

Appendix E.3 Traffic Impact Assessment Report



Traffic & Transportation Direction

Corowa BESS

275 Whitehead Street, Corowa

Traffic Impact Assessment

January 2026

Reference: 1357 rep 260109 final

Corowa BESS

275 Whitehead Street, Corowa

Traffic Impact Assessment

Prepared for: Fyfe Pty Ltd

Status: Final report

Date: 9 January 2026

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Executive Summary

Amber Organisation Pty Ltd has been engaged by Fyfe Pty Ltd (NGH) to prepare a Traffic Impact Assessment of the proposed Corowa Battery Energy Storage System (BESS) (Project) for Flow Power (Utilacor Pty Ltd) on behalf of Corowa Energy Pty Ltd as trustee for the Corowa Energy Project Trust (the Applicant).

This report supports a State Significant Development (SSD) Development Consent application under Part 4, Division 4.7 of the Environmental Planning and Assessment Act 1979 (SSD-87041214), as an appendix to the Environmental Impact Statement (EIS) for the Project.

The Project includes the construction, operation and decommissioning of a BESS and associated infrastructure with a targeted electricity generation capacity of up to 100MW/200MWh (2 hours).

The Project Area is located on the western side of Whitehead Street Corowa, approximately 2.5 kilometres north of Corowa. Access to the site is proposed via a direct connection to the Whitehead Street.

Traffic generated by the Project can be separated by construction, operation and decommissioning stages. The peak traffic generating potential is during construction which generates trips associated with the workforce accessing the Project Area and the delivery of materials and plant. During operation the Project is expected to generate up to 8 vehicle movements per day associated with 1-2 maintenance personnel accessing the Project Area and some deliveries. Decommissioning is anticipated to generate a similar level of traffic to the construction stage.

The construction period is expected to commence in early 2027 and take approximately 18 months, with the peak construction period expected to take 6 months. A construction workforce of up to 75 personnel would be on-site during the peak construction phase and would primarily be drawn from Corowa.

It is anticipated that during peak construction the Project could generate up to 100 light and 48 heavy vehicles trips per day. Construction of the BESS is expected to generate approximately 62 total vehicle trips per hour in the morning and evening peak hours during the peak construction period, which would reduce to 45 vehicle trips per peak hour during the average construction periods.

In order to determine the traffic impact generated during construction of the Project, an assessment of the operation of the Honour Avenue / Bullecourt Road and Whitehead Street / Bullecourt Road intersections were carried out. Overall, the construction traffic is expected to have a minimal impact on the operation of the road network. Accordingly, it is concluded that the road network is able to accommodate the traffic generated by the development during the construction period.

Amber has undertaken an assessment of the expected access routes for construction traffic to the site which identified that a short Channelised Right Turn (CHR(s)) treatment should be provided at the Honour Avenue / Bullecourt Road intersection to comply with the requirements of the Austroads Guide. The existing intersection already provides Basic Left and Basic Right Turn treatments and has adequate sight distance to allow vehicles to safely enter the State and local road network. A strategic design has been prepared for the proposed intersection upgrade which has been designed for simultaneous B-double movements and the largest OSOM vehicle expected to access the site. The strategic design also integrates with the existing bus stop and pedestrian crossing at the intersection.

Port of Melbourne and Port of Geelong have been identified as the ports where the BESS plant will be imported. The access route utilises roads that are designated for B-Double vehicles as outlined within the National Heavy Vehicle Regulator (NHVR) Restricted Access Vehicle Map.

The preferred access route for the oversize/overmass vehicle transporting the largest BESS component is from either the Port of Melbourne or Port of Geelong. The Route Assessment has identified some minor measures such as temporary removal of traffic signs may be required along with the identified road upgrades in order to allow the vehicles to access the Project Area. The Route Assessment is provided within Appendix A of this document.

In order to mitigate the impacts of the Project during construction a Traffic Management Plan would be prepared which outlines a range of traffic management measures in order to ensure the construction traffic would have a minimal impact to the capacity and safety of the surrounding road network. The Traffic Management Plan would be prepared post-approval and prior to the construction of the Project.

Based on the assessment, it is concluded that the road network is able to accommodate the expected vehicle types and traffic volumes during the construction, operation, and decommissioning phases of the Project subject to the proposed site access upgrades and traffic management measures. Further, the site access location has been suitably designed to allow vehicles to safely enter and exit the Project Area.

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Definitions

Term	Definition
Project	A Battery Energy Storage System (BESS) as described within the EIS to which this Application applies.
Project Area	Boundary shown on Figure 1 to which the Application applies (unless otherwise stipulated).
Applicant	Corowa Energy Pty Ltd as trustee for the Corowa Energy Project Trust
Application	Application for Development Consent under Part 4.7 of the EP&A Act; and Determination under Part 9 of the EPBC Act.

1. Background

Amber Organisation has been engaged by Fyfe Pty Ltd to prepare a Traffic Impact Assessment of the proposed Corowa Battery Energy Storage System (BESS).

1.1 Introduction

Amber Organisation Pty Ltd has been engaged by Fyfe Pty Ltd (NGH) to prepare a Traffic Impact Assessment of the proposed Corowa Battery Energy Storage System (BESS) (Project) for Flow Power (Utilacor Pty Ltd) on behalf of Corowa Energy Pty Ltd as trustee for the Corowa Energy Project Trust (the Applicant).

The Project includes the construction, operation and decommissioning of a Battery Energy Storage System (BESS) and associated infrastructure with a targeted storage capacity of up to 100MW / 200MWh (2 hours).

The Project Site is located on the west side of Whitehead Street, approximately 2.5 kilometres north of Corowa within the Federation Council Local Government Area (LGA). Figure 1 shows the proposed layout of the site in relation to the road network, access locations and existing infrastructure. Access to the site is proposed from Whitehead Street.

Construction is expected to commence in early 2027 and take approximately 18 months. A maximum workforce of 75 workers would be on-site during peak construction periods with the workforce expected to be primarily located within the town of Corowa or nearby surrounding areas.

Project plant and materials are expected to be delivered from Port of Melbourne or Port of Geelong. More general construction materials and equipment will be sourced from within the Federation Council LGA where possible.

The impacts and proposed mitigation for traffic generated by the proposed construction, operation and decommissioning phases of the Project are addressed in this report in accordance with relevant regulatory requirements and guidelines.

Figure 1: Site Layout



Source: NGH

1.2 Environmental Assessment Requirements

This report supports a State Significant Development (SSD) Development Consent application under Part 4, Division 4.7 of the Environmental Planning and Assessment Act 1979 (SSD-87041214), as an appendix to the Environmental Impact Statement (EIS) for the Project. NSW Department of Planning, Housing and Infrastructure have issued Secretary's Environmental Assessment Requirements (SEARs) for the Project, with the traffic and transport matters listed within Table 1 along with the relevant response to each matter.

Table 1: Traffic and Transport SEARs and Responses

SEARs	Response
An assessment of the peak and average traffic generation, including light vehicles (including shuttle buses), heavy vehicles, heavy vehicles requiring escort, high risk heavy vehicles requiring escort (<i>noting Table 1 in TfNSW Fact Sheet - Transport Management Plans for Over Size and/or Overmass Movements in NSW</i>) and construction worker transportation	Standard construction traffic is presented in Table 7 and details of high risk and non-high risk OSOM vehicles is presented in Section 4.3.3 and 4.3.2 respectively. The assessment presented within Section 4.3.6 indicates the road network is expected to continue to operate with acceptable conditions during peak and average construction periods with the construction traffic. The highest level of traffic is expected to be generated during the peak construction period when staff arrive and depart the site at the start and end of the day. SIDRA assessments of key intersections on the access route show that the road network is able to accommodate the Project traffic and would continue to operate with a good level of service. During the middle of the day the traffic movements are expected to be predominantly associated with heavy vehicles with approximately 12 vehicles per hour. The total traffic using the road network during the network peak hour is expected to be higher than the construction peak hour however the increase in traffic can be readily accommodated. It is anticipated that up to 5 high risk oversize/overmass vehicles may be required to access the site during construction. The vehicles would travel outside of the peak periods and would be able to be accommodated on the road network with minimal impacts subject to the proposed road upgrades identified within Section 6.5. Suitable road management strategies would also be adopted as part of specific permits that would be applied for prior to construction.
An assessment of the likely transport impacts to the site access route(s) from the above listed vehicles including the site access point(s) and any Crown land, particularly in relation to the capacity and condition of the roads, road safety and intersection performance.	The haulage route for heavy vehicles arriving from Port of Melbourne and Port of Geelong is assessed within Section 5. The site access arrangements are assessed within Section 8. The access has been designed for heavy vehicle movement and provides suitable sight distance in accordance with the Austroads Guide. A review of the existing road safety data and casualty crash history is provided within Section 2.6 which indicates that the road network is operating in a relatively safe manner.

SEARs	Response
A concept Level Route Analysis required for heavy vehicles requiring escort and high risk heavy vehicles requiring escort; a cumulative impact assessment of traffic from nearby developments (including mining operations);	The Applicant has advised that the Port of Melbourne or Port of Geelong is to be utilised as the origin point for OSOM vehicles including the transformer transport vehicle. In order to determine whether any civil works are required to accommodate the OSOM vehicle on the road network a route assessment has been undertaken and is provided in Appendix A. The assessment identified some minor measures such as temporary removal of traffic signs may be required along with the identified road upgrades in order to allow the vehicles to access the Project Area. Further information on OSOM vehicles is provided in Section 6. The assessment presented within Section 4.3.5 provides a review of the cumulative impacts of the Project along with other major Projects within the surrounding area. The assessment identifies some projects may generate additional vehicle movements around Corowa. These vehicle movements would be distributed on the surrounding road network and are expected to have a minimal cumulative impact on the operation of the local road network.
Provide details of measures to mitigate and / or manage potential impacts (developed in consultation with the relevant road authorities) including: - a schedule of all required road upgrades (including resulting from heavy vehicle and over mass / over dimensional traffic haulage routes), - strategic concept designs of proposed road upgrades (including the site access point); and - road maintenance contributions, and any other traffic control measures.	A Traffic Management Plan (TMP) is to be developed prior to construction of the Project which should include the recommendations provided within Section 9. The adoption of the mitigation measures outlined within Section 10 and the TMP would ensure construction traffic has a minimal impact on the capacity and safety of the surrounding road network. In addition to the traffic management measures, it is proposed to provide minor road upgrades as part of the Project which are to be constructed prior to construction commencing. A schedule of the road upgrades is provided in Section 10.1.

This Traffic Impact Assessment (TAI) has also been prepared in response to the Agency Advice provided by Transport for New South Wales (TfNSW). Responses to each of the comments provided within the Agency Advice are outlined within Appendix B.

1.3 Road/Rail Authority Consultation

This TIA has been undertaken in consultation with Transport for NSW, Federation Council and V/Line with a summary provided in Table 2.

Table 2: Road Authority Consultation

Road Authority	Method	Correspondence
Transport for NSW	Email	24/10/25: Requested appropriate traffic growth rates and any other matters relevant to be considered as part of the TIA beyond those listed in the Agency Advice. 12/11/25: Advised to use 2.0% annual growth rate for traffic model.
Federation Council	Email and phone call	Feedback on any road safety issues and nearby projects was sought via email and phone. Council representatives outlined the status of upgrade works on Whitehead Street and Bullecourt Road which were recently completed, as well as some concerns about potential safety risks at the intersection of Whitehead Street / Bullecourt Road, and recommended temporary measures (such as temporary speed limit reductions during construction) which would be appropriate, along with dilapidation surveys to monitor the conditions of Whitehead Street and Bullecourt Road.
ARTC	Email	Sought feedback via phone on the transport management arrangements for OSOM loads at the level crossing identified on the proposed OSOM route to site. ARTC advised that requirements would be outlined on receipt of a formal National Heavy Vehicle Register (NHVR) permit application.

1.4 Purpose of Document

This Traffic Impact Assessment has been prepared to assess the construction, operational and decommissioning traffic impacts, and the access arrangements of the Project. The assessment responds to the SEARs and details how road impacts of the Project traffic, particularly from heavy vehicle use and oversize and overmass vehicles, would be avoided or managed using road-use management strategies.

More specifically, the report addresses the following key matters:

- Details of both light and heavy vehicle traffic volumes and proposed transport routes;
- An assessment of the potential traffic impacts of the Project on road network function and safety;
- An assessment of the capacity of the existing road network to accommodate the type and volume of traffic generated by the Project;
- Details of measures to mitigate and/or manage potential impacts, including construction traffic control, road dilapidation surveys and measures to control dust generated by traffic volumes; and
- Details of access roads and how these connect to the existing road network and ongoing operational maintenance.

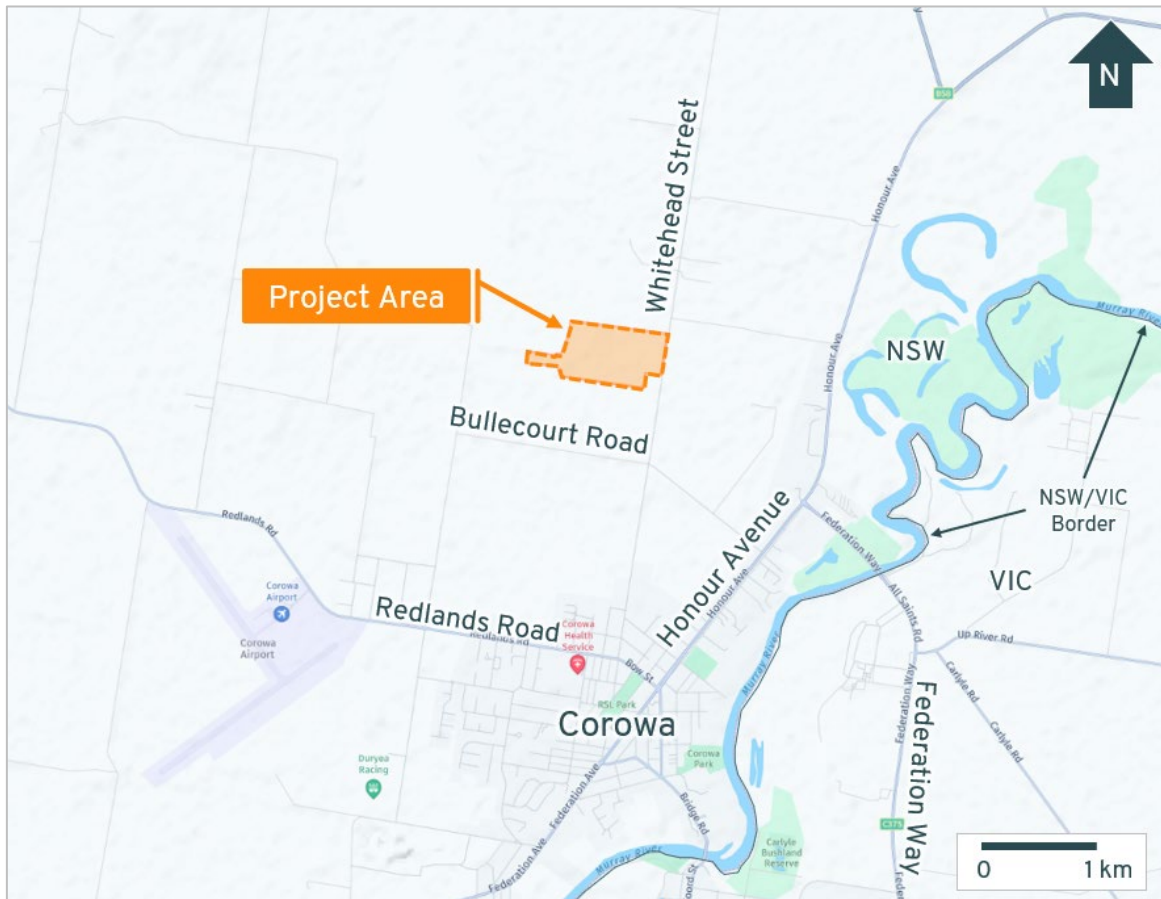
The traffic assessment has been undertaken in accordance with the *Guide to Transport Impact Assessment* and relevant Austroads Guidelines.

2. Existing Conditions

2.1 Site Location

The site is located at 275 Whitehead Street, Corowa, approximately 2.5 kilometres north of the Corowa Central Business District and 50 kilometres west of Albury-Wodonga. Figure 2 shows the location of the site in relation to the surrounding transport network.

Figure 2: Site Location



Source: Nearmap

The figure shows the site is well connected with the surrounding State Road network with Honour Avenue running in a general north to south alignment to the east of the site before continuing as Federation Avenue to the south and Riverina Highway to the north-east. Federation Way connects to the Victorian State road network south-east of the site.

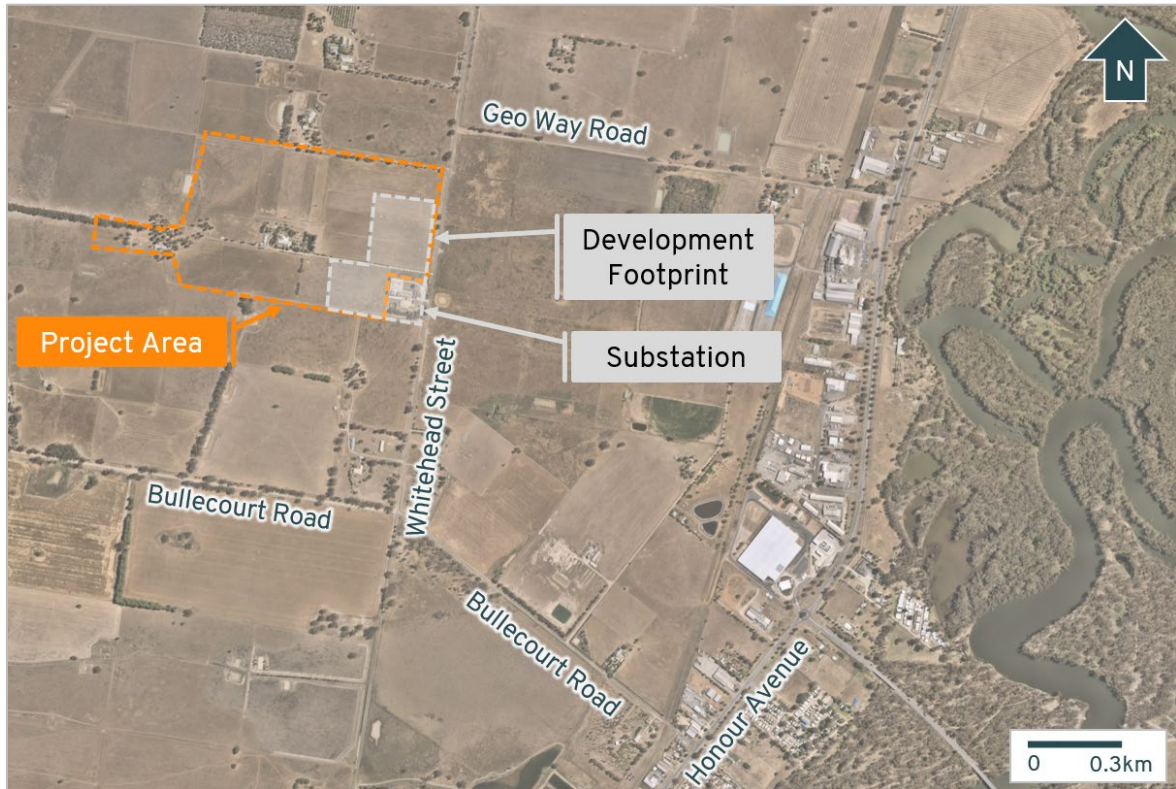
The site and surrounding area are zoned *RU1 – Primary Production* and are primarily occupied by agricultural or vegetated land. Land to the east of Whitehead Street is zoned *R5 – Large Lot Residential*.

The Project site has an area of approximately 42.3 hectares and the development footprint would be approximately 13.9 hectares. The site is currently used for agricultural purposes and has a single rural dwelling within the property to the west of the development footprint. The Essential Energy Corowa 132 / 22 kV substation adjoins to the south-east corner of the site and an easement containing network distribution infrastructure runs along the southern site boundary, as

shown in Figure 1. To account for any impacts required by the project to connect with the substation, the entire substation lot would be included within the development footprint.

Figure 3 provides an aerial photograph of the site which shows the agricultural nature of the surrounding area.

Figure 3: Aerial Photograph of Site and Surrounding Area



Source: Nearmap

2.2 Road Network

Honour Avenue is a State road that runs in a general northeast-southwest alignment between its continuation as Riverina Highway to the north and Federation Avenue in Corowa to the south. Within the vicinity of the site, the carriageway has a typical width of 12.0 metres which accommodates a lane in each direction and 2.5 metre wide sealed shoulders. There is a posted speed limit of 80 km/hr. The intersection with Bullecourt Road is a T-intersection with vehicles exiting Bullecourt Road required to give way. The intersection has basic left and right turn treatments. The Honour Avenue approach to Bullecourt Road is provided in Figure 4.

Whitehead Street is a local road that runs in a general north-south alignment between Riverina Highway to the north and Betterment Parade, Corowa, to the south. It has a typical carriageway width of approximately 5.0 metres with 1.0 metre wide unsealed verges which accommodates one lane of traffic in each direction. There are no turning treatments at the existing site access and a posted speed limit of 100km/hr applies along the road. The Whitehead Street approach to Bullecourt Road is provided in Figure 4.

Bullecourt Road is a local road that runs in a general northwest-southeast alignment between Cemetery Road to the west and Honour Avenue to the east. It has a typical carriageway width of 6.0 metres with narrow grassed verges which accommodates one lane of traffic in each direction. There is a posted speed limit of 80km/hr applied along the road. The intersection with Whitehead

Street is a cross intersection with vehicles on Bullecourt Road required to give way. The Bullecourt Road approach to Whitehead Street and Honour Avenue is provided in Figure 4.

Figure 4: Intersection Images

Whitehead Street / Bullecourt Road Intersection	
Whitehead Street towards Bullecourt Road	Bullecourt Road towards Whitehead Street
	
Honour Avenue / Bullecourt Road Intersection	
Honour Avenue towards Bullecourt Road	Bullecourt Road towards Honour Avenue





2.3 Traffic Volumes

2.3.1 Honour Avenue

Amber commissioned a tube count on Honour Avenue approximately 40 metres north of the intersection with Bullecourt Road to determine the existing road environment. The tube count was undertaken from Saturday 18 October to Saturday 25 October 2025. The survey results are provided in Appendix C with a summary presented in Table 3.

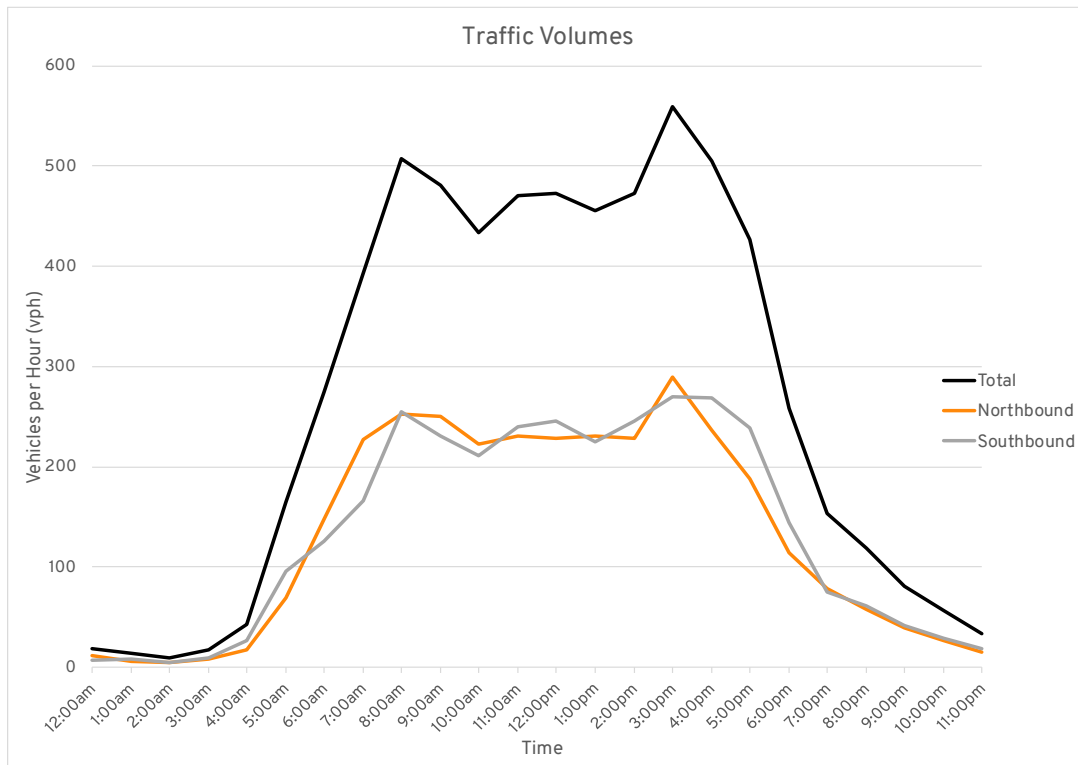
Table 3: Honour Avenue Traffic Volumes – North of Bullecourt Road Intersection

	Weekday Traffic (vpd)	Weekday AM Peak - 08:00 (vph)	Weekday PM Peak - 15:00 (vph)	85 th Percentile Speed	Heavy Vehicle Percentage
Northbound	3,170	250	289	76.7 km/hr	11.6%
Southbound	3,231	254	270	78.6 km/hr	
Both Directions	6,401	504	559	77.6 km/hr	

The survey data indicates Honour Avenue currently experiences a high level of daily traffic in the order of 6,401 vehicles per day which is split relatively evenly between northbound and southbound vehicles. The 85th percentile speed is lower than the posted speed limit and the road accommodates approximately 12% heavy vehicle traffic.

The average Monday to Friday hourly volumes are shown graphically in Figure 5.

Figure 5: Average Week Day Traffic Volumes on Honour Avenue



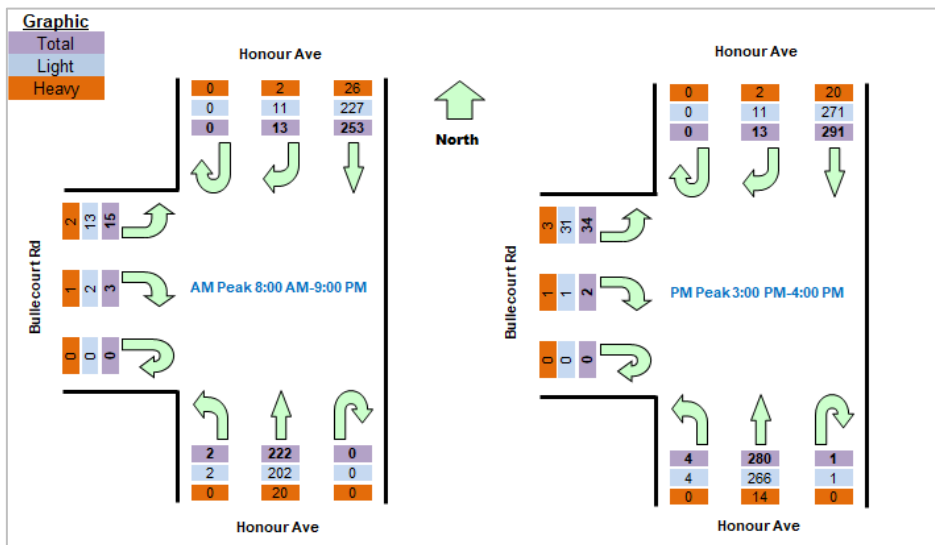
The figure shows that the highway currently carries a moderate level of traffic with a relatively consistent volume of traffic between 8:00am and 5:00pm on weekdays.

