

**SHIRE OF TAMMIN TOWN PLANNING SCHEME NO.2**



**FORM 1 - APPLICATION FOR DEVELOPMENT APPROVAL**

**Landowner Details**

Name/s: West 9 PTY LTD

ABN (if applicable):

Postal Address: Suite 308, 838 Collins Street, Melbourne VIC

Postcode:3008

Work Phone: 0423840111

Fax:

E-mail:

Home Phone:

Mobile Phone:

Contact Person for Correspondence: Chris Cornelius

Signature:

Date:

15/07/2022

Signature: Konfir Kabo - Sole Director and Secretary

Date:

**NOTES:**

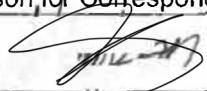
- i) Use and attach a separate copy of this page where there are more than two (2) landowners.
- ii) The signature/s of all registered owner(s) as listed on the land's Certificate of Title is required. This application cannot proceed without the required signature/s. For the purposes of signing this application an owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 clause 62(2). Land owned by an incorporated body (i.e. a company) must be signed by:
  - 1 director of the company, accompanied by the company seal; or
  - 2 directors of the company; or
  - 1 director and 1 secretary of the company; or
  - 1 director if a sole proprietorship company.
 Print the full names and positions of company signatories underneath the signatures.
- iii) A copy of the Certificate of Title for all land the subject of this application must be provided and can be purchased through Landgate directly if required.
- iv) Development Applications relating to Unallocated Crown Land, Unmanaged Crown Reserves, land under management order to the Shire of Tammin where the development is not consistent with the reserve's purpose, or is used for commercial purposes, or land which is subject to a lease issued under the Land Administration Act 1997 need to be referred to the Lands Division of the Department of Planning, Lands and Heritage for consideration and signing.

**Applicant Details (if different from owner)**

Name/s: Mr Chris Cornelius - Aksara

Address: PO Box 8636 PERTH BC

Postcode: 6849

Work Phone: 0423840111 Fax: Home Phone:		E-mail: chris@aksara.com.au
Mobile Phone: 0423 840111 Contact Person for Correspondence: Chris Cornelius		
Signature: 	Date: 10/03/2022	
<b>NOTES:</b>		
<p>i) Failure to provide a suitably completed development application form, a copy of the relevant Certificate/s of Title, sufficient plans and other supporting information and/or the correct application fee may result in the application being returned or placed on hold.</p> <p>ii) The application fee payable will be confirmed by the local government following receipt of the application. Processing of the application will not commence until the fee is paid in full.</p> <p>iii) As per Schedule 2 clause 64 of the Planning and Development (Local Planning Schemes) Regulations 2015 the information and plans provided with this application may be made available by the local government for public viewing in connection with the application.</p> <p>iv) If public advertising of the application is required by the local government an additional fee in accordance with the local government's adopted schedule of fees and charges will be payable by the applicant. Further processing of the application following completion of public advertising will not proceed until the additional fee is paid in full.</p> <p>v) The original of this application and supporting information and plans will be retained by the local government for its records and will not be returned to the applicant/landowner following final determination.</p>		
<b>Property Details</b>		
NOTE: The details provided must match those shown on the relevant Certificate/s of Title.		
Lot No: 251	House/Street No:	Location No:
Survey Diagram or Plan No: 401154	Certificate of Title Volume No: 2822	Certificate of Title Folio No: 584
Title encumbrances (e.g. easements, restrictive covenants etc. as listed on the Second Schedule of the relevant Certificate/s of Title): N/A		
Street name: Great Eastern Highway	Suburb: South Tammin	
Nearest street intersection: Great Eastern Highway / Station Road		
<b>Proposed Development:</b>		
Nature of development: <input type="checkbox"/> Works (New construction works with no change of land use) <input type="checkbox"/> Use (Change of use of land with no construction works) <input checked="" type="checkbox"/> Works and Use		
NOTE: If the proposal involves advertising signage the Additional Information for Development Approval for Advertisements form (i.e. a Form 2) must be completed and submitted with this application.		
Is an exemption from development claimed for part of the development? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
If yes, is the exemption for: <input type="checkbox"/> Works <input type="checkbox"/> Use		
Description of proposed works and/or land use: Proposed unmanned fuel stop		

Description of exemption claimed (if relevant):

Nature of any existing buildings and/or land use:

The nature of the existing buildings on the site includes one vehicle storage shed within the eastern portion of the lot, unused railway station and a hardstand ramp within the eastern portion of the lot.

Approximate cost of proposed development (excluding GST):

\$500,000

**OFFICE USE ONLY**

Date application received:

Received by:

Application reference number:

Application fee payable: \$

Date of receipt of application fee from applicant:

Receipt number for application fee:

**NOTE: THIS APPLICATION FORM IS INCOMPLETE**

**SHIRE OF TAMMIN TOWN PLANNING SCHEME NO.2**



**FORM 2 - ADDITIONAL INFORMATION FOR  
DEVELOPMENT APPROVAL FOR ADVERTISEMENTS**

**Note:** To be completed in addition to the Application for Development Approval form (i.e. Form 1).

1. Description of property on which advertisement is to be displayed including full details of its proposed position within that property:

Lot 251 Great Eastern Highway, Tammin.

Sign is proposed to be located within the north eastern portion of the property.

2. Details of proposed sign:

- (a) Type of structure on which advertisement is to be erected (i.e. freestanding, wall mounted, other):

Freestanding

- (b) Height: 8 metres      Width: 2.45 metres      Depth:

- (c) Colours to be used: PANTONE 1585C

- (d) Height above ground level —

(a) (to top of advertisement): 8 metres

(b) (to underside): 0.4 metres

- (e) Materials to be used: internally illuminated perspex

Illuminated: Yes / No

If yes, state whether steady, moving, flashing, alternating, digital, animated or scintillating and state intensity of light source:

Company logo will be illuminated internally and LED fuel price boards to be illuminated.

3. Period of time for which advertisement is required:

4. Details of signs (if any) to be removed if this application is approved:

**Note:** This application should be supported by a photograph or photographs of the premises showing superimposed thereon the proposed position for the advertisement and those advertisements to be removed detailed in 4 above.

Signature/s of advertiser/s:  
(if different from landowner/s)

Tenants not confirmed at this stage

Date:



WESTERN



AUSTRALIA

REGISTER NUMBER	
<b>251/DP401154</b>	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
<b>N/A</b>	<b>N/A</b>

**RECORD OF CERTIFICATE OF TITLE**  
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2822** FOLIO **584**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

*BGRoberts*  
REGISTRAR OF TITLES



**LAND DESCRIPTION:**

LOT 251 ON DEPOSITED PLAN 401154

**REGISTERED PROPRIETOR:**  
(FIRST SCHEDULE)

WEST 9 PTY LTD OF SUITE 308 838 COLLINS STREET MELBOURNE VIC 3008

(T P117366 ) REGISTERED 20/4/2022

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP401154  
PREVIOUS TITLE: 2805-330  
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.  
LOCAL GOVERNMENT AUTHORITY: SHIRE OF TAMMIN

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING P117366



ASIC

Australian Securities & Investments Commission

JOB 8107

## Current Company Extract

**Name:** WEST 9 PTY LTD

**ACN:** 657 933 518

Date/Time: 23 September 2022 AEST 11:36:00 AM

This extract contains information derived from the Australian Securities and Investments Commission's (ASIC) database under section 1274A of the Corporations Act 2001.

Please advise ASIC of any error or omission which you may identify.

EXTRACT

Organisation Details	Document Number
<b>Current Organisation Details</b>	
Name: WEST 9 PTY LTD	2EWU74027
ACN: 657 933 518	
Registered in: Victoria	
Registration date: 10/03/2022	
Next review date: 10/03/2023	
Name start date: 10/03/2022	
Status: Registered	
Company type: Australian Proprietary Company	
Class: Limited By Shares	
Subclass: Proprietary Company	

Address Details	Document Number
<b>Current</b>	
Registered address: KABO LAWYERS, Level 23, 360 Collin Street, MELBOURNE VIC 3000	2EWU74027
Start date: 10/03/2022	
Principal Place Of Business address: Level 23, 360 Collin Street, MELBOURNE VIC 3000	2EWU74027
Start date: 10/03/2022	

Officeholders and Other Roles	Document Number
<b>Director</b>	
Name: KONFIR KABO	2EWU74027
Address: 55 St Georges Road, TOORAK VIC 3142	
Born: 01/10/1973, MAKASSAR, INDONESIA	
Appointment date: 10/03/2022	
<b>Secretary</b>	
Name: KONFIR KABO	2EWU74027
Address: 55 St Georges Road, TOORAK VIC 3142	
Born: 01/10/1973, MAKASSAR, INDONESIA	
Appointment date: 10/03/2022	

Share Information					
Share Structure					
Class	Description	Number issued	Total amount paid	Total amount unpaid	Document number
ORD	ORD	1	1.00	0.00	2EWU74027
<b>Members</b>					
Note: For each class of shares issued by a proprietary company, ASIC records the details of the top twenty members of the class (based on shareholdings). The details of any other members holding the same number of					

shares as the twentieth ranked member will also be recorded by ASIC on the database. Where available, historical records show that a member has ceased to be ranked amongst the top twenty members. This may, but does not necessarily mean, that they have ceased to be a member of the company.

Name: KONFIR KABO  
Address: 55 St Georges Road, TOORAK VIC 3142

Class	Number held	Beneficially held	Paid	Document number
ORD	1	yes	FULLY	2EWU74027

#### Documents

Note: Where no Date Processed is shown, the document in question has not been processed. In these instances care should be taken in using information that may be updated by the document when it is processed. Where the Date Processed is shown but there is a zero under No Pages, the document has been processed but a copy is not yet available.

