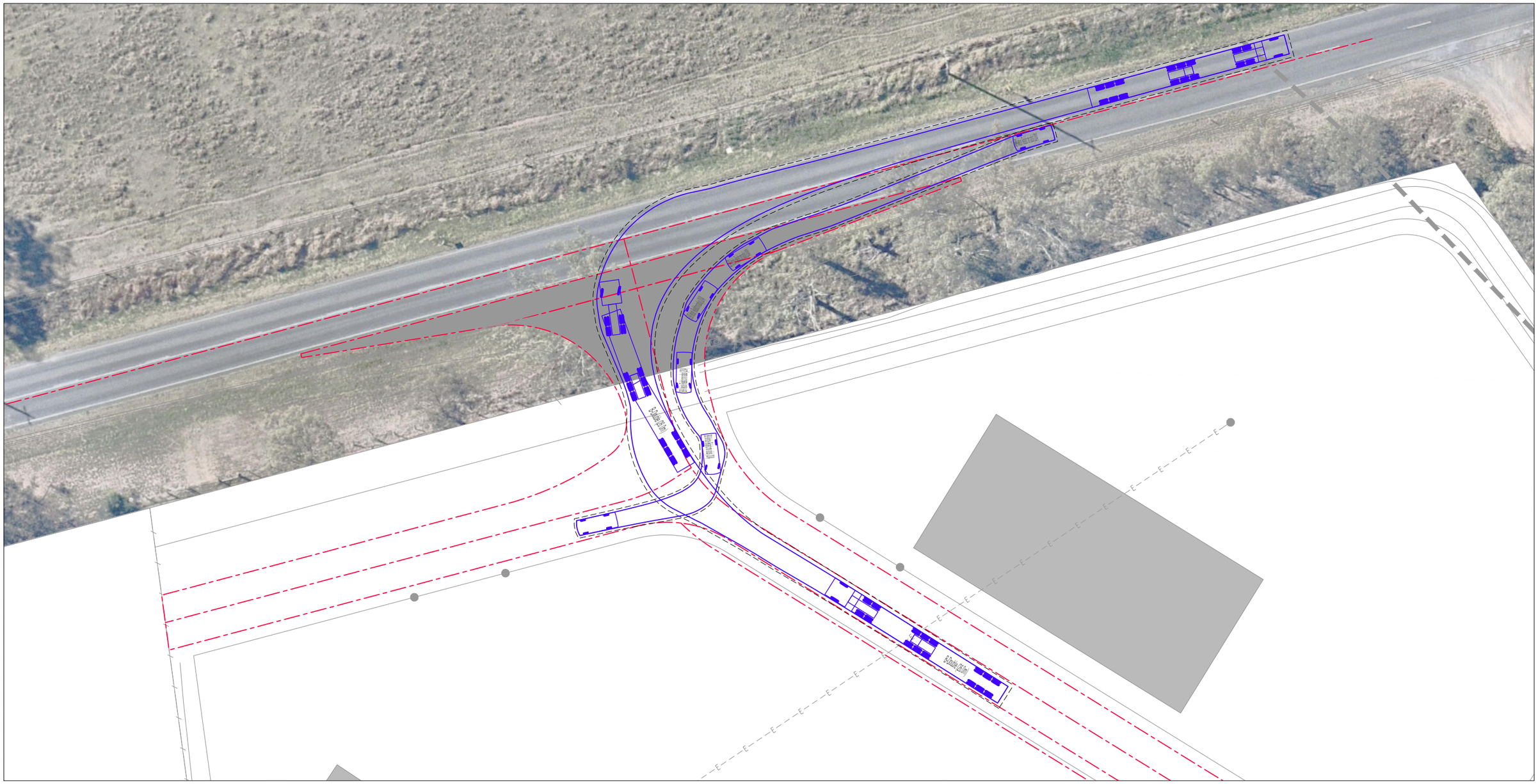
| # | FIELD | NAME | SIGNATURE | DATE |
|---|---|---|---|---|
| | | | | |