Overall, the data indicates Honour Avenue currently accommodates a moderate level of traffic for its road classification and is able to accommodate an increase in vehicle traffic.

2.3.2 Intersection Volumes

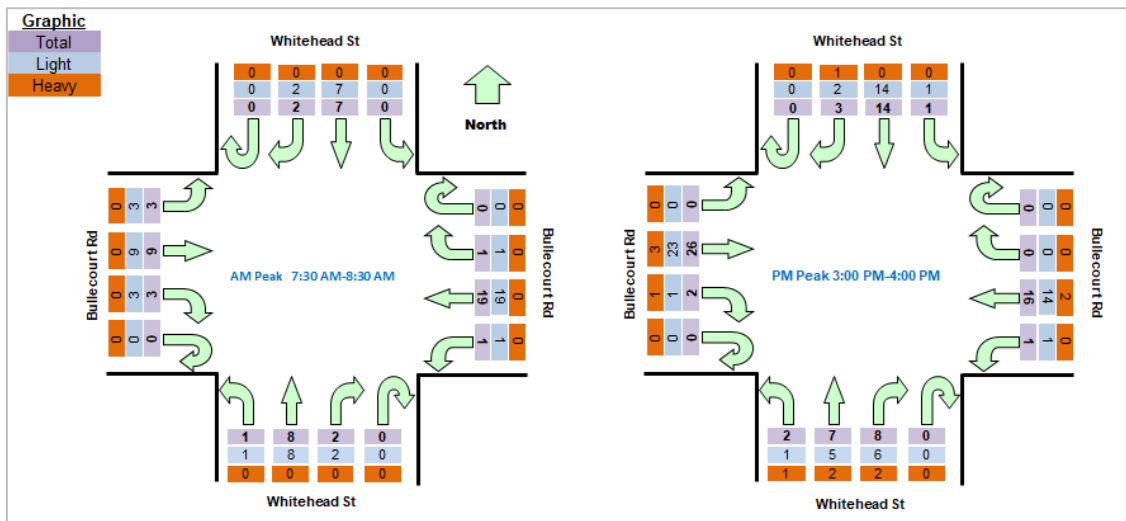
Amber commissioned two intersection turn movement counts (TMC) at Honour Avenue / Bullecourt Road and Bullecourt Road / Whitehead Street to determine the existing road environment. The TMC was undertaken on Tuesday, 21 October 2025. A summary of the results is presented in Figure 6 and Figure 7, respectively, with the full survey data provided within Appendix C.

Figure 6: Peak Hour Survey Results – Honour Avenue / Bullecourt Road



The survey data indicates that the intersection currently experiences a moderate level of traffic with a slightly higher southbound flow during both peak hours. The afternoon peak hour, between 3:00pm and 4:00pm, experiences slightly more traffic than the morning peak hour, 8:00am to 9:00am. More than double the volume of vehicles exit Bullecourt Road during the afternoon peak hour than in the morning peak hour with the majority turning left onto Honour Road. Approximately 10% and 6% heavy vehicles use this intersection in the morning and afternoon peak hours, respectively.

Figure 7: Peak Hour Survey Results – Whitehead Street / Bullecourt Road



The survey data indicates that the intersection currently experiences a low level of traffic with the highest flow being recorded as the through movement on Bullecourt in both directions. The afternoon peak hour, between 3:00pm and 4:00pm, experiences more traffic than the morning peak hour, 7:30am to 8:30am. A significant increase in vehicles traveling eastbound on Bullecourt through the intersection occurred in the afternoon peak hour. Heavy vehicles were not recorded using the intersection during the morning peak hour and 15% heavy vehicles use this intersection in the afternoon peak hour.

2.4 Public Transport Services

A small number of public bus services are provided from Corowa and within the vicinity of the site as well as school bus services operating on Whitehead Street as outlined in Table 4.

Table 4: Bus Services

Route No.	Route Name	Services	Schedule / Details
915	Albury to Corowa via Howlong	Two TfNSW bus services each Monday to Friday	Departing Corowa Coach Stop at 7:20am and 2:00pm, traveling along Honour Avenue and Federation Way. One other stop in Corowa on Redlands Road, west of Whitehead Street.
741	Albury to Echuca	NSW TrainLink Coach offering one service on Tuesdays, Thursdays and Saturdays	Stopping at Corowa Coach Stop at 4:20pm, traveling on Riverina Highway through to Honour Avenue.
742	Echuca to Albury	NSW TrainLink Coach offering one service on Tuesdays, Thursdays and Saturdays	Stopping at Corowa Coach Stop at 10:30am, traveling on Honour Avenue through to Riverina Highway.
S783	Coreen South Mahonga Lane to Corowa Schools	School bus service on school days only	Bus stop located on Whitehead Street at the intersection of Bullecourt Road. The bus is scheduled to use this stop at 8:36am and 3:37pm.
S790	Rutherglen Schools to Howlong via Corowa	School bus service on school days only	This service travels along Honour Avenue from Corowa to Riverina Highway at approximately 3:40pm.
S787	Howlong-Goombargana Rd to Corowa Schools via Brocklesby	School bus service on school days only	This service travels on Honour Avenue between Corowa and Riverina Highway at approximately 8:30am and 3:15pm.
S793	Howlong to Corowa Schools via Riverina Hwy	School bus service on school days only	This service travels on Honour Avenue between Corowa and Riverina Highway at approximately 8:30am and 3:05pm.
S782	Rand to Corowa Schools	School bus service on school days only	This service travels on Honour Avenue between Corowa and Riverina Highway at approximately 8:37am and 3:12pm.
S789	Corowa to Rutherglen Schools via Wahgunyah Primary	School bus service on school days only	This service travels on Honour Avenue between Corowa and Riverina Highway at approximately 8:00am and 3:45pm.
S788	Corowa to Rutherglen Schools via Federation Way	School bus service on school days only	Bus stop located on Honour Avenue at the intersection of Bullecourt Road. The bus is scheduled to use this stop at 8:26am and 3:46pm.
S780	Oaklands to Corowa Schools via Daysdale	School bus service on school days only	Bus stop located on Honour Avenue at the intersection of Bullecourt Road. The bus is scheduled to use this stop at 8:40am and 3:09pm.

The table shows that one school bus service (S783) passes the site during school peak period between 8:30am and 8:40am, and 3:30pm to 3:40pm.

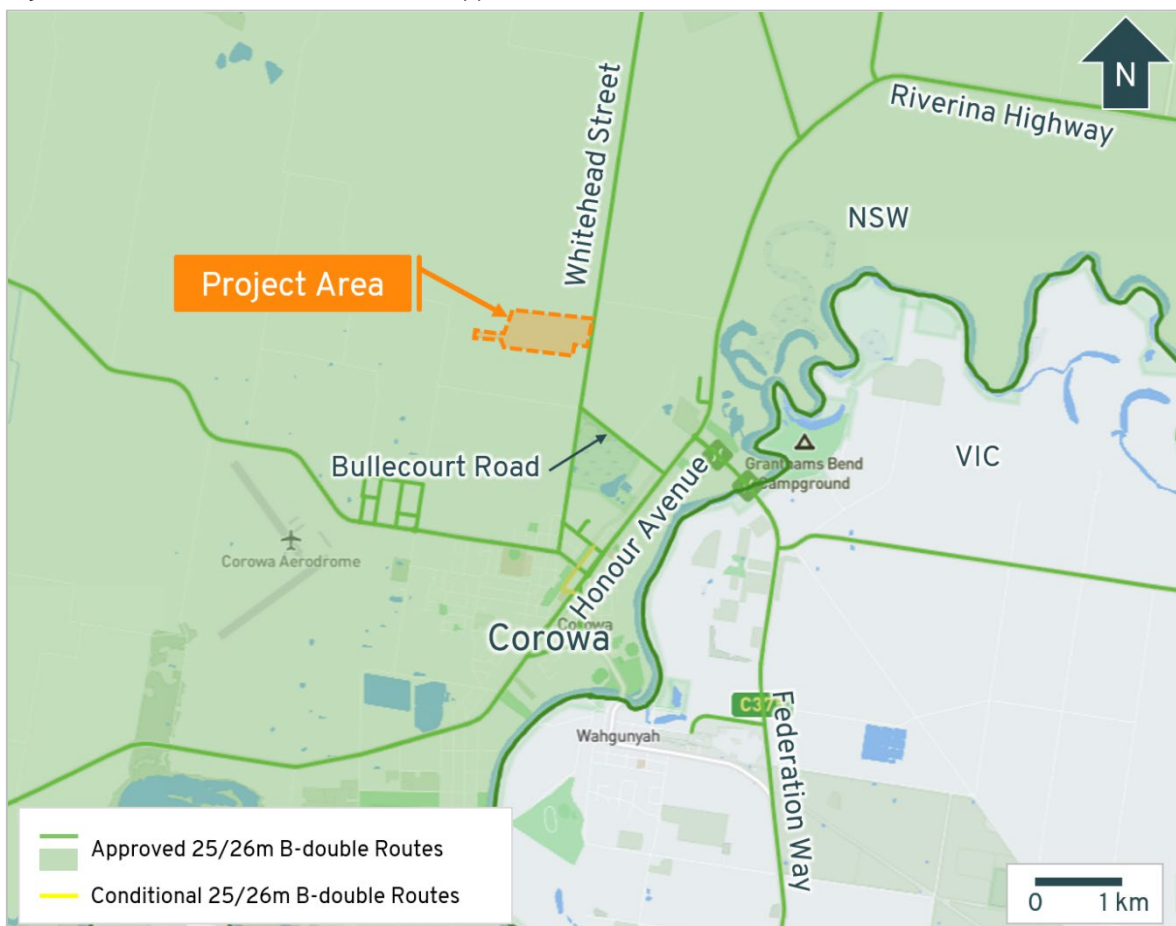
The other bus services listed use roads surrounding the area that may also be used by Project traffic, including along Honour Avenue and the existing bus stop and shelter opposite Bullecourt Road.

2.5 Restricted Vehicle Access

2.5.1 B-Doubles

The National Heavy Vehicle Regulator (NHVR) Restricted Access Vehicle Map for the surrounding area is provided within Figure 8. The green lines and green shaded areas indicate approved B-Double routes while the yellow lines represent approved routes with travel conditions. The figure shows that the surrounding State road and local road network are B-Double approved routes. Accordingly, the site has access to the B-Double approved road network via Whitehead Street.

Figure 8: NHVR 26m B-Double Network Approved Roads



Source: NHVR Restricted Access Vehicle Map

2.5.2 Class 1 OSOM Vehicles

The NHVR Oversize Overmass Load Carrying Vehicles Network map for the surrounding area is provided within Figure 9. The map shows approved routes for eligible vehicles operating under the

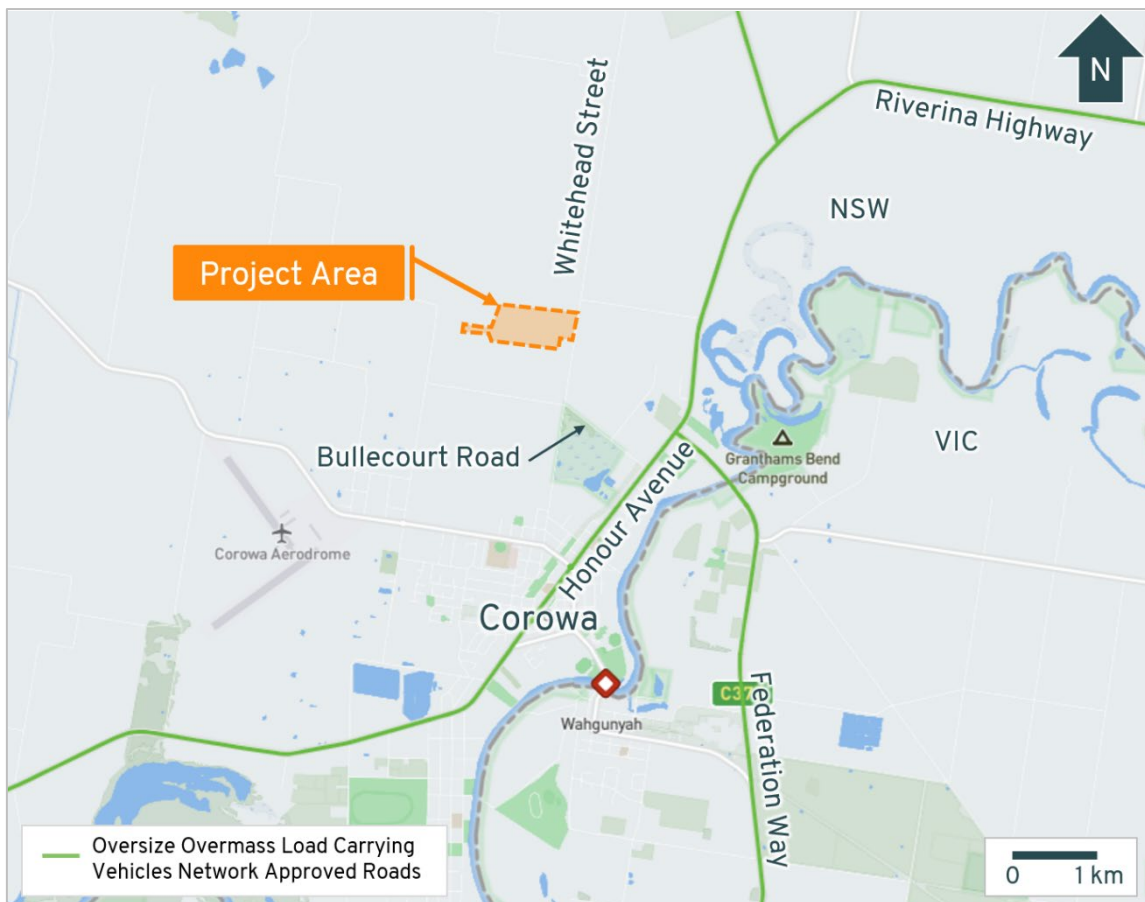
Multi-State Class 1 Load Carrying Vehicles Mass and Mass Exemption Notices. A summary of the allowances under each exemption within New South Wales notice is provided below:

- Dimension: up to 5.0m wide, 5.0m high, 30.0m long and 7.5m rear overhang on approved (state owned) routes in NSW.
- Mass: up to 115.0 tonnes for rows of 8 tyres low loaders and up to 77.5 tonnes for rows of 4 tyres low loader combinations.

Vehicles operating in the daytime and not exceeding 3.5m wide or 26m long generally do not require a pilot vehicle.

The green lines indicate approved Class 1 OSOM Vehicle routes. Accordingly, the site has access to the Class 1 OSOM approved road network via Honour Avenue, Federation Way and Riverina Highway.

Figure 9: NHVR Class 1 Oversize Overmass Load Carrying Vehicles Network Approved Roads



Source: NHVR Oversize Overmass Load Carrying Vehicles Map

2.5.3 Special Purpose Vehicles (SPVs)

Vehicles built for a purpose other than carrying goods such as a mobile crane, a concrete pump or drill rig are defined as Special Purpose Vehicles (SPVs).

The NSW Special Purpose Vehicle Network map provides details of the approved roads as well as conditions of access and travel restrictions for eligible SPVs operating under the:

- National Class 1 Special Purpose Vehicle Notice;

- NSW Class 1 4-Axle & 5-Axle All Terrain Mobile Crane Mass and Dimension Exemption Notice; or
- NSW Class 1 All Terrain Mobile Crane and Dolly Combination Mass and Dimension Exemption Notice.

Roads that are not approved on the map require an access permit from the National Heavy Vehicle Regulator or the relevant road manager. There are six SPV access networks for cranes travelling on approved State Roads in NSW:

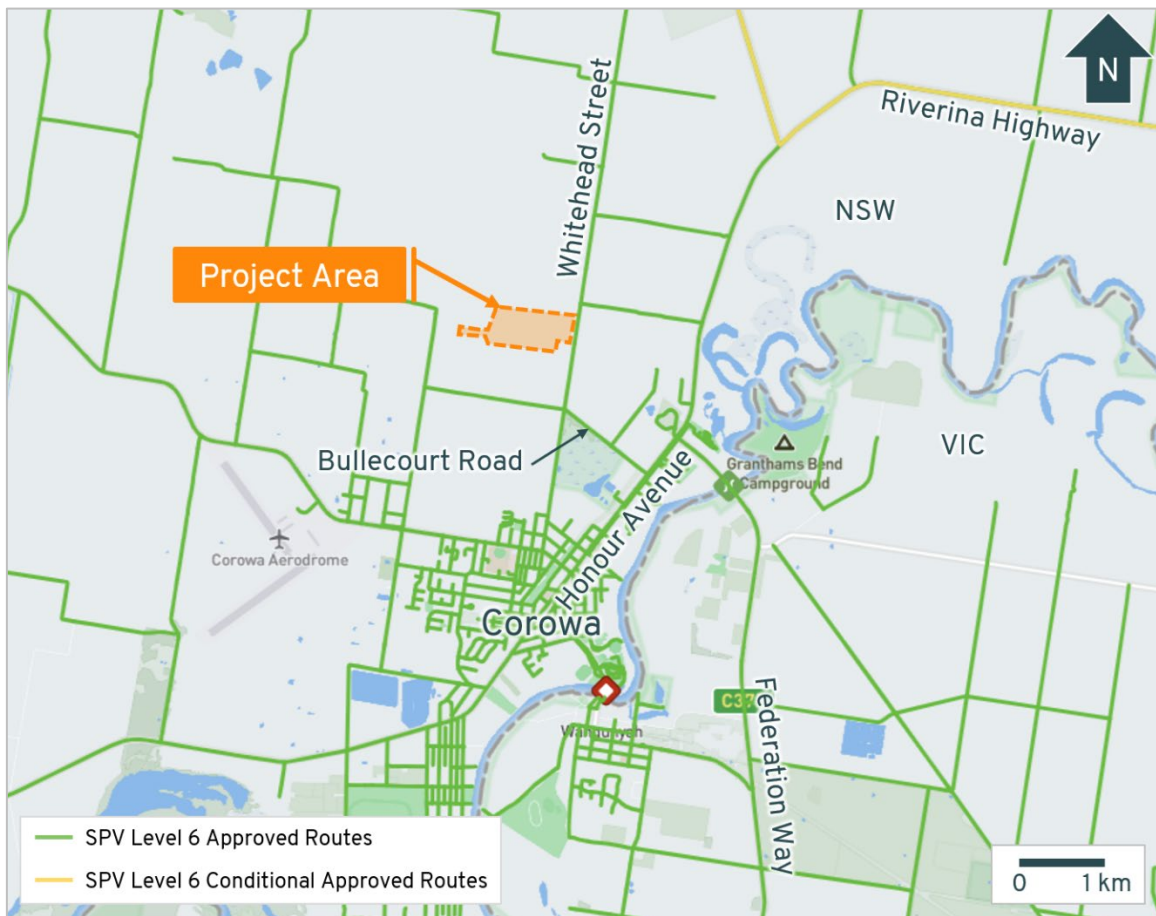
- SPV Level 1: Cranes and SPVs up to 40 tonnes that comply with the Bridge Formula.
- SPV Level 2: Crane and dolly combinations up to 70 tonnes that comply with the Bridge Formula.
- SPV Level 3: 3-axle All Terrain Cranes up to 36 tonnes and 4-axle All Terrain Cranes up to 43 tonnes.
- SPV Level 4: 4-axle All Terrain Cranes up to 45.8 tonnes and 5-axle All Terrain Cranes up to 50 tonnes.
- SPV Level 4 / 12t per axle: 4-axle All Terrain Cranes up to 48 tonnes and 5-axle All Terrain Cranes up to 50 tonnes.
- SPV Level 6: 5-axle All Terrain Cranes up to 60 tonnes.

The approved routes for SPV Level 6 vehicles travelling within the surrounding area are identified within Figure 10. The figure shows that SPV Level 6 vehicles are approved from Federation Way and Honour Avenue to the Project Area. Riverina Highway has conditional approval which states the following:

“Vehicles exceeding 2.5 metres wide or 22 metres long are not permitted to travel between sunrise and sunset during public holiday periods (including 23 December in one year to 3 January of the following year inclusive).”

SPV Level 1 vehicles are only permitted to use State roads within the vicinity of the Project Area. Accordingly, approval for SPV Level 1 vehicles would be required to get access to the Project Area from the State road network.

Figure 10: NHVR SPV Level 6 Network Approved Roads



Source: NHVR Special Purpose Vehicle Access Map

2.6 Crash History

Amber has conducted a review of the TfNSW Centre for Road Safety Crash and Casualty Statistics database for all recorded crashes within the surrounding area of the Project. The crash database provides the location and severity of all injury and fatal crashes for the five-year period from 2020 to 2024. The search area included the following roads:

- Whitehead Street;
- Bullecourt Road;
- Honour Avenue between Bullecourt and Federation Way; and
- All associated intersections.

The results of the crash search are summarised in Table 5.

Table 5: Crash Search Results

Road	Location	Severity	Crash Type	Date and Time	Light and Weather Conditions
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Honour Ave	Intersection with Number 386 Hn	Moderate Injury	Rear end (vehicles in same lane)	December 2022 (14:00 - 15:59)	Daylight (Overcast)
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The crash search indicates that there are no discernible crash trends within the surrounding road network. It is noted that one crash occurred within the search area causing a moderate injury. The crash was a rear end incident and appears to be isolated. Given the results, it is concluded that the road network is currently operating in a relatively safe manner near the proposed site access.

3. Project Description

3.1 Proposed Works

The project comprises the development, construction, operation and decommissioning of a Battery Energy Storage System (BESS) facility that would store electricity from the grid and release it during periods of high demand.

Key features of the project would include:

- Permanent electrical infrastructure:
 - A BESS with a capacity of up to 100 MW / 200 MWh:
 - The battery storage units will be comprised of Lithium Iron Phosphate (LFP) cells, enclosed in 60 containers (approx. 5,000 cells per container)
 - Switch room, power inverters, High Voltage (HV) transformers and HV switchgear
 - 30 x Medium Voltage Power Station (MVPS) Power Conversion Systems (PCS)
 - Harmonic filter
 - Above ground, below ground (or a combination of both) transmission connection from the proposed BESS to the neighbouring existing 132 / 22 kV Essential Energy Corowa Substation site
- Permanent ancillary infrastructure:
 - Operation and maintenance facility including site office
 - A Battery Management System to monitor individual battery cell health and integrated fire monitoring and control systems
 - Internal vehicle access tracks and parking
 - Security fencing, lighting, signage and lightning protection
 - Water tanks
 - Parking / garage
 - Security fencing
 - Access off Whitehead Street for:
 - Dedicated access to the host landholder's property and dwelling
 - Dedicated access to the BESS facility.
- Temporary construction facilities including:
 - Construction compound and laydown areas
 - Temporary vehicle access tracks and parking.
- Environmental management provisions
 - Screening vegetation
 - A noise wall and amenity (solid) screening fence.

3.2 Construction Information

The physical construction of the Project is expected to commence in early 2027 and take approximately 18 months, with the peak construction period expected to take 6 months. Construction activities would be undertaken during standard daytime construction hours, as follows:

- Monday to Friday: 7am – 6pm
- Saturday: 8am – 1pm
- No work on Sundays or public holidays.

Any construction outside of these normal working hours would only be undertaken with prior approval from relevant authorities and consultation with impacted road users. A construction workforce of up to 75 personnel would be on-site during the peak construction phase and would primarily be drawn from the town of Corowa or nearby surrounding areas.

A Traffic Management Plan (TMP) would be prepared by the appointed contractor prior to construction commencing as outlined in Section 9.

4. Traffic Assessment

Traffic generated by the Project can be separated into three distinct stages: construction, operation and decommissioning. The peak traffic generating potential is during construction which generates trips associated with the workforce accessing the Project Area and the delivery of raw materials and plant. During operation the Project is expected to generate a much lower amount of traffic associated staff attending the site as required for preventative and responsive maintenance works. The BESS will be primarily operated remotely thereby not requiring a full time staff presence at the site. Therefore, up to two maintenance personnel may access the Project Area on a given day. Decommissioning is anticipated to generate a similar level of traffic to the construction stage.

The following provides an assessment of the potential traffic impacts of the Project on the road network function for each of the three stages.

4.1 Definitions

The following terminology is referenced throughout this section and within the remainder of the report.

Table 6: Traffic Assessment Definitions

Terminology	Definition
Vehicle Trip	A trip is defined as a one way vehicular movement from one point to another excluding the return journey. Therefore, a return trip to and from the site is counted as two trips.
Vehicles per Day (vpd)	The volume of traffic (number of trips) occurring within a 24-hour period. For traffic volumes associated with the Project, this value is generally an even number to reflect the return trip associated with each vehicle.
Vehicles per Hour (vph)	The volume of traffic (number of trips) occurring within a one hour period.
Heavy Vehicle	A vehicle with a Gross Vehicle Mass (GVM) or Aggregate Trailer Mass (ATM) of more than 4.5 tonnes as defined in the Heavy Vehicle National Law (HVNL).
General Access Vehicle (GAV)	General Access Vehicles (GAV) don't require a permit or notice to access road networks; these vehicles have as-of-right access to the network unless signposted otherwise (e.g. a bridge tonnage restriction).
Restricted Access Vehicle (RAV)	Restricted Access Vehicles (RAV) include Class 1, 2 or 3 vehicles that operate under a notice or permit and vehicles operating under higher mass limits (HML) that have restrictions on the parts of the road network they can access.
Oversize and/or Overmass (OSOM) Vehicle	OSOM vehicles are defined as Class 1 vehicles under the Heavy Vehicle National Law. A vehicle or vehicle combination is considered to be OSOM if it exceeds any general access mass or dimension limits.
High Risk Oversize/Overmass Vehicle (requiring escort)	OSOM vehicles exceeding certain criteria for length, height, rear overhang, forward projection, width or total combination weight. These vehicles are subject to Transport Management Plans (TMPs) which provide a comprehensive planning and execution focus to ensure that these movements are carried out in a safe and responsible manner with reduced impact on other road users and road infrastructure. These vehicles also typically require pilot vehicle escort.

4.2 Pre-Construction Minor Works

A review has been undertaken and is anticipated that pre-construction minor-works would represent up to one or two vehicles per day, typically associated with surveyors or consultants visiting the site outside peak hours only using light vehicles or small trucks. The existing access into the Project Area is considered adequate to accommodate pre-construction minor works.

