37°42'25.6"S 144°51'49.1"E

AirTrunk
C/- Matthew Brehaut
EMKC[3] Pty Ltd
Collins Square Tower 5, Level 23, 727 Collins Street
Docklands VIC 3008

Dear Matthew,

PROJECT: DATA CENTRE
SITE ADDRESS: 85 SHARPS ROAD, TULLAMARINE

We understand Request for Further Information (RFI) has been provided by Brimbank City Council and the Department of Transport and Planning (DTP) with respect to the Planning Application for a Data Centre at 85 Sharps Road, Tullamarine.

The below summarises the Council and DTP comments pertaining to traffic engineering outcomes with our response provided thereafter:

Council Comments:

What's preventing vehicles from entering illegally through C3?

IMPACT® Response:

Additional channelisation has been provided in addition to No Entry signage to assist to reinforce the message this is an egress point only.

A CEMP should be provided.

IMPACT® Response:

This can be provided as a Condition of Permit.

Vehicle's exiting Keilor Park Drive is required to cross opposing lane to exit which is not ideal, consider wider vehicle crossing.

IMPACT® Response:

Keilor Park Drive is a two-way divided carriageway road. An exiting vehicle to Keilor Park Drive is not crossing into the 'opposing' lane where it would otherwise create a conflict with oncoming traffic in the opposite direction.

Nonetheless, the swept path analysis has been revised demonstrating egress to the left hand lane only.

Redundant vehicle crossings to be removed should be removed and nature strip, kerb and channel, reinstated.

IMPACT® Response:

Noted. This is a standard outcome and can be a Condition of Permit.

37°42'25.6"S 144°51'49.1"E

All existing infrastructure within the road reserve to be shown on plans, proposed deceleration lanes look to affect existing electricity poles and trees which will require approval from Council and the relevant Power Authority.

IMPACT® Response:

Noted. This level of detail is typically addressed post Permit as part of the preparation of a formal Functional Layout Plan submission to DTP.

DTP Comments:

First impression is that they are maximising the long frontage they have to provide an elegant access solution. On first glance, it appears access was an afterthought and typical when there are dimensional constraints. A single access / egress would have provided a better solution.

However, if the layout of the buildings is the cause of these constraints, the following guidance may improve the situation.

Austroads AGTM06-20 Part 6 Figure 3.25 enables the consideration of a short left turn deceleration on Sharps Road, which has a speed limit of 70km/h. The consultant will need to consider this in their TIAR as if this option is possible, shorter deceleration lanes could be used which would address the following concerns we have with the proposed design:

- The entrance (C1) is too close to the roundabout. This may be confused my motorists seeking to turn left. Consideration of a short deceleration lane as stated in AGTM06-20 Part 6 Figure 3.25 could result in a design where the deceleration lane commences at the same point, however if it is shorter, C1 would be located east of the current location

- Given the unusual configuration of having C3 (exit) immediately before the entry (C2), for this to work, there needs to be some separation between the exit (C3) and the commencement of the deceleration lane (C2). If a shorter deceleration lane is warranted, then this would create the separation between C2 and C3

The exits at C3 and C4 are ok given they are left out. DTP-Transport knows that there are many gaps in traffic and these movements are quite safe.

Swept paths have not been assessed as this could be considered during the functional layout plan design stage for those access points at the arterial road interface.

There are no bus stops that are impacted by this proposal.

IMPACT® Response:

Traffic movement counts were commissioned by **IMPACT®** on Monday 9 December 2024 during the AM peak (6:30am to 9:30am) and PM peak (3:00pm to 6:00pm) to determine the level of traffic passing the proposed access connections to Sharps Road (i.e. westbound traffic on Sharps Road approaching Keilor Park Drive).

The traffic movements counts recorded the following:

- AM Peak (8:00am to 9:00am): 1,004 passing vehicles
- PM Peak (4:45pm to 5:45pm): 1,008 passing vehicles

37°42'25.6"S 144°51'49.1"E

The warrants for the provision of turn lanes are identified within Section 3.3.6 of the Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management. The Guide determines whether the quantum of turning movements as a function of total through movements on the major road, requires the provision of turn treatments.

Sharps Road has a posted speed limit of 70km/h, the warrants assessment references Figure 3.25 (c). The warrants assessment for each peak period has been undertaken on the basis of the following:

Left Turn

- AM Peak:
  - Left-in volume: 29 movements
  - Passing / through volume (westbound only): 1,004 movements
- PM Peak:
  - Left-in volume: 8 movements
  - Passing / through volume (westbound only): 1,008 movements

These movements have been plotted on Figure 3.25 (c) as shown in Figure 1

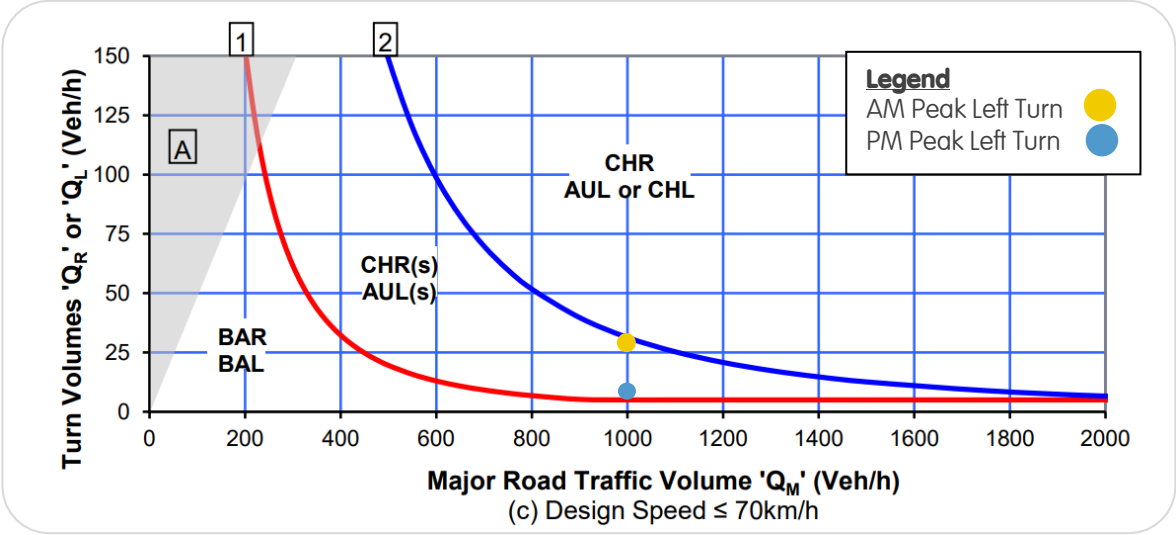


Figure 1 Austroads Turn Lane Warrants

The turn lane warrant assessment determines that during both peak periods, a short auxiliary left turn lane is triggered.

On this basis, the provision of short auxiliary left turn lanes into each proposed access point along Sharps Road can be committed to as part of the application. These provisions can be addressed by way of a Condition of Permit, with the full level of documentation and detail addressed post Permit as part of the preparation of a formal Functional Layout Plan submission to DTP.