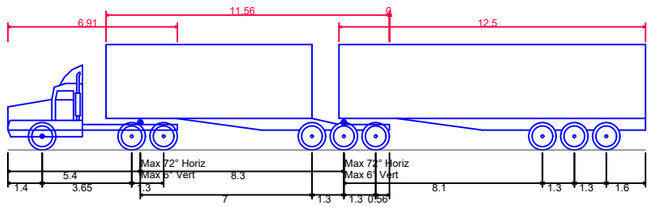
PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
www.acsengineers.com.au
ACS Engineers
CIVIL | ENVIRONMENTAL | PROJECT MANAGEMENT

DRAWING NUMBER: ACS-230068-GEN-04

REVISION: 1

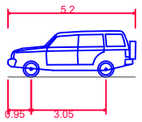
# Attachment 2 – TTM Figures



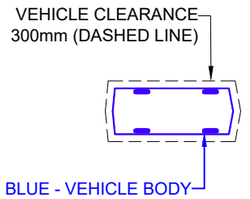

**B-Double (26.0m)**

| | |
|---|---|
| Overall Length | 26.000m |
| Overall Width | 2.500m |
| Overall Body Height | 4.300m |
| Min Body Ground Clearance | 0.540m |
| Track Width | 2.500m |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 15.000m |
| Design Speed Forward Min. | 5.0km/h |
| Clearance Envelope | 0.500m |




**B99 Vehicle (Realistic min radius) (2004)**

| | |
|---|---|
| Overall Length | 5.200m |
| Overall Width | 1.940m |
| Overall Body Height | 1.878m |
| Min Body Ground Clearance | 0.272m |
| Track Width | 1.840m |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 6.250m |
| Design Speed Forward | 5.0km/h |
| Clearance Envelope | 0.300m |




**NOT FOR CONSTRUCTION**
24 January 2024

**FOR APPROVAL**
24 Jan 2024

## *SWEPT PATH ANALYSIS - VEHICLE PROFILE*

| REV. | DATE | AMENDMENT DESCRIPTION | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| B | 24-01-24 | REVISED PLAN | BV | MGr | MGr |
| A | 09-11-23 | ORIGINAL ISSUE | BV | MGr | SC |

SCALE 0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

NORTH

CLIENT: Beaudesert & Boonah Cranes

TTM CONSULTING PTY LTD
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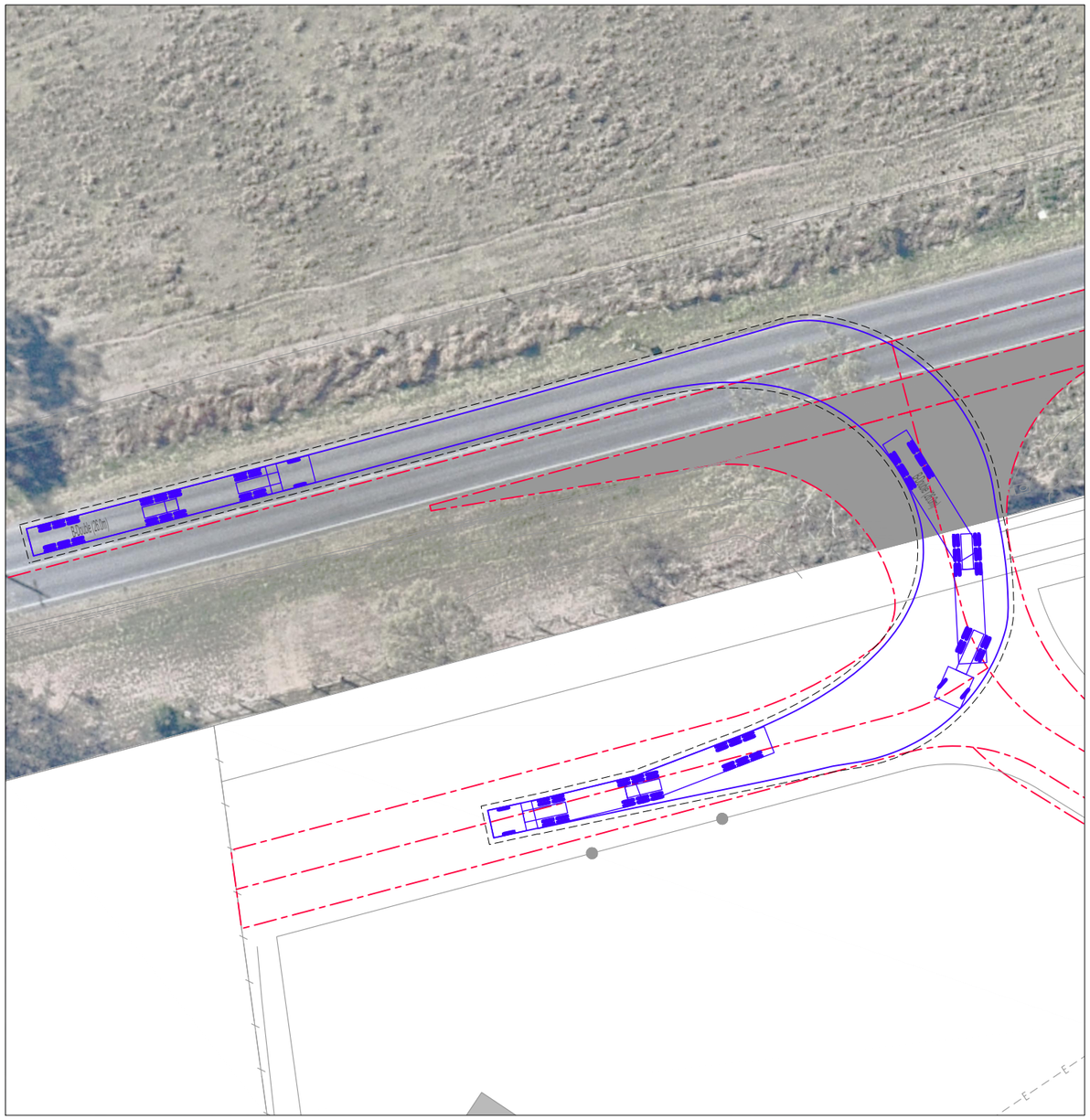
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT: **149 Sandy Creek Rd, Bromelton**