No overlap is expected to occur between the pre-construction and main construction works.

4.3 Construction Phase

4.3.1 Standard Construction Traffic Generation

Construction traffic generated by the Project on a day-to-day basis can be broadly separated into the following categories as outlined in Table 7.

Table 7: Standard Construction Traffic

Terminology	Definition
Light Vehicles	The use of light vehicles will be associated with transporting the workforce to/from the Project Area. A conservative vehicle occupancy of approximately 1.5 people per car has been adopted to calculate the light vehicle traffic generation noting the workforce would be encouraged to carpool.
Heavy Vehicles	
Rigid Trucks	Rigid Trucks will be used to deliver raw materials and smaller plant and have a typical length between 8 and 13 metres.
Truck and Dog	Truck and Dog vehicles consist of a rigid truck towing either a dog trailer or a pig trailer and are not more than 19 metres in length. A dog trailer is a trailer with axles at either end of the trailer, a pig trailer has the axles centred on the trailer. These vehicles will be utilised to transport the majority of quarry materials to/from the site.
Semitrailers	Semitrailers will be used to transport larger equipment and materials. These vehicles consist of a truck and a single trailer with a total length of 19 metres.
B-Doubles	B-Doubles will also be used to transport larger plant. B-Doubles consist of a truck with two trailers and have a maximum length of 26 metres.
Non High Risk OSOM (not requiring escort)	Class 1 OSOM vehicles which can operate on the approved network outlined in Section 2.5.2 subject to travel conditions, as well as vehicles built for a purpose other than carrying goods such as a mobile crane, a concrete pump or drill rig which are defined as Special Purpose Vehicles (SPVs) and can also operate on the relevant approved networks subject to travel conditions.

The peak hour for construction traffic will occur at the start and end of the day when workers are transported to/from the Project Area. Most workers will typically arrive on-site between 6:00am and 7:00am and depart between 5:00pm and 7:00pm. Workers generally have staggered finish times which results in the evening peak hour being less pronounced, however for the purposes of this assessment it is conservatively assumed that the evening peak hour Project traffic is the same as the morning peak, and the evening peak hour occurs from 5:30pm to 6:30pm.

The construction traffic volumes for the Project have been provided by the Applicant. It is anticipated that during peak construction the Project would generate up to 100 light vehicle and

48 heavy vehicle trips per day. Table 8 summarises the forecast traffic volumes expected to be generated during the construction period of the Project.

Table 8: Traffic Generation During Construction Period

Vehicle Type		Average Construction Periods		Peak Construction Period	
		Vehicle Trips per Day (vpd)	Peak Hour Trips (vph)	Vehicle Trips per Day (vpd)	Peak Hour Trips (vph)
Light Vehicles (LV)		80	40	100	50
	Rigid Trucks	8	2	16	4
	Truck & Dog / Semitrailers	8	2	20	4
	B-Doubles	4	1	8	3
	Non High Risk OSOM	4	0	4	1
	<i>HV Subtotal</i>	<i>24</i>	<i>5</i>	<i>48</i>	<i>12</i>
Total		104	45	148	62

Overall, the Project is expected to generate up to 62 vehicle trips per hour in the morning and evening peak hours during the peak construction period, which would reduce to 45 vehicle trips per hour during the average construction periods.

4.3.2 Non High Risk OSOM Vehicles

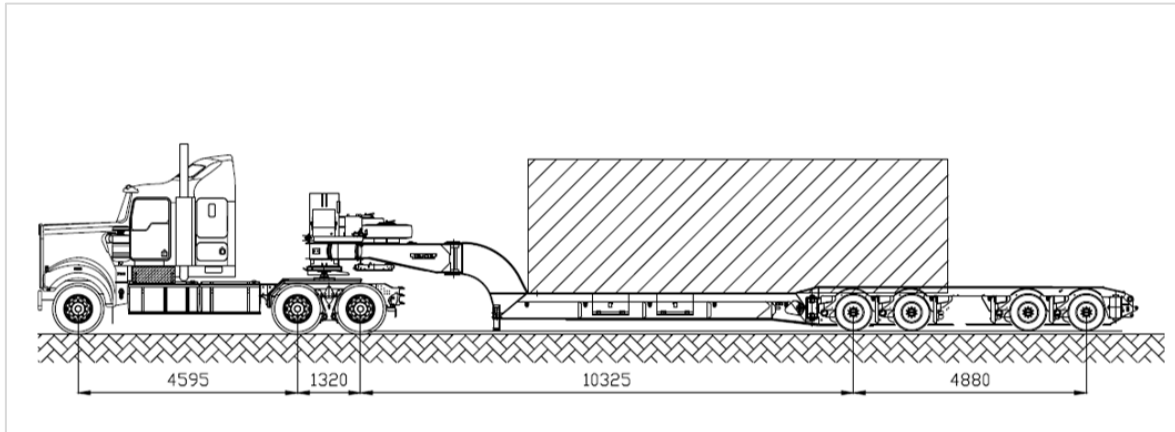
In order to deliver key battery components (battery containers) it is anticipated that Class 1 OSOM vehicles will be required.

Each battery container unit is anticipated to measure approximately 7 metres length by 2.5 metres width by 3 metres height. This is similar in size to a 20-foot shipping container.

However, units could weigh in the order of 40 tonnes each resulting in the requirement of an OSOM vehicle combination in order to safely and appropriately accommodate the weight. An example vehicle combination is shown below in Figure 11.

These battery container vehicle combinations operate in a broadly consistent with a B-Double vehicle.

Figure 11: Example Battery Container Vehicle Combination



There is a mix of other non-high risk OSOM vehicles required for the construction which would include vehicles and plant like:

- mobile cranes
- drum rollers
- dump truck
- concrete trucks and pumps
- excavators
- graders
- compactors

It is anticipated that the vehicles would comply with the Class 1 exemption notices and would be able to operate on the approved NSW Special Purpose Vehicle Network, including the combinations required for the battery units. The vehicles would access the site directly from Whitehead Street which is rated to accommodate complying vehicles.

Vehicle types and any necessary permits would be confirmed and obtained (as needed) once the construction methodology is determined.

4.3.3 High Risk OSOM Vehicles

In addition to the traffic volumes outlined in Table 8, high risk OSOM vehicles will also be required for the delivery of the largest plant and equipment. These vehicles would exceed the Class 1 mass and/or dimension requirements and are subject to separate permit applications and regulations, including use of a vehicle escort.

High risk OSOM vehicles will contribute the smallest percentage of vehicles accessing the Project Area during the construction period and are subject to the development of Transport Management Plans to manage each vehicle trip in a safe manner. The movement and impact of these vehicles, and the subsequent road upgrades required, are discussed within Section 6. The following assessment focuses on the impacts of the regular light and heavy vehicles outlined in Table 8 which generate the bulk of the traffic and represent the typical traffic impact of the Project on a day-to-day basis.

4.3.4 Traffic Distribution

It is anticipated that a large proportion of the workforce for the construction of the Project would be located in Corowa and surrounding region. Materials and equipment will generally be sourced from within the local area where practicable, with all larger plant expected to be delivered from Port of Melbourne or the Port of Geelong.

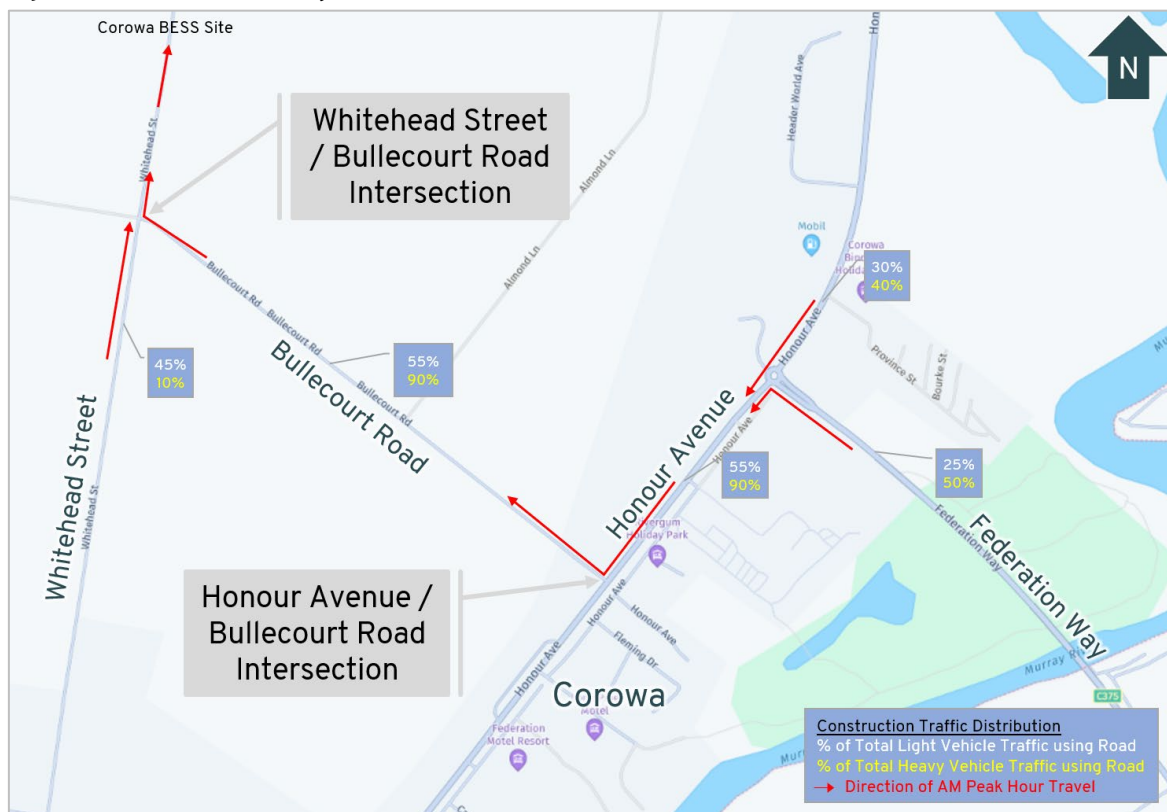
During the morning peak all vehicle trips would be toward the site and in the evening peak all vehicle trips would be away from the site. The majority of heavy vehicle trips would be distributed throughout the day and would be split evenly between inbound and outbound trips.

Accordingly, the following distribution for the AM peak hour has been adopted:

- **Light vehicles:** 45% from Corowa, 30% from the north and northeast, 25% from Victoria; and
- **Heavy Vehicles:** 50% from Victoria, 40% from the north and northeast, 10% from Corowa.

Figure 12 shows the origin of vehicles in relation to the intersections that have been modelled. It is noted that the same distributions will apply in the opposite direction during the PM peak hour.

Figure 12: AM Peak Hour Project Traffic Distribution



Source: Nearmap

Based on the traffic distribution above the estimated vehicle trips generated by the site during the peak hours are shown in Figure 13 and Figure 14.

Figure 13: Expected AM Peak Hour Project Traffic Volumes During Peak Construction

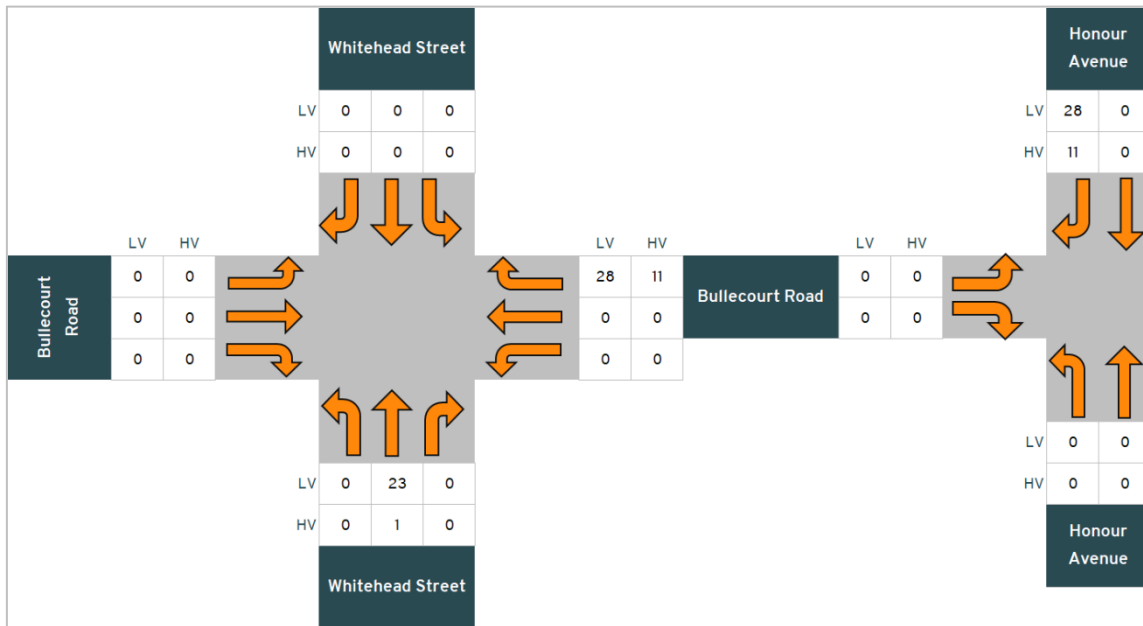
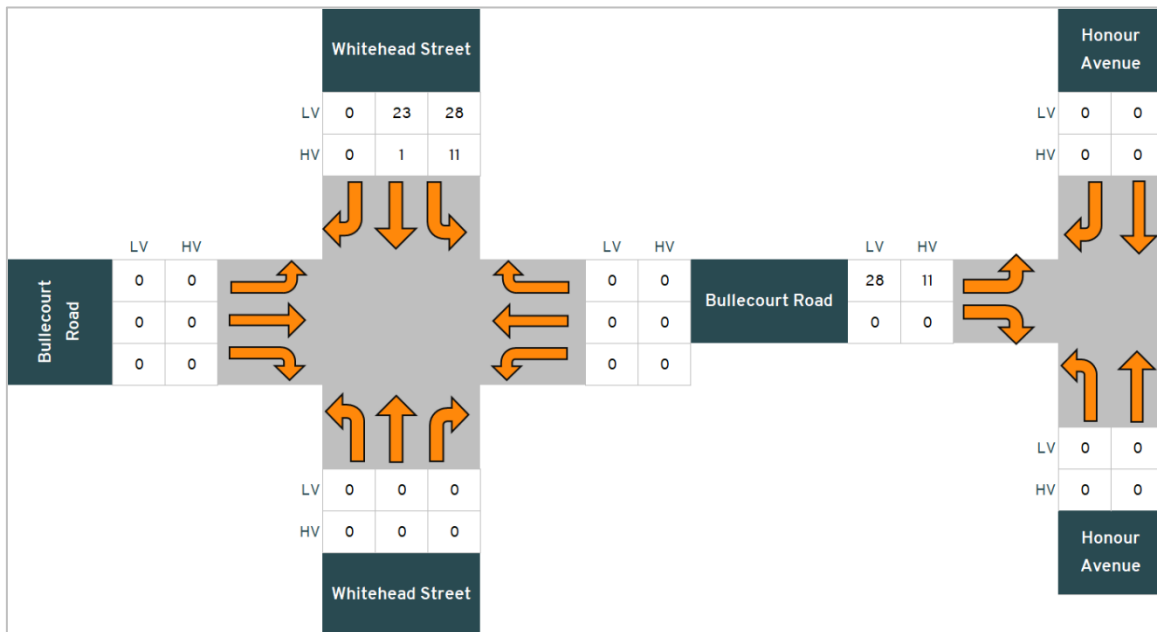


Figure 14: Expected PM Peak Hour Project Traffic Volumes During Peak Construction



4.3.5 Cumulative Traffic Impacts

The primary traffic impact of the BESS is generated during construction which is anticipated to start in early 2027 and take approximately 18 months. A summary of the major projects that are proposed in the surrounding area are identified in Table 9. Highlighted projects would use Riverina Highway within the vicinity of the Project Area and have been included in cumulative traffic impact data.

Table 9: Assessment of Cumulative Impacts of Nearby Developments

Project	Description	Potential Vehicle Conflict
Corowa Grower Farm	Proposed upgrades to the existing Corowa Grower / Breeder Farm, located approximately 5.8km north-west of the subject site.	Some construction activity is already underway as this project is multi staged. There is potential for construction timelines to overlap and for construction vehicles to interact within the town of Corowa. Access routes are not expected to be impacted.
Howlong Sand and Gravel Quarry Expansion (Approved)	Expansion of an existing sand and gravel quarry from 30,000 tonnes p.a. to 330,000 tonnes p.a. Located approximately 25km east of the subject site.	Project approved in 2022 and no indication of commencing construction. There is potential for construction of both projects to overlap. The workforce is expected to be from the Howlong area. There is low potential for construction vehicle interaction between these projects.
Mulwala Solar Farm (Approved)	Development of an 80 megawatt solar farm and associated infrastructure, located approximately 35km north-west of the subject site.	Project construction has commenced and is anticipated to be complete in 2026. If delayed there is potential for construction vehicles to interact within the town of Corowa although access routes are not expected to be impacted.
Finley BESS (Prepare EIS)	A battery energy storage system (BESS) with a capacity of 400MW/1600MWh and associated infrastructure located approximately 83km north-west of the subject site.	Scoping report states project construction could commence in 2026. There is potential for construction of both projects to overlap. However due to the distance from the Project Area, there is not expected to be any construction vehicle interaction between these projects.
Berrigan BESS (Prepare EIS)	Construction, operation, and decommissioning of a battery energy storage system (BESS) with a capacity of 400MW/1600MWh and ancillary infrastructure. Located approximately 87 kilometres north-west of the subject site.	Construction may take 6-12 months. Currently an unknown commencement time or any traffic volume data. There is potential for construction of both projects to overlap. Expected to have majority of workforce in Finley or Deniliquin. There is low potential for construction vehicle interaction between these projects.
South Coree BESS (Prepare EIS)	Construction, operation, and decommissioning of a battery energy storage system (BESS) with a capacity of 100MW/400MWh and ancillary infrastructure.	Construction may start in 2027 and take approximately 15 months to complete. There is potential for construction of both projects to overlap. Expected to have majority of workforce in Finley and some in Deniliquin. There is low potential for construction vehicle interaction between these projects.
Glenellen Solar Farm (Approved)	Development of a 200 MW solar farm and associated infrastructure. Located approximately 47km north-east of the subject site.	Project approved in 2023 and construction commenced in late 2024 and is expected to take 12-18 months. There is potential for construction of both projects to overlap. The workforce is expected to be from the Albury area. There is low potential for construction vehicle interaction between these projects.

Project	Description	Potential Vehicle Conflict
Jindera BESS (Response to Submissions)	Construction, operation and decommissioning of a Battery Energy Storage System (BESS) with a capacity of 250 megawatts (MW) / 500 megawatt hours (MWh), as well as associated infrastructure. Located approximately 48km north-east of the subject site	Construction may start in 2025 and be complete in 2026. There is potential for construction of both projects to overlap if this is delayed. The workforce is expected to be from the local area of Jindera. There is low potential for construction vehicle interaction between these projects.
Kilnacroft Creek (Prepare EIS)	Construction, operation and decommissioning of a BESS with a capacity of 500 MW / 2,000 MWh and ancillary infrastructure, located approximately 48km north-east of the subject site.	Construction may start in late 2026. There is potential for construction of both projects to overlap. The workforce is expected to be from the Albury area. There is low potential for construction vehicle interaction between these projects.
Jinderra Solar Farm (Approved)	Development of a 120 MW solar farm with energy storage and associated infrastructure, located approximately 47km east of the subject site.	Project approved in 2020 and no indication of commencing construction. There is potential for construction of both projects to overlap if this is delayed. The workforce is expected to be from the Jindera area. There is low potential for construction vehicle interaction between these projects.
Culcairn Solar Farm	A 440 MWp renewable electricity project comprising solar arrays and battery storage located approximately 62km north-east of the subject site.	Construction has commenced on the project. Construction vehicles would already be considered on the existing traffic volumes. The workforce is expected to be from the local area around Culcairn. There is low potential for construction vehicle interaction between these projects.
Inland Rail – Albury to Illabo (Approved)	Enhancement works to structures and sections of track along 185 kilometres of existing operational standard gauge rail from the Victorian/New South Wales border to Illabo in regional NSW. Closest extent approximately 50km east of subject site.	Construction anticipated to commence in 2025 and is expected to take 12-18 months. There is potential for construction of both projects to overlap. The workforce is expected to be from the Albury area. There is low potential for construction vehicle interaction between these projects.
Wodonga Solar Farm (Approved)	Development of a 50MW photovoltaic solar farm, located approximately 31km south-east of the subject site.	Construction anticipated to commence soon. There is potential for construction of both projects to overlap. The workforce is expected to be from the Albury-Wodonga area. There is low potential for construction vehicle interaction between these projects.
Indigo Solar Farm (Approved)	Development of a 5MW photovoltaic solar farm, located approximately 30km south-east of the subject site.	Construction commencement date not yet know. There is potential for construction of both projects to overlap. The workforce is expected to be from the local area which may include Howlong. There is low potential for construction vehicle interaction between these projects within the vicinity of the subject site.

Project	Description	Potential Vehicle Conflict
Barnawartha Solar Farm (Approved)	Development of a 64MW Solar Farm with 64MW BESS, located approximately 28km south-east of the site.	Construction commencement date not yet know but anticipated to take 12-18 months. There is potential for construction of both projects to overlap. The workforce is expected to be from the local area which may include Howlong. There is low potential for construction vehicle interaction between these projects within the vicinity of the subject site.
Wangaratta Solar Farm (Approved)	Development of a 40MW Solar Farm with 80MWH BESS, located approximately 40km south of the subject site.	Construction has commenced on the project and is expected to be complete by the end of 2025. The projects are therefore not anticipated to overlap.

The above assessment indicates that a number of projects are expected to generate additional vehicle traffic within and around Corowa. The vehicles would be distributed on the surrounding road network and are expected to have a minimal cumulative impact on the operation of the road network. It should be noted that many projects listed above currently don't provide any information on construction timelines and as such come with a low risk of conflicting peak construction periods.

4.3.6 Traffic Assessment

The majority of the traffic travelling to/from the Project Area would travel from Victoria via Federation Way and Honour Avenue, or from areas north or north-east of the Project Area via Riverina Highway and Honour Avenue. A small proportion of traffic will approach the Project Area from the south, Corowa, via Whitehead Street. In order to determine the ability of the road network to accommodate the traffic expected to be generated during the peak construction period, a traffic modelling exercise has been undertaken for two intersections Honour Avenue / Bullecourt Road and Whitehead Street / Bullecourt Road using the SIDRA intersection modelling software.

Level of Service is a qualitative measure used to describe the operating conditions of a section of road or an intersection. Levels of Service are designated from A to F from best (free flow conditions) to worst (forced flow with stop start operation, long queues and delays) and represent the perception of the road conditions by motorists including speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience, and safety. The assessment of the level of service for sign-controlled intersections is based on the average delay (seconds/vehicle) of the critical movement.

The traffic modelling exercise has been undertaken for the morning peak hour (6:00-7:00am) and evening peak hour (5:30pm-6:30pm) during the peak construction period. The traffic volumes utilised for the assessment are the total volumes for the following:

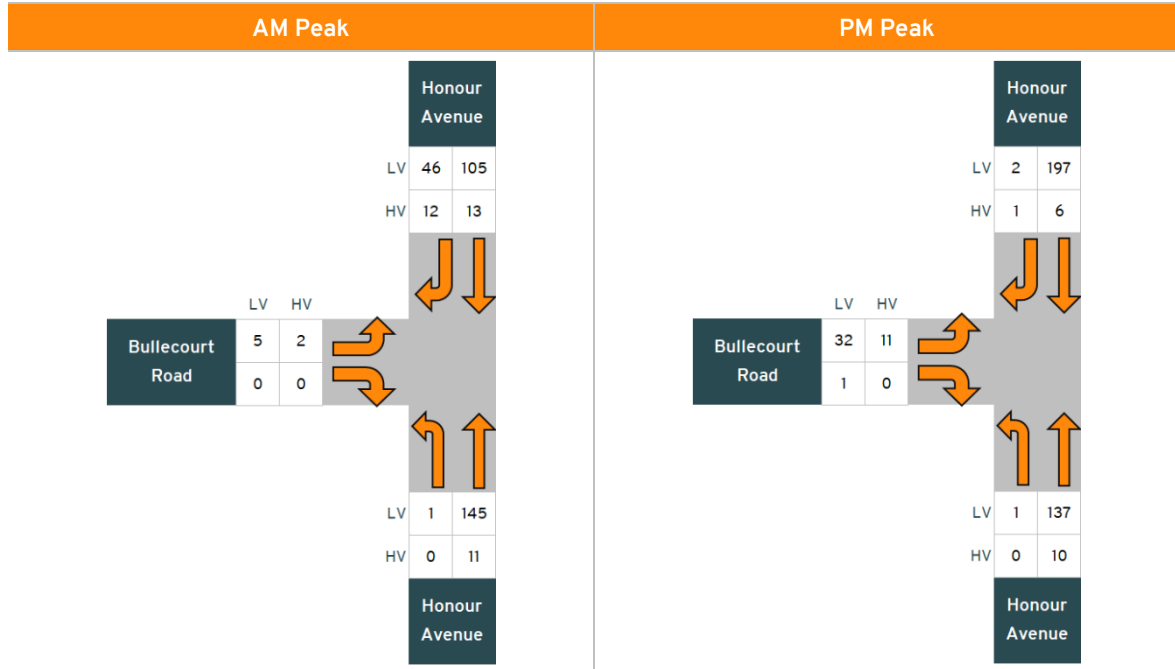
- Existing surveyed traffic volumes presented within Appendix C adjusted by an estimated 2.0% compounded annual growth rate over 3 years to reflect the end of the construction period in 2028; and
- The peak construction project traffic volumes presented within Figure 6 and Figure 7.

The resulting traffic volumes have been used in two separate SIDRA intersection assessments.

4.3.6.1 Honour Avenue / Bullecourt Road Intersection

The traffic volumes for the Honour Avenue / Bullecourt Road intersection are provided in Figure 15.

Figure 15: Peak Hour Volumes During Peak Construction – Honour Avenue / Bullecourt Road



The results of the SIDRA analysis for the morning and evening peak hour are provided within Appendix F and are summarised in Table 10.