Date received	Form type	Date processed	Number of pages	Effective date	Document number
10/03/2022	201C Application For Registration As A Proprietary Company	10/03/2022	3	10/03/2022	2EWU74027

\*\*\*End of Extract of 2 Pages\*\*\*



transport planning  
traffic engineering  
modelling

# Proposed Unmanned Fuel Facility, Lot 251 Great Eastern Hwy (SLK 176.15 - 176.34), Tammin Concept Design Report

**PREPARED FOR:**  
Credentia Construction

March 2023

## Document history and status

Author	Revision	Approved by	Date Approved	Revision type
Kunyou Dai	r02	Behnam Bordbar	28/3/2023	Final

**File name:** t22.286.r02

**Author:** Kunyou Dai

**Project manager:** Behnam Bordbar

**Client:** Aksara

**Project:** Lot 251 Great Eastern Hwy, Tammin

**Document revision:** r02

**Project number:** t22.286.r02

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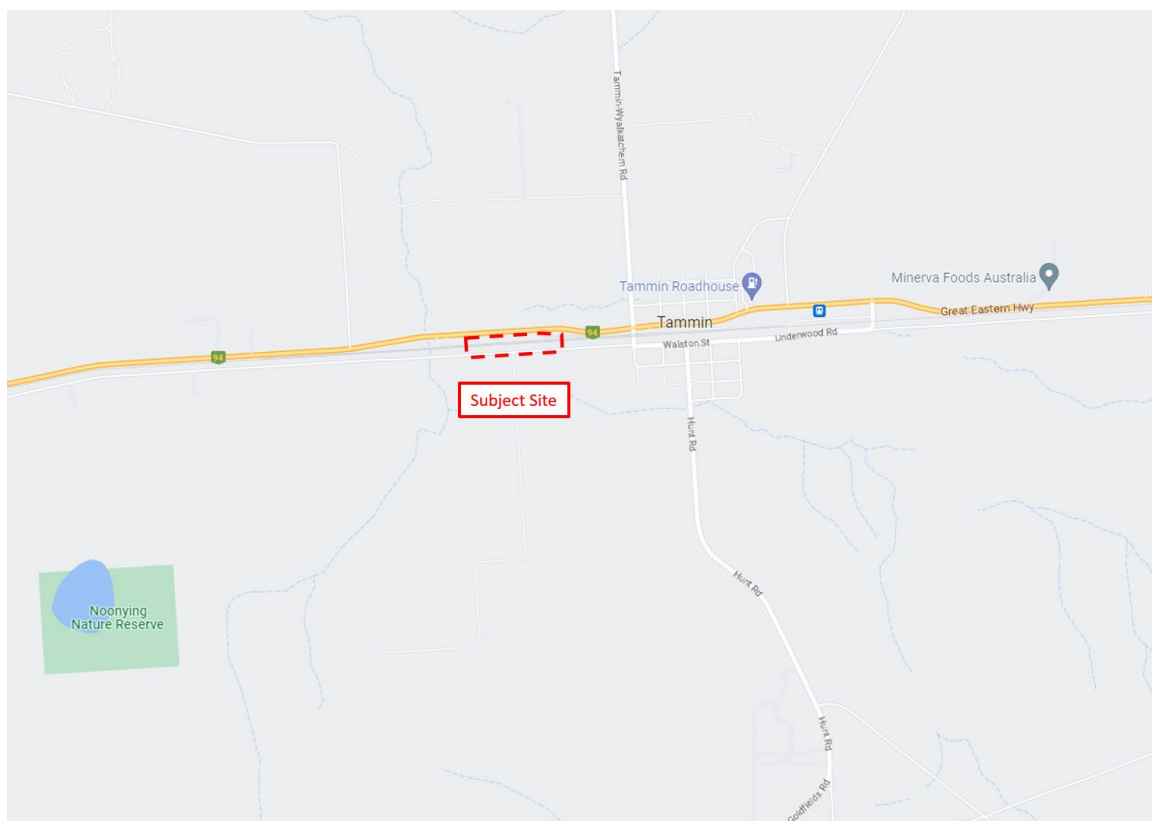
# 1 Introduction

## 1.1 Proposed Development

This concept design report has been prepared by Transcore on behalf of Aksara regarding the concept design of the left-in and left-out crossovers for the proposed unmanned fuel facility development. The facility is to be located at Lot 251 Great Eastern Hwy, Tammin, in the Shire of Tammin, as shown in **Figure 1**. As part of the development, it is proposed to demolish the existing industrial building and construct the proposed facility, which include a canopy for heavy vehicles, a double-sided high flow diesel bowser, and an illuminated ID sign.

Currently, two crossovers on Great Easter Highway are serving the subject site. As part of the development, it is proposed to retain the current location of the crossovers but modify and upgrade them to facilitate left-in movements of RAV 7 at the eastern crossover and left-out movements of RAV 7 at the western crossover.

The scope of works for the concept design includes concept design and drawings and liaison with MRWA.



**Figure 1. Location of the subject site**

## 1.2 Purpose of Report

The aim of this report is to document the design criteria, inputs, and outcomes for the concept design of the access/egress arrangement, as well as to evaluate whether a left-turning lane is necessary at the eastern entry point, as suggested by MRWA.

## 1.3 Drawings

This concept design report should be read in conjunction with the following drawings:

- Concept design – general arrangement, plan and profiles;
- Signage & pavement marking plan; and
- Development plan.

## 2 Existing Road

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### 2.1 Configuration

Great Eastern Highway in the vicinity of the site is an undivided road that consists of one lane in each direction, with each lane being about 3.7 meters wide between the edge line, and partially sealed shoulders (about 1m of the seal) on each side.

### 2.2 Speed limit

According to the Road Information Mapping System of MRWA, the speed limit for the section of Great Eastern Highway that directly adjacent to the subject site is 80 km/h. The speed limit to the east of the subject site is 60km/h. A design speed of 90km/h has been adopted for the concept design.

### 2.3 RAV Status

The classification provided by MRWA's HVs Network Mapping Tool for Great Eastern Highway in the vicinity of the site is TD 4.3 network, which is designed for tri-drive trucks with a maximum length of 36.5m (RAV 7).

## 3 Background

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### 3.1 Current Design Phase

The design is currently prepared at concept design. The design primarily aims to obtain approvals from MRWA as part of the Development Application (DA) for the proposed development.

### 3.2 Previous Design Phase Reviews and Comments

As part of the development approval process, sketch designs have been previously developed for access/egress arrangements to the development at this site. Main Roads WA provided comments on the initial sketches submitted as part of the Transport Impact Statement (TIS) prepared for the DA. Following a meeting at MRWA Wheatbelt Regional office, the design criteria for the development crossovers was agreed. Additionally, Transcore is required to assess the need for a left-turning lane at the eastern entry point in accordance with MRWA warrants.

### 3.3 Traffic Assessment and Forecast

Transcore has prepared a Traffic Impact Statement (TIS) in December 2022 for the Development Application (DA) related to the proposed development.

### 3.4 Road Safety Audit

No road safety audits have been conducted for this project.

### 3.5 Feature Survey

The feature survey was provided by Aksara and has been used for the purpose of the development plan and the concept design.



# 4 Design

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## 4.1 General Philosophy

The concept design has been prepared in line with Austroads Guide to Traffic Management Part 6, MRWA Supplement to Austroads Guide to Roads Design – Part 4 and 4A, and MRWA Policy and Guidelines – *Rest Areas on main roads and highways*. The design is intended to address the following aspects:

- Reconfiguration to ensure entry and exit angles are at least 70 degrees; and,
- Concept design of the signage and pavement markings to ensure compliant vehicle movement through the subject site.

## 4.2 Design Vehicle

The design vehicle adopted is a 36.5m tri-drive B-Triple.

## 4.3 Determining the Need for Left Turn Lane

As requested by Main Roads WA, an auxiliary lane assessment is undertaken for the eastern left turn only entry crossover.

The assessment for the warrants for basic turn treatments, auxiliary lane turn treatments, and channelised turn treatments undertaken by Transcore is based on the relevant warrants for BA, AU, and CH turn treatment requirements of Austroads: *Guide to Traffic Management Part 6 – Intersections, Interchanges, and Crossings Management*, and MRWA Supplement to Austroads Guide to Road Design – Part 4.

As Great Eastern Highway is constructed as a two-lane two-way road fronting the subject site and the turn type is left-in-only, the value of the major road traffic volume parameter ( $Q_M$ ) is the peak-hour total through traffic flow of the westbound traffic, as shown in **Figure 2**. The existing traffic volumes for Great Eastern Highway in the vicinity of the subject site were sourced from the Main Roads WA traffic count data, as shown in **Table 1**. Accordingly,  $Q_M = Q_{T2} = 170$  vehicle per hour (veh/h), and the weighted average percentage heavy vehicles (%HV) is 29.3%.