DRAWING TITLE: **SWEPT PATH ANALYSIS**
26m B-Double and B99 DESIGN VEHICLE

| | |
|---|---|
| PROJECT NUMBER | 23BRT0560 |
| ORIGINAL SIZE | A3 |
| DRAWING NUMBER | 23BRT0560-01 |
| REVISION | A |
| DATE | 24 Jan 2024 |
| SHEET | 1 OF 1 |

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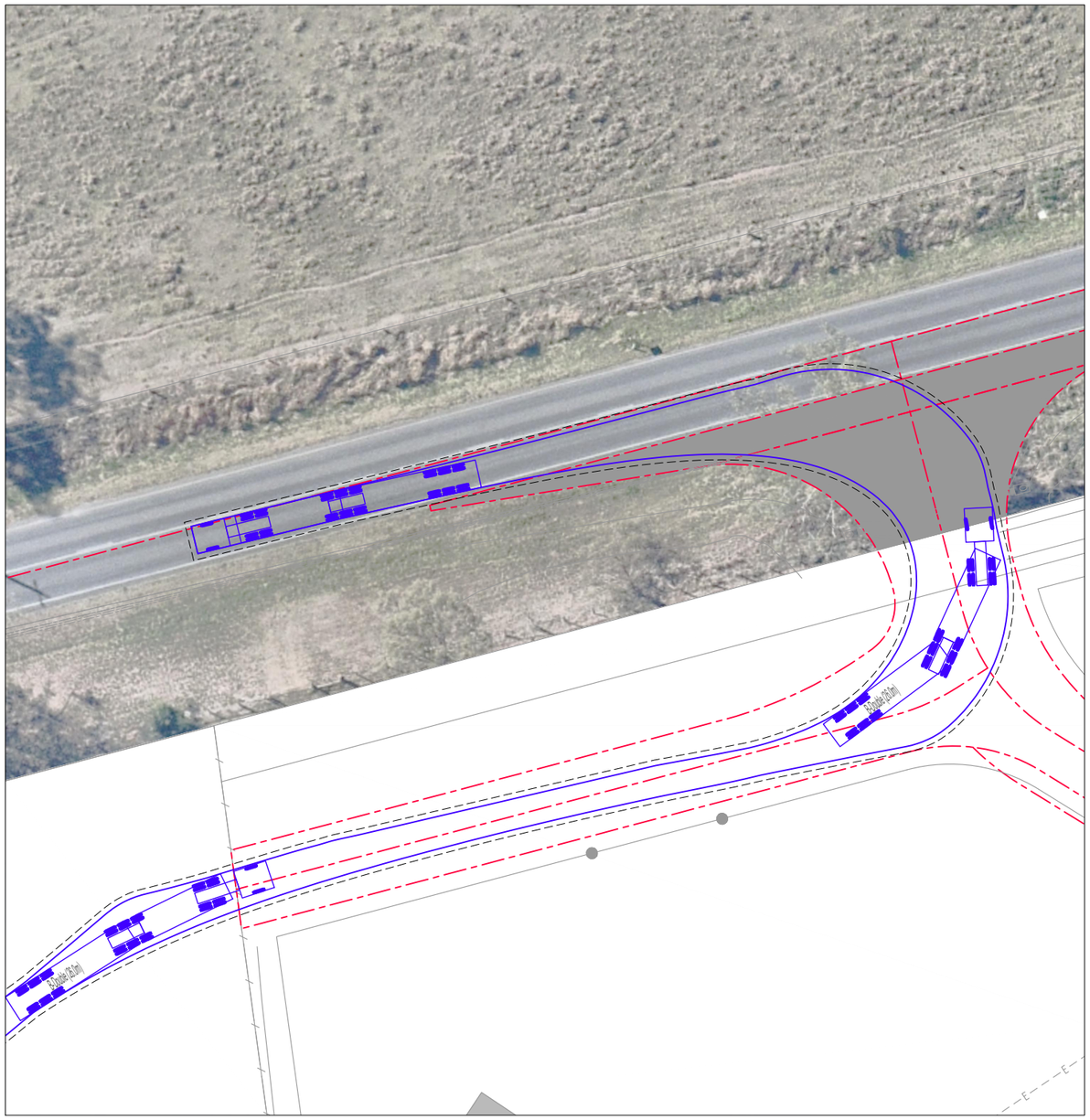