Table 10: SIDRA Analysis Results Summary – Honour Avenue / Bullecourt Road

Approach / Movement		Morning Peak Hour			Evening Peak Hour		
		Average Delay (sec)	95% Queue (m)	Level of Service	Average Delay (sec)	95% Queue (m)	Level of Service
Honour Avenue (South)	Left	7.0	0.0	A	7.0	0.0	A
	Through	0.0	0.0	A	0.0	0.0	A
Honour Avenue (North)	Through	0.4	3.4	A	0.0	0.2	A
	Right	7.8	3.4	A	7.5	0.2	A
Bullecourt Road (West)	Left Turn	8.1	0.2	A	8.0	1.3	A
	Right Turn	8.0	0.2	A	8.1	1.3	A

The SIDRA analysis indicates the following:

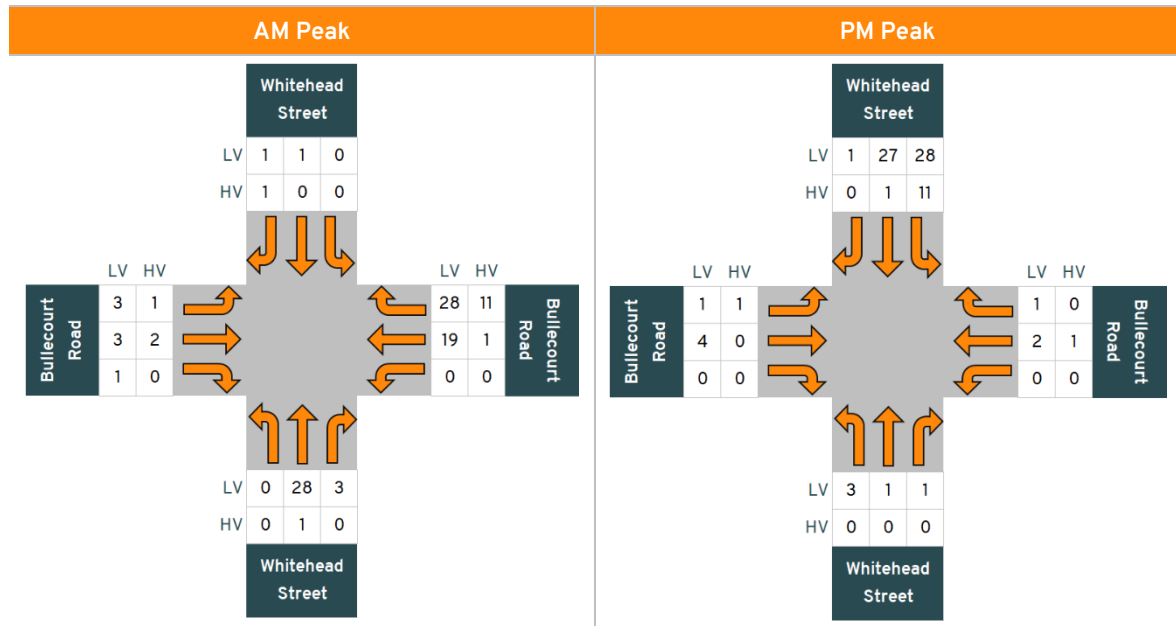
- The intersection is expected to operate with minimal queue lengths on all legs;
- The overall average delay at the intersection is 1.7 and 1.0 second in the morning and evening peak hour respectively; and
- The intersection is expected to continue to operate with an excellent level of service (LOS A).

The modelling shows that the intersection and approaching roads are operating with minimal delays during peak periods.

4.3.6.2 Whitehead Street / Bullecourt Road Intersection

The traffic volumes for the Whitehead Street / Bullecourt Road intersection are provided in Figure 16.

Figure 16: Peak Hour Volumes During Peak Construction – Whitehead Street / Bullecourt Road



The results of the SIDRA analysis for the morning and evening peak hour are provided within Appendix F and are summarised in Table 11.

Table 11: SIDRA Analysis Results Summary – Whitehead Street / Bullecourt Road

Approach / Movement		Morning Peak Hour			Evening Peak Hour		
		Average Delay (sec)	95% Queue (m)	Level of Service	Average Delay (sec)	95% Queue (m)	Level of Service
Whitehead Street (South)	Left	6.9	0.1	A	7.0	0.0	A
	Through	0.0	0.1	A	0.1	0.0	A
	Right Turn	6.6	0.1	A	6.8	0.0	A
Bullecourt Road (East)	Left Turn	6.9	1.7	A	7.0	0.1	A
	Through	5.9	1.7	A	6.5	0.1	A
	Right Turn	7.5	1.7	A	6.9	0.1	A
Whitehead Street (North)	Left Turn	7.1	0.1	A	7.5	0.1	A
	Through	0.1	0.1	A	0.0	0.1	A
	Right	7.8	0.1	A	6.6	0.1	A
Bullecourt Road	Left Turn	7.5	0.3	A	7.9	0.2	A
	Through	6.5	0.3	A	5.8	0.2	A

Approach / Movement		Morning Peak Hour			Evening Peak Hour		
		Average Delay (sec)	95% Queue (m)	Level of Service	Average Delay (sec)	95% Queue (m)	Level of Service
(West)	Right Turn	6.9	0.3	A	6.7	0.2	A

The SIDRA analysis indicates the following:

- The intersection is expected to operate with minimal queue lengths on all legs;
- The overall average delay at the intersection is 5.0 and 4.8 seconds in the morning and evening peak hour respectively; and
- The intersection is expected to continue to operate with an excellent level of service (LOS A).

The modelling shows that the intersection and approaching roads are operating with minimal delays during peak periods.

Accordingly, both intersections and surrounding local road network are expected to continue to operate with an excellent level of service with minimal queuing and delays expected during the peak construction period.

4.4 Operational Phase

During operation, the BESS is expected to generate a minimal level of traffic associated with maintenance and operation services. The BESS is expected to be operated by up to 1-2 maintenance personnel and occasional deliveries resulting in a traffic generation of up to 8 vehicle movements per day which would result in a negligible change to the traffic environment. There would also be occasional heavy vehicles delivering to the site but only as required for maintenance.

4.5 Decommissioning Phase

At the end of the operational life of the Project all above ground infrastructure would be dismantled and removed from the Project Site. Internal roads, if not required for ongoing farming purposes or fire access, would be removed and the site reinstated as close as possible to its original state.

Traffic generation during decommissioning would be similar to traffic generation during the average construction period. A comprehensive Traffic Management Plan would be prepared prior to the decommissioning phase in conjunction with the relevant road authorities. This would aim to ensure adequate road safety and road network operations are maintained.

4.6 Summary

The Project is expected to generate the highest level of traffic during the peak construction period. The assessment presented above indicates that the road network is able to accommodate the Project traffic during the peak construction period. The assessment also included a review of the cumulative traffic generated by other major Projects within the surrounding area.

During construction the vehicle trips throughout the middle of the day are expected to be predominantly associated with heavy vehicles with approximately 12 vehicles per hour. This increase in traffic would be within the daily variation of traffic volumes on the road network and can be readily accommodated.

It is anticipated that high risk OSOM vehicles would access the site during the construction phase. The vehicles would be unloaded and kept to their smallest practicable dimensions when departing the site. The vehicles will travel under escort outside of the peak periods and would be able to be accommodated on the road network subject to the road upgrades and mitigation measures discussed in Section 10 which would be confirmed as part of specific permits that would be applied for prior to the high risk OSOM vehicle movements.

During operation the increase in traffic of up to 8 vehicle movements per day would result in a negligible change to the traffic environment.

Accordingly, the road network is able to readily accommodate the traffic generated by the Project during the construction, operation, and decommissioning periods.

5. Heavy Vehicle Route Assessment

All specialist plant and BESS components are expected to be delivered from Port Melbourne or Port of Geelong. The following provides a review of the proposed access routes for heavy vehicles (excluding high risk OSOM vehicles) travelling from the ports.

5.1 General Access Vehicles

All heavy vehicle Project traffic up to and including semitrailers would be classified General Access Vehicles (GAV) which have as-of-right access to the road network unless signposted otherwise. These vehicles would travel along a direct route between Port of Melbourne or the Port of Geelong and the Project Area.

The proposed access route from Port of Melbourne to the site measures approximately 301 kilometres and is outlined in Figure 17.

Figure 17: General Access Vehicle Route from Port of Melbourne to Site



Source: Google Maps - [Link](#)

The proposed access route from Port of Geelong to the site measures approximately 357 kilometres and is outlined in Figure 18.

Figure 18: General Access Vehicle Route from Port of Geelong to Site



Source: Google Maps - [Link](#)

5.2 B-Double / Class 1 OSOM Access Route

The proposed principal access routes for 26m B-Doubles and non-high risk OSOM vehicle combinations travelling from Port of Melbourne or the Port of Geelong to the Project Area are the same as the GAV route proposed above in Section 5.1. A summary of the relevant roads is provided in Table 12 and Table 13. All roads on the routes are approved for 26 metre B-Double access, with all roads also pre-approved for Class 1 OSOM vehicles¹, except for Bullecourt Roads and Whitehead Street, as outlined in the NHVR National Network Map.

¹ operating under relevant Multi-State Class 1 Load Carrying Vehicle Mass and/or Load Exemption Notices

Table 12: B-Double / Class 1 OSOM Vehicle Route - Access Roads from Port of Melbourne

Road Name	State	Jurisdiction	B-Double and Class 1 Approved
Footscray Road	Victoria	DTP	Approved
Citylink			
Tullamarine Freeway			
Western Ring Road			
Hume Freeway			
Bowser Road			
Federation Way	New South Wales	TfNSW	Approved
Federation Way			
Honour Avenue		Federation Council	Approved for B-Doubles Approval required for Class 1 OSOM combinations
Bullecourt Road			
Whitehead Street			

Table 13: B-Double / Class 1 OSOM Vehicle Route - Access Roads from Port of Geelong

Road Name	State	Jurisdiction	B-Double and Class 1 Approved
Madden Avenue	Victoria	City of Greater Geelong	Approved
Seabeach Parade		DTP	
St Georges Road			
Princes Highway			
Princes Freeway			
Western Ring Road			
Hume Freeway			
Bowser Road			
Federation Way			
Federation Way	New South Wales	TfNSW	Approved
Honour Avenue			
Bullecourt Road		Federation Council	Approved for B-Doubles Approval required for Class 1 OSOM combinations
Whitehead Street			

5.3 Mitigation Measures for Non-High Risk OSOM Vehicles

A TMP is to be developed which is recommended to include the following measures to minimise the impact of construction traffic:

- Neighbours of the Project are to be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access.
- Heavy vehicles should avoid travel during peak school bus operating times to limit the interaction of larger vehicles and vulnerable road users. School buses operate along Riverina Highway as outlined in Section 2.4 and will be detailed within the TMP.
- Temporary speed limit reductions and suitable warning signs during construction on Bullecourt Road and Whitehead Street to minimise safety risks on the access route to site, as outlined in Section 9.2, as well as ensuring all motorists that travel to and from the site follow the project Driver Code of Conduct, as outlined in Section 9.4.

Therefore, it is concluded that the road network is suitable to accommodate the future light and heavy vehicle traffic volumes generated by the Project.

6. High Risk OSOM Vehicles

OSOM vehicles will be required to deliver larger plant to the site such as the sub-station transformer and earthmoving equipment. These vehicles are expected to exceed the Class 1 mass and/or dimension requirements and would be classified as high risk OSOM vehicles. These vehicles are subject to Transport Management Plans (TMPs) which provide a comprehensive planning and execution focus to ensure that vehicle movements are carried out in a safe and responsible manner with reduced impact on other road users and road infrastructure. High risk OSOM vehicles also typically require pilot vehicle escort.

The Applicant has advised that up to five high risk OSOM vehicles could be required to access the site during the construction period associated with the transformer, key project infrastructure (such as prefabricated buildings) and construction equipment (such as cranes). The vehicles would be unloaded and kept to their smallest practicable dimensions when departing the site to avoid classification as OSOM where possible.

High risk OSOM vehicles will travel outside of the peak periods and would be subject to the mitigation measures discussed throughout this section which would be confirmed as part of specific permits that would be applied for prior to construction.

6.1 Load and Vehicle Configurations

The largest OSOM vehicle expected to the site will transport the transformer from the Port of Melbourne and will depart the site unloaded during construction and decommissioning. The OSOM vehicle will travel outside of the peak periods and will be subject to the road upgrades and mitigation measures discussed throughout this section which would be confirmed as part of specific permits that would be applied for prior to construction.

The following provides a review of the proposed access route for the transformer vehicle which is the largest transport vehicle configuration proposed.

6.2 Transformer Vehicle

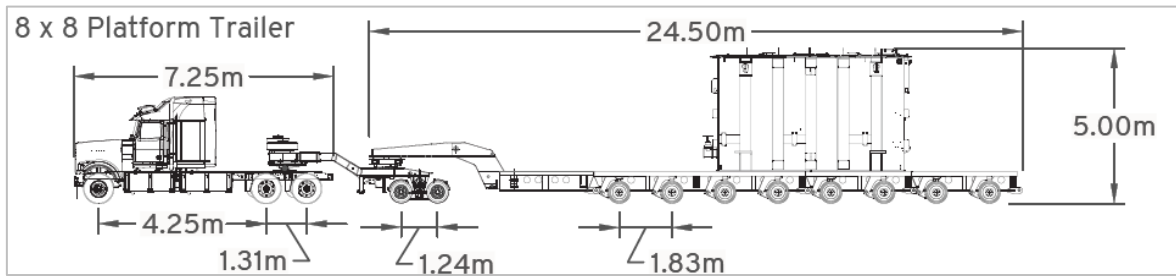
The Applicant has provided information regarding the expected specifications of the transformers which are outlined in Table 14.

Table 14: Estimated Transformer Specifications

Length (mm)	Width (mm)	Height (mm)	Mass	Trailer Specs
7250	4200	4000	101 tonnes	8x8 Platform Trailer

An OSOM vehicle configuration has been identified for the expected transformer model. The vehicle used for the assessment is shown within Figure 19 and is based on feedback from a transport company which confirmed that the vehicle specification would be suitable for the weight and size of the transformer.

Figure 19: OSOM Vehicle



Further details on the specification of the OSOM vehicle configuration are included in Appendix A.

6.3 Access Route

The Applicant has advised that the transformer delivery will be from the Port of Melbourne in Victoria. In order to determine whether any civil works are required to accommodate the OSOM vehicle on the road network a route assessment has been undertaken from this origin. The OSOM vehicle would be provided with escort and pilot vehicles in accordance with relevant authority requirements.

The proposed OSOM route for the transformer is consistent with the B-Double access route (Section 5.2). The OSOM transformer route would utilise the following roads to access the site as outlined in Table 15.

Table 15: OSOM Route – Access Roads

Road Name	State	Jurisdiction	OSOM Approved
Footscray Road	Victoria	DTP	Approved
Citylink			
Tullamarine Freeway			
Western Ring Road			
Hume Freeway			
Bowser Road			
Federation Way			Approved with travel conditions
Federation Way	New South Wales	TfNSW	Approved
Federation Way			
Honour Avenue		Federation Council	Unrated
Bullecourt Road			
Whitehead Street			

The access route, along with 4 identified truck rest areas that could be used along the route, are shown in Figure 20. It is noted that additional rest stop areas may also be available along the route. A total of 15 points of interest for further assessment were identified as part of the assessment of the access route. The points of interest have been assessed in further detail, including the site access, with the full assessment provided within Appendix A.

Figure 20: OSOM Route



Source: Google Maps – Link, NHVR Route ID: 20J90-2 v1

6.4 Bridge and Rail Infrastructure

A desktop assessment of bridge and rail infrastructure has been undertaken to determine interfacing locations with the proposed OSOM route.

6.4.1 Bridges and Overpasses

A detailed review of the load limits on all bridges and structures along the route will be undertaken as part of the permit process for the OSOM vehicles, however it is noted that the route predominantly utilises major highways between Port of Melbourne and the site. The State Roads along the route have been utilised for other renewable energy projects in the area and no restricted structures have been identified based on the TfNSW or Department of Victoria Oversize Overmass Load Carrying Vehicles Network maps. Accordingly, it is expected that the vehicle loading will be within the allowable limit for all bridges, culverts and other structures on the State Road network.

6.4.2 Underpasses

An assessment of the height clearances along the Port of Melbourne to Corowa OSOM route was undertaken to confirm the suitability of the proposed route for a total proposed vehicle combination load height of approximately 5.0 metres. The overpass with the lowest clearance along the route is Hume Highway at Marchbanks Road, with a listed minimum clearance of 5.1 metres in the northbound direction as per available Victorian Department of Transport and Planning open data.

Accordingly, the available height clearance along the proposed route is appropriate to accommodate the required OSOM vehicles.

6.4.3 Railway Level Crossings

One railway level crossing has been identified along the OSOM route as outlined in Table 16 which includes summarised advice from the relevant rail authority.

Table 16: Railway Level Crossing Assessment

Railway Crossing Location	Rail Authority	Authority Advice
Wahgunyah-Wangaratta Road, Bowser	ARTC	ODL Permit from DTP is required

Written approval will be sought from the relevant rail authority for the level crossing as part of the TMP. Accordingly, the OSOM traffic is expected to have no major impact on the operation or safety of the railway level crossing.

6.5 Summary

The route assessment prepared for the High-Risk OSOM vehicle (Appendix A) identifies that some minor measures may be required in the state of Victoria (signage relocation) along with the road upgrades outlined in order to allow the vehicles to successfully access the site from Port of Melbourne with a summary provided in Table 17. The intersection of Honour Avenue and Bullecourt Road requires upgrading to a short Channelised Right and Basic Left (CHRs/BAL) turn treatment to accommodate increased heavy vehicle traffic which is detailed in Section 7.1. Escorts and spotters will be required at all locations to control traffic and ensure the vehicle and load are clear of infrastructure.

Table 17: Road Works Schedule - OSOM Vehicles

Pinch Point / Sheet	Location	Works Required
Melbourne Metropolitan Area		
01	Apple Dock Road / Footscray Road (Docklands Highway) (West Melbourne, VIC)	No road upgrades required.
02	Footscray Road (Docklands Highway) / Moreland Street (West Melbourne, VIC)	No road upgrades required.
03	Whitehall Street (Docklands Highway) / Somerville Road (Footscray, VIC)	No road upgrades required.
04	Somerville Road / Geelong Road (Princes Highway) (Kingsville, VIC)	No road upgrades required.
05	Geelong Road (Princes Highway) / Little Boundary Road (Laverton North, VIC)	No road upgrades required.
06	Little Boundary Road / Boundary Road (Laverton North, VIC)	No road upgrades required.
07	Boundary Road / Western Ring Road On-Ramp (Derrimut, VIC)	No road upgrades required.
Victorian Regional Area		
08	Hume Freeway Off-Ramp / Bowser Road (Bowser, VIC)	Temporary signage relocation.
09	Bowser Road / Federation Way (Bowser, VIC)	No road upgrades required.
10	Federation Way / Murray Valley Highway (Rutherglen, VIC)	No road upgrades required.
11	Federation Way / Rutherglen-Wahgunyah Road (Rutherglen, VIC)	No road upgrades required.
NSW Regional Area		
12	Federation Way / Honour Avenue (Corowa, NSW)	No road upgrades required.
13	Honour Avenue / Bullecourt Road (Corowa, NSW)	CHR(s)/BAL Turn Treatment
14	Bullecourt Road / Whitehead Road (Corowa, NSW)	No road upgrades required.
15	Whitehead Road / Site Access (Corowa, NSW)	Site access to be upgraded.

Accordingly, it is concluded that the proposed route is suitable for use by OSOM vehicles associated with the Project with permits to be applied for as part of the TMP. It is recommended that any OSOM movements be timed so they do not coincide with other OSOM vehicles within the surrounding area to limit the impact to the road network, which can be undertaken as part of the permit application.

7. Intersection Assessment

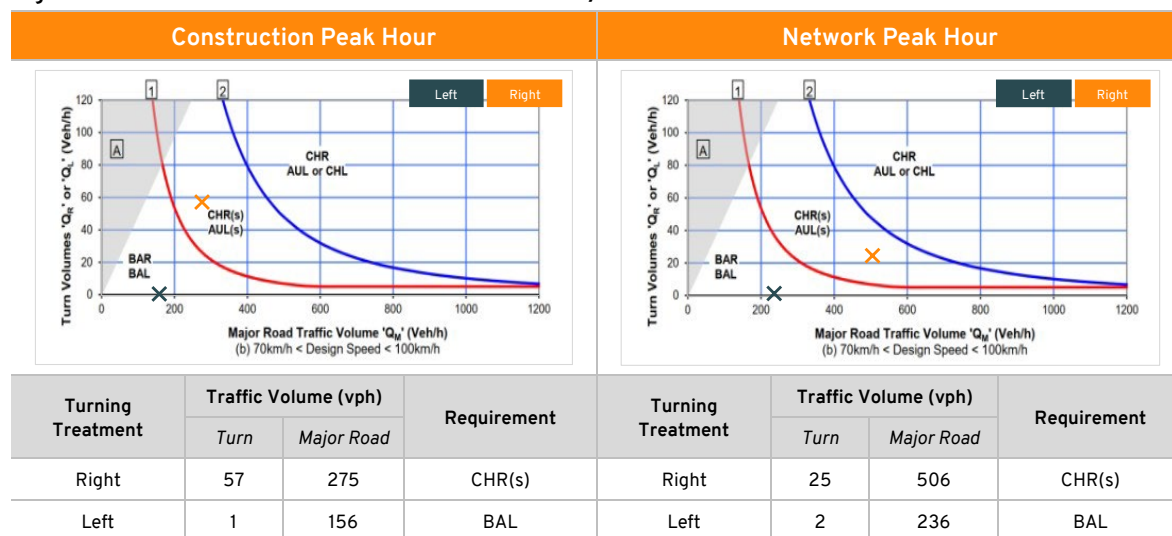
7.1 Turn Treatments

Austrroads Guide to Traffic Management Part 6: Intersections, Interchanges, and Crossings specifies the turning treatments required at intersections. An assessment has been undertaken for the intersection of Honour Avenue and Bullecourt Road in order to ensure vehicles are able to safely leave the State Road network. To confirm that a worst case scenario is tested, the construction peak hour and road network peak hour have both been assessed.

Figure 3.25 of the guide specifies the required turn treatments on the major road at unsignalised intersections and is provided below in Figure 21 for a design speed between 70km/hr and 100km/hr. The requirement to provide turn facilities at the intersection is primarily generated during the morning peak hours when the workforce access the site or when the existing network is at its busiest.

The left side of Figure 21 identifies the required turning treatments based on the expected traffic volumes at the intersections during the construction peak hour (Figure 15). The right side of Figure 21 identifies the road network peak hour traffic volume along with the non-peak construction traffic. The light vehicle traffic to/from the site has been significantly reduced as these movements only reflect deliveries to and from the site as staff are already on-site having arrived before the road network peak hour (i.e. before 8:00am).

Figure 21: Turn Treatment Results – Honour Avenue / Bullecourt Road



All project traffic is expected to travel to/from the north of the intersection only with construction personnel, materials and equipment turning right into Bullecourt Road from Honour Avenue. The intersection is currently provided with Basic Left Turn (BAL) and Basic Right Turn (BAR) treatments. Therefore, the intersection would require an upgrade to include a short Channelised Right Turn (CHRs) treatment to comply with the Austrroads Guide.

A strategic design of an intersection upgrade has been prepared as shown in Appendix G. The design also incorporates elements to ensure the functionality of the existing bus stop on the eastern side of the road as well as maintaining (and improving) the pedestrian/shared path crossing on the south side of the intersection.

In order to confirm the intersection can accommodate B-Double vehicles, a swept path assessment has been provided within using the Autodesk Vehicle Tracking software. The assessment demonstrates that the vehicle is able to suitably turn to/from Honour Avenue.

Accordingly, it is concluded that the intersection upgrade would suitably accommodate the vehicles expected to access the site.

7.2 Sight Distance

Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections specifies the Safe Intersection Sight Distance (SISD) as the minimum sight distance which should be provided along the major road at any intersection. Table 3.1 of the guide specifies the SISD required for various design speeds. Honour Avenue has an average 85th percentile recorded speed of approximately 78km/hr therefore an SISD of 181 metres based on a reaction time of 2.0 seconds.

The available sight distance at the intersection exceeds the requirements of the Austroads Guide given the relatively flat and straight alignment of the road network with grassed roadside environment cleared of vegetation. The sight distance for each direction is depicted in plan view provided in Appendix E.

Accordingly, vehicles are expected to be able to safely enter the State Road network at the intersection.

7.3 Bullecourt Road and Whitehead Street

In order to confirm the suitability of the intersection of Bullecourt Road and Whitehead Street swept path assessments have been undertaken of the largest vehicles anticipated to regularly access the site (26m B-Doubles) which are shown in Appendix H.

The assessments confirms that B-Double trucks can turn using the existing pavement. However, motorists would need to yield to enable passing on the approach to the intersection. This type of arrangement is typical for low-volume rural roads where the probability of conflict is also low and is therefore considered appropriate in this context.

It is also noted that Council representatives have recommended temporary speed limit reductions on Bullecourt Road and Whitehead Street during construction to minimise risks along with suitable measures in a driver code of conduct. These are both proposed to be implemented as part of a traffic management plan (refer Section 9) along with dilapidation surveys to monitor the condition of the local road network (refer Section 10).

Accordingly, the local road network is considered suitable to accommodate the project subject to the measures outlined.

8. Site Access

8.1 Design

The layout of the Project Site and the proposed access location is shown within Figure 1 with a strategic design presented in Appendix D.

A swept path assessment has also been undertaken for an indicative site access design to confirm the site access can accommodate heavy vehicles using the Autodesk Vehicle Tracking software. The assessment is provided in Appendix D and demonstrates the BESS site access has been suitably designed to cater for the Project traffic expected to access the site as follows:

- 26 metre B-Doubles to/from the south; and
- High risk OSOM Vehicles from the south.

Accordingly, it is concluded that the site access has been suitably designed and are able to accommodate the vehicles expected to access the site.

8.1.1 Sight Distance

Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections specifies the Safe Intersection Sight Distance (SISD) as the minimum sight distance which should be provided along the major road at any intersection. Table 3.1 of the guide specifies the SISD required for various design speeds. Given Whitehead Street has a speed limit of 100km/hr a design speed of 110km/hr has been adopted which requires an SISD of 300 metres based on a reaction time of 2.5 seconds.

The available sight distance at the site access points exceeds the requirements of the Austroads Guide given the relatively flat and straight alignment of the road network. The SISD drawings are provided in Appendix E.

Accordingly, vehicles are expected to be able to safely enter the road network at the proposed site access location.

9. Traffic Management Plan

It is recommended that a TMP be prepared prior to commencement of construction of the development. The TMP should be prepared and implemented in accordance with Australian Standard 1742.3 and the Work Health and Safety Regulation 2017. The TMP would provide additional information regarding the traffic volumes and distribution of construction vehicles that is not available at this time including:

- Road transport volumes, distribution and vehicle types broken down into:
 - Hours and days of construction.
 - Schedules for phasing/staging of the Project.
- The origin, destination and routes for:
 - Employee and contractor light vehicles.
 - Heavy vehicle traffic.
 - Oversize/overmass vehicles.
- A map of the primary haulage routes highlighting critical locations.
- An induction process for vehicle operators and regular toolbox meetings.
- A complaint resolution and disciplinary procedure.
- Local climatic conditions that may impact road safety of employees throughout all project phases (e.g. fog, wet and significant dry, dusty weather).