Figure 3.26: Calculation of the major road traffic volume  $Q_M$

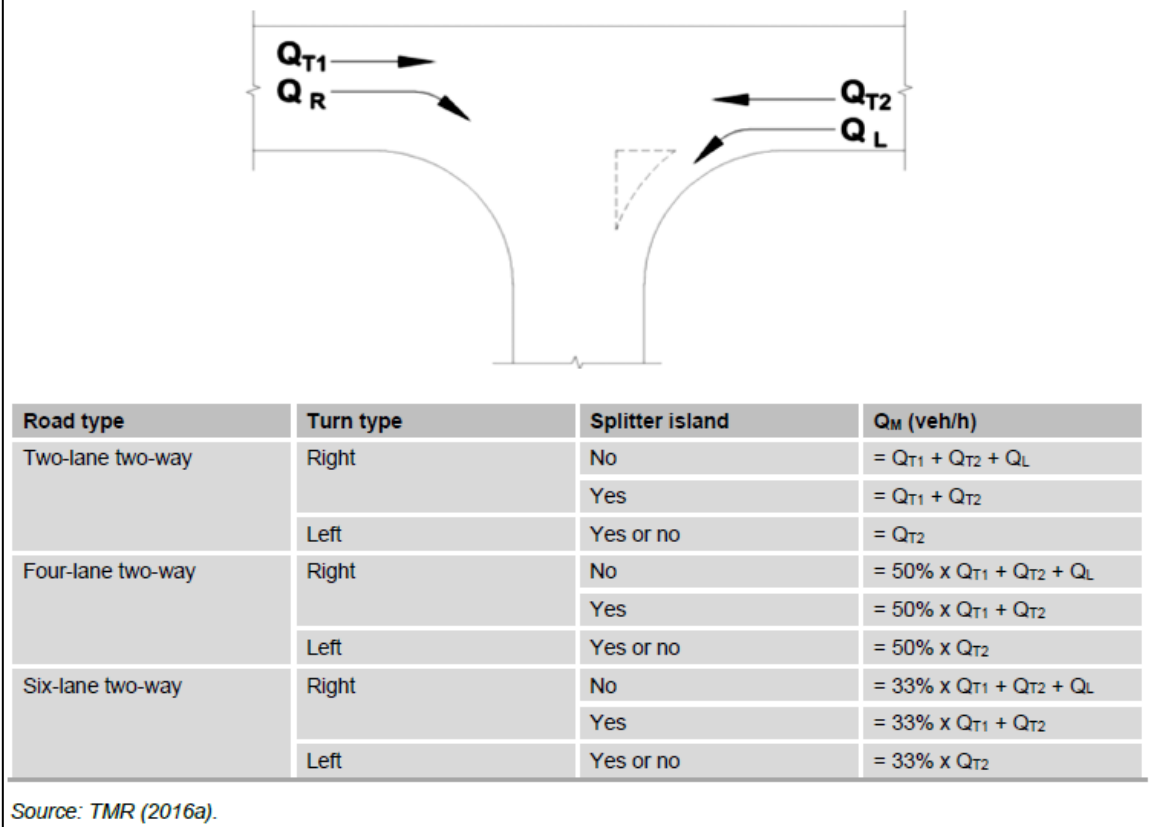


Figure 2. Calculation of the major road traffic volume  $Q_M$

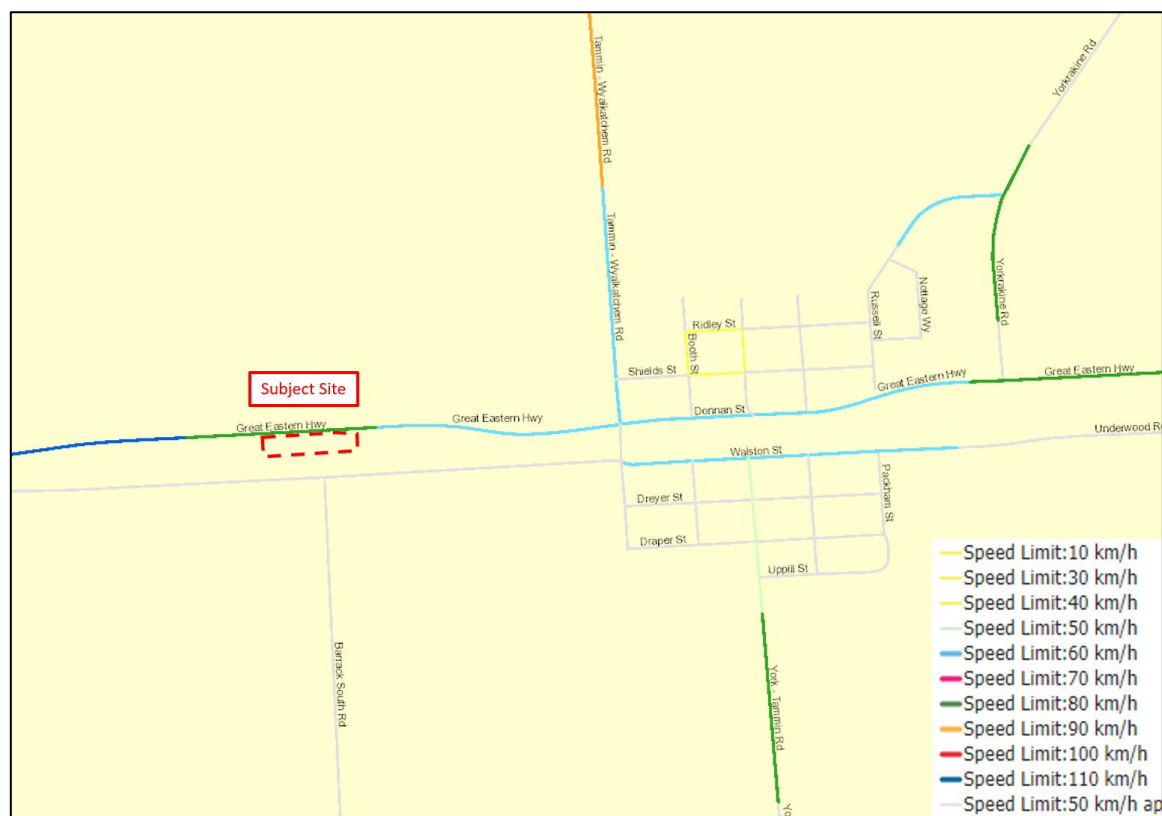
Table 1 Hourly vehicle volume on Great Easter Hwy (West of Station Rd), 2018/19

	All Vehicles			Heavy Vehicles			
	EB	WB	Both	EB	WB	Both	%
00:00	10	12	22	6	6	12	54.5
01:00	5	10	15	2	5	7	46.7
02:00	4	8	12	1	4	5	41.7
03:00	4	6	10	2	5	7	70.0
04:00	11	9	20	6	7	13	65.0
05:00	17	15	32	8	5	13	40.6
06:00	33	27	60	14	7	21	35.0
07:00	49	52	101	20	15	35	34.7
08:00	64	54	118	25	11	36	30.5
09:00	66	59	125	20	11	31	24.8
10:00	70	60	130	21	11	32	24.6
11:00	84	73	157	20	13	33	21.0
12:00	83	87	170	22	17	39	22.9
13:00	74	83	157	21	17	38	24.2
14:00	73	86	159	19	18	37	23.3
15:00	66	81	147	21	20	41	27.9
16:00	73	69	142	21	16	37	26.1
17:00	61	56	117	15	15	30	25.6
18:00	46	41	87	13	14	27	31.0
19:00	39	35	74	12	8	20	27.0
20:00	37	25	62	15	6	21	33.9
21:00	28	26	54	12	7	19	35.2
22:00	25	19	44	16	9	25	56.8
23:00	21	13	34	14	7	21	61.8
TOTAL	1043	1006	2049	346	254	600	29.3

The proposed unmanned fuel facility is designed for heavy vehicles only and only allows left-in and left-out movements. For the purpose of this assessment (and in line with the traffic generation calculations contained in the TIS), it is conservatively assumed that 30% of the westbound heavy vehicles will use the fuel facility. The existing heavy vehicles traffic volumes are shown in **Table 1**.

Accordingly, it is estimated that the left-turning traffic during the peak hour  $Q_L = Q_i = 20 \times 30\% = 6 \text{ veh/h}$ .

Based on the Main Roads WA Road Information Mapping System, the posted speed limit in the frontage of the immediately vicinity of the subject site is 80km/h, as shown in **Figure 2**.



**Figure 3. Main Roads WA Road Information Mapping System Speed Date**

According to the equation provided in MRWA Supplement to Austroads Guide to Road Design – Part 4 section A.8:

$$x = \frac{1}{471.5} \times Q_M^{0.912} \times Q_i^{1/2.46} \times \left(1 + 0.75 \times \frac{\%HV}{100}\right)$$

For  $70\text{km/h} \leq \text{Design Speeds} < 100\text{km/h}$  and  $Q_i > 5$ :

If  $x < 1.5$ , only a BAR / BAL treatment is warranted;

If  $1.5 \leq x < 3.3$ , an AUR / AUL(S) treatment is warranted; and

If  $x \geq 3.3$ , a CHR / (AUL or CHL) treatment is warranted.

The value of  $x$  is calculated as 0.58 and therefore only a BAR/BAL treatment is warranted. Using Austroads Part 4 results in the same outcome. Therefore, a left-turn lane is not needed. The BAL treatment which only involves a widened shoulder on Great Eastern Highway will be addressed during the detailed design process.

## 4.4 Turning movements

The largest heavy vehicle which is expected to use the subject site is a 36.5 m B-triple. 36.5 m B-triple truck would enter the site via the left-in only crossover on Great Eastern Highway, access the fill point and exit via the left-out only crossover on Great Eastern Highway. Accordingly, this site only caters for the westbound direction of traffic flow on Great Eastern Highway.

A speed of 20km/h for entry has been assumed for the left turn in path assessment plan. The turn path assessment undertaken for 36.5m tri-drive B-triple heavy vehicle confirms satisfactory access, egress and circulation of Design Vehicle within the site. Turn path assessment plan is included in [Appendix C](#).

## 4.5 Geometry

The geometry of the development crossovers has been based on the crossover design requirements of MRWA Supplement to Austroads Guide to Roads Design – Part 4 and 4A, and MRWA Policy and Guidelines – *Rest Areas on main roads and highways*.

## 4.6 Existing Crossovers

Currently, two crossovers are serving the site. It is proposed to maintain the current position of these crossovers while improving and upgrading them to facilitate left-turn movements at the eastern crossover and left-exit movements of RAV 7 at the western crossover.

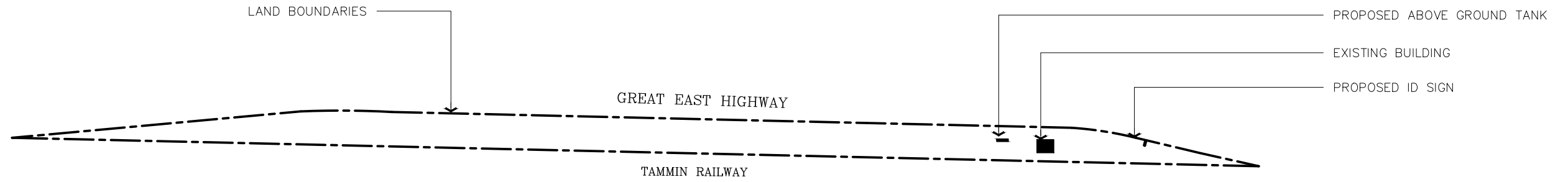


# Appendix A

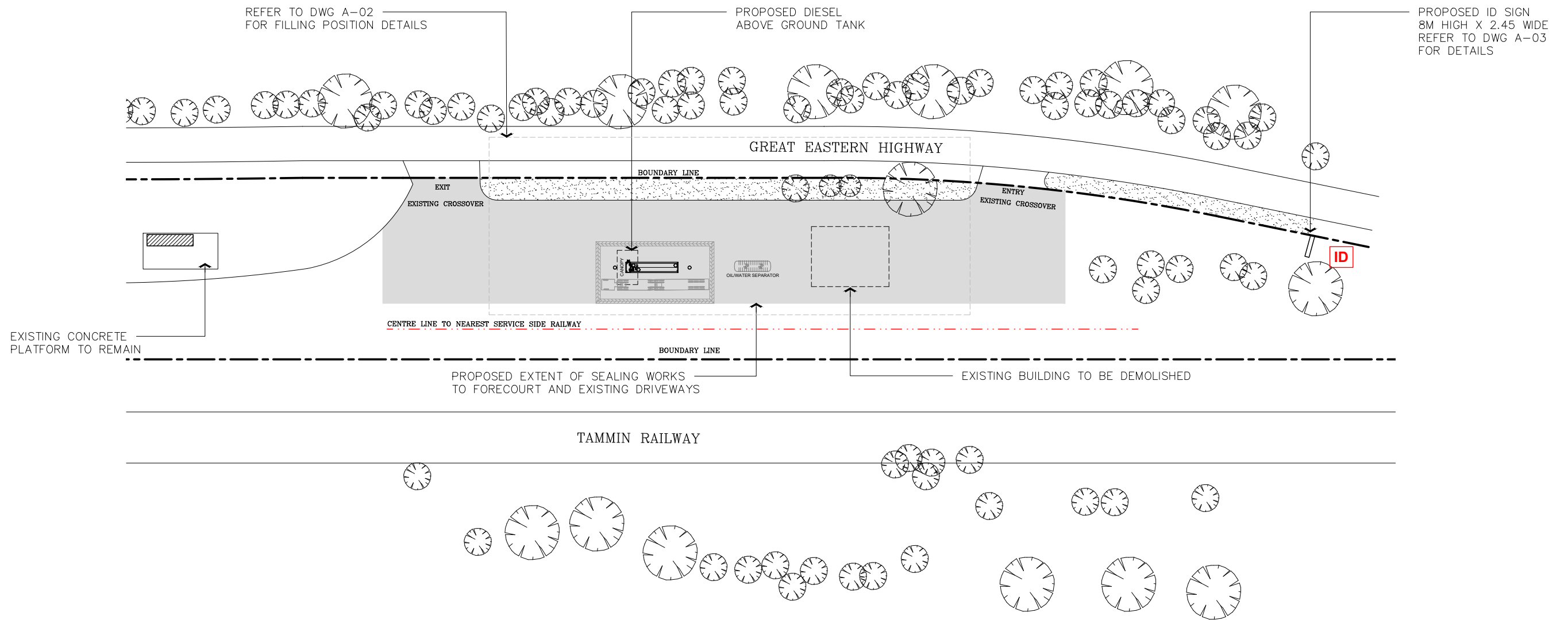
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PROPOSED DEVELOPMENT PLAN