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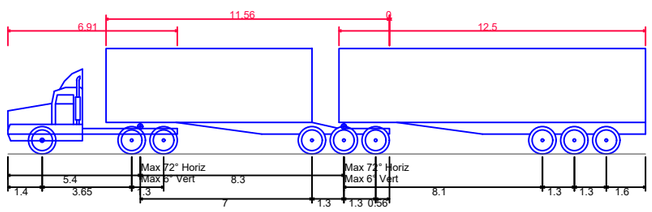


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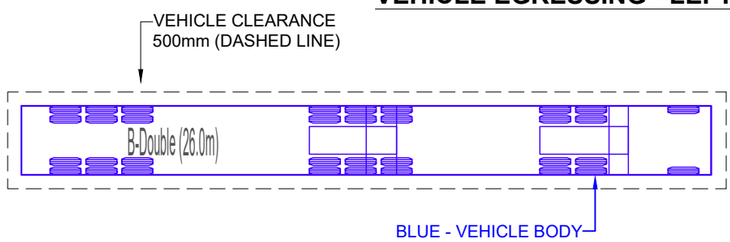


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PROJECT
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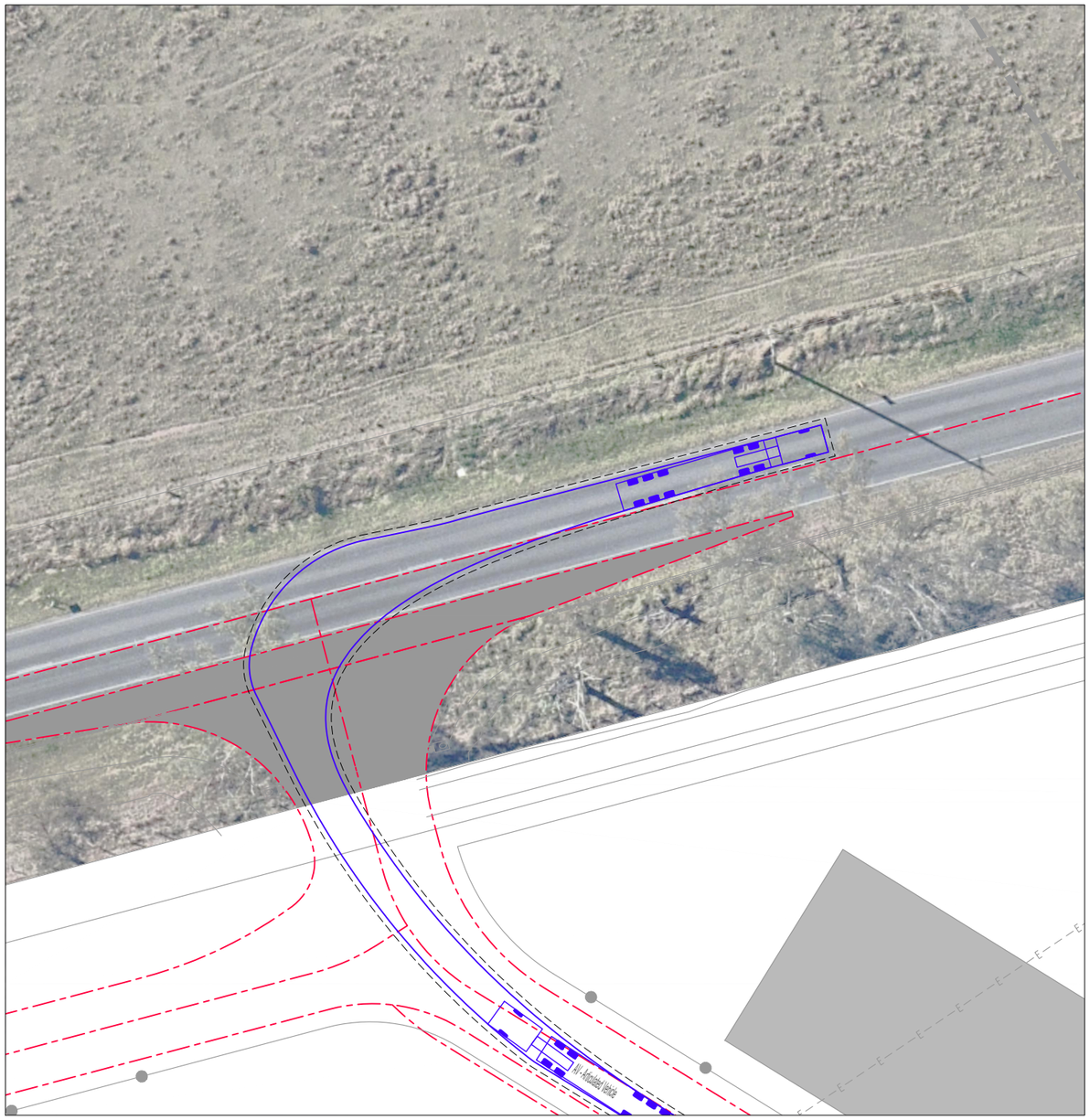
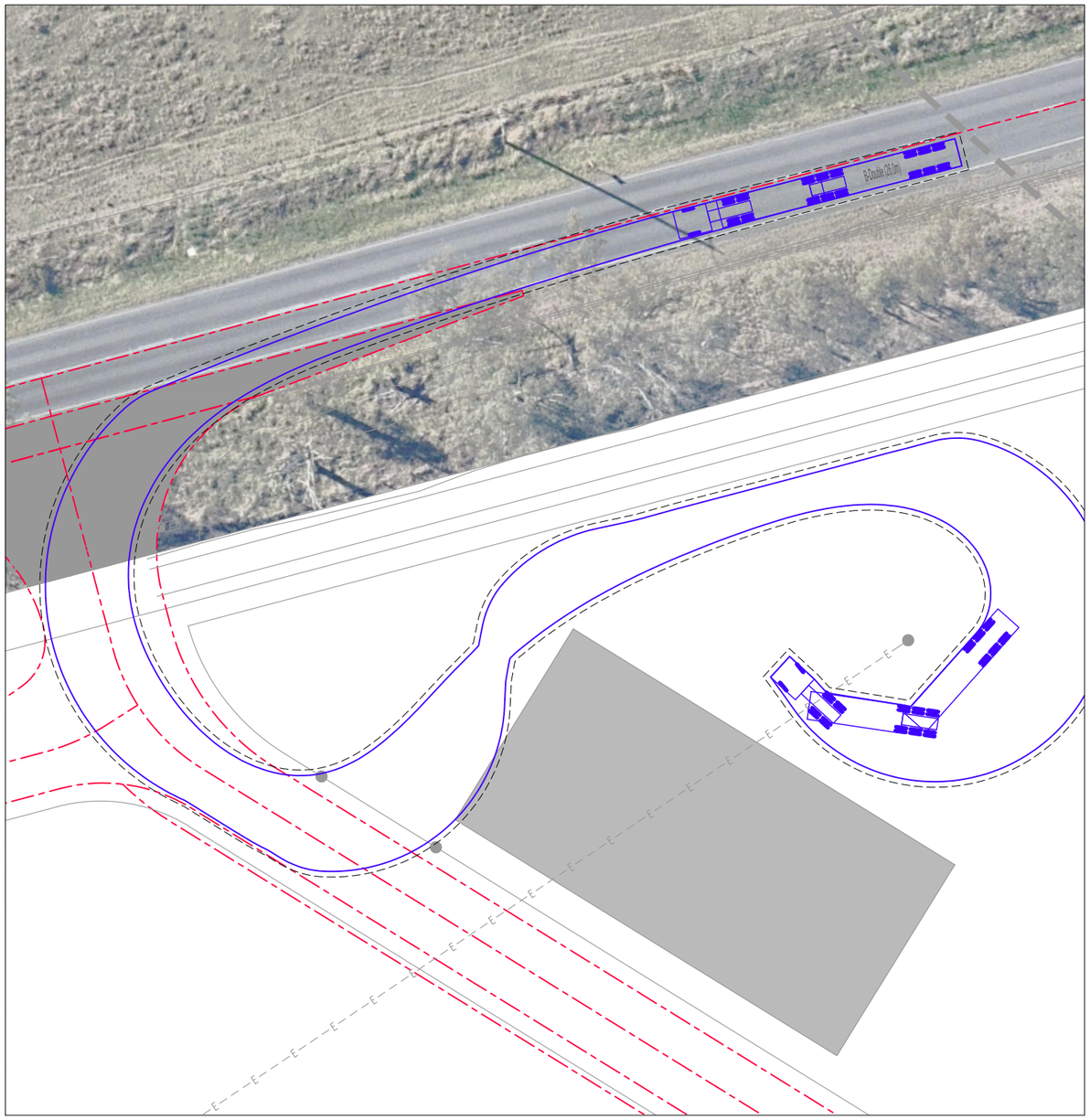
DRAWING TITLE
**SWEPT PATH ANALYSIS**
26m B-Double DESIGN VEHICLE