37°42'25.6"S 144°51'49.1"E

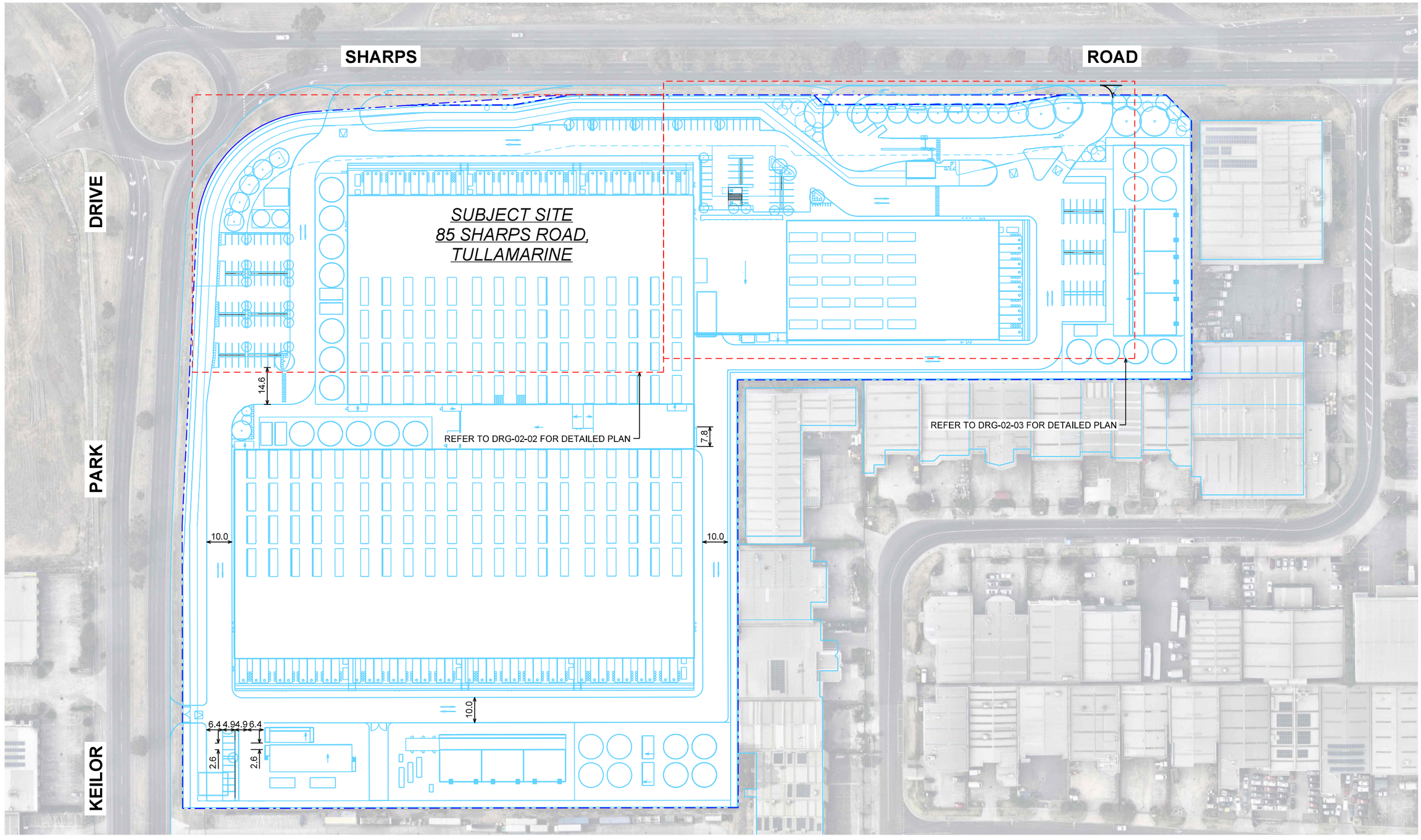
We trust the comments and appended documentation provided satisfies all requirements to proceed to the provision of a Planning Permit.

If you have any queries, please do not hesitate in contacting me on the below details.

KIND REGARDS,

Sam Mulligan
Senior Associate
M: 0407 521 134
E: sam@impactaustralia.com.au

Encl: Updated Swept Path Analysis: IMP2407002-DRG-02-E, dated 19 December 2024



GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROAD - SHARPS ROAD (SPEED ZONE 70KM/H).
3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 14.12.2023 AND GREENBOX ARCHITECTURE PTY LTD DA010.G_OVERALL SITE PLAN.dwg RECEIVED 17.12.2024

19/12/2024 12:58:09 PM

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MELWAY ONLINE REF:MAP 15 E3

SCALE
1:1500 @ A3

Client
AIRTRUNK

Date **2024-12-19**
Drawn / Approved **WH / SM**

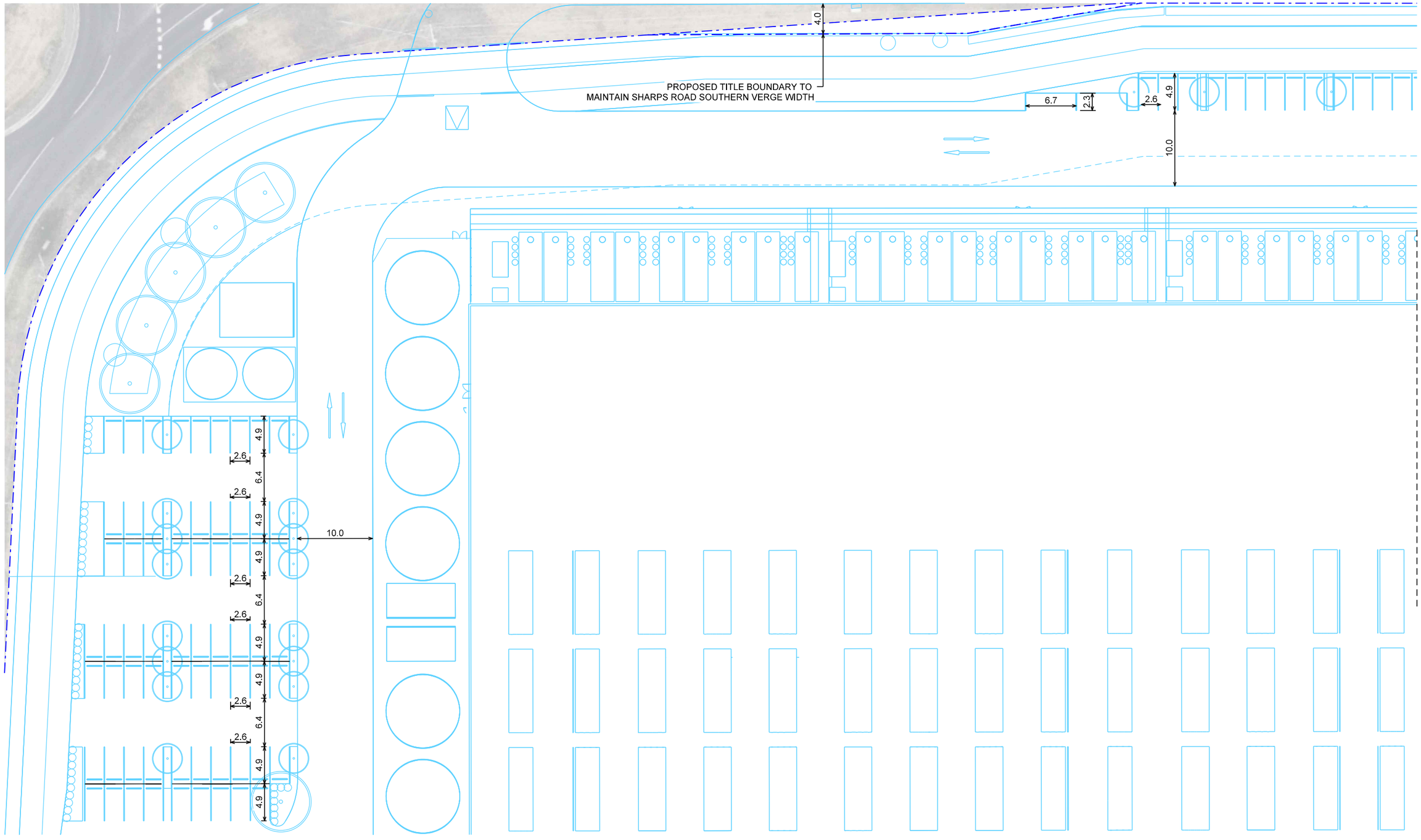
Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
OVERALL SITE LAYOUT PLAN