**SITE PLAN** scale 1:5000

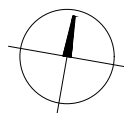


**PARTIAL SITE PLAN** scale 1:1000

NOTE:  
 GRAY SHADE DENOTES SEALED AREA TO FORECOURT AND DRIVEWAYS.  
 SEALED AREAS TO BE GRADED AND LEVELLED OUT

**ISSUE FOR INTERNAL DISCUSSION**

LEVEL 23 / 360  
 Collins Street  
 Melbourne VIC 3000  
 E: info@aksara.com.au  
 ACN 141 232 877



PROJECT:

**TAMMIN TRUCK STOP**  
 LOT 251 Great Eastern Highway TAMMIN

AMMENDMENT	
DATE	16/03/2023
DRAWING TITLE	SITE PLAN
SCALE	As shown @ A3

SPECIAL COMMENTS

AMMENDMENT	DATE	BY	DRAWING No.
FOR INTERNAL DISCUSSION	16/03/2023	JC	<b>A-01</b> Rev-A1

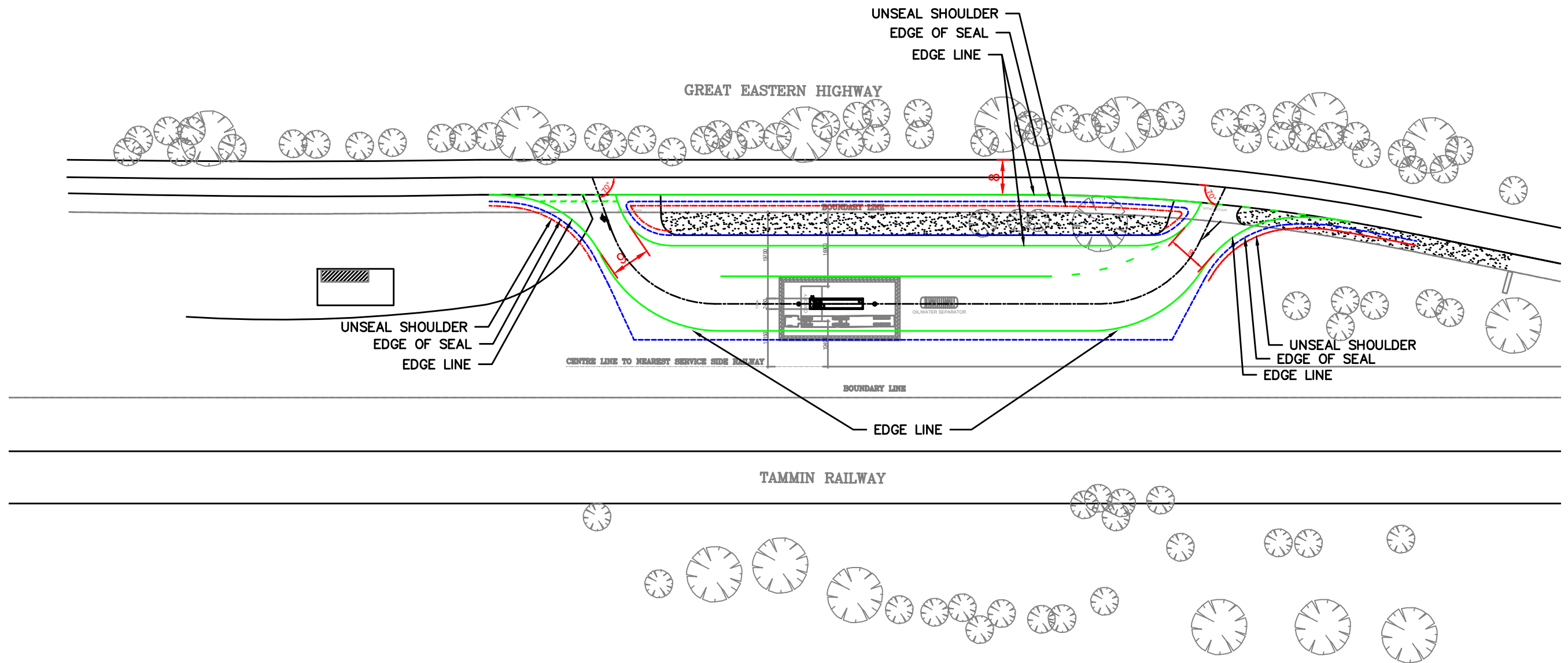


# Appendix B

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CONCEPT DESIGN

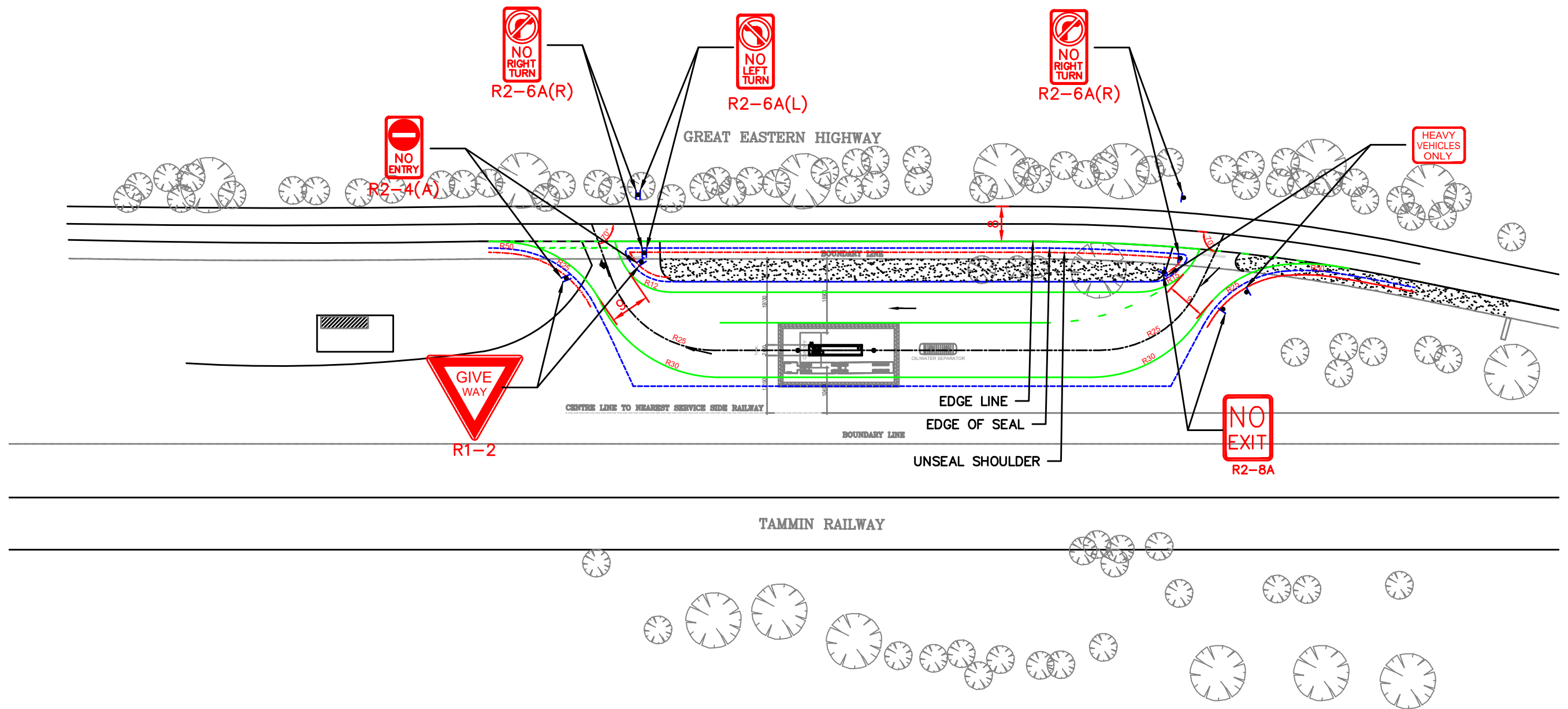




**LOT 251 - Great eastern Highway, Tammin**  
**Proposed Un-manned Fuel Facility**  
**Revised Site Plan Crossover Design**

**t22.286-sk09**  
 SCALE 1:1000@A3  
 26.03.2023





**LOT 251 - Great eastern Highway, Tammin**  
**Proposed Un-manned Fuel Facility**  
**Revised Crossover Design - Signage and Line Marking**