The following provides recommended measures that should be adopted within the TMP to minimise the impact of construction traffic along the road network.

9.1 Information and Communication

The implementation of a community information and awareness program would assist in managing the traffic impacts. Prior to construction commencing and during the construction period, a program of consultation shall be initiated to ensure local residents are aware of construction traffic accessing the Project. This program may include elements of the following as appropriate to the phase of works:

- Press releases in local newspapers.
- Specific emails, newsletters and individual letter drops to neighbouring residents along the access route to the Project.
- Provision of a website providing details of the status of works and contact details for complaints or enquiries.
- Provide key contact personnel and contact details, including out of hours contact information to residents, schools, public activities and business operating alongside the local route.
- Neighbours of the BESS would be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access.

9.2 Speed Limits and Warning Signs

After feedback from Council it is considered appropriate to implement temporary speed limit reductions and suitable warning signs during construction on Bullecourt Road and Whitehead Street. The temporary reduction in speed would to minimise safety risks on the access route to site and at the intersection of Bullecourt Road and Whitehead Street.

If deemed necessary, additional warning signs advising of the changed traffic operations and heavy vehicles are to be appropriately located on approaches to and from the transport routes on Council roads. These should warn existing road users of changed traffic conditions. The use of day warning notices where signs are activated on a specific day to warn local road users of construction activities may also be applied.

9.3 On-Site Mitigation Measures

On-site mitigation measures targeted at safety and reducing the impact of on-site transport would include:

- On-site speed restrictions.
- Appropriate dust suppression measures.
- Maintenance program for on-site access tracks to ensure safe access.
- Loading and unloading is proposed to occur within the work area. No street or roads would be used for material storage at any time.
- Sufficient car parking is to be provided on-site to ensure vehicles do not park on the surrounding road network.
- All car parking and loading areas to be designed in accordance with the relevant Australian Standard (2890 series) and Council requirements.

9.4 Driver Protocols

Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the workforce. A Driver Code of Conduct is to be implemented as a measure to maintain safety within and around the site:

- All vehicles would enter and exit the site in a forward direction.
- Heavy vehicle movements should avoid peak school bus times to limit the interaction of larger vehicles and vulnerable road users.
- Safety initiatives for impacts to residential areas and/or school bus zones.
- Utilisation of only the designated transport routes.
- Construction vehicle movements are to abide by finalised schedules as agreed by the relevant authorities.
- All permits for working within the road reserve must be received from the relevant authority prior to works commencing.

The above recommendations will ensure the construction traffic would have a minimal impact to the capacity and safety of the surrounding road network. The TMP would be prepared in conjunction with consultation with Transport for NSW and Federation Council.

10. Mitigation Measure Summary

The assessment has identified a number of traffic management measures that are to be implemented during construction and recommended to be included in the TMP. The key measures are summarised below:

- Prior to construction, a pre-condition survey of the relevant sections of the existing road network should be undertaken in consultation with Council. During construction these sections of the road network are to be monitored and maintained to ensure continued safe use by all road users, and any faults attributed to construction of the BESS would be rectified. At the end of construction, a post-condition survey would be undertaken to ensure the road network is left in a condition equivalent to that at the start of construction.
- Neighbours of the BESS are to be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access.
- It is recommended that any OSOM vehicle trips be timed where warranted so they do not coincide with other OSOM vehicles within the surrounding area to limit the impact to the road network, which can be undertaken as part of the permit application.

10.1 Schedule of Road Upgrades

In addition to the above traffic management measures, it is proposed to provide road upgrades as part of the Project which are to be constructed prior to construction commencing. A schedule of the road upgrades is provided below:

- Construction of CHR(s)/BAL at the Honour Avenue / Bullecourt Road intersection as described in Section 7.1 and shown in Appendix G.
- Construction of the site access as described in Section 8.1 and shown in Appendix D.

The inclusion of the proposed upgrades are suitable to accommodate the future traffic volumes to and from the project.

11. Conclusion

Amber Organisation has assessed the traffic impacts of the proposed Corowa BESS. The BESS is proposed to have a capacity of up to 100MW/200MWh.

The Project Area is located at 275 Whitehead Street Corowa, approximately 2.5 kilometres north of Corowa. Access to the site is proposed via the existing site access from Whitehead Street.

The construction period is expected to commence in early 2027 and take approximately 18 months, with the peak construction period expected to take 6 months. A construction workforce of up to 75 personnel would be on-site during the peak construction phase and would primarily be drawn from the nearby town of Corowa.

Plant is expected to be delivered from either Port of Melbourne or Port of Geelong including the largest OSOM BESS component. General construction materials and equipment will be sourced from within Corowa or the surrounding area where practicable.

The above assessment determined the following:

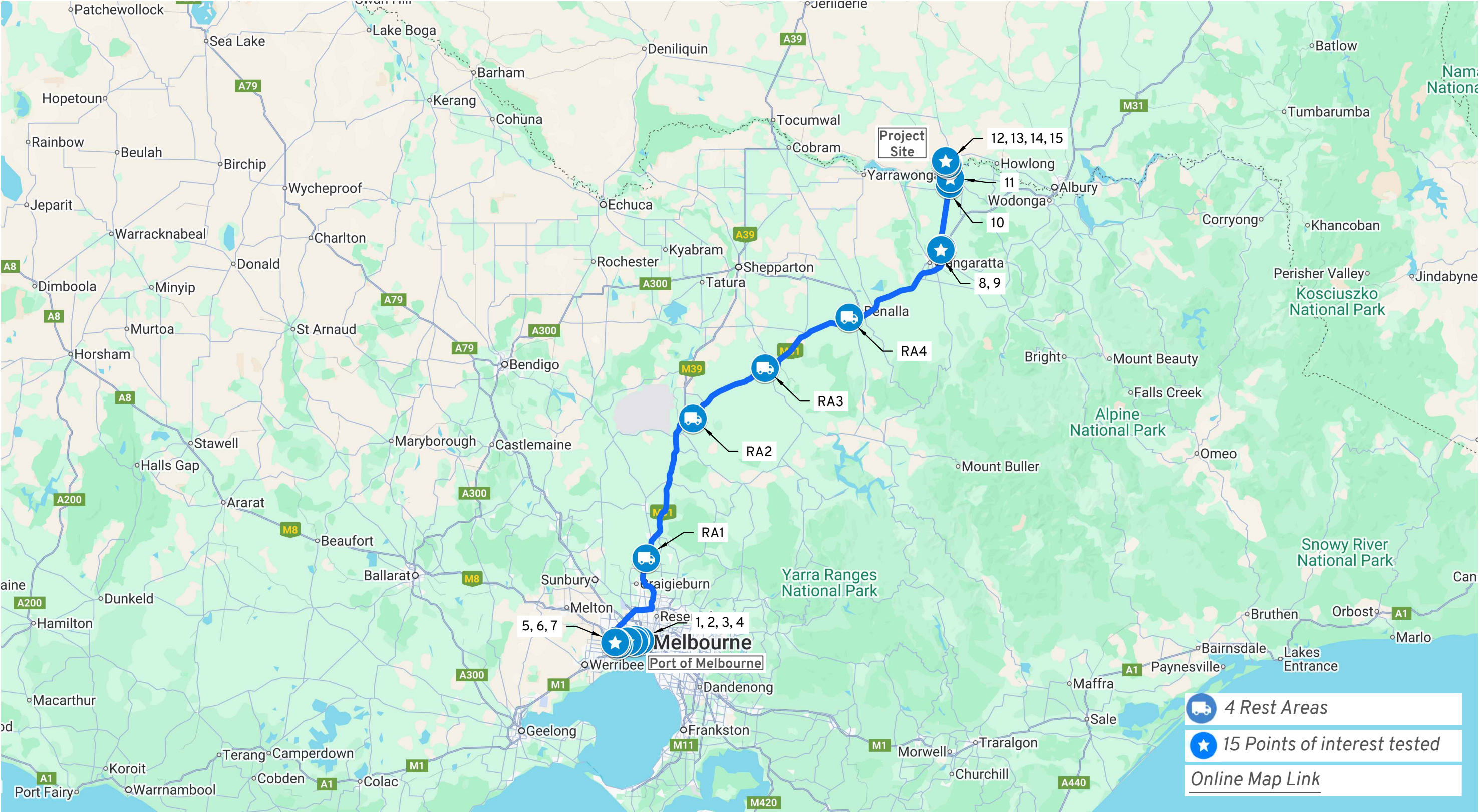
- The site is expected to generate up to 148 vehicles per day during the peak construction period, including 48 heavy vehicles.
- The road network is able to accommodate the traffic generated by the development during the construction, operation and decommissioning stages.
- The principal haulage routes to site route utilises roads that are designated for use of B-Dounble and Class 1 OSOM vehicles within the Transport for New South Wales and Victorian Restricted Access Vehicle Map.
- The preferred access route for the oversize/overmass vehicle transporting the largest BESS component is from either the Port of Melbourne or Port of Geelong. The Route Assessment has identified some minor measures such as temporary removal of traffic signs may be required along with the identified road upgrades in order to allow the vehicles to access the Project Area.
- It is recommended to upgrade the intersection of Honour Avenue and Bullecourt Road to provide a short channelised right turn treatment. Concept designs for the intersections are provided within Appendix G of this document.
- The site accesses on Whitehead Street is designed to accommodate the Project traffic and is provided with adequate sight distance to allow vehicles to safely enter the road network.
- Swept path assessments confirm that Bullecourt Road and Whitehead Street are suitable to accommodate the project traffic, subject to the implementation of a traffic management plan including temporary speed limits and a driver code of conduct.
- In order to mitigate the impacts of the development during construction a TMP would be prepared which should include the recommendations provided within this document.

Accordingly, based on the assessment above, it is concluded that the proposed access arrangements for the BESS are suitable to accommodate the expected construction vehicle types and traffic volumes during the construction and operation phase of the Project.

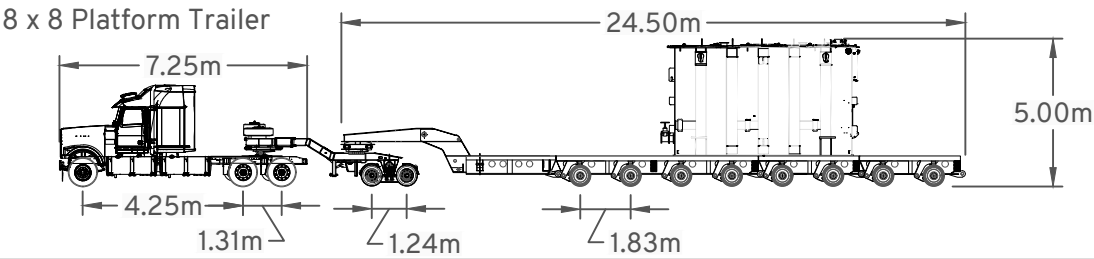
Appendix A

High risk OSOM Route Assessment





OSOM Truck Specifications



OSOM vehicle calibrated against similar configurations and is based on information available at the time of assessment

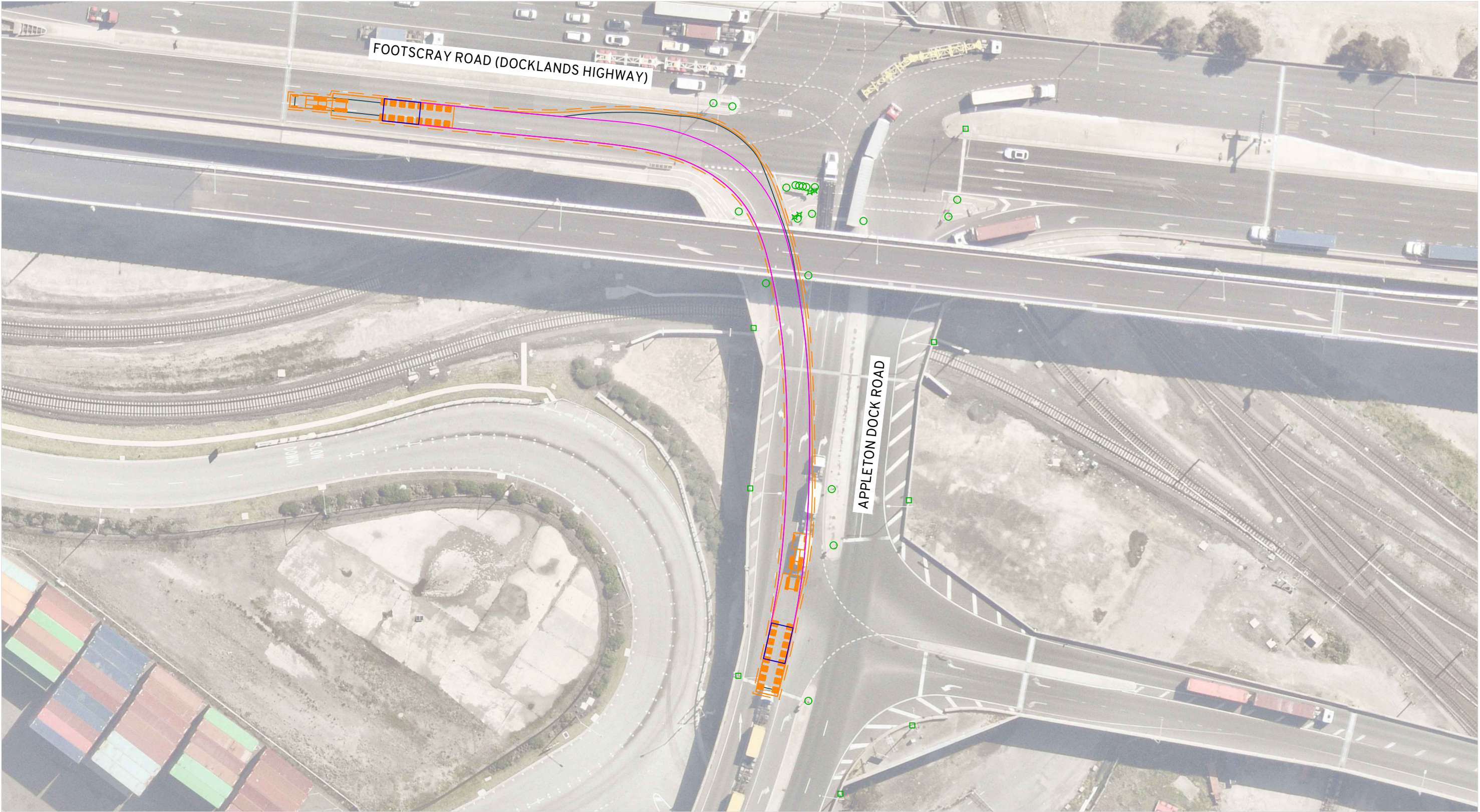
Overall Length	: 32.500m
Overall Width	: 4.376m
Overall Height	: 5.00m
Load Length	: 7.250m
Wall to Wall Turning Radius	: 20.200m
Lock to Lock	: 6.0s

High Risk OSOM Route Assessment: Port of Melbourne

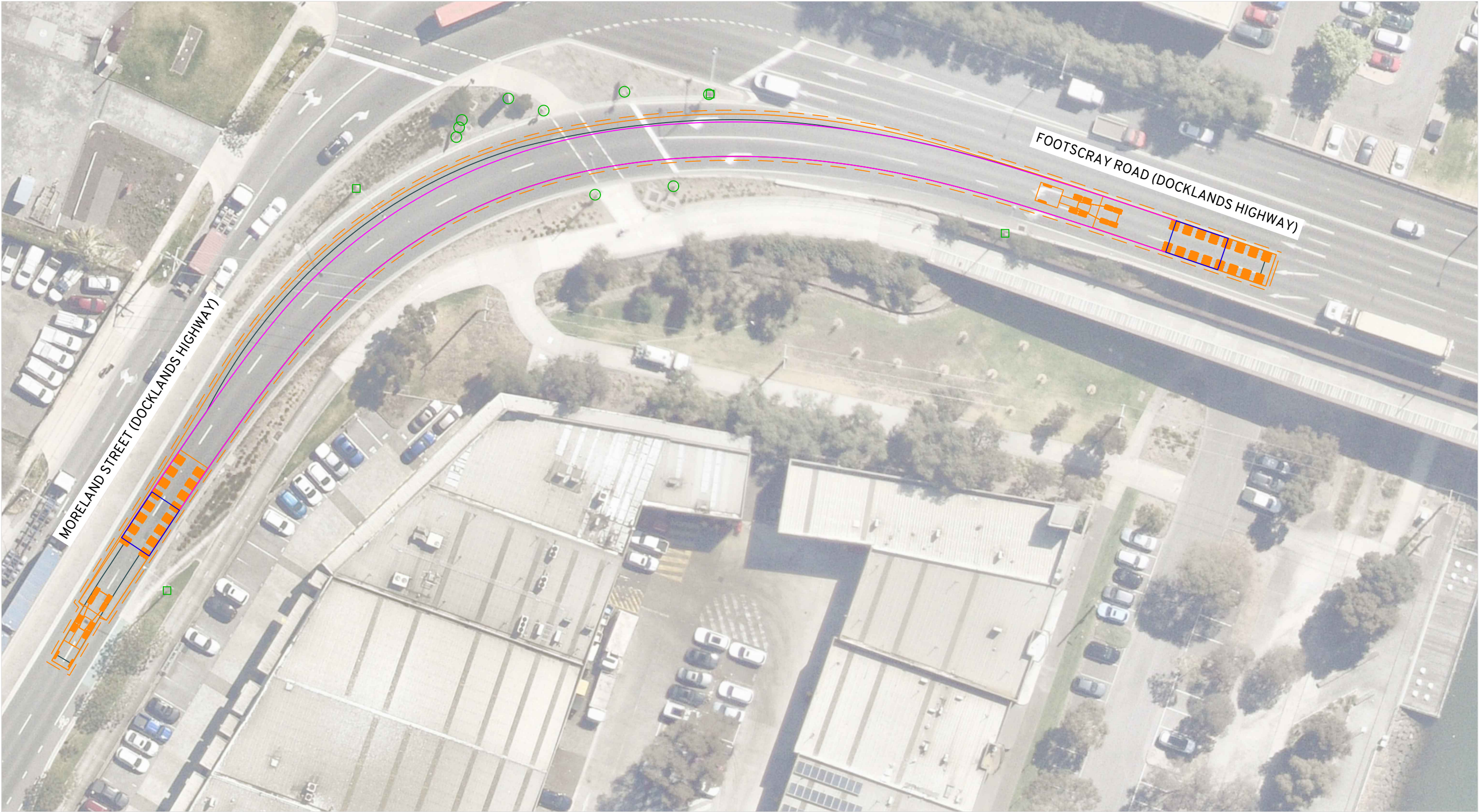
Corowa BESS
Overall Route Summary and OSOM Details