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-01

Revision
E



FOR CONTINUATION, SEE SHEET 3

19/12/2024 12:58:13 PM

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MELWAY ONLINE REF:MAP 15 E3

SCALE
1:500 @ A3

Client
AIRTRUNK

Date **2024-12-19**
Drawn / Approved **WH / SM**

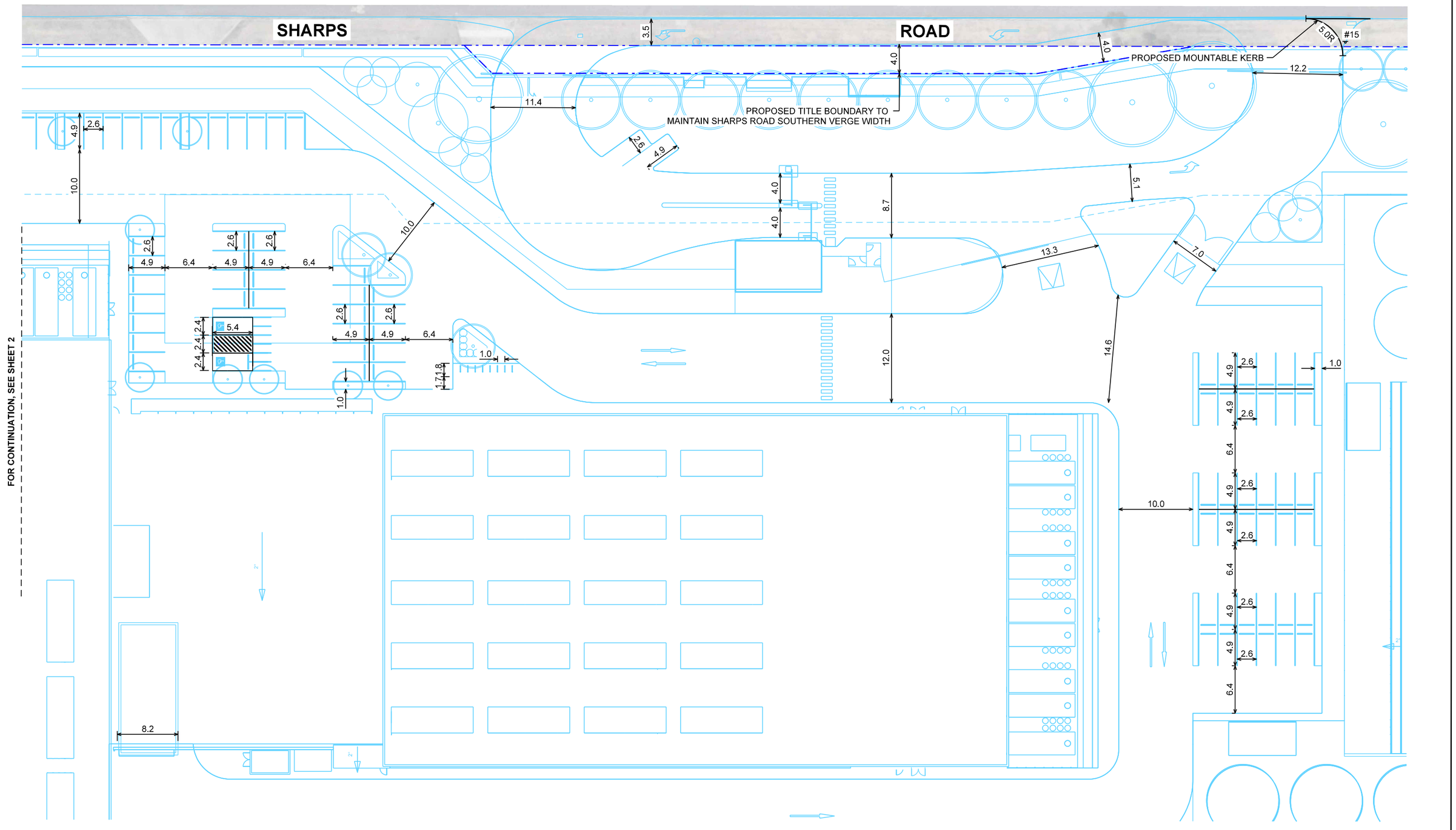
Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SITE LAYOUT PLAN

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-02

Revision
E



SIGN SCHEDULE

#15	NO ENTRY	R2-4

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MELWAY ONLINE REF: MAP 15 E3

SCALE
1:500 @ A3

Client
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Date **2024-12-19**
Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SITE LAYOUT PLAN

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-03

Revision
E

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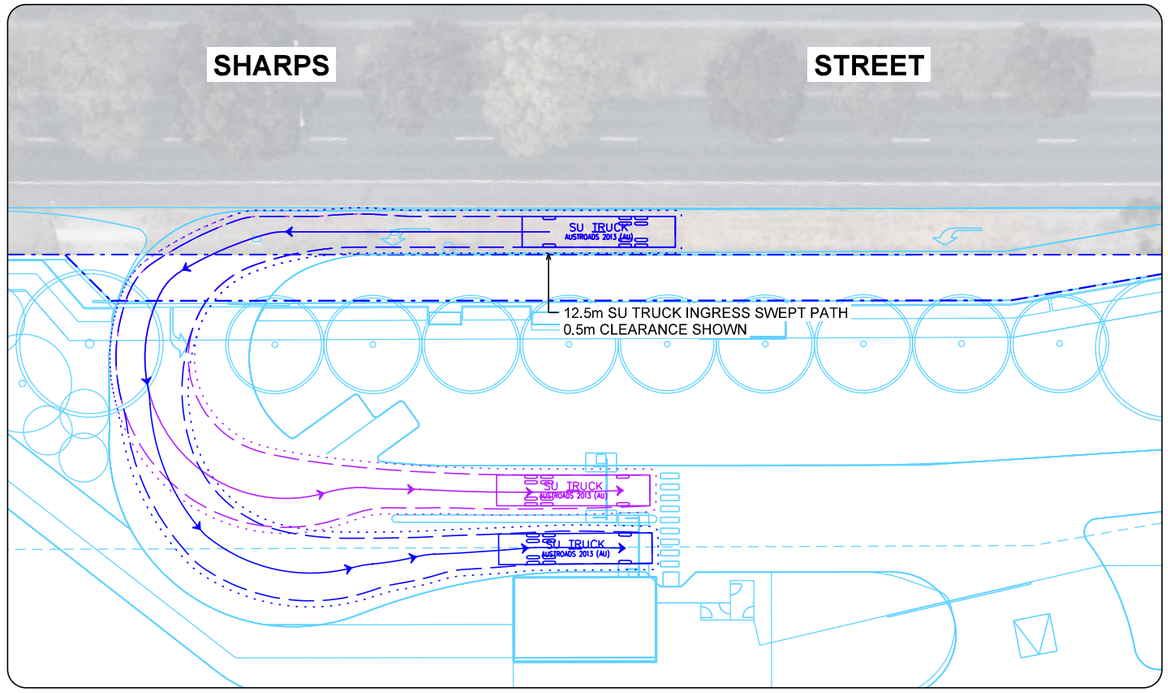