**t22.286-sk10**  
 SCALE 1:1000@A3  
 26.03.2023



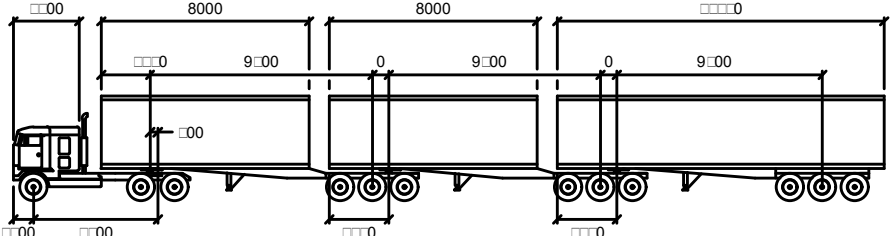
# Appendix C

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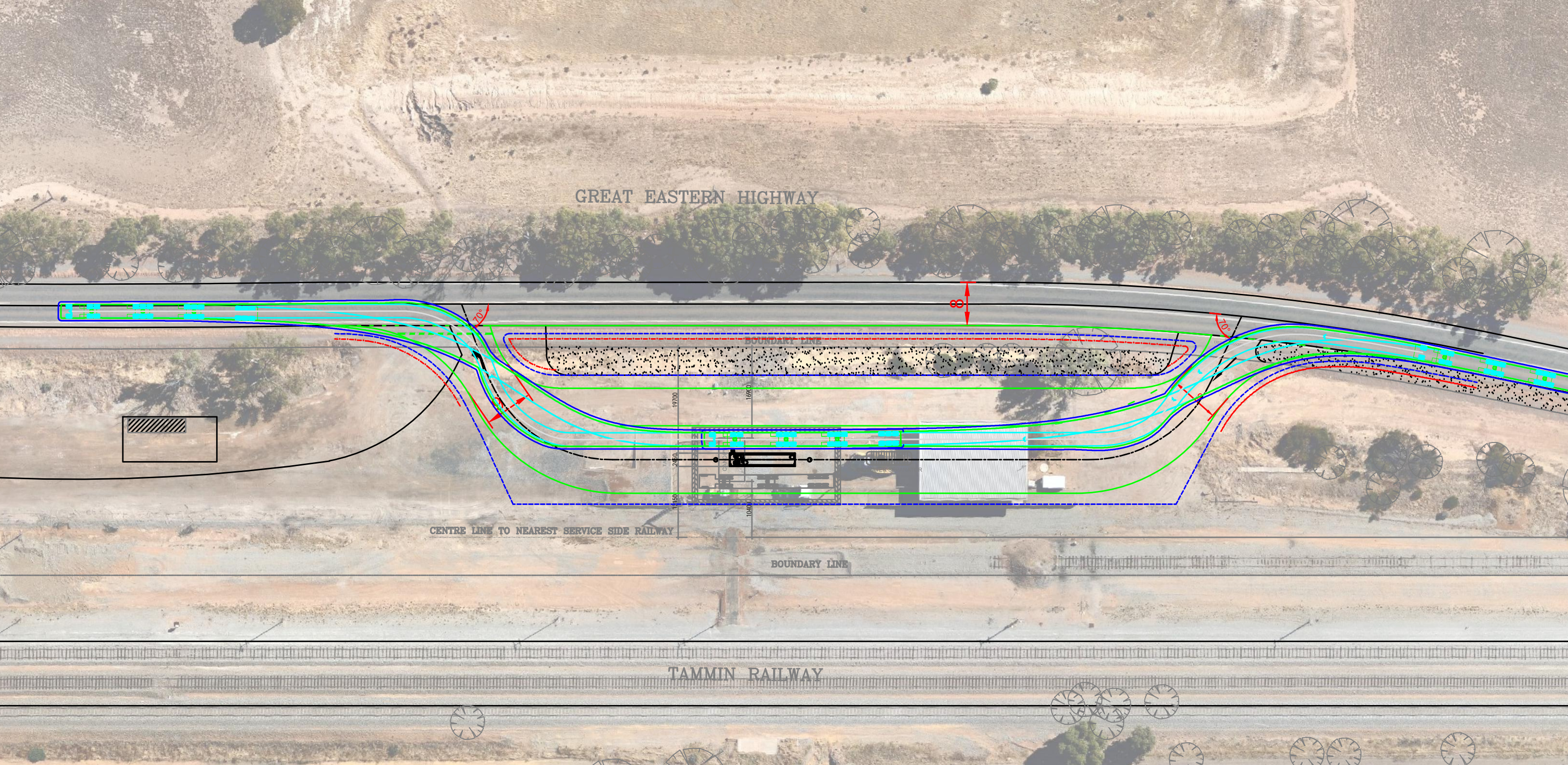
## TURN PATH ANALYSIS







Trailer Width	9.00	Trailer Length	36.5
Trailer Width	9.00	Trailer Length	9.00
Trailer Width	9.00	Trailer Length	9.00
Trailer Width	9.00	Trailer Length	9.00



**Tammin Truck Tracking**  
 36.5 m B-Triple (R 22 m)  
 Patronage vehicle right-out

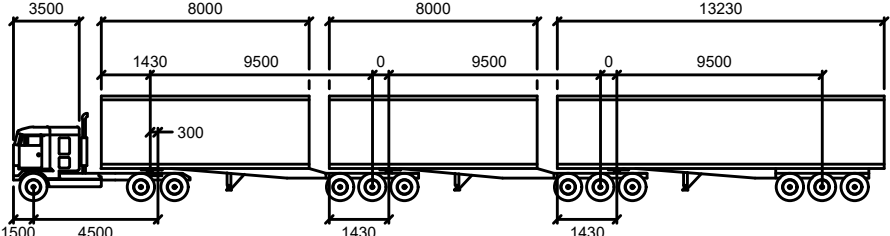
**LEGEND**  
 Vehicle Body  
 Wheel Path  
 500mm Clearance



t22.286.sk11  
 27/3/2023



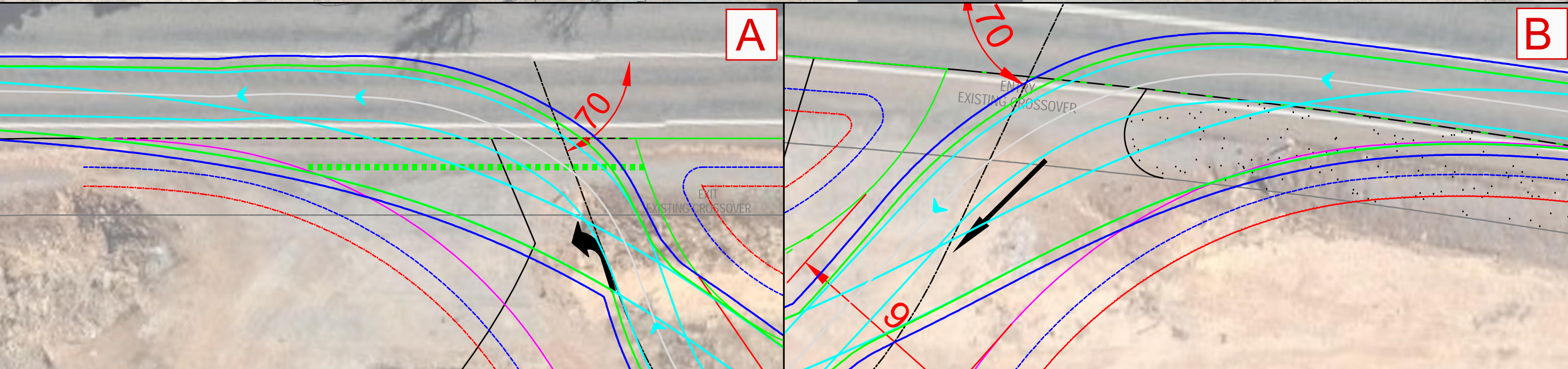
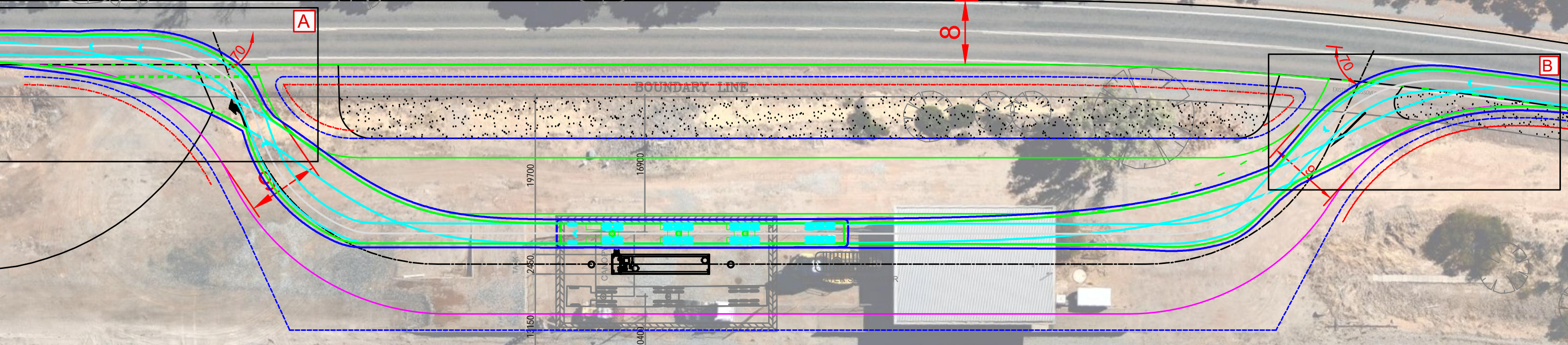




36.5m B-triple - 22m Radius

Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 13.9
Tractor Track	: 2500	Articulating Angle	: 70.0
Trailer Track	: 2500		

EASTERN HIGHWAY



**Tammin Truck Tracking**  
36.5 m B-Triple (R 22 m)

**LEGEND**

- Vehicle Body
- Wheel Path
- 500mm Clearance

t22.286.sk12  
4/4/2023







transport planning  
traffic engineering  
modelling

# Proposed Unmanned Fuel Facility, Lot 251 Great Eastern Hwy, Tammin

## Transport Impact Statement

**PREPARED FOR:**  
Aksara

December 2022

## Document history and status

Author	Revision	Approved by	Date Approved	Revision type
K Dai	r01	B Bordbar	13/12/2022	Final
K Dai	r01a	B Bordbar	19/12/2022	Revised Final

**File name:** t22.286.jd.r01a

**Author:** Kunyou Dai

**Project manager:** B Bordbar

**Client:** Aksara

**Project:** Lot 251 Great Eastern Hwy, Tammin

**Document revision:** r01a

**Project number:** t22.286

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# 1 Introduction

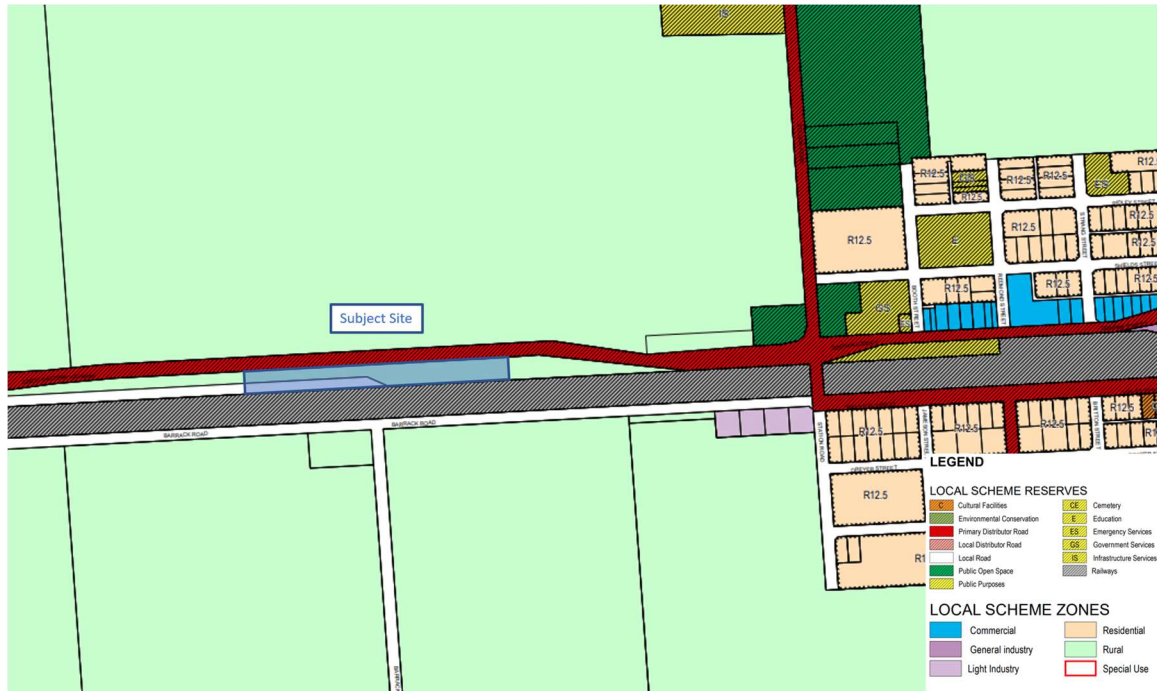
This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Aksara with regard to the proposed unmanned fuel facility located at Lot 251 Great Eastern Hwy in the Shire of Tammin.