DRAWN: WC
DATE: 27/10/2025
DWG NO: 1357 RA01A





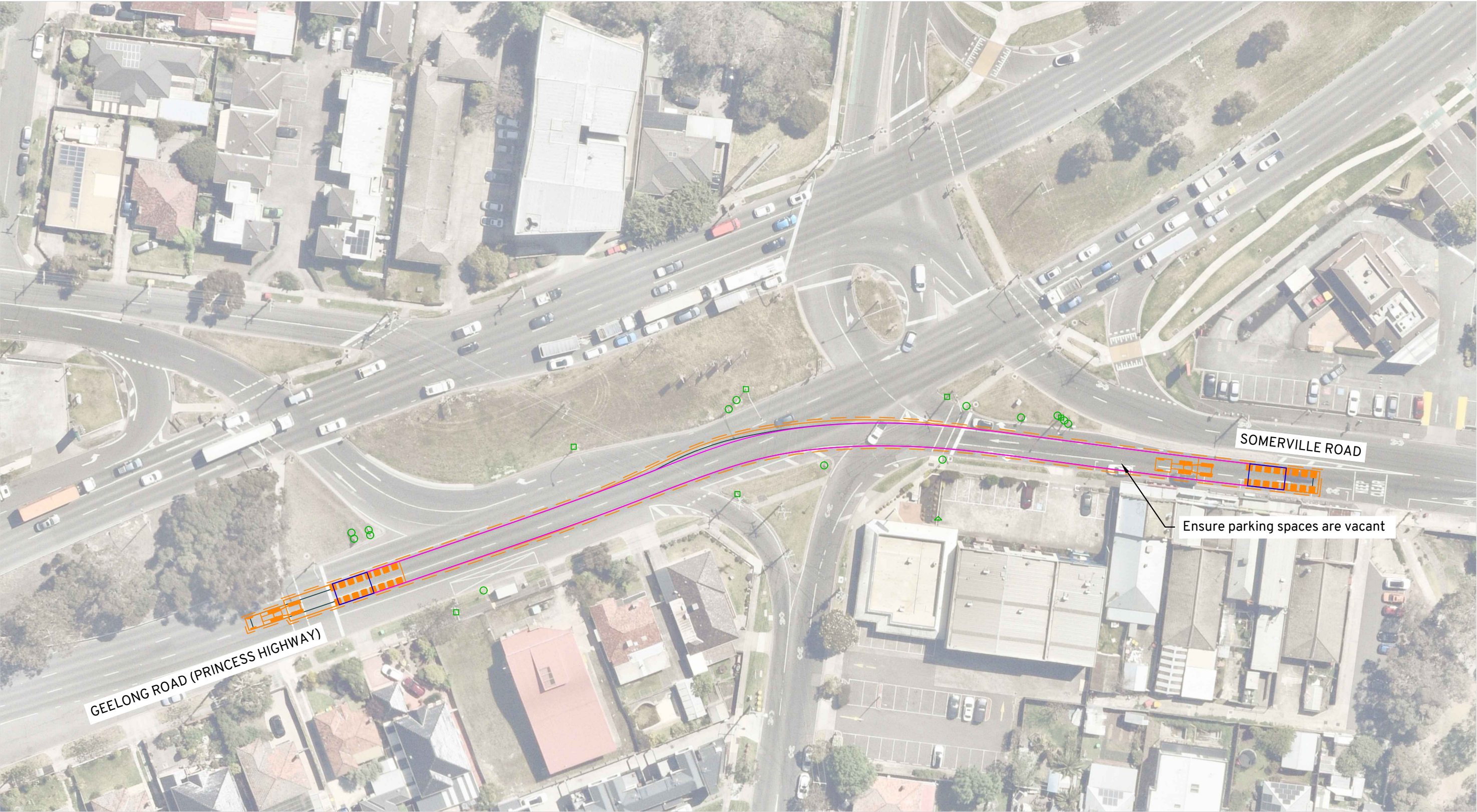
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation ⚡ Pedestrian Holding Rail <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: West Melbourne, VIC Online Map Link	Appleton Dock Road onto Docklands Highway Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:750	 01
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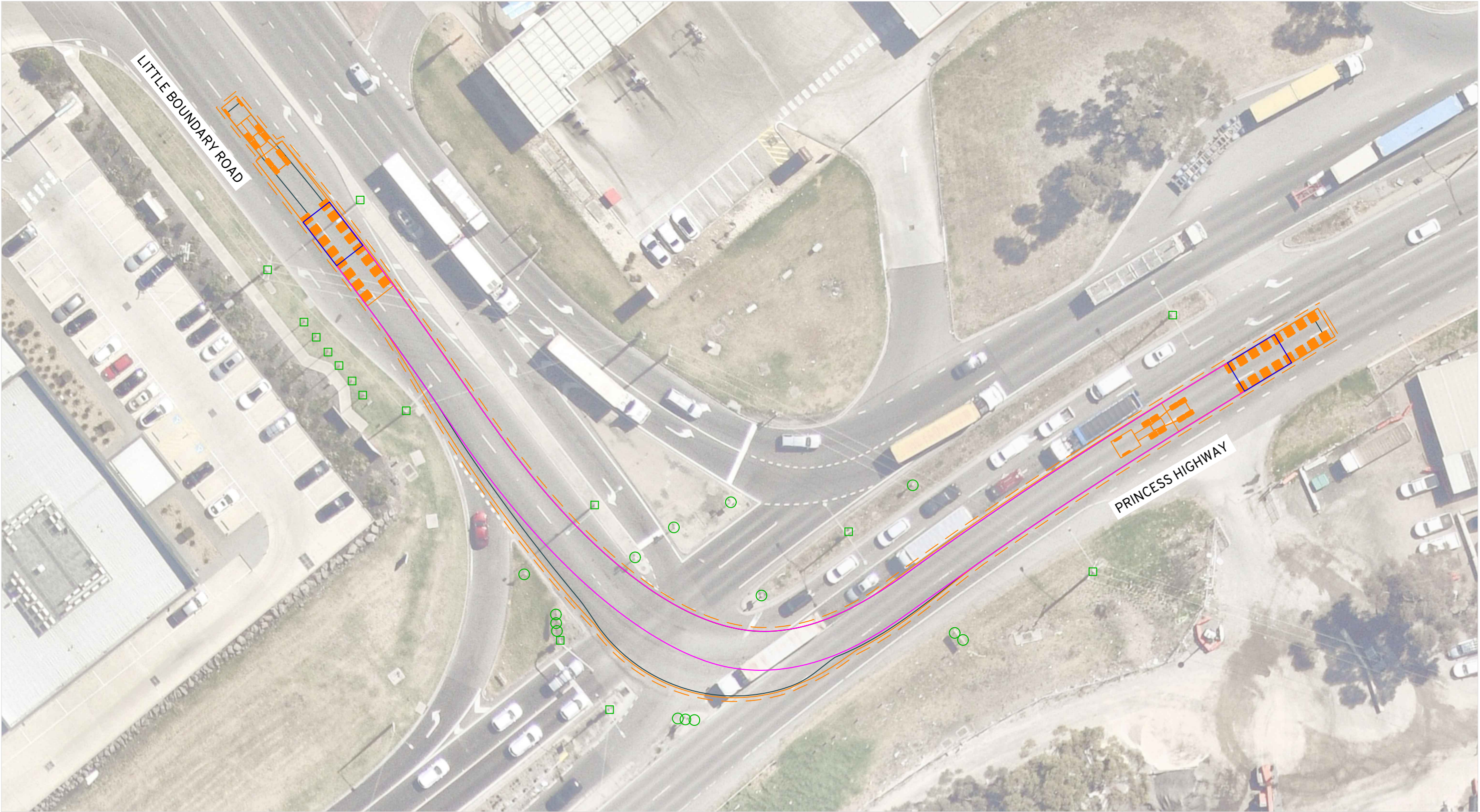
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Footscray, VIC Online Map Link	Footscray Road onto Moreland Street Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500  02
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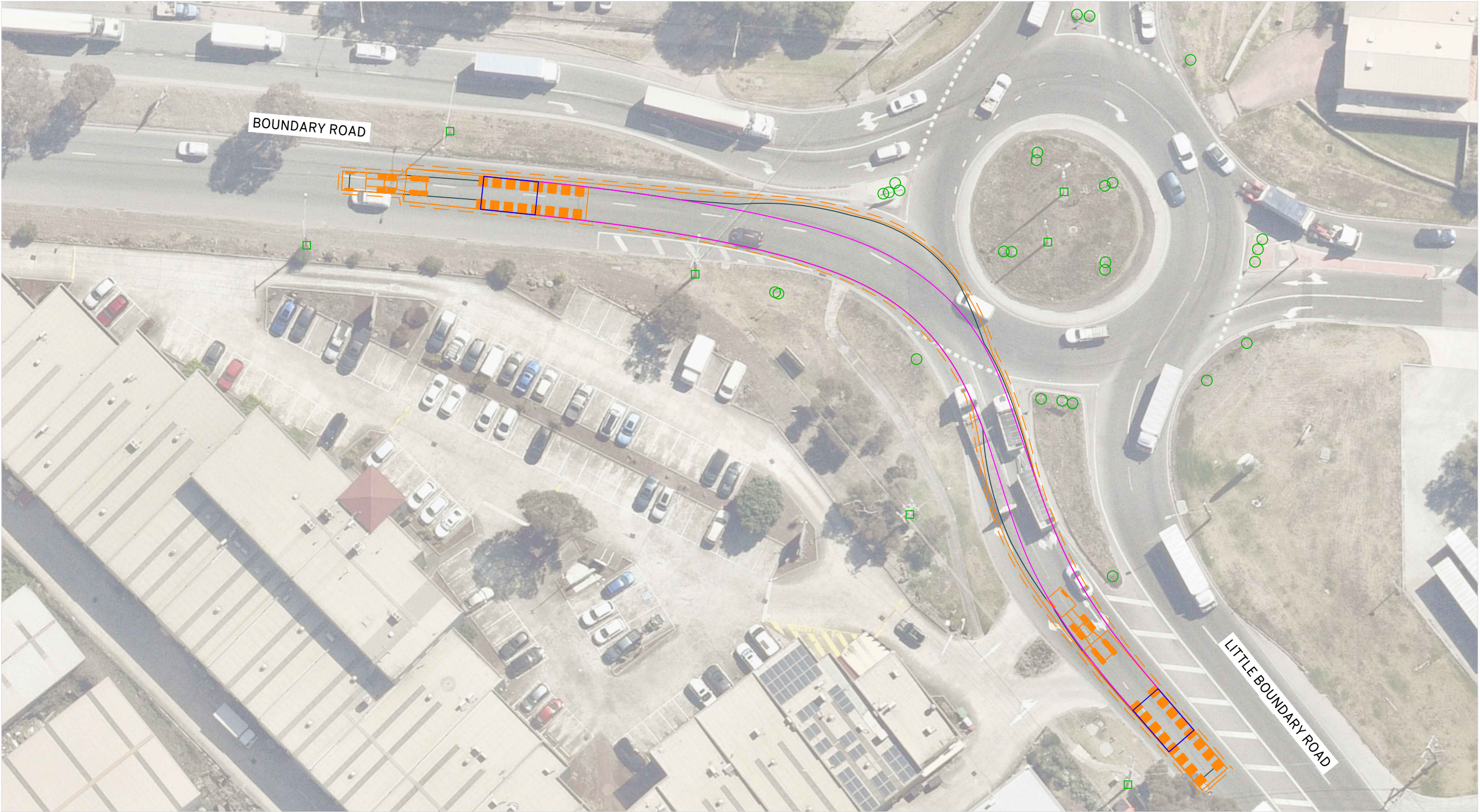
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation — Traffic Separators <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Footscray, VIC Online Map Link	Whitehall Street onto Somerville Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500	 03
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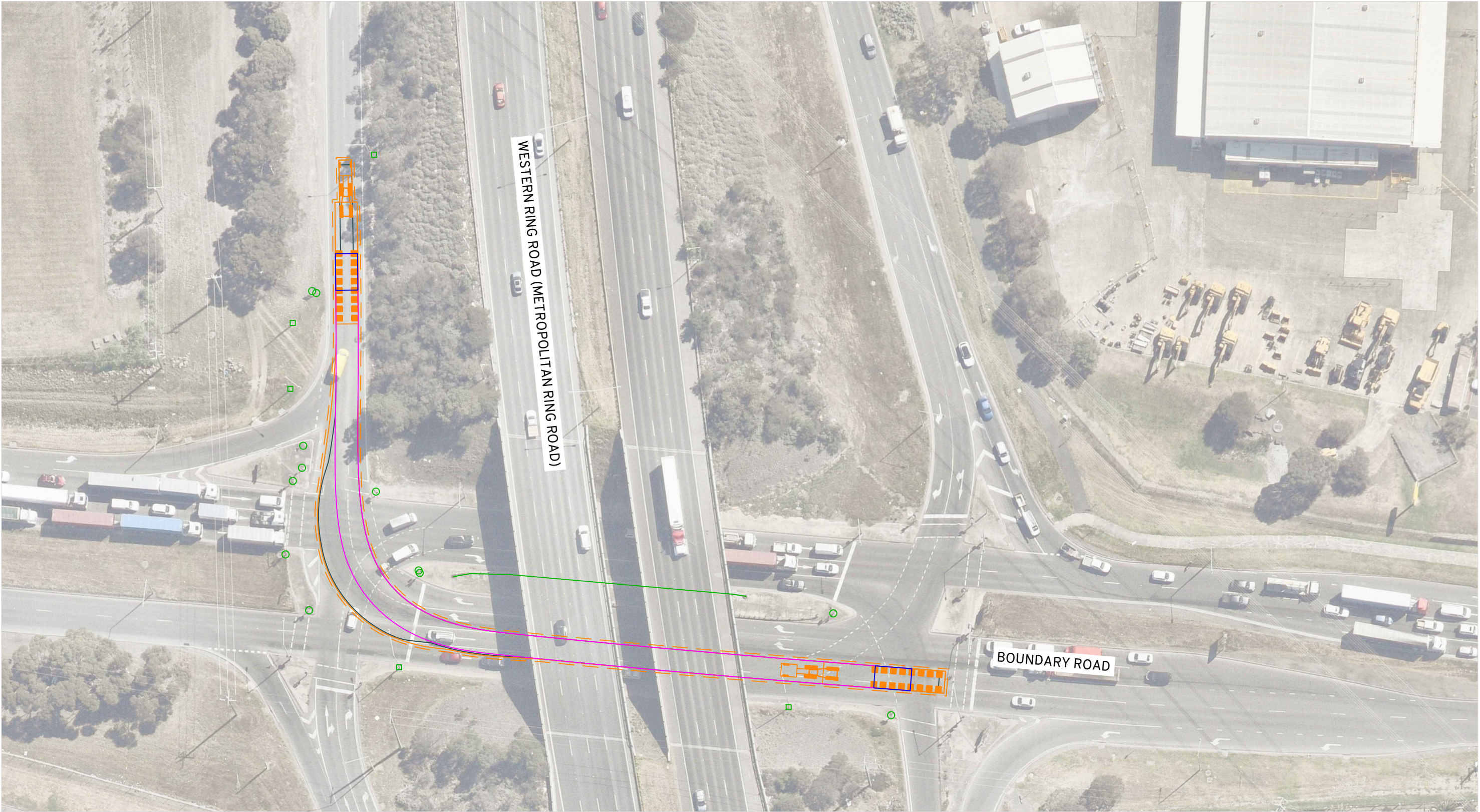
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation Impacted Assets Marked Red	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	↑ Location: Kingsville, VIC Online Map Link	Somerville Road onto Princess Highway Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:750	Amber 04
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Laverton North, VIC Online Map Link	Princess Highway onto Little Boundary Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500	 05
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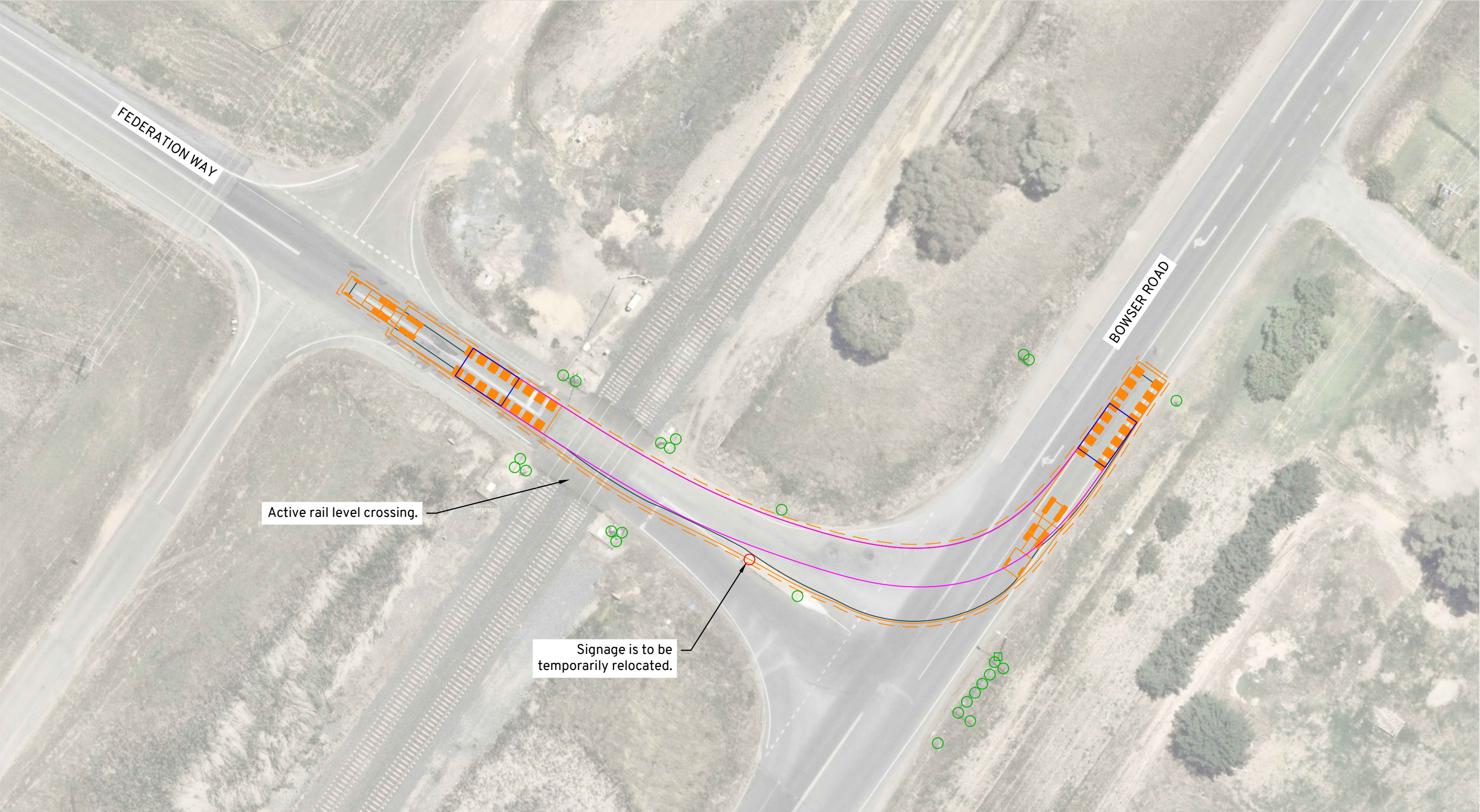
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Laverton North, VIC Online Map Link	Little Boundary Road onto Boundary Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500	 06
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation — Guardrail <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Derrimut, VIC Online Map Link	Boundary Road onto Western Ring Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:750  07
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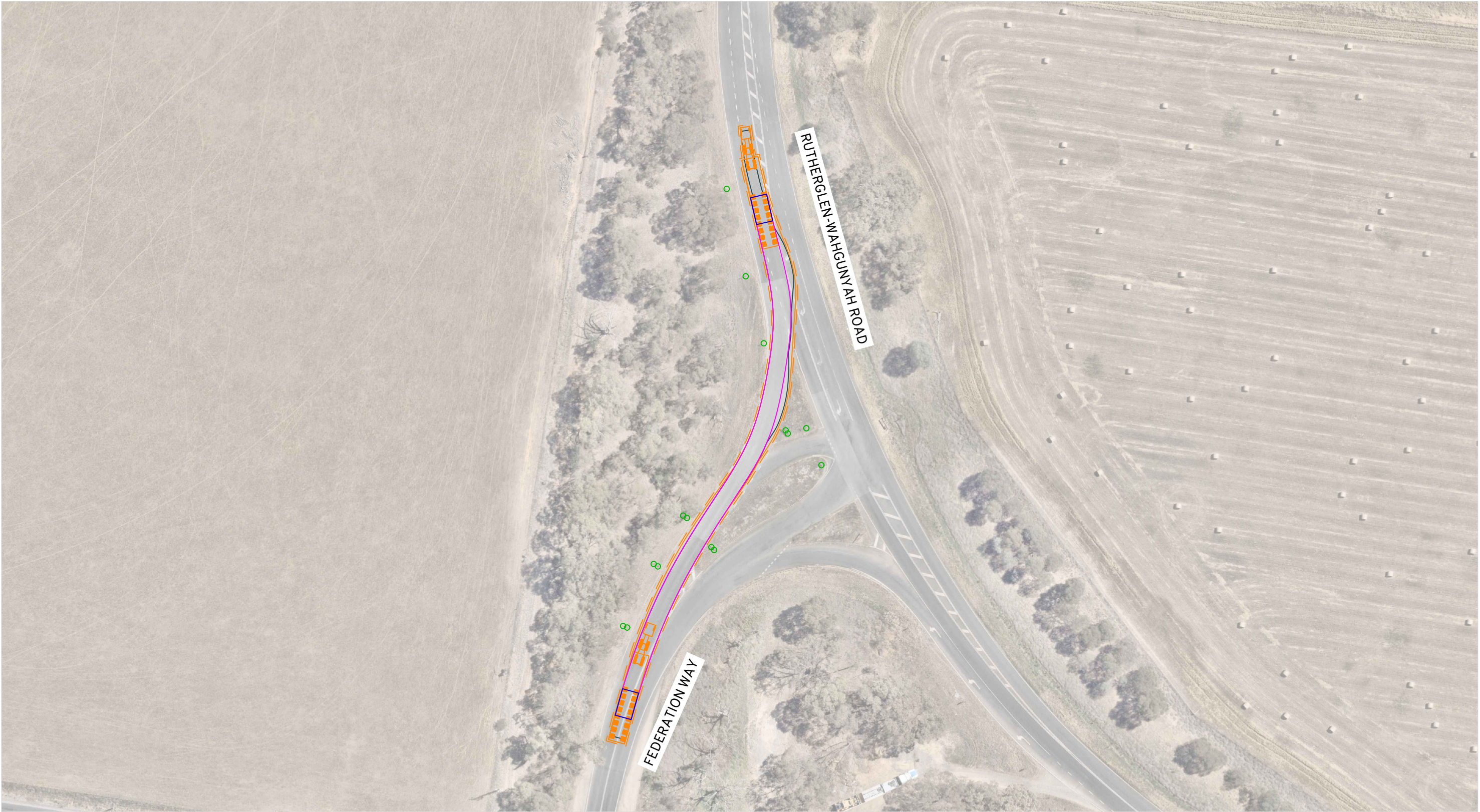
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation Impacted Assets Marked Red	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure. - Impacted assets (red) are to be removed/relocated.	Location: Bowser, VIC Online Map Link	Hume Freeway Off-Ramp onto Bowser Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500	Amber 08
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure. - Impacted assets (red) are to be removed/relocated. - Active rail level crossing requires permit from ARTC before crossing	 Location: Bowser, VIC Online Map Link	Bowser Road onto Federation Way Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500  09
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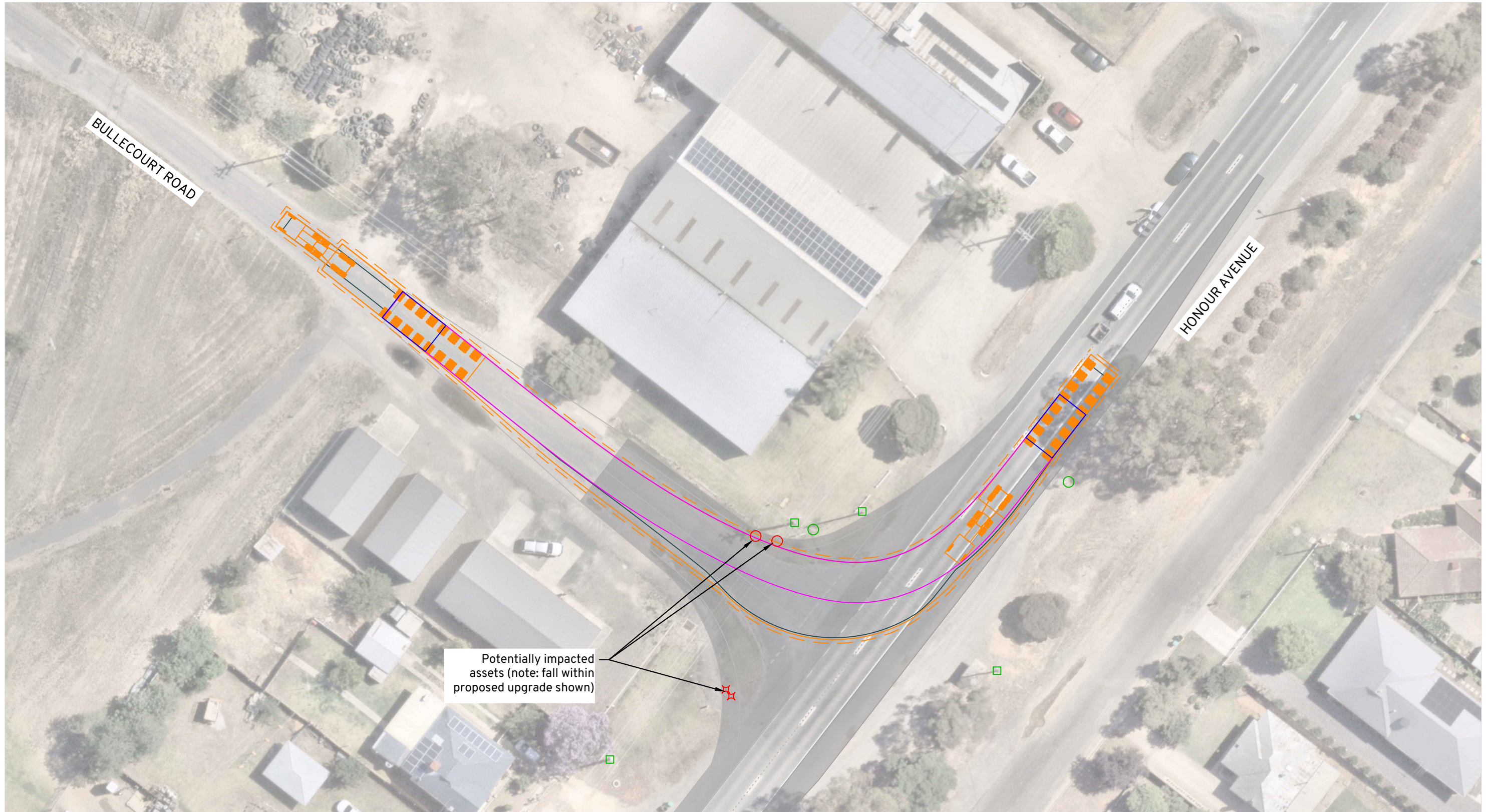
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation ⚡ Pedestrian Holding Rail Impacted Assets Marked Red	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	Location: Rutherglen, VIC Online Map Link	Federation Way / Murray Valley Highway Intersection Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 Amber 10
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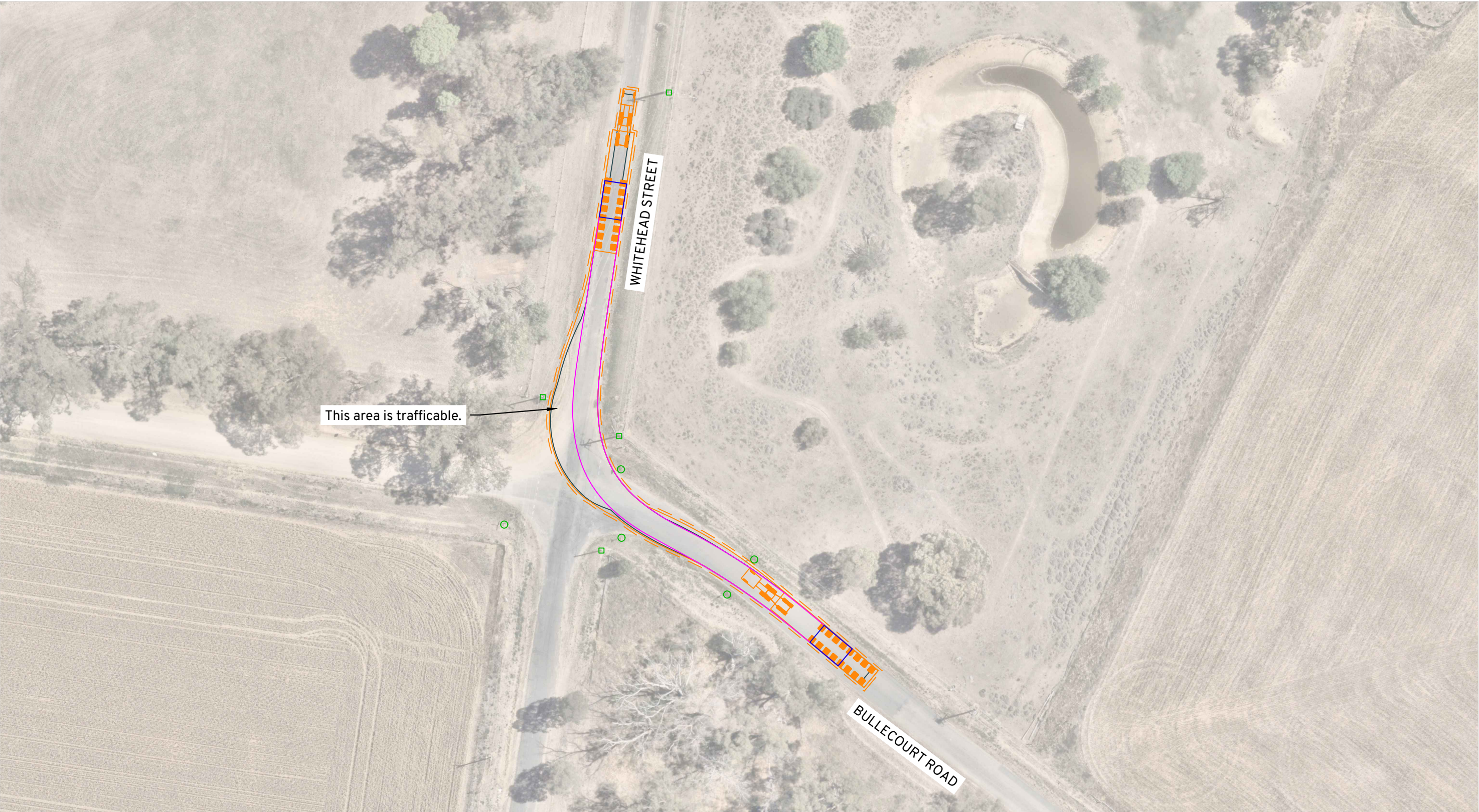
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Rutherglen, VIC Online Map Link	Federation Way onto Rutherglen-Wahgunyah Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000  11
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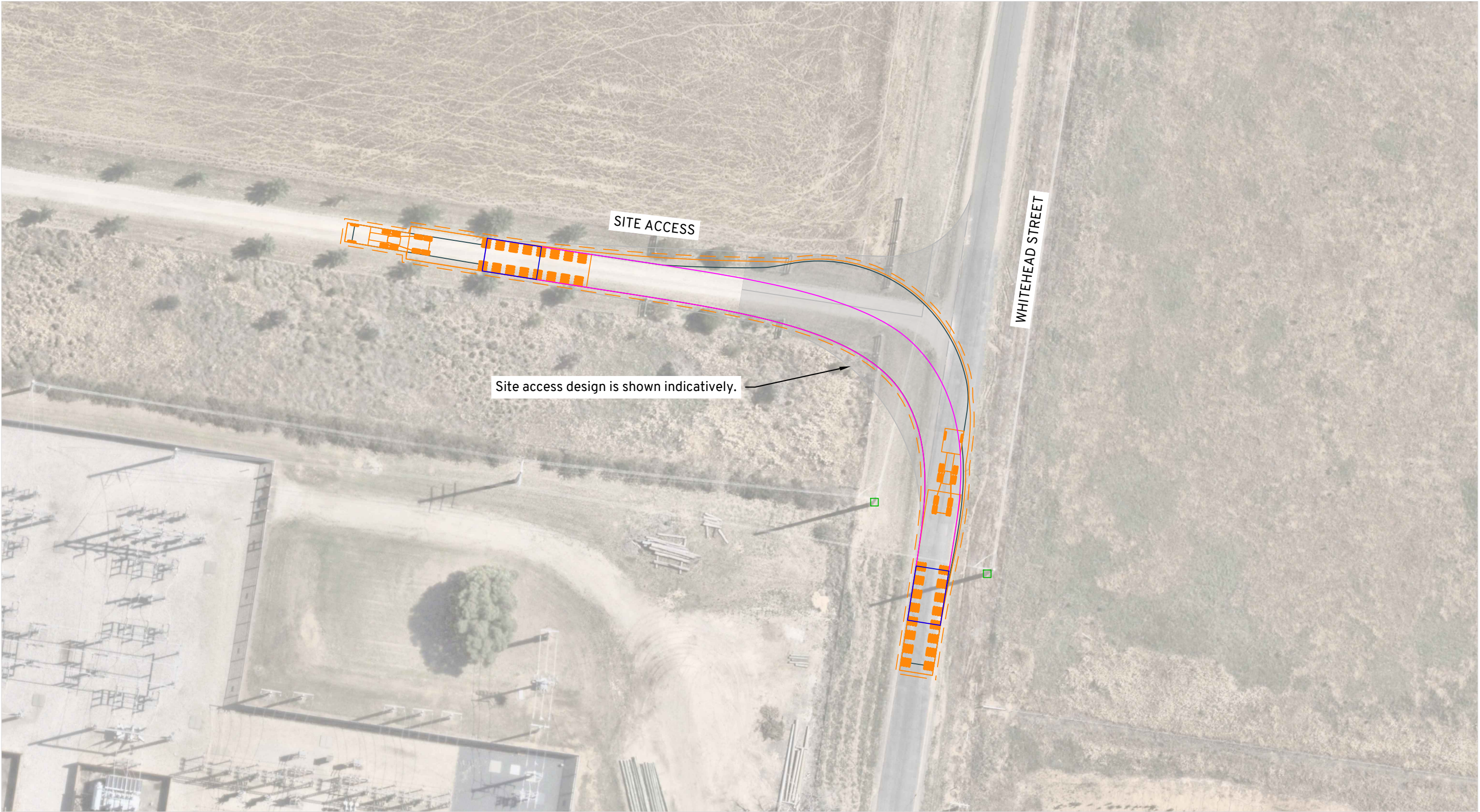
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Corowa, NSW Online Map Link	Federation Way onto Honour Avenue Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500 
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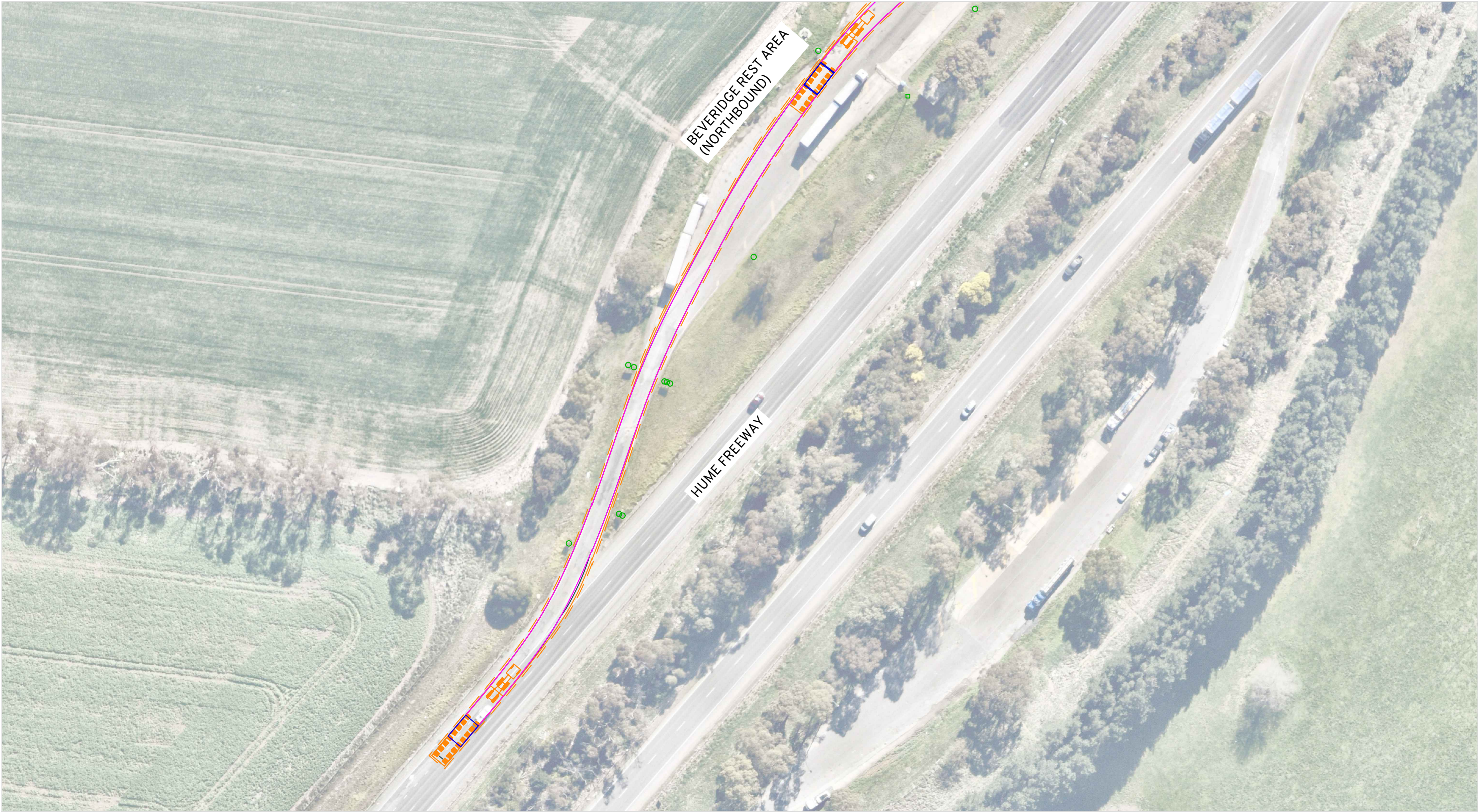
Vehicle/Load Envelope	○ Signage	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure. - Impacted assets (red) are to be removed/relocated.	 Location: Corowa, NSW Online Map Link	Honour Avenue onto Bullecourt Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500	 13
Vehicle/Load 0.5m Clearance	□ Light/Power Poles				
Wheel Path Extents	△ Trees/Vegetation				
Load Path	⚡ Pedestrian Holding Rail				
	<i>Impacted Assets Marked Red</i>				