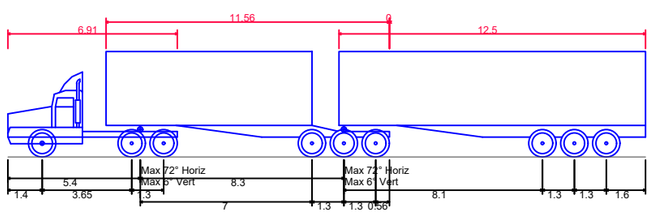
| PROJECT NUMBER | ORIGINAL SIZE |
|---|---|
| 23BRT0560 | A3 |
| DRAWING NUMBER | REVISION |
| 23BRT0560-02 | A |
| DATE | SHEET |
| 24 Jan 2024 | 1 OF 1 |




## VEHICLE EGRESSING - RIGHT TURN

## VEHICLE INGRESSING - LEFT TURN / TURNING AROUND

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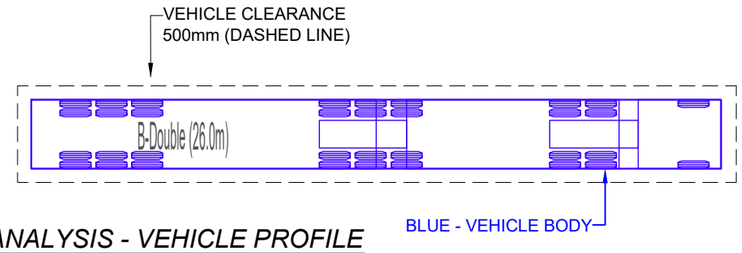


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| 23BRT0560-03 | A |
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