The subject site is bound by a train track to the south, Great Eastern Highway to the north, and vacant land to the west and east, as shown in **Figure 1**.



**Figure 1: Location of the subject site**

The location of the subject site within the Shire of Tammin *Local Planning Scheme (LPS) No. 2* context is illustrated in **Figure 2**. The subject site is zoned as “Rural”. The local planning scheme map identifies Great Eastern Highway as a Primary Regional Road (i.e., Red Road), which is under the care and control of Main Roads WA.



**Figure 2. Location of the subject site in MRS**

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: “A *Transport Impact Statement* is required for those developments that would be likely to generate moderate volumes of traffic<sup>1</sup> and therefore would have a moderate overall impact on the surrounding land uses and transport networks”.

**Section 5** of Transcore’s report provides details of the estimated trip generation for the proposed development. Accordingly, as the total peak hour vehicular trips are estimated to be less than 100 trips, a Transport Impact Statement is deemed appropriate for this development.

Further, Main Roads WA Driveway policy states that where a development generates more than 10 vehicle trips/day or is accessed by more than one heavy vehicle/day, a transport impact and management report will be required.

The development application has been submitted to the Shire of Tammin, which has forwarded the application to Main Roads WA, Wheatbelt Region. Main Roads WA in their email to the Shire dated 10 October 2022 has requested the following for the development application:

---

<sup>1</sup> Between 10 and 100 vehicular trips per hour

- Swept path analyses for all turning movements to and from the highway using a RAV 6 Design Vehicle;
- Swept paths should also demonstrate how vehicles will move internal (i.e., an HV leaving a browser to exit the site while another HV is coming in);
- Visually demonstrate lines of sight from the two proposed accesses, taking into consideration the placement of the proposed ID pylon signage to the western end of the site;
- Address the requirement of the Main Roads WA Driveways Policy.

Accordingly, this report is prepared to address the items identified by Main Roads WA.

## 2 Proposed Development

---

The Development Application (DA) for the subject site entails the development of the unmanned fuel facility to serve heavy vehicles on Great Eastern Highway. According to the proposed development plan in **Appendix A** of this report, the proposal includes:

- A canopy for heavy vehicles;
- A double sided high flow diesel bowser;
- A diesel above-ground tank; and,
- An illuminated ID sign.

As Great Eastern Highway is classified for RAV 7 (36.5 m long B-triple), it is assumed that the largest size truck accessing the site will be a RAV 7.

The unmanned fuel facility is served by two existing crossovers on Great Eastern Highway. The existing crossover system has no restrictions at present. However, as part of this report, a management system is proposed for vehicles accessing and departing the site.



### 3 Vehicle Access

Currently, two crossovers on Great Eastern Highway are serving the subject site.

As part of the development, it is proposed to retain the current location of the crossovers but modify and upgrade them to facilitate left-in movements of RAV 7 at the eastern crossover and left-out movements of RAV 7 at the western crossover, as illustrated in **Figure 3**.

Based on the turn paths undertaken, the right turn movements will not be feasible for this site, and therefore, right-in and right-out movements shall be prohibited through appropriate crossover design, signage and pavement markings. The eastern crossover should be angled so that visually only left-in movements are permitted. Similarly, the western crossover should also be angled so that visually only left-out movements are permitted. The crossover design should be supplemented with appropriate signage and pavement arrows.

The design of the crossovers as recommended in this report plus signage, and pavement marking plan should be developed during the detailed design stage of the project.



**Figure 3: Subject site with crossover location**

## 4 Provision for Service Vehicles

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The largest heavy vehicle which is expected to use the subject site is a 36.5 m B-triple. 36.5 m B-triple truck would enter the site via the left-in only crossover on Great Eastern Highway, access the fill point and exit via the left-out only crossover on Great Eastern Highway. Accordingly, this site only caters for the westbound direction of traffic flow on Great Eastern Highway.





Turn path analysis undertaken for a 36.5 m B-triple truck show few impacts on both crossovers, as shown in **Appendix B**. Accordingly, modifications for the existing crossover to accommodate 36.5 m B-triple truck movement are required during the detailed design stage of the project.

# 5 Daily Traffic Volumes and Vehicle Types

## 5.1 Proposed Development Trip Generation

The trip generation for the proposed unmanned fuel facility has been estimated based on the westbound heavy vehicle traffic volume on Great Eastern Highway. The existing traffic volumes for Great Eastern highway in the vicinity of the subject site were sourced from the Main Roads WA traffic count data, as shown in **Table 1**.

**Table 1. Heavy vehicles hourly volume on Great Easter Hwy (West of Station Rd), 2018/2019**

	 Heavy Vehicles		
	 EB	 WB	 Both
00:00	6	6	12
01:00	2	5	7
02:00	1	4	5
03:00	2	5	7
04:00	6	7	13
05:00	8	5	13
06:00	14	7	21
07:00	20	15	35
08:00	25	11	36
09:00	20	11	31
10:00	21	11	32
11:00	20	13	33
12:00	22	17	39
13:00	21	17	38
14:00	19	18	37
15:00	21	20	41
16:00	21	16	37
17:00	15	15	30
18:00	13	14	27
19:00	12	8	20
20:00	15	6	21
21:00	12	7	19
22:00	16	9	25
23:00	14	7	21
TOTAL	346	254	600

For the purpose of this assessment, it is further conservatively assumed that 30 % of the westbound heavy vehicle will use the fuel facility.

Accordingly, it is estimated that the traffic generations for the proposed unmanned fuel facility are:

- Peak hour:  $20 \times 30\% \times 2 = 12$  vph (6 in / 6 out); and,
- Daily:  $254 \times 30\% \times 2 = 153$  vpd (77 in / 77 out).



## 5.2 Traffic Flow

Due to the proposed access system format, only westbound traffic on Great Eastern Highway can utilise the facility.

**Figure 4** illustrates trip generation and traffic distribution over Great Eastern Highway for the proposed unmanned fuel facility.



**Figure 4: Estimated total daily traffic movements for the subject site**  
**Peak Hour / Daily**

## 5.3 Impact on Surrounding Roads

The WAPC Transport Impact Assessment Guidelines (2016) provide guidance on the assessment of traffic impacts:

*“As a general guide, an increase in traffic of less than 10 per cent of capacity would not normally be likely to have a material impact on any particular section of road, but increases over 10 per cent may. All sections of road with an increase greater than 10 per cent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 per cent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis.”*

It is clear that the traffic increase from the proposed development would be significantly less than the critical threshold (100 vph per lane). As detailed in **Section 5.1**, the proposed development will not increase traffic on any lanes on the surrounding road network anywhere near 100 vph. Therefore, the impact of the development traffic on the surrounding road network will be insignificant.

## 6 Traffic Management on the Frontage Streets

**Figure 5** illustrates the road hierarchy of the surrounding roads based on the Main Roads WA Road Information Mapping System. As evident, Great Eastern Highway is classified as a Primary Distributor with sign posted speed limit of 80 km/h in this vicinity, as shown in **Figure 6**.

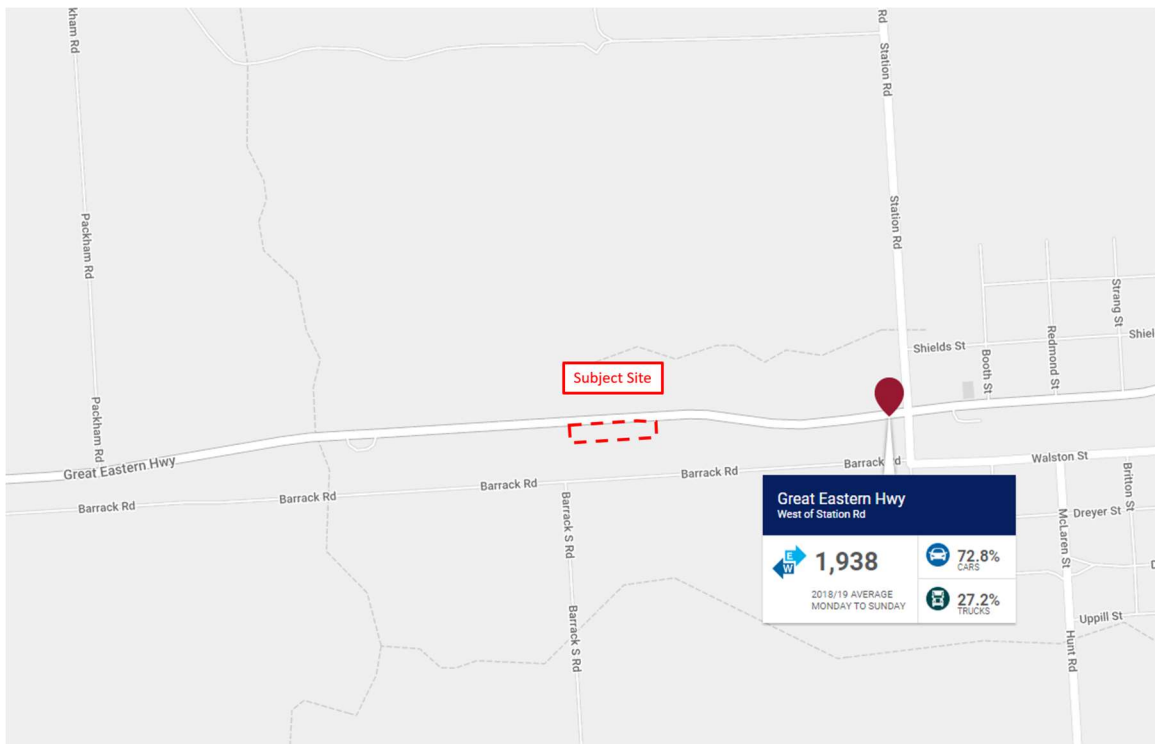


**Figure 5. Main Roads WA Road Information Mapping System Road Hierarchy**



**Figure 6. Main Roads WA Road Information Mapping System Speed Data**

The existing traffic counts sourced from Main Roads WA on Great Eastern Highway in the vicinity are shown in **Figure 7**.



**Figure 7. Existing traffic counts on Great Eastern Highway**

**Great Eastern Highway** in the vicinity of the subject site is constructed as a single-carriageway, two-way undivided road with approximately 7 m wide trafficable pavement with sealed shoulders, as shown in **Figure 8**.



**Figure 8. Westbound view along Great Eastern Highway**

## 7 Public Transport Access

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There are currently no bus services operating in the vicinity of the subject site.



## 8 Pedestrian Access

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There is no pedestrian access available to the subject site; however, the proposed unmanned fuel facility is unlikely to generate any pedestrian movements due to the nature of the proposed operations and the location of the site.

## 9 Cycle Access

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There is no cycle access available to the subject site; however, the proposed unmanned fuel facility is unlikely to generate any cycle traffic due to the nature of the proposed operations.

## 10 Site Specific Issues

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The crossovers of the subject development should be designed so that the eastern crossover caters for left in entry only and western crossover to cater for left out exit only. The crossover design should be supplemented with appropriate signage and pavement markings.