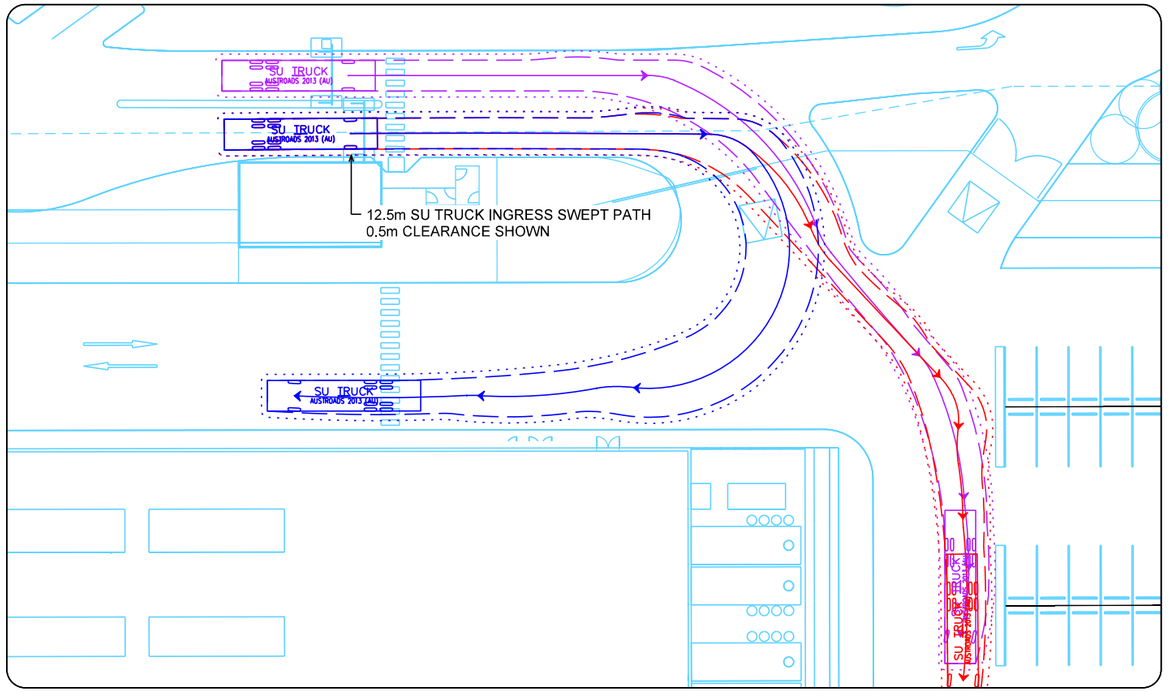

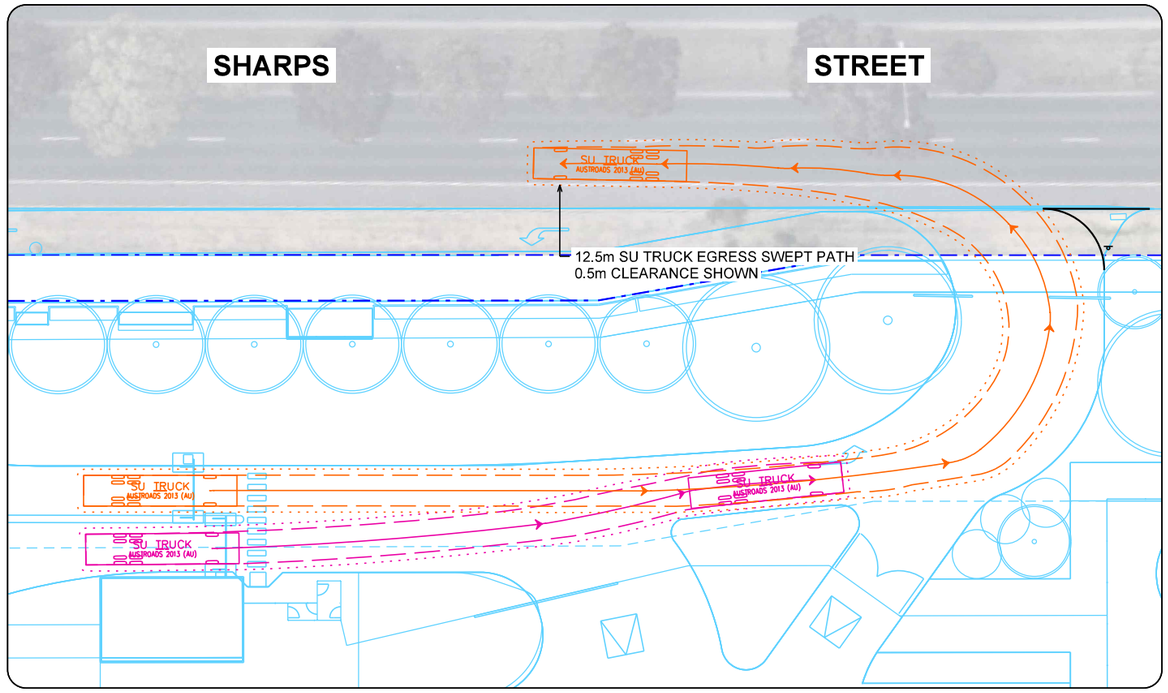

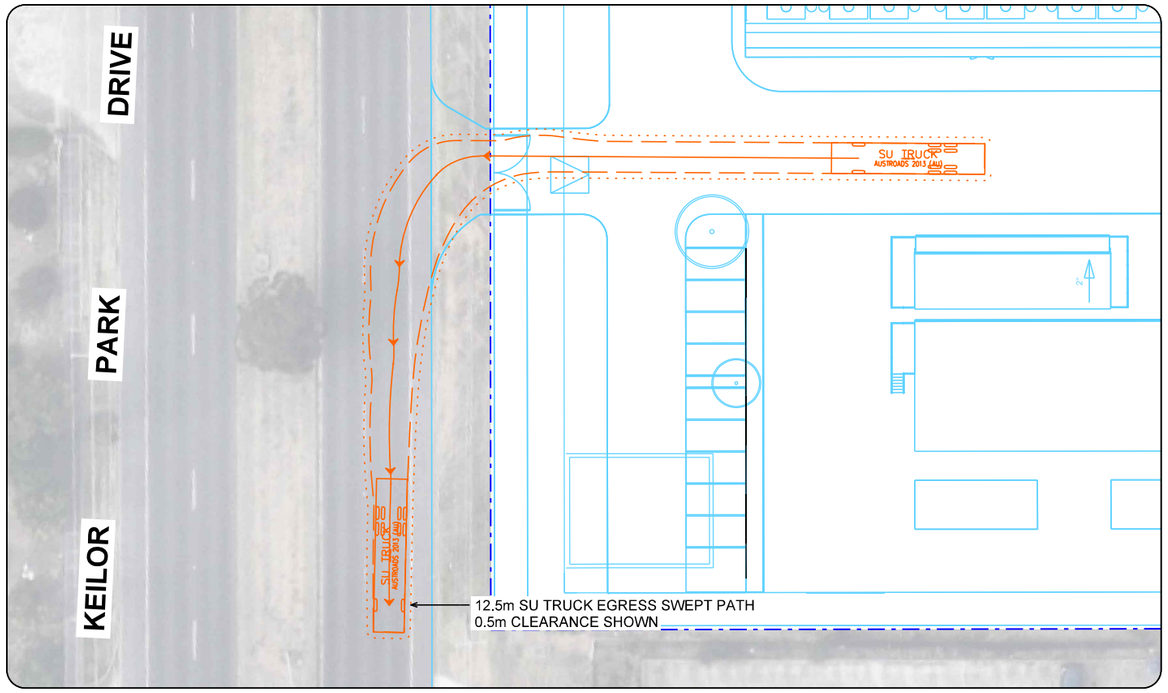

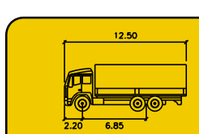

12.5m SU TRUCK

	METERS
WIDTH	: 2.50
TRACK	: 2.50
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 36.6

AIRTRUNK

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MELWAY ONLINE REF:MAP 15 E3

SCALE

1:500 @ A3

Client
AIRTRUNK

Date **2024-12-19**
Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
12m SU TRUCK - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-04

Revision
E

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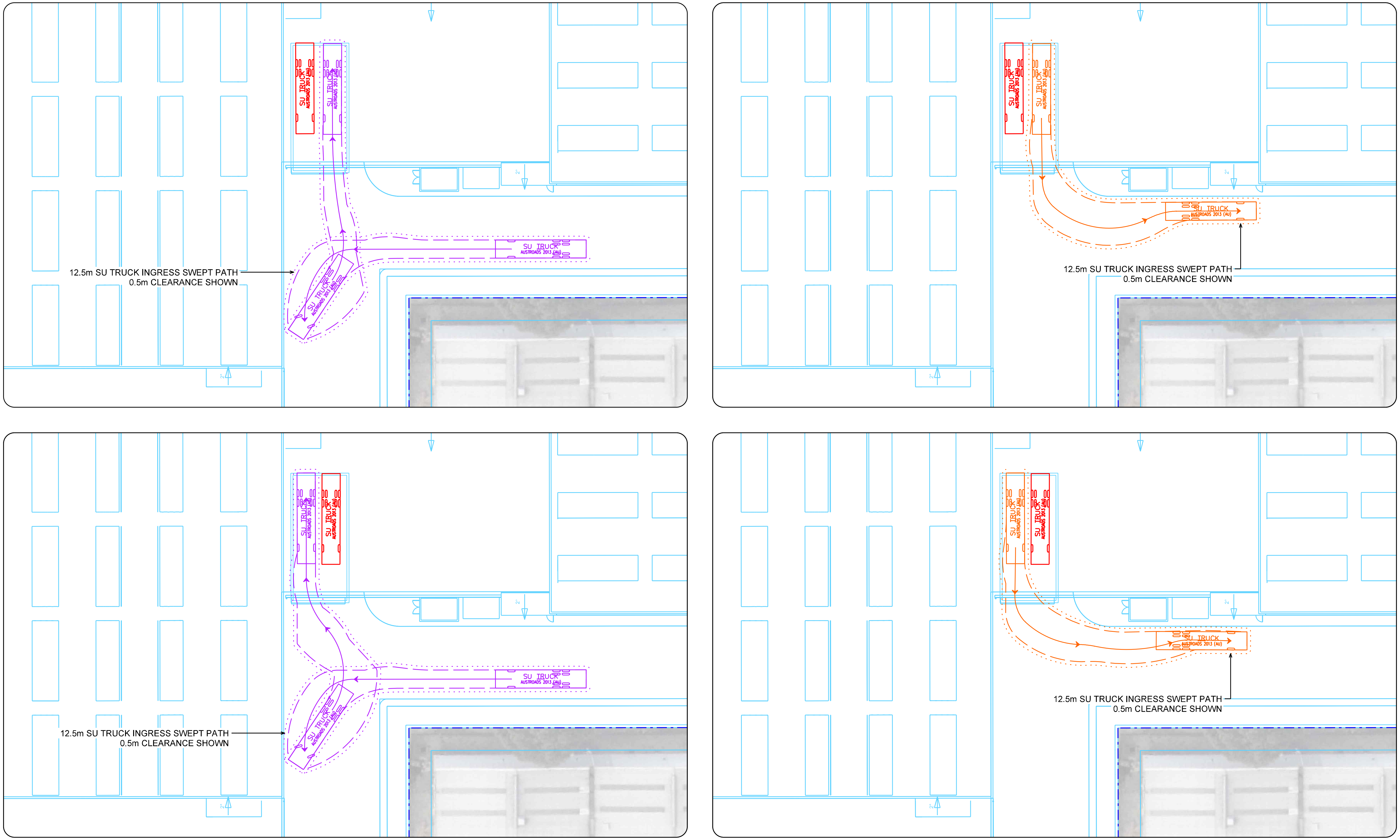