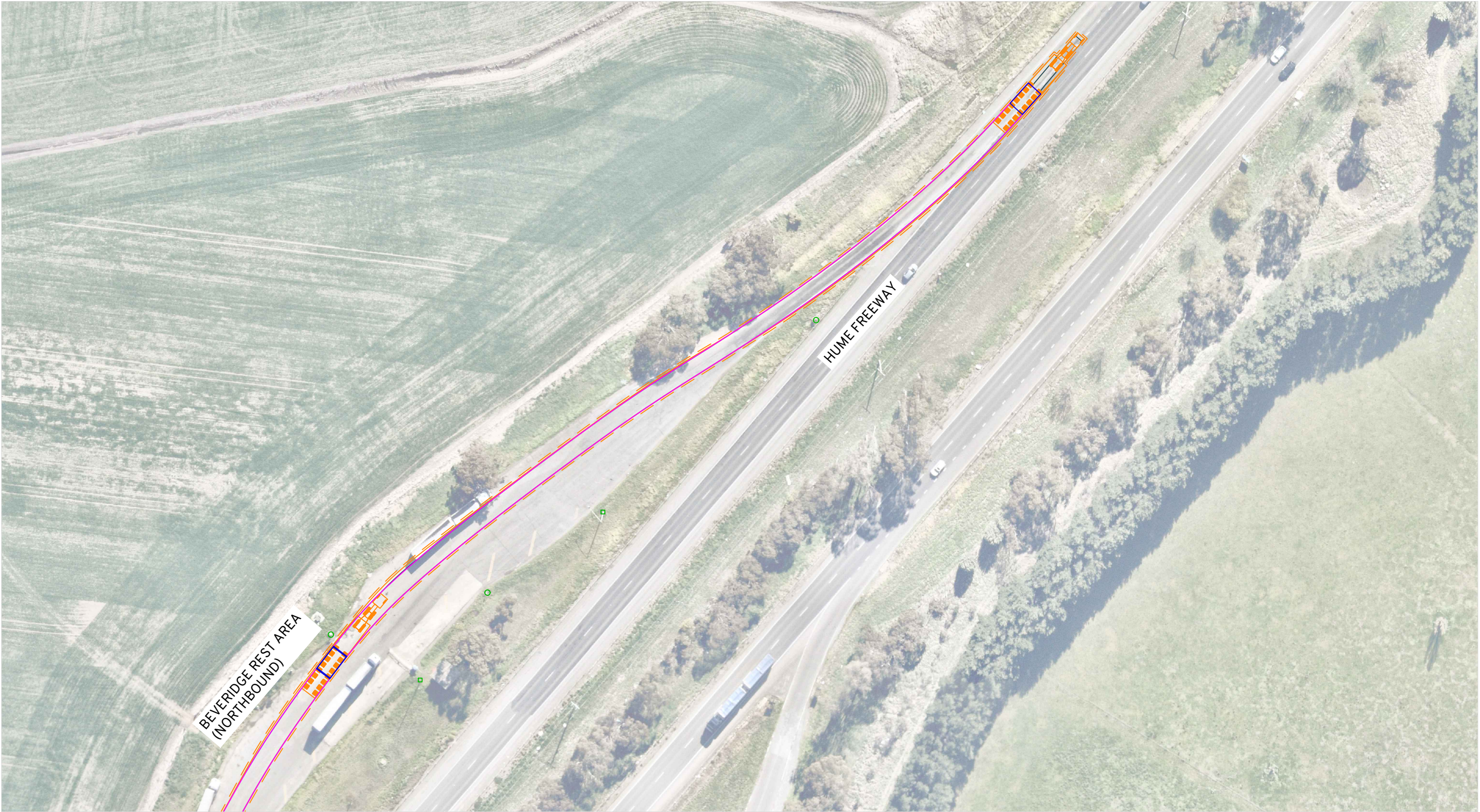
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Corowa, NSW Online Map Link	Bullecourt Road onto Whitehead Road Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:750	 14
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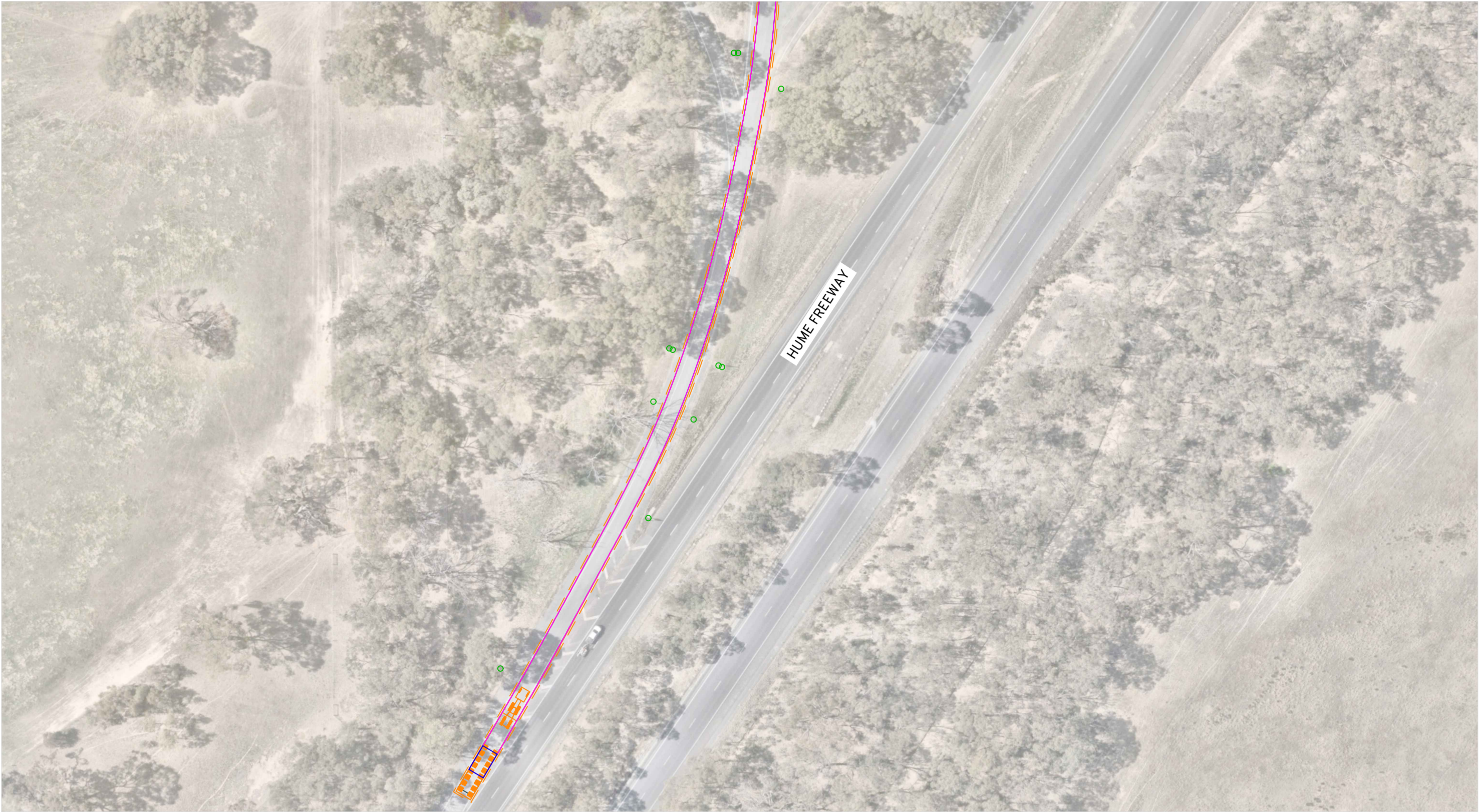
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Corowa, NSW Online Map Link	Whitehead Road onto Site Access Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:500  15
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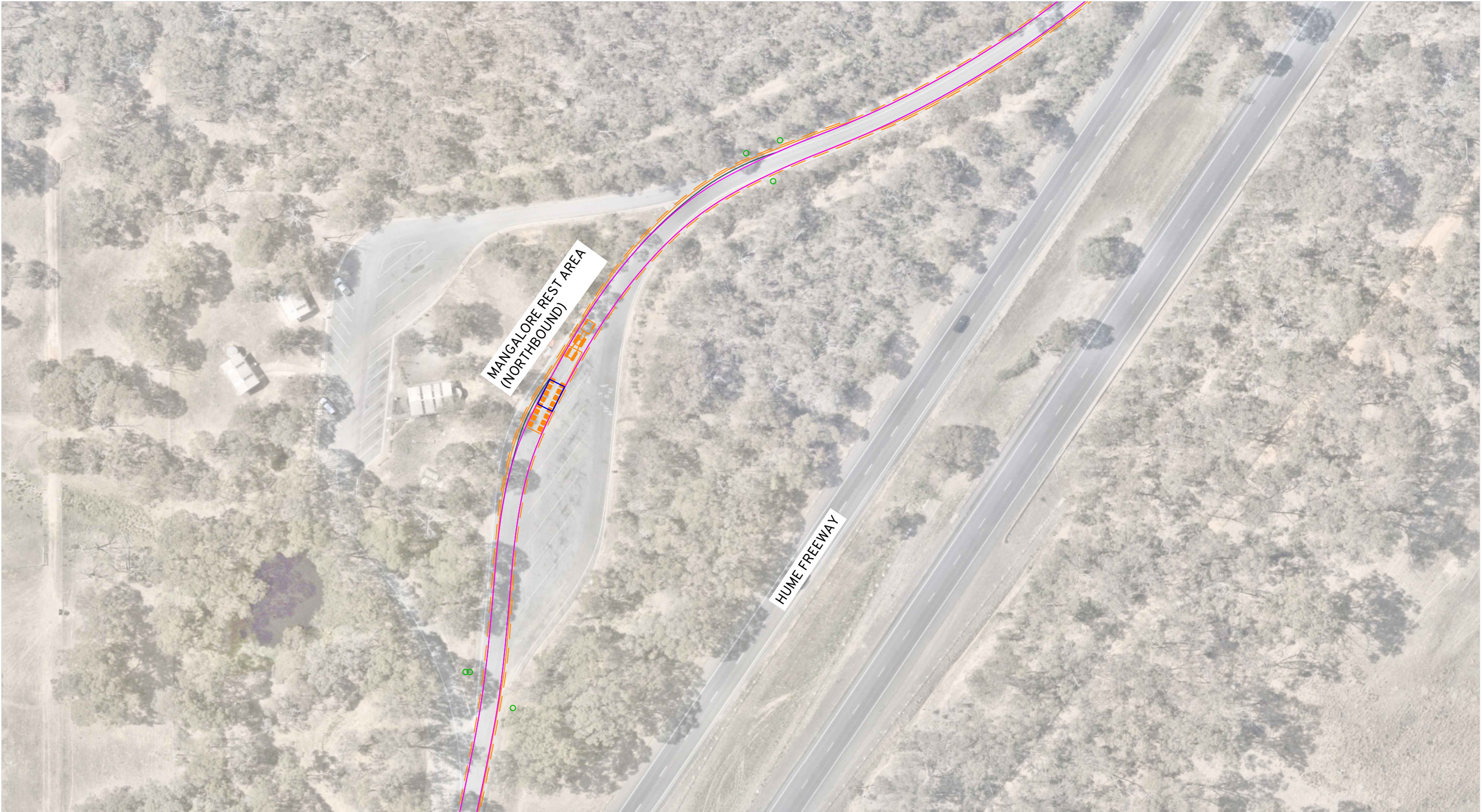
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Beveridge, VIC Online Map Link	Hume Freeway - Rest Area 1 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Beveridge, VIC Online Map Link	Hume Freeway - Rest Area 1 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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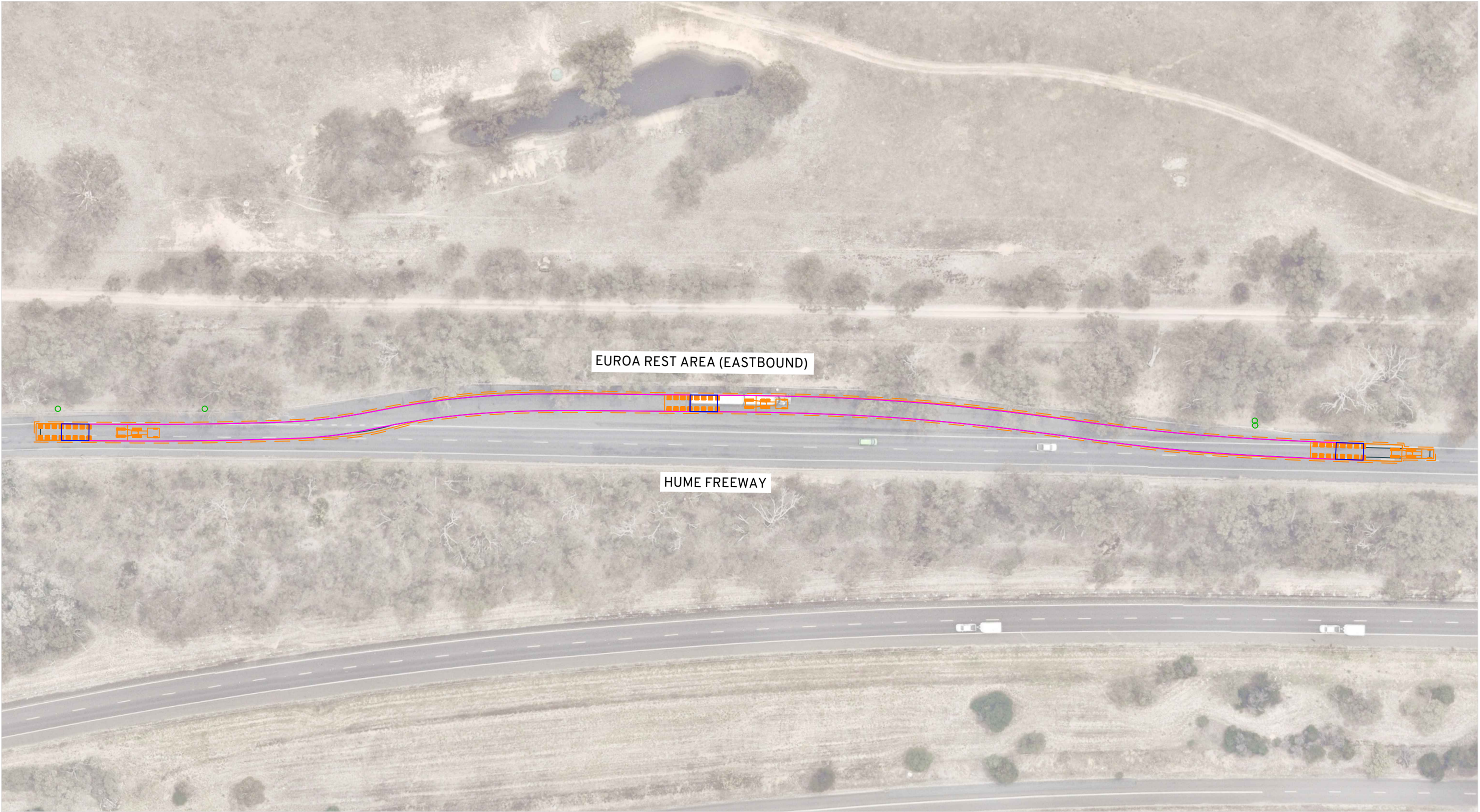
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation Impacted Assets Marked Red	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	Location: Mangalore, VIC Online Map Link	Hume Freeway - Rest Area 2 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 Amber R2A
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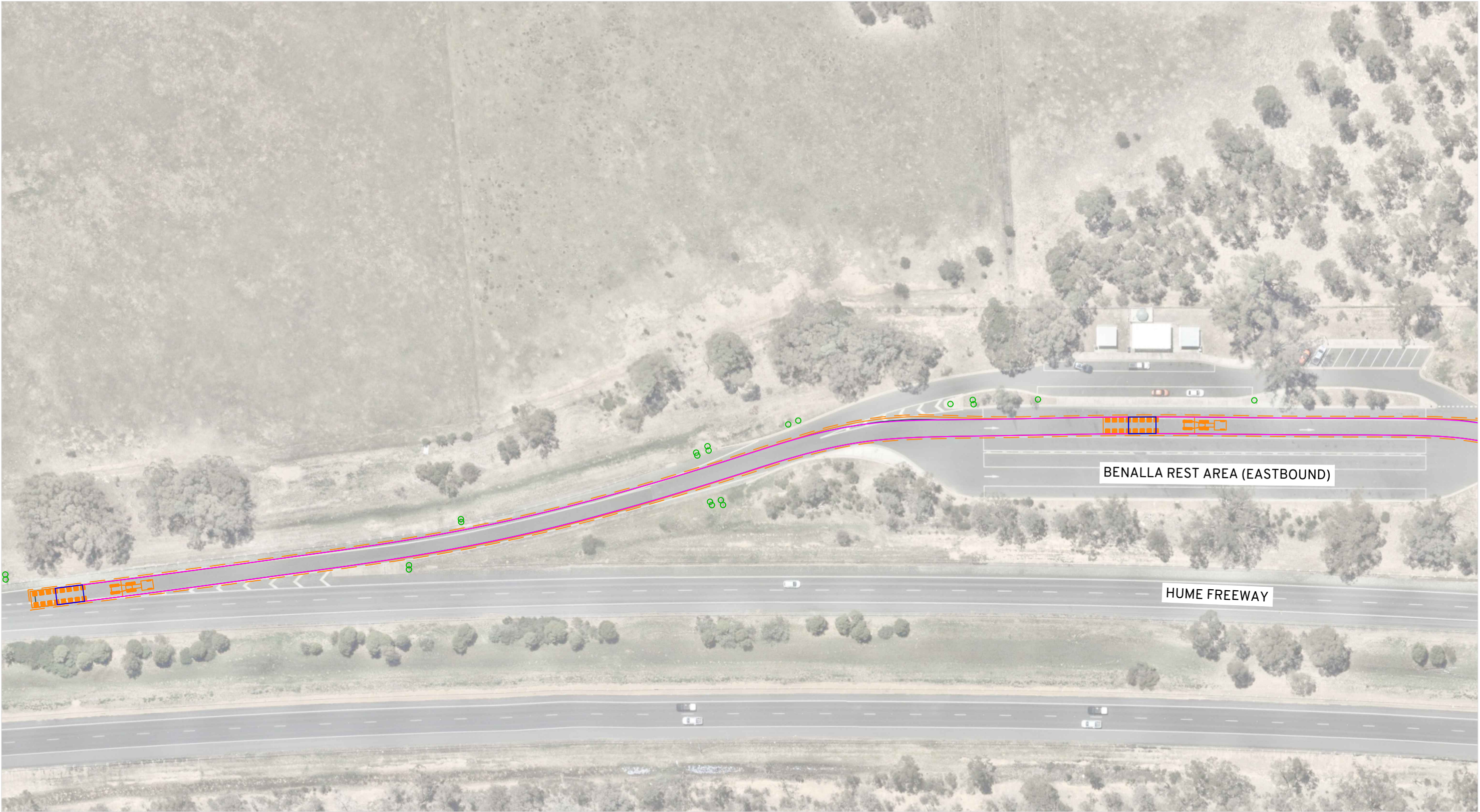
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Mangalore, VIC Online Map Link	Hume Freeway - Rest Area 2 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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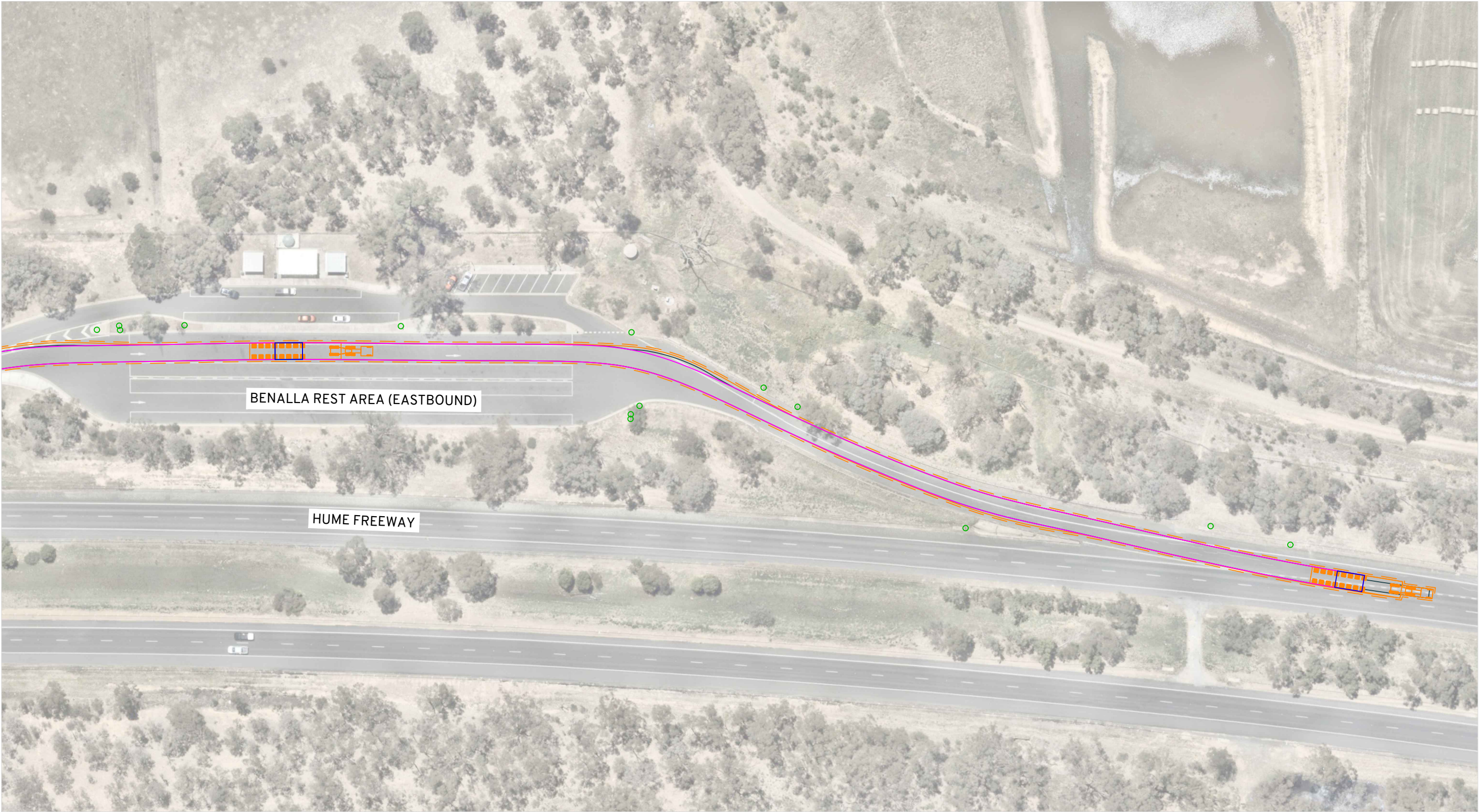
Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Mangalore, VIC Online Map Link	Hume Freeway - Rest Area 2 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Euroa, VIC Online Map Link	Hume Freeway - Rest Area 3 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Benalla, VIC Online Map Link	Hume Freeway - Rest Area 4 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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Vehicle/Load Envelope Vehicle/Load 0.5m Clearance Wheel Path Extents Load Path	○ Signage □ Light/Power Poles △ Trees/Vegetation <i>Impacted Assets Marked Red</i>	Notes: - Escort vehicles to facilitate use of multiple/opposing lanes. - Spotters to ensure vehicle and load are clear of infrastructure.	 Location: Benalla, VIC Online Map Link	Hume Freeway - Rest Area 4 Corowa BESS Swept Path Assessment DRAWN: WC DATE: 27/10/2025 DWG NO: 1357 RA01A SCALE at A3: 1:1000 
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Appendix B

Response to TfNSW Agency Advice



TfNSW Comment	Response
1. Hours, days and periods of construction.	The proposed construction hours and project timeframe are provided within Section 3.2.
2. Schedule for phasing/staging of the project (including pre-construction, accommodation and ancillary infrastructure works) and identify the traffic volumes for each stage	The traffic assessment in Section 4 details the known works associated with each stage including traffic volumes.
3. Traffic volumes are to include a description of: a. Surveyed existing background traffic at key intersections per Part 3 Austroads Guide to Traffic Management, with survey raw data included. b. Project-related traffic volumes (measured as single vehicle trips per hour, AM/PM peak hour and per day) for each stage, including pre-construction, construction, operation, and decommissioning and identifying peak period(s) for traffic volumes. c. Ratio of light vehicles to heavy vehicles. d. Differentiation of Over Size/Over Mass (OSOM) that do or do not require an NHVR permit and proposed times of operation on the State road network. e. Peak times for existing traffic and project-related traffic. f. Transportation hours. g. Distribution split i.e number turning left and right at each access or intersection. h. Number of high-risk OSOM anticipated for the project	Existing traffic captured in surveys provided in Section 2.3 with the data provided in Section 4.3.6. Project traffic presented in Section 4.3.1. Section 4.3.2 and 4.3.3 shows different types of OSOM vehicles proposed for the Project as well as proposed usage of the State road network. Different peak times of day, factoring up of background traffic to proposed peak construction period is shown in Section 7.1. Project traffic distribution is detailed in Section 4.3.4. Section 6 focuses on details around the high-risk OSOM vehicles proposed to access the site. The traffic assessment within this report has subsequently focused on the traffic impacts during construction when the majority of vehicle movements are generated.
4. The origin, destination and routes (including maps for all stages of the project) for: a. Employee and contractor light traffic. b. Heavy vehicle traffic. c. OSOM vehicle traffic. d. OSOM high-risk loads. e. A description of all non-high-risk OSOM vehicles and materials to be transported. The shortest and least trafficked route is to be given priority for the movement of materials and machinery to minimise risk and impact to other motorists, so far as is reasonably practicable. f. Identify the location of each new or existing intersection and access point (including GPS coordinates for new locations) that will be used for project traffic and what types of vehicles. g. The assessment is to identify high-level enforceable mitigation measures to manage traffic volumes, driver behaviour and site access paths for all project stages.	The origin/destination for all Project traffic is detailed in Section 4.3.4 with routes provided in Section 5 and 6. Non-high risk OSOM vehicle details are provided in Section 4.3.2. Key intersections used by Project Traffic are identified and assessed in Section 7, with those impacted by the high-risk OSOM vehicle movement assessed further in the OSOM Route Assessment provided in Appendix A. Mitigation measure deriving from the above are provided in Section 10.