# 11 Safety Issues

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As requested by Main Roads WA, a sight line assessment is undertaken for the western left turn only exit crossover. The sight lines are not an issue for the eastern left in only crossover.

The sight line assessment undertaken by Transcore is based on the relevant sight line/distance requirements of *Austrroads: Guide to Road Design Part 4A – Unsignalised and Signalised Intersections*. The assessment has been based on the proposed development plan in **Appendix A**, and the crossover operations recommended in this report.

With reference to the relevant Austrroads document, Safe Intersection Sight Distance (SISD) assessment was undertaken for the western crossover to check if the vegetation within the road reserve, alignment of Great Eastern Highway and structures within the subject site will impact the sight lines at the crossover. The assessment of the requirements of the Austrroads Guidelines is based on *Figure 3.2: Safe intersection sight distance (SISD)* and *Table 3.2: Safe intersection sight distance (SISD)* for vehicles on Great Eastern Highway.

Transcore plan t22.286.sk01a (SISD assessment plan) in **Appendix C** shows that a vehicle at the left turn only exit crossover has adequate SISD for a sign posted speed limit of 80 km/h (design speed of 90 km/h) towards the east if the vegetation in the verge is removed or regularly trimmed. The vegetation to be removed or trimmed appears to be within the subject site boundary.

## 12 Conclusions

---

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Aksara and provides information on the proposed development of the unmanned fuel facility located at Lot 251 Great Eastern Hwy, in the Shire of Tammin.

As part of the development proposal, the unmanned fuel facility will be served by two existing crossovers on Great Eastern Highway. It is proposed to retain the current location of the crossovers but modify and upgrade them to facilitate left-in movements of RAV 7 at the eastern crossover and left-out movements of RAV 7 at the western crossover.

Right-in and right-out movements shall be prohibited through appropriate crossover design, signage and pavement markings. The eastern crossover should be angled so that visually only left-in movements are permitted. Similarly, the western crossover should also be angled so that visually only left-out movements are permitted. The crossover design should be supplemented with appropriate signage and pavement arrows. The design of the crossovers, signage, and pavement marking plan should be developed during the detailed design stage of the project.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is relatively low and, as such, would have an insignificant impact on the surrounding road network.

Vehicle at the left turn only exit crossover has adequate SISD for a sign posted speed limit of 80 km/h (design speed of 90 km/h) towards the east if the vegetation on the verge is removed or regularly trimmed. This vegetation appears to be within the site boundary.

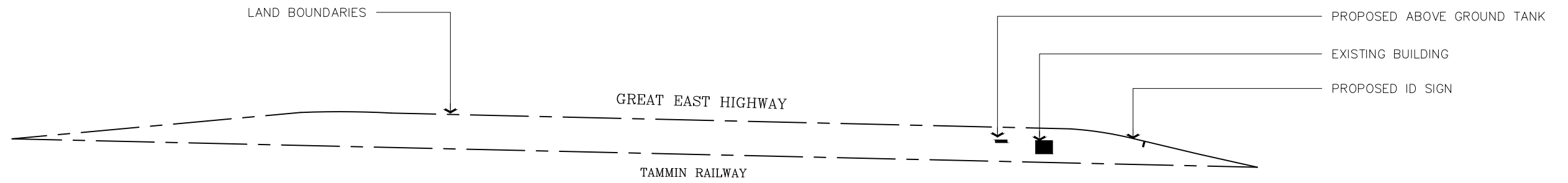
Accordingly, it is concluded that the traffic-related issues should not form an impediment to the approval of the proposed unmanned fuel facility development.

# Appendix A

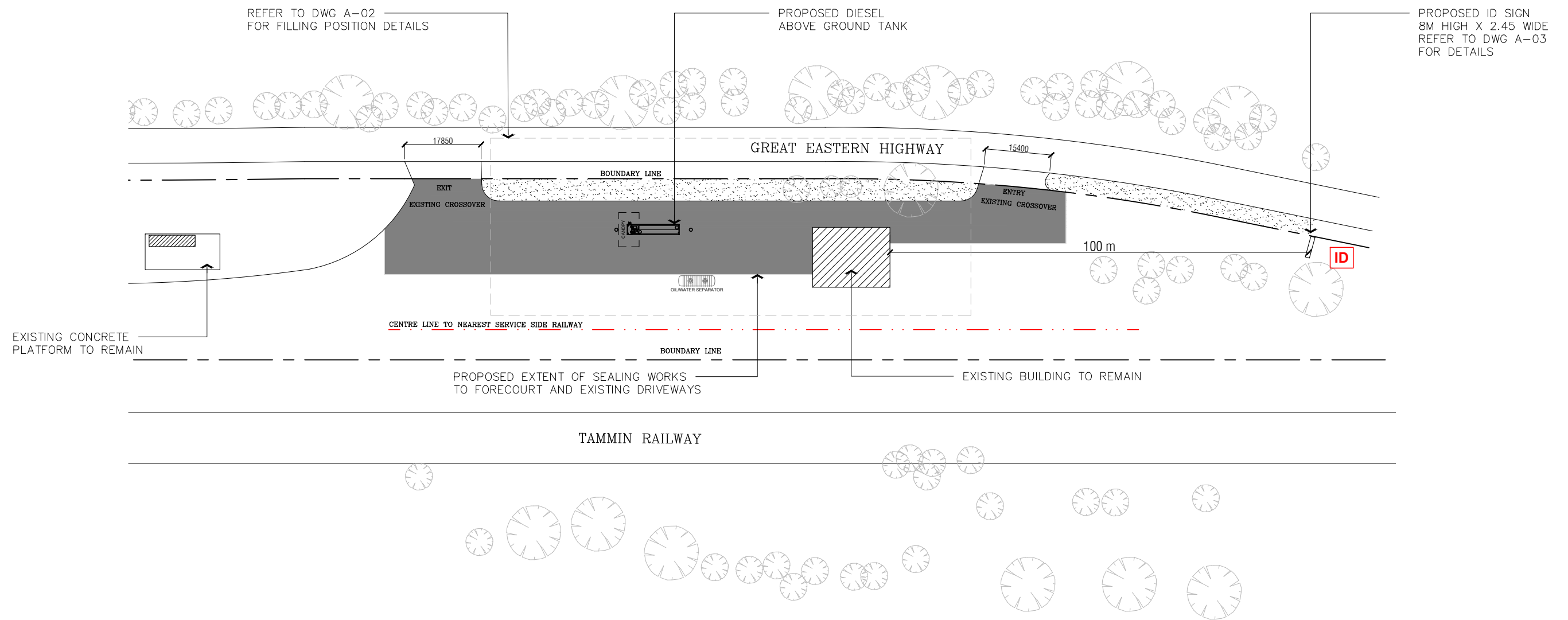
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PROPOSED DEVELOPMENT PLAN





**SITE PLAN** scale 1:5000

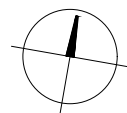


**PARTIAL SITE PLAN** scale 1:1000

NOTE:  
 GRAY SHADE DENOTES SEALED AREA TO FORECOURT AND DRIVEWAYS.  
 SEALED AREAS TO BE GRADED AND LEVELLED OUT

**ISSUE FOR PLANNING PERMIT**

LEVEL 23 / 360  
 Collins Street  
 Melbourne VIC 3000  
 E: info@aksara.com.au  
 ACN 141 232 877



PROJECT:

**TAMMIN TRUCK STOP**  
**LOT 251 Great Eastern Highway TAMMIN**

AMMENDMENT

DATE

DRAWING TITLE

SCALE

31/08/2022

SITE PLAN

As shown @ A3

SPECIAL COMMENTS

AMMENDMENT

FOR PLANNING PERMIT

DATE

31/08/2022

BY

JC

DRAWING No.