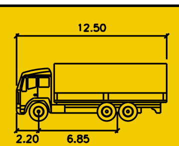

12.5m SU TRUCK

	METERS
WIDTH	: 2.50
TRACK	: 2.50
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 36.6

AIRTRUNK

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SCALE
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Client
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Date **2024-12-19**
Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
12m SU TRUCK - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-05

Revision
E

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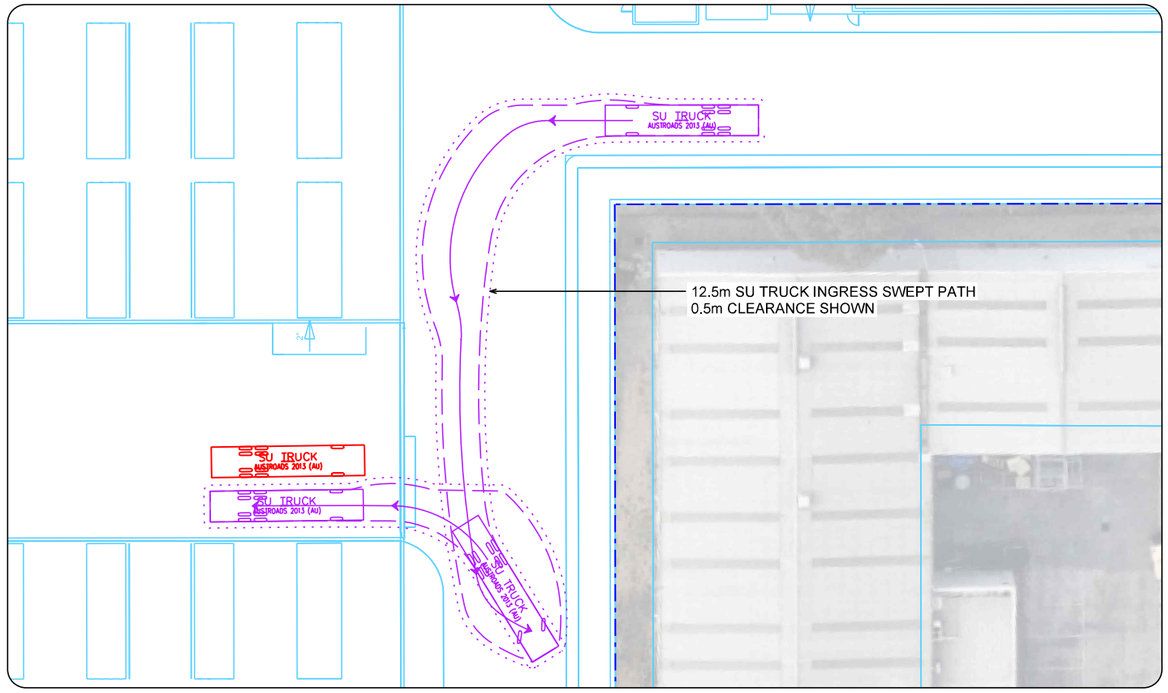