TfNSW Comment	Response
5. A turn warrant assessment for different scenarios (i.e project peak hour is different to network peak hour, for worst case scenario (i.e overlap of construction, pre-construction works and occupation of stages of workforce accommodation camp). The turn warrant assessments are to be prepared in accordance with section 3.25 of Part 6 of the <i>Austrroads Guide to Traffic Management</i>. A turn warrant assessment will be required for each scenario identified above and for each access, access track and any other access along the project's identified routes with an interface or connection to the state road network. The methodology to be used for the turn warrants assessment is: • AM/PM peak project traffic volumes (including turn direction and traffic type ratios), • Applied to existing AM/PM network peak background traffic, • Include linear growth to the year of peak construction. • Including the cumulative traffic volumes for projects at EIS and approved stages that will be present in the background and turning traffic volumes at the site access or intersection. <i>Note: In rural agricultural areas, harvest periods must be factored into the traffic analysis and turn warrant assessments.</i> <i>Note: SIDRA Analysis may be required in locations with higher populations, accesses or intersections used by other existing high traffic-generating land uses or accesses that are located close to railways lines or traffic signals.</i>	The Turn Treatment assessment has been completed for the peak construction period's peak hour (6:00-7:00am) and peak road network hour (8:00-9:00am) and is provided in Section 7.1. A growth rate of 2.0% has been applied to the background traffic. No cumulative traffic from other projects is anticipated to interfere with the assessed intersection.

TfNSW Comment	Response
6. TIA is to detail the required intersection treatments and scope of upgrades at each intersection and proposed access point that is required to facilitate workforce accommodation facilities, transmission lines, compounds, ancillary infrastructure access, emergency access must be designed to facilitate the traffic volumes and safe turning of project traffic for each identified access or intersection with the State Road network. All strategic concept designs must be developed to demonstrate compliance with Austroads, TfNSW supplements, and TfNSW technical directions. The list below (but not limited to) is provided to assist with common questions and issues that may arise with the preparation and review of strategic concept design for renewable projects, and is provided as helpful tips to assist in the preparation of the strategic concept design. • The 2D section of the TfNSW strategic concept design fact sheet will inform the level of detail required to be captured within the strategic concept designs for each access or intersection that is required to be upgraded. • An assessment of the Safe Intersection Sight Distance (SISD) at each access point or intersection to be used by the project traffic is to be included within the TIA. TfNSW adopts within the TfNSW supplement to Austroads a 2.5 second reaction time for design speeds 110km/hr. The outcome of the SISD assessments must be incorporated into the scope of the strategic concept designs (where required).	The turn treatment assessment in Section 7.1 details the required intersection upgrade and a concept design showing swept paths of anticipated heavy vehicles is provided in Appendix G. All intersections used by the high-risk OSOM vehicle between the delivery port and site access have been assessed with a swept path assessment and is provided in Appendix A. Sight distance assessments at key intersections are provided in Section 7.2.

TfNSW Comment	Response
• Strategic concept designs are to include swept path analysis for the largest heavy vehicle and high-risk OSOM configuration (design and check) required to use each intersection or access point. Must be prepared in accordance with <i>Austroads Design Vehicles and Turning Path Templates</i>. • The posted speed zone +10km/hr is the design speed that is to be used to inform the strategic concept designs. • Typical sections are to be included for the drainage and must be designed to provide a 6:1 batter and table drain. • Sealed shoulder width requirements are informed by the Average Annual Daily Traffic volumes (AADTs), which will be obtained from the traffic count data collected within the traffic count survey. • The strategic concept designs are to factor in any existing accesses, intersections or TfNSW planned works and will need to consider within the designs how the accesses or interaction with TfNSW will be accommodated or impacted by the design. • Culvert extensions and clear zone requirements will need to be addressed within the strategic concept designs for each access and intersection. • Any other geometric or infrastructure constraints (i.e railways, proximity to accesses, intersections, rest areas, stockpiles. Embankments) will need to be addressed within the strategic concept designs.	Designs of upgraded intersections have been provided based on data from the traffic surveys and the proposed Project traffic. Designs have been completed with information available at the time of producing. Swept paths are provided in Route assessments in Appendix A, intersection designs in Appendix G and Site access design in Appendix D.

TfNSW Comment	Response
- Road train gazetted routes will need to incorporate additional widening within the design of the intersection treatments refer to the relevant intersection treatment type within <i>Austroads Guide to Road Design Part 4A</i>. - Left in left out proposed arrangements will need to prepare in accordance with <i>Austroads Guide to Traffic Management Part 6</i> for the design requirements for these arrangements any proposed U-turn location will need to be designed or provide suitable existing intersection treatments to accommodate the design heavy vehicle and proposed project traffic volumes during the peak of construction (or other relevant stage) that will use the U-turn facility. - Acceleration lanes will be required based on the identified reasons for needing an acceleration lane within the <i>Austroads Guide to Traffic Management Part 6</i>. - Any street lighting that requires relocation is to be designed following TfNSW Technical Direction. Required changes to street lighting must be designed in accordance with R0600 Street Lighting, AS 1158.1, and TfNSW supplements. - Any access via TfNSW assets (i.e stockpiles and rest areas) is to be discussed with TfNSW prior to consideration of use of these locations. - Relocation or modification to bus stops, safety barriers and rest areas etc is to be identified on the strategic concept designs and discussed with TfNSW. - Consideration of radii and adjustment for crests and curved road geometry.	None of these criteria are considered warranted for the Project.
Pavement widening for high-risk OSOM is to be consistent with the existing pavement of the state road network.	Recommendations for widening made in Appendix A and Section 6.5.
Emergency access points are to include gates to prevent access for project traffic, designed to accommodate the storage of the largest emergency vehicle, assess SISD and provide a compliant (sealed) rural property access in accordance with the requirements of <i>Part 4 of Austroads Guide to Road Design</i>. <u>Note:</u> It is the proponent's responsibility to acquire and dedicate land required to accommodate road infrastructure including, but not limited to, footways, structures, stormwater drainage, batters, maintenance access and utilities. <u>Note:</u> Works Authorisation Deeds are required for intersection upgrades on the state road network. <u>Note:</u> TfNSW is not the landowner of the state road network. The relevant council is the landowner of the state road network (with the exclusion of freeways).	There are no emergency access points proposed for the project.

TfNSW Comment	Response
7. Traffic safety assessment: a. Local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the project (eg fog, wet weather, snow etc). b. A review of crash data along the identified transport route/s for the most recent 5-year reporting period and an assessment of road safety along the proposed transport route(s). c. Measures to be employed to ensure a high level of road safety for daily staff commutes between accommodation and construction site(s), specifically addressing impacts of unsafe driver behaviour and driver fatigue for all project stages and how measures employed will be enforced.	Recommendations have been provided for inclusion within the TMP which address the proposed operation measures during local climate events explained in Section 9.4. Crash records for the surrounding area are provided within Section 2.6.

8. Pre-construction minor works assessment (prior to construction of intersection upgrade):
 - a. Identify the traffic volumes.
 - b. Traffic types, inclusive of the largest design vehicle.
 - c. Provide a swept path analysis of the existing intersection for the largest heavy vehicle, prepared following *Austroads Design Vehicles and Turning Path Templates*. The swept path analysis must demonstrate that the largest heavy vehicle can turn within the existing pavement and concurrently. If the design vehicle cannot turn, concurrently enforceable mitigation measures or additional temporary works will need to be implemented to manage and mitigate the impacts.
 - d. Provide an assessment of the existing SISD and measures that will be implemented to achieve a compliant SISD, i.e prohibition of turning movements, left in left out or vegetation removal.
 - e. Identify the AM/PM peak hour and proposed traffic volumes during this period.
 - f. Identify measures to reduce the project traffic and impacts during this period i.e carpooling, shuttle buses, staggering of traffic.
 - g. Identify mitigation measures to monitor and enforce the traffic volumes during this period.
 - h. Provide a schedule of the proposed pre-construction minor works and program of works.
 - i. The AM/PM peak hour must be consistent with the traffic volumes that would be generated during this period by the existing land use. Avoid network peak hours where possible.
 - j. Include measures to inform the community and key stakeholders of the increased traffic during this period.
 - k. Identify the hours for pre-construction minor works.
 - l. Identify the traffic volumes for any temporary workforce accommodation that will be occupied during this period.
 - m. Identify any temporary widening or works that may be required to accommodate swept paths for the design vehicle during this period within a strategic concept design.
 - n. Any overlap of construction and pre-construction minor works periods must be included in the traffic assessment for this stage, prior to completion of the intersection upgrade.
 - o. No OSOM will be permitted during this period, unless swept paths are provided that demonstrate that the intersection or access will be able to accommodate the turn of the OSOM movement within the existing pavement.
 - p. The sealing of the throat of the intersection (if unsealed) or access point may be required before the commencement of use of the intersection or access point for this stage.

Pre-construction works is addressed in Section 4.2 and would represent a small number of vehicles to access the Project Area of which the existing site access is deemed appropriate.

TfNSW Comment	Response
q. Temporary traffic controls will not be permitted to be used at the intersection or access point for pre-construction minor works that is occurring before commencing the required road upgrades. <i>Note: Consultation should occur with the relevant roads authority (Council) for any use of local or regional roads for pre-construction minor works.</i> <i>Note: The use of the intersections where the road upgrades are under construction will be dependent on the Traffic Guidance Schemes prepared per AS1742.3 and the Austroads Guide to Temporary Traffic Management. Generally, this will involve implementing reduced speed zones, installing signage, and using stop/go traffic control, among other measures. During this period, the use of the intersections will only be permitted while stop/go traffic control is in place and during daylight construction hours.</i>	
Electricity transmission lines (where applicable) 9. In relation to the EIS, TfNSW requires the identification of ancillary infrastructure, such as Electricity Transmission Lines that are crossing or near the state-classified road network or rail infrastructure within TfNSW remit. With respect to this matter the following information is required: - The heights or depths (under boring) and the vertical and horizontal clearances (overhead) in accordance with Austroads. - The method for construction of the transmission lines across state road network, inclusive of any proposed hurdles or other temporary infrastructure. - location of infrastructure and impacts (excavation or fill) relative to the road reserve, including demarcation of local and state-classified road reserves. - Distance from road reserve if the transmission line is to be constructed in parallel to the state road network. - Access required to construct and maintain the infrastructure. Access points or access tracks required for ETLs or other infrastructure will require the same level of assessment as detailed above. - Any trenchless excavation of the pipeline or any transmission lines near or crossing the State road network must comply with TfNSW Technical Direction-Geotechnical (GTD208-002) for Trenchless Excavation within the Road and Maritime Infrastructure. - Strategic concept designs must be provided for each transmission line crossing the state-road network.	Not applicable: transmission lines to connect with the adjacent Transgrid Substation do not cross or impact any State Roads.

Appendix C

Traffic Survey Data



TURNING MOVEMENT SURVEY

Intersection of Bullecourt Rd and Whitehead St, Corowa

GPS: -35.977567, 146.390026

Date:	Tue 21/10/25
Weather:	Overcast
Suburban:	Corowa
Customer:	Amber

North:	Whitehead St
East:	Bullecourt Rd
South:	Whitehead St
West:	Bullecourt Rd

Survey Period	AM: 6:00 AM-9:00 AM
	PM: 3:00 PM-7:00 PM
Traffic Peak	AM: 7:30 AM-8:30 AM
	PM: 3:00 PM-4:00 PM

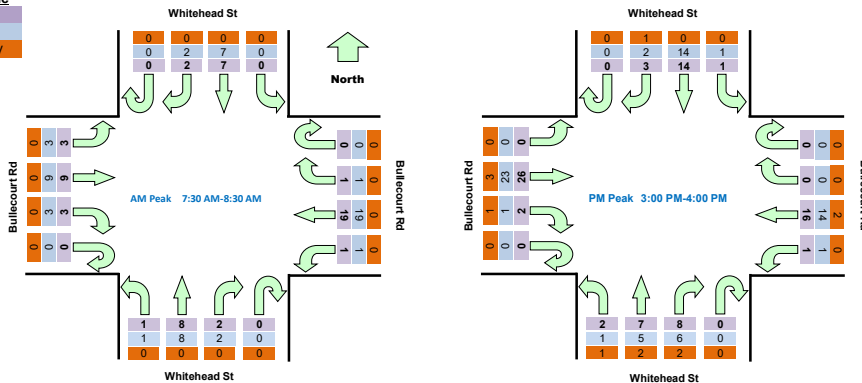
All Vehicles

Time		North Approach Whitehead St				East Approach Bullecourt Rd				South Approach Whitehead St				West Approach Bullecourt Rd				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:00	6:15	0	1	0	0	0	0	3	0	0	1	1	0	0	1	2	0	40	
6:15	6:30	0	0	0	0	0	0	6	0	0	0	1	0	0	0	1	2	43	
6:30	6:45	0	0	0	0	0	0	5	0	0	1	2	0	0	0	1	2	41	
6:45	7:00	0	1	1	0	0	0	5	0	0	1	1	0	0	0	1	0	45	
7:00	7:15	1	0	0	0	0	0	3	1	0	1	3	0	0	0	2	1	51	
7:15	7:30	0	0	1	0	0	1	3	0	0	0	0	0	0	0	1	2	50	
7:30	7:45	0	0	2	0	0	0	7	0	0	1	4	0	0	1	0	0	56	Peak
7:45	8:00	0	1	3	0	0	0	7	1	0	0	0	0	0	1	3	0	54	
8:00	8:15	0	1	1	0	0	1	2	0	0	0	3	1	0	0	1	1	50	
8:15	8:30	0	0	1	0	0	0	3	0	0	1	1	0	0	1	5	2		
8:30	8:45	0	1	2	1	0	0	3	0	0	2	0	0	0	0	3	1		
8:45	9:00	0	0	2	0	0	0	3	0	0	1	3	0	0	0	3	0		
15:00	15:15	0	2	3	0	0	0	1	0	0	4	2	1	0	0	9	0	80	Peak
15:15	15:30	0	0	4	0	0	0	3	0	0	1	2	1	0	0	4	0	76	
15:30	15:45	0	1	4	1	0	0	8	0	0	1	2	0	0	1	7	0	77	
15:45	16:00	0	0	3	0	0	0	4	1	0	2	1	0	0	1	6	0	71	
16:00	16:15	0	0	2	1	0	2	1	1	0	0	1	0	0	0	9	1	67	
16:15	16:30	0	1	4	1	0	0	1	0	0	2	3	1	0	0	3	0	55	
16:30	16:45	0	1	2	0	0	0	5	0	0	1	4	1	0	1	4	0	47	
16:45	17:00	0	3	2	1	0	0	4	1	0	0	0	1	0	0	2	0	36	
17:00	17:15	0	1	0	0	0	1	2	0	0	0	0	1	0	0	1	0	26	
17:15	17:30	0	1	2	0	0	0	1	0	0	1	1	0	0	0	1	1	24	
17:30	17:45	0	0	0	0	0	1	1	0	0	1	0	2	0	0	1	2	20	
17:45	18:00	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	15	
18:00	18:15	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	16	
18:15	18:30	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0		
18:30	18:45	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0		
18:45	19:00	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	1		

Peak Time		North Approach Whitehead St				East Approach Bullecourt Rd				South Approach Whitehead St				West Approach Bullecourt Rd				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
7:30	8:30	0	2	7	0	0	1	19	1	0	2	8	1	0	3	9	3	56
15:00	16:00	0	3	14	1	0	0	16	1	0	8	7	2	0	2	26	0	80

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic
Total
Light
Heavy



Light Vehicles

Time		North Approach Whitehead St				East Approach Bullecourt Rd				South Approach Whitehead St				West Approach Bullecourt Rd			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	0	0	0	0	0	3	0	0	1	1	0	0	1	2	0
6:15	6:30	0	0	0	0	0	0	5	0	0	0	1	0	0	0	1	2
6:30	6:45	0	0	0	0	0	0	5	0	0	1	2	0	0	0	0	1
6:45	7:00	0	1	1	0	0	0	5	0	0	1	1	0	0	0	0	0
7:00	7:15	1	0	0	0	0	0	3	1	0	1	3	0	0	0	1	0
7:15	7:30	0	0	1	0	0	1	3	0	0	0	0	0	0	0	1	1
7:30	7:45	0	0	2	0	0	0	7	0	0	1	4	0	0	1	0	0
7:45	8:00	0	1	3	0	0	0	7	1	0	0	0	0	0	1	3	0
8:00	8:15	0	1	1	0	0	1	2	0	0	0	3	1	0	0	1	1
8:15	8:30	0	0	1	0	0	0	3	0	0	1	1	0	0	1	5	2
8:30	8:45	0	0	2	0	0	0	3	0	0	2	0	0	0	0	3	1
8:45	9:00	0	0	2	0	0	0	3	0	0	1	3	0	0	0	1	0
15:00	15:15	0	1	3	0	0	0	1	0	0	3	2	0	0	0	9	0
15:15	15:30	0	0	4	0	0	0	3	0	0	1	0	1	0	0	3	0
15:30	15:45	0	1	4	1	0	0	6	0	0	0	2	0	0	1	5	0
15:45	16:00	0	0	3	0	0	0	4	1	0	2	1	0	0	0	6	0
16:00	16:15	0	0	1	1	0	2	1	1	0	0	1	0	0	0	8	1
16:15	16:30	0	1	4	1	0	0	1	0	0	2	3	1	0	0	3	0
16:30	16:45	0	0	2	0	0	0	3	0	0	1	4	1	0	1	4	0
16:45	17:00	0	2	2	1	0	0	4	1	0	0	0	1	0	0	1	0
17:00	17:15	0	1	0	0	0	1	2	0	0	0	0	1	0	0	1	0
17:15	17:30	0	1	2	0	0	0	1	0	0	1	1	0	0	0	1	1
17:30	17:45	0	0	0	0	0	1	1	0	0	1	0	2	0	0	1	1
17:45	18:00	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0
18:00	18:15	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0
18:15	18:30	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
18:45	19:00	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	1

Peak Time		North Approach Whitehead St				East Approach Bullecourt Rd				South Approach Whitehead St				West Approach Bullecourt Rd				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
7:30	8:30	0	2	7	0	0	1	19	1	0	2	8	1	0	3	9	3	56
15:00	16:00	0	2	14	1	0	0	14	1	0	6	5	1	0	1	23	0	68

Heavy Vehicles

Time		North Approach Whitehead St				East Approach Bullecourt Rd				South Approach Whitehead St				West Approach Bullecourt Rd			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:00	6:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	6:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:30	6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
6:45	7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:00	7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:15	7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30	7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	8:45	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
15:00	15:15	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
15:30	15:45	0	0	0	0	0	0	2	0	0	1	0	0	0	0	2	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
16:00	16:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
16:45	17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	18:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Whitehead St				East Approach Bullecourt Rd				South Approach Whitehead St				West Approach Bullecourt Rd				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
7:30	8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	16:00	0	1	0	0	0	0	2	0	0	2	2	1	0	1	3	0	12

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

Intersection of Bullecourt Rd and Honour Ave, Corowa

GPS -35.984233, 146.400617

Date:	Tue 21/10/25
Weather:	Overcast
Suburban:	Corowa
Customer:	Amber

North:	Honour Ave
East:	N/A
South:	Honour Ave
West:	Bullecourt Rd

Survey Period	AM: 6:00 AM-9:00 AM
PM: 3:00 PM-7:00 PM	
Traffic Peak	AM: 7:00 AM-8:00 AM
PM: 3:00 PM-4:00 PM	

8:00 AM-9:00 AM

All Vehicles

Time		North Approach Honour Ave			South Approach Honour Ave			West Approach Bullecourt R			Hourly Total	
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	Hour	Peak
6:00	6:15	0	3	23	0	27	0	0	0	3	284	
6:15	6:30	0	6	20	0	32	0	0	0	1	303	
6:30	6:45	0	6	32	0	38	0	0	0	2	335	
6:45	7:00	0	3	36	0	50	1	0	0	1	369	
7:00	7:15	0	4	24	0	44	0	0	0	3	406	
7:15	7:30	0	5	34	0	50	1	0	0	1	439	
7:30	7:45	0	5	45	0	59	1	0	0	2	481	
7:45	8:00	0	8	56	0	59	2	0	1	2	507	
8:00	8:15	0	4	57	0	44	1	0	1	1	508	Peak
8:15	8:30	0	3	61	0	64	0	0	0	5		
8:30	8:45	0	3	71	0	56	0	0	2	6		
8:45	9:00	0	3	64	0	58	1	0	0	3		
15:00	15:15	0	1	71	0	68	0	0	0	13	625	Peak
15:15	15:30	0	2	66	1	80	1	0	0	6	604	
15:30	15:45	0	6	83	0	66	3	0	1	5	574	
15:45	16:00	0	4	71	0	66	0	0	1	10	531	
16:00	16:15	0	3	61	0	55	2	0	2	9	518	
16:15	16:30	0	1	65	0	54	2	0	0	4	515	
16:30	16:45	0	3	58	0	52	0	0	3	5	505	
16:45	17:00	0	4	70	0	62	0	0	0	3	496	
17:00	17:15	0	3	69	0	54	1	0	1	1	440	
17:15	17:30	0	1	51	0	62	0	0	0	2	376	
17:30	17:45	0	2	69	0	37	1	0	1	2	339	
17:45	18:00	0	0	51	0	31	0	0	0	1	271	
18:00	18:15	0	1	30	0	33	0	0	0	1	222	
18:15	18:30	0	0	42	0	37	0	0	0	0		
18:30	18:45	0	1	26	0	16	0	0	0	1		
18:45	19:00	0	0	16	0	16	0	0	0	2		

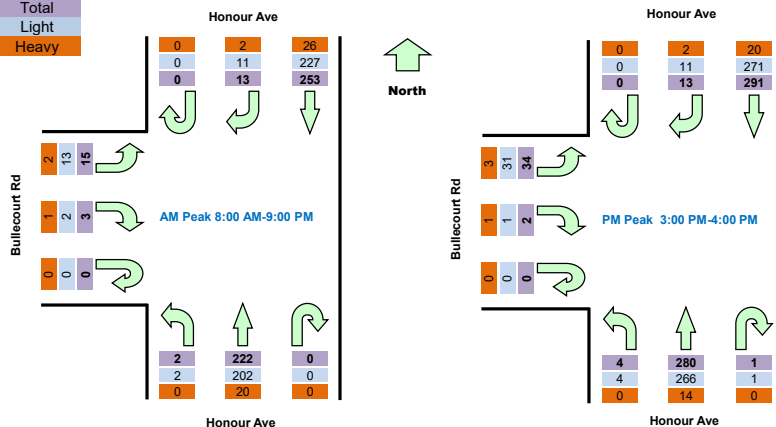
Peak Time		North Approach Honour Ave			South Approach Honour Ave			West Approach Bullecourt R			Peak total
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	
8:00	9:00	0	13	253	0	222	2	0	3	15	508
15:00	16:00	0	13	291	1	280	4	0	2	34	625

HV %
10%
6%

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Honour Ave			South Approach Honour Ave			West Approach Bullecourt Rd		
Period Start	Period End	U	R	SB	U	NB	L	U	R	L
6:00	6:15	0	3	21	0	24	0	0	0	3
6:15	6:30	0	5	20	0	31	0	0	0	1
6:30	6:45	0	6	25	0	35	0	0	0	1
6:45	7:00	