**A-01**  
 Rev-A

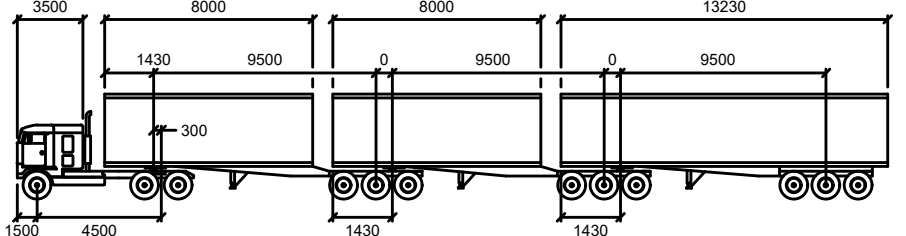
# Appendix B

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TURN PATH ANALYSIS

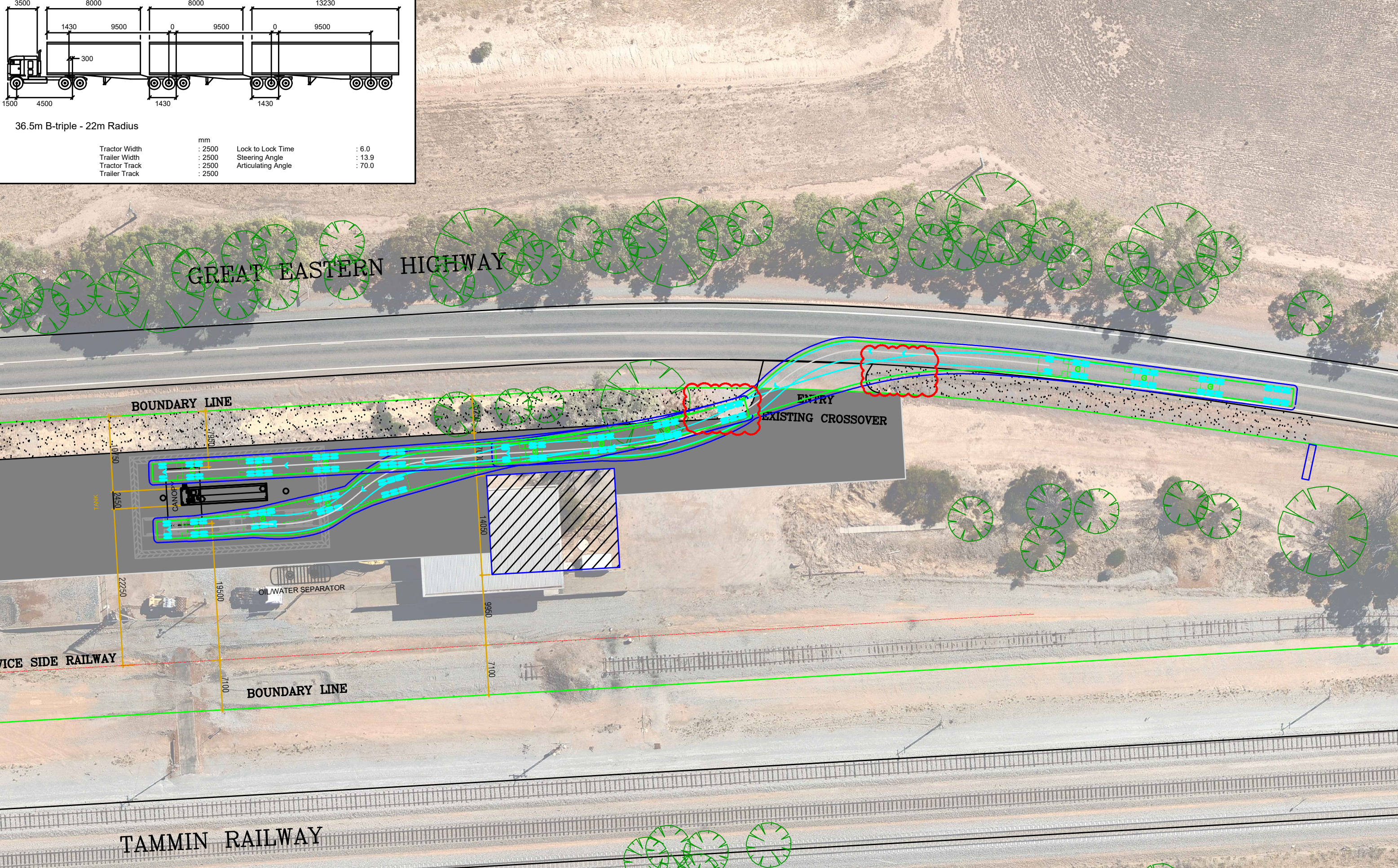






36.5m B-triple - 22m Radius

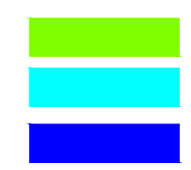
mm			
Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 13.9
Tractor Track	: 2500	Articulating Angle	: 70.0
Trailer Track	: 2500		



Tammin Truck Tracking  
 36.5 m B-Triple (R 22 m)  
 Patronage vehicle left-in

**LEGEND**

- Vehicle Body
- Wheel Path
- 500mm Clearance



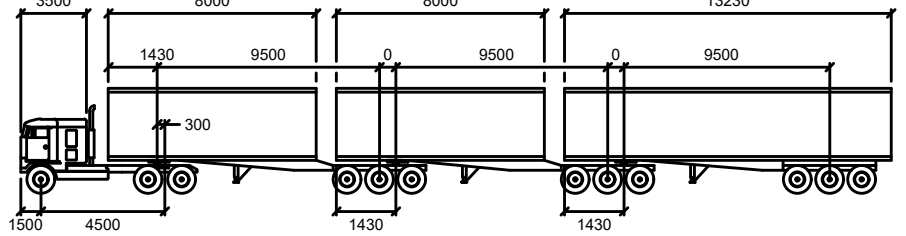
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8/12/2022

Scale: 1:500 @ A3

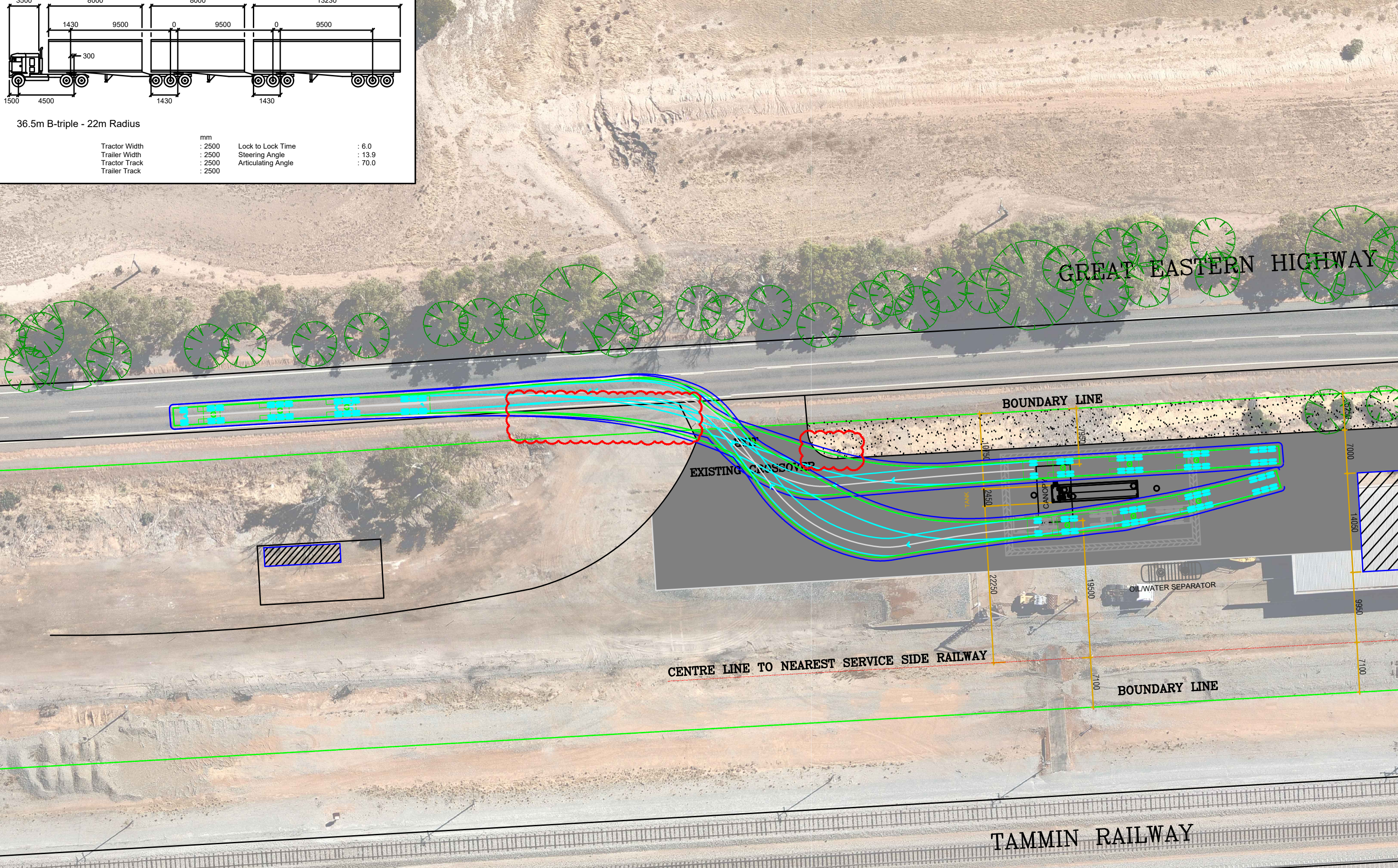






36.5m B-triple - 22m Radius

	mm		
Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 13.9
Tractor Track	: 2500	Articulating Angle	: 70.0
Trailer Track	: 2500		



Tammin Truck Tracking  
 36.5 m B-Triple (R 22 m)  
 Patronage vehicle left-out

**LEGEND**

- Vehicle Body
- Wheel Path
- 500mm Clearance

t22.286.sk05

8/12/2022

Scale: 1:500 @ A3





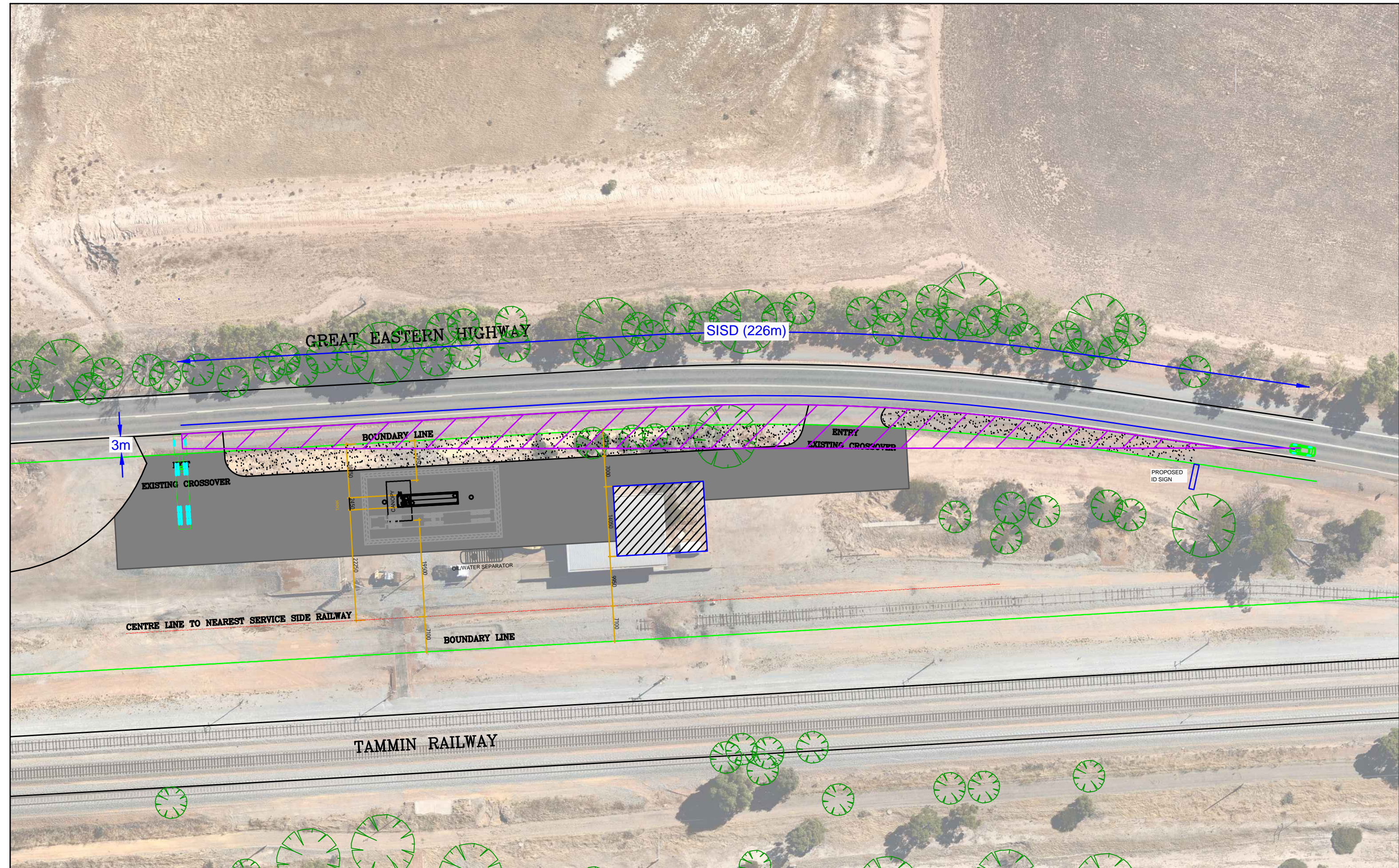
# Appendix C

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SISD ASSESSMENT PLAN







# Tammin Truck Tracking

Safe Intersection Sight Distance (SISD) - Design speed 90km/h, Reaction time 2.5 s

t22.286.sk01a

9/12/2022

Scale: 1:700 @ A3