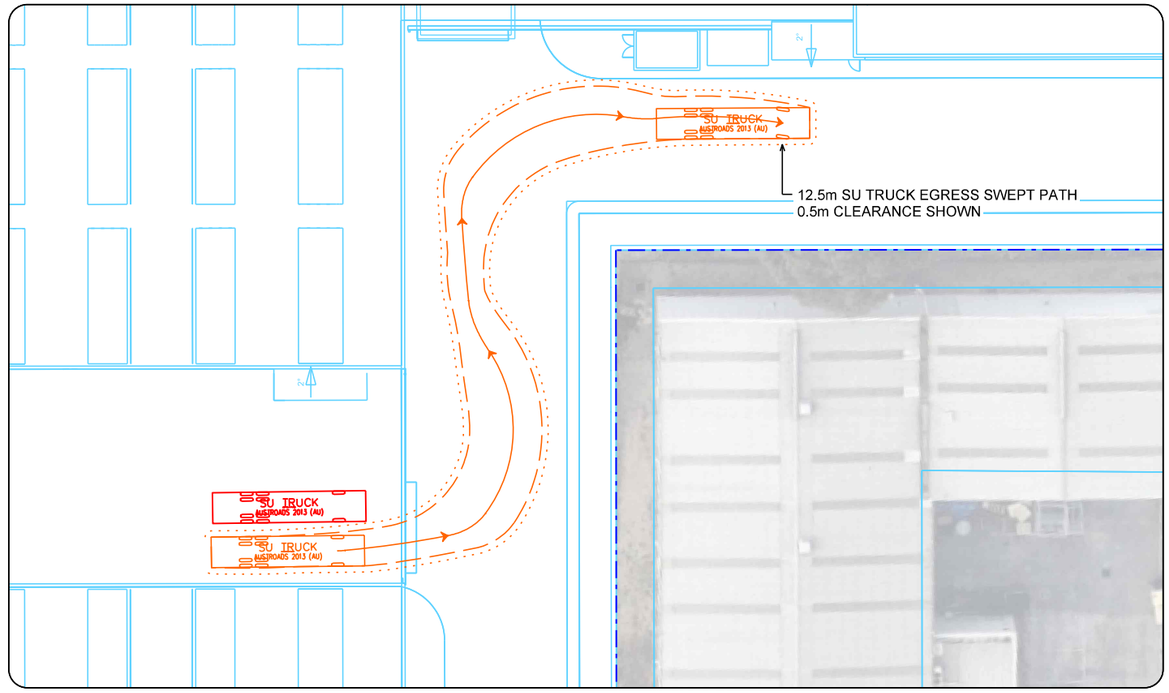

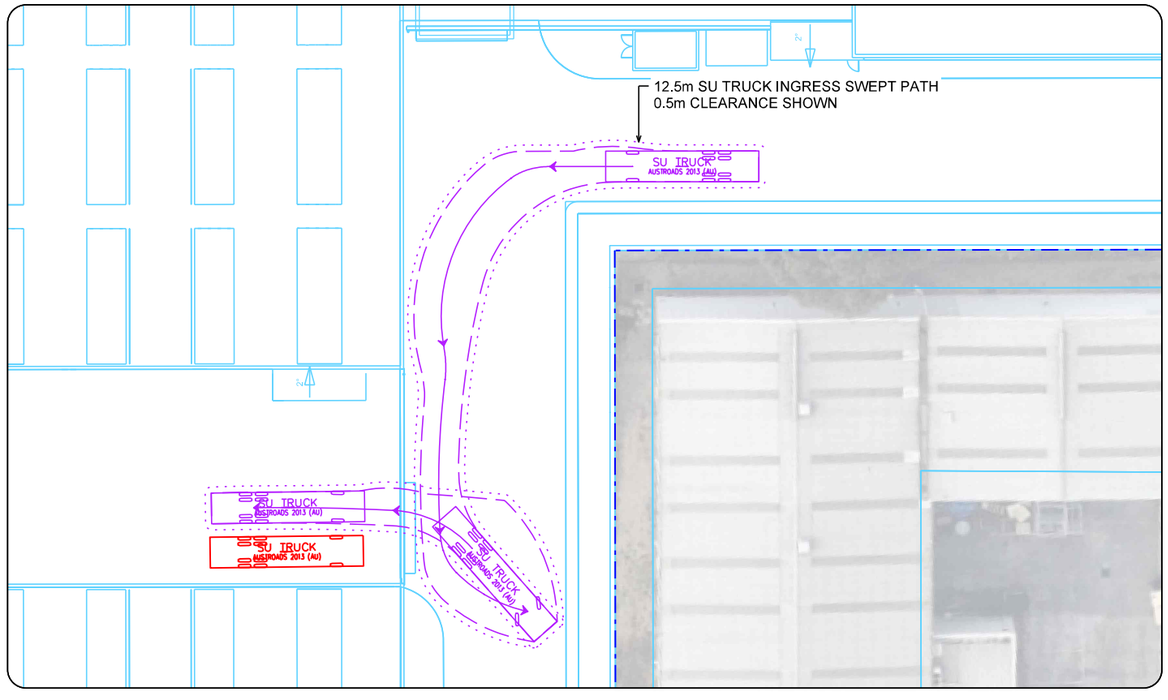

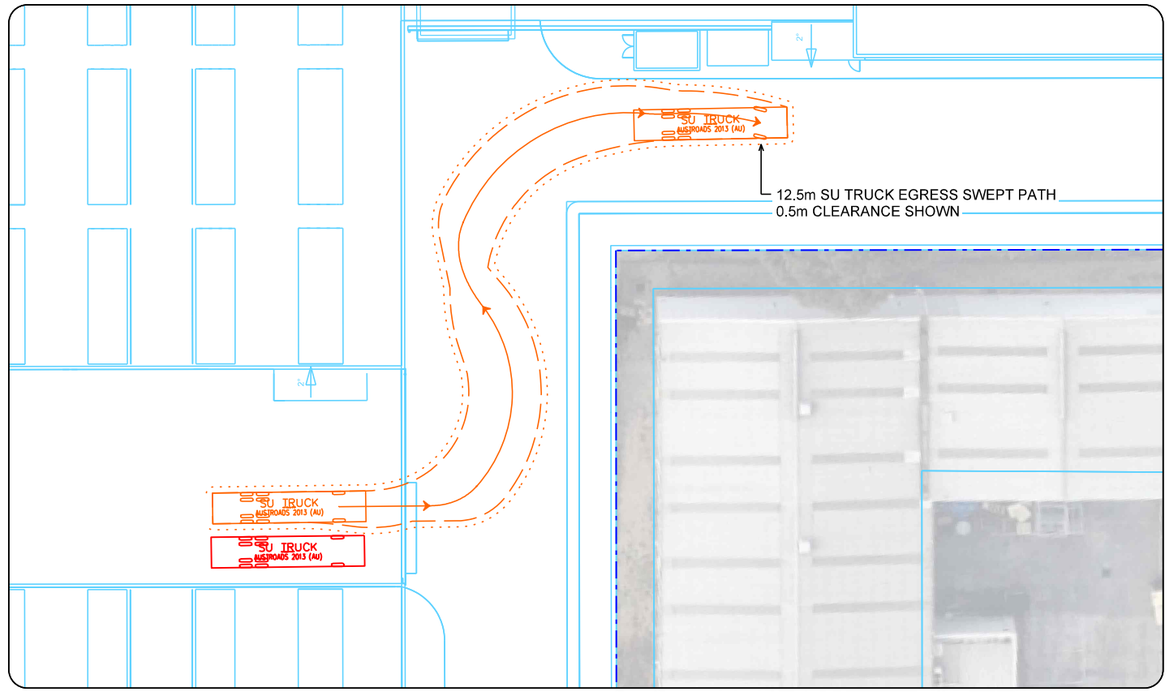

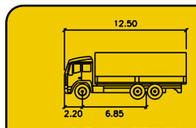

12.5m SU TRUCK

	METERS
WIDTH	: 2.50
TRACK	: 2.50
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 36.6

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MELWAY ONLINE REF:MAP 15 E3

SCALE

1:500 @ A3

Client
AIRTRUNK

Date **2024-12-19**
Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
12m SU TRUCK - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-06

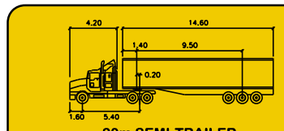
Revision
E

19/12/2024 12:58:30 PM

SHARPS

STREET

20m SEMI-TRAILER SWEPT PATH
0.5m CLEARANCE SHOWN



20m SEMI-TRAILER

METERS			
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TRAILER WIDTH	: 2.50	STEERING ANGLE	: 28.3
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 72.0
TRAILER TRACK	: 2.50		

AIRTRUNK

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SCALE
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Client
AIRTRUNK

Date **2024-12-19**
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Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
20m SEMI-TRAILER - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-07

Revision
E

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SHARPS

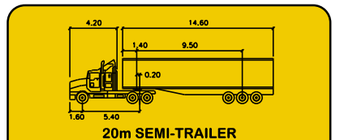
STREET

AV STANDARDS 2018 (AU)

AV STANDARDS 2018 (AU)

AV STANDARDS 2018 (AU)

20m SEMI-TRAILER SWEPT PATH
0.5m CLEARANCE SHOWN



20m SEMI-TRAILER

METERS

TRACTOR WIDTH	: 2.50	LOCK TO LOCK TIME	: 6.0
TRAILER WIDTH	: 2.50	STEERING ANGLE	: 28.3
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 72.0
TRAILER TRACK	: 2.50		

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MELWAY ONLINE REF:MAP 15 E3

SCALE

1:500 @ A3

Client
AIRTRUNK

Date **2024-12-19**

Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
20m SEMI-TRAILER - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-08

Revision
E

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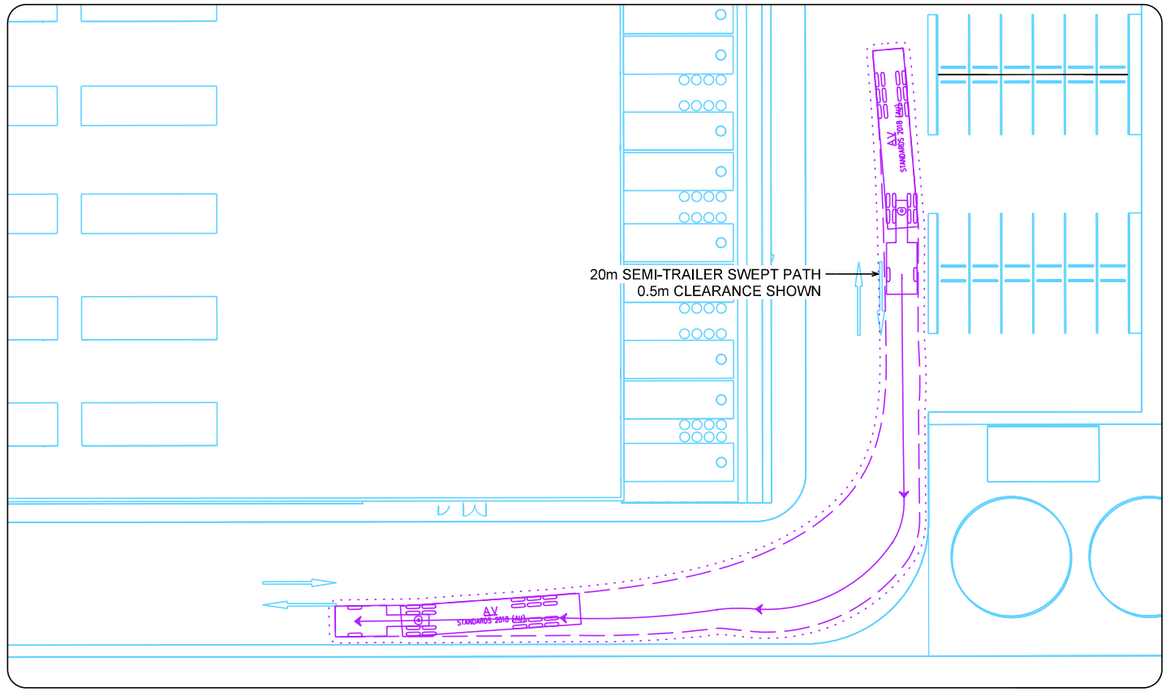

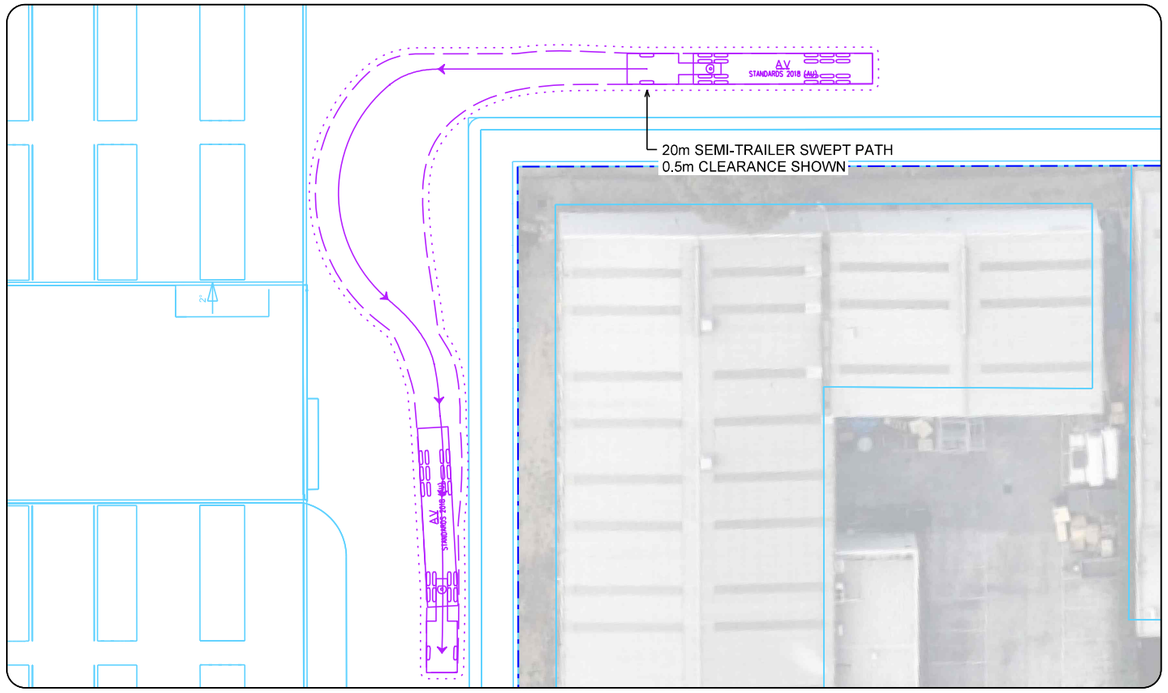

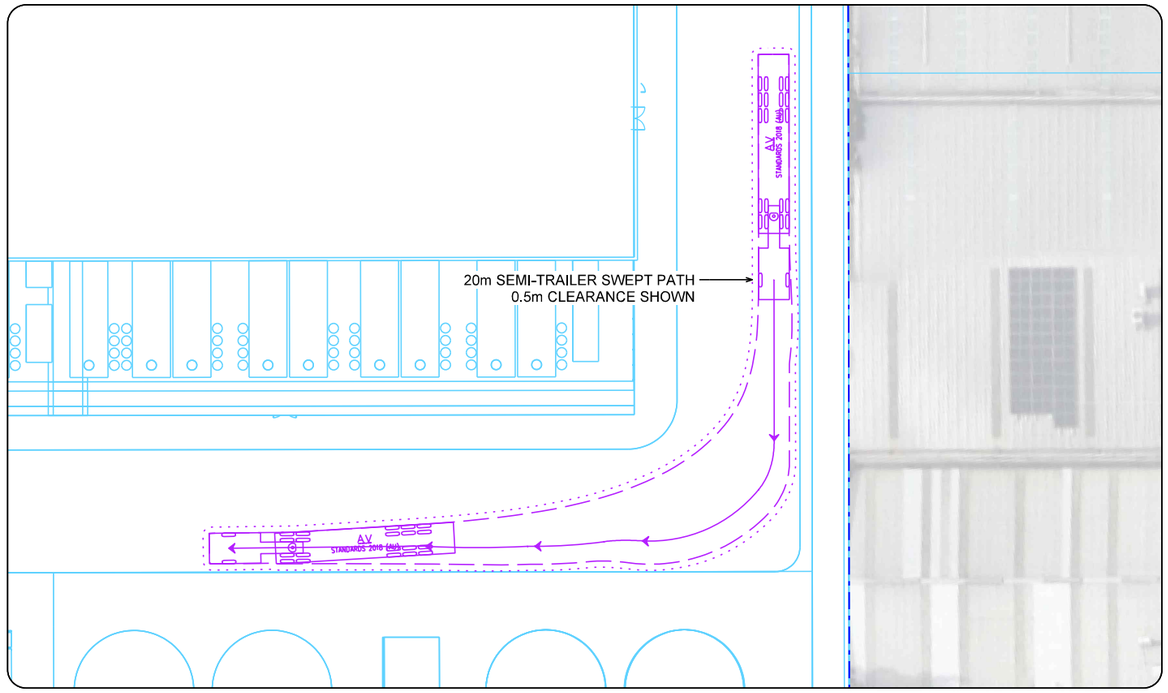

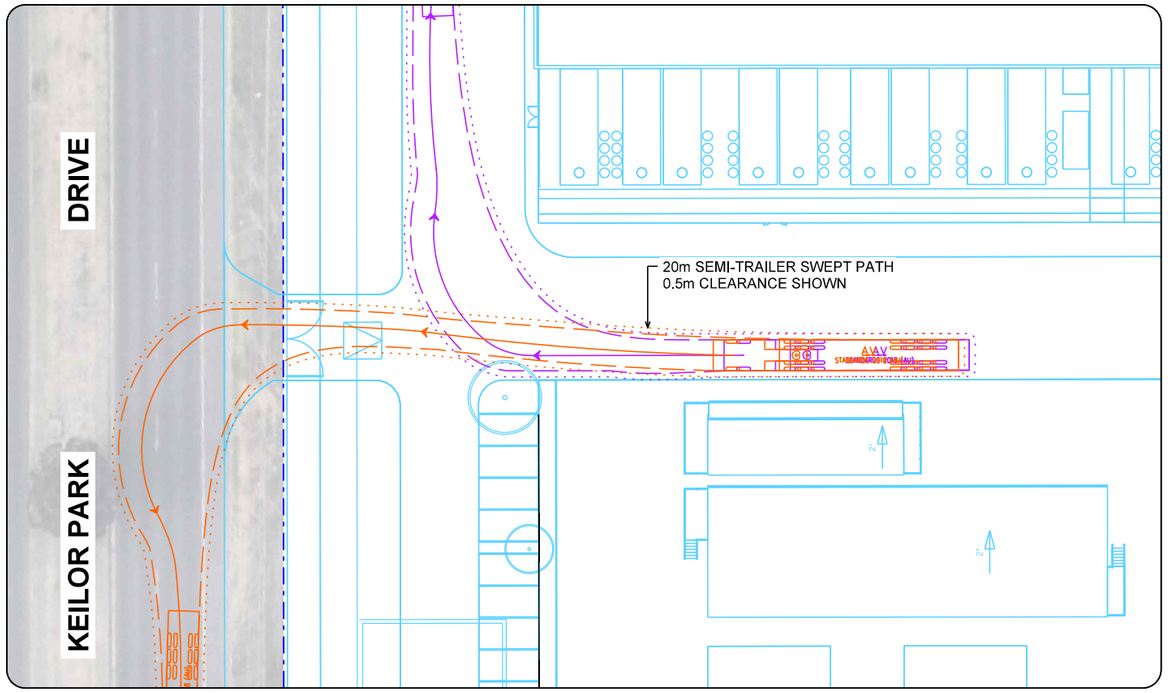

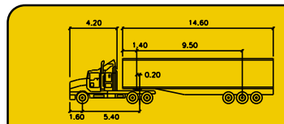

20m SEMI-TRAILER

METERS			
TRACTOR WIDTH	: 2.50	LOCK TO LOCK TIME	: 6.0
TRAILER WIDTH	: 2.50	STEERING ANGLE	: 28.3
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 72.0
TRAILER TRACK	: 2.50		

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MELWAY ONLINE REF:MAP 15 E3

SCALE

1:500 @ A3

Client
AIRTRUNK

Date **2024-12-19**
Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
20m SEMI-TRAILER - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-09

Revision
E

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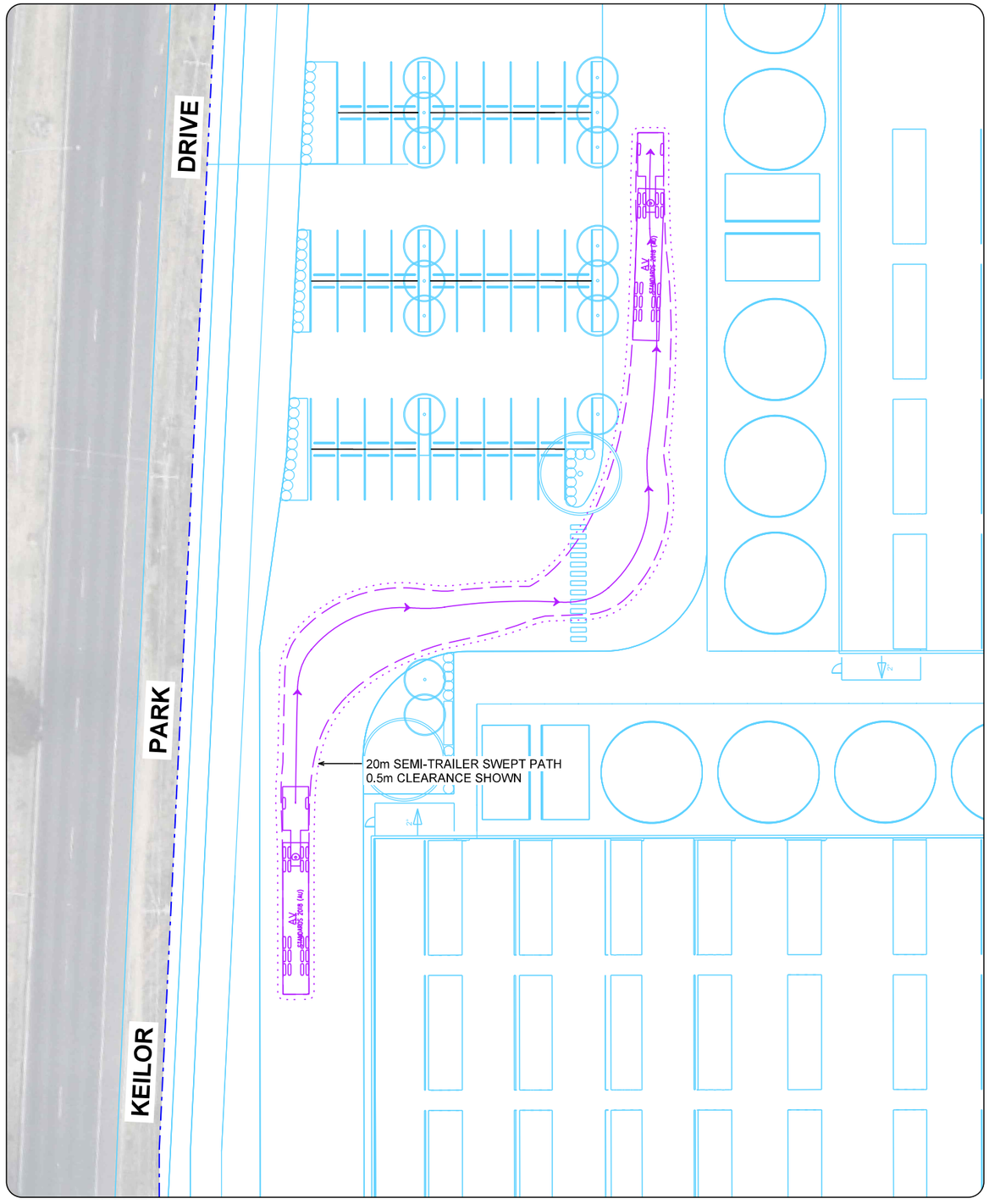

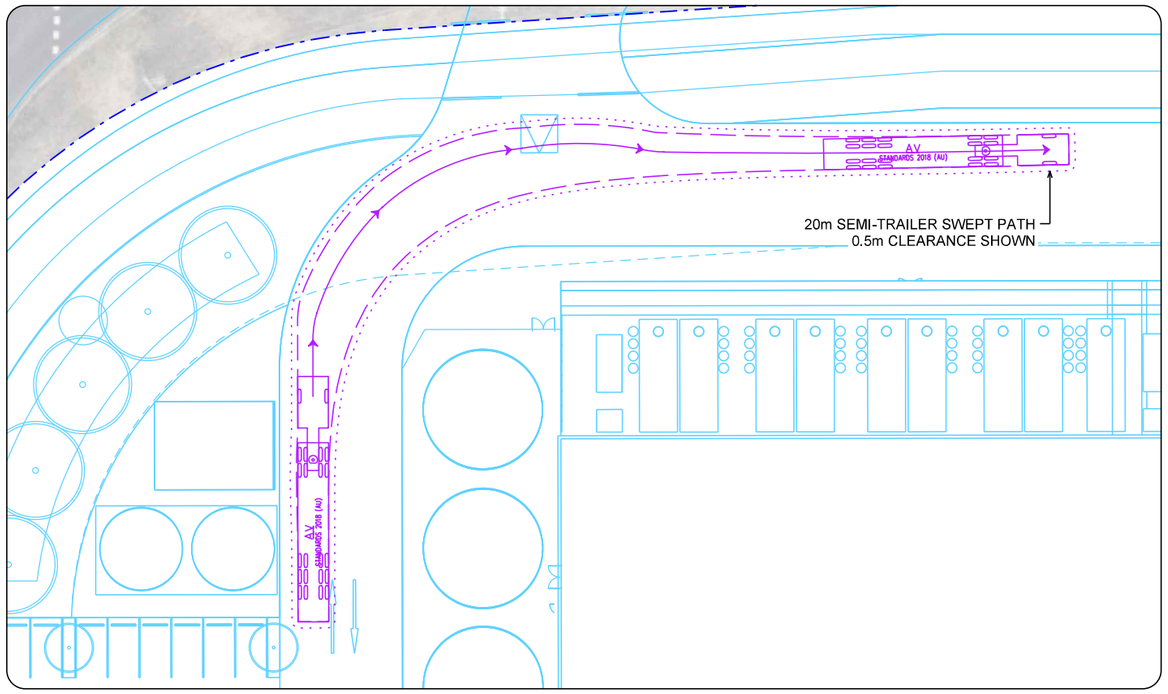

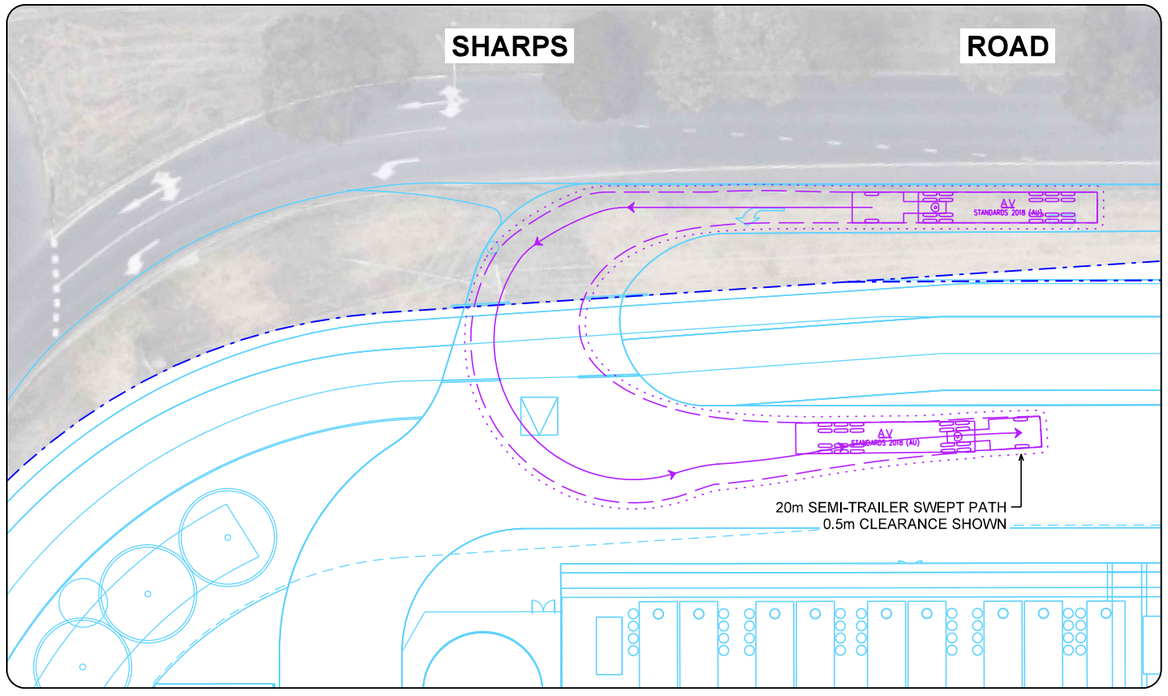

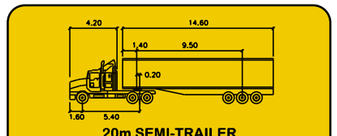

20m SEMI-TRAILER

METERS			
TRACTOR WIDTH	: 2.50	LOCK TO LOCK TIME	: 6.0
TRAILER WIDTH	: 2.50	STEERING ANGLE	: 28.3
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 72.0
TRAILER TRACK	: 2.50		

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MELWAY ONLINE REF: MAP 15 E3

SCALE
1:500 @ A3

Client
AIRTRUNK

Date **2024-12-19**
Drawn / Approved **WH / SM**

Project
PROPOSED DATA CENTRE EXPANSION
85 SHARPS ROAD, TULLAMARINE
CITY OF HUME

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
20m SEMI-TRAILER - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2407002 - DRG-02-10

Revision
E

19/12/2024 12:58:46 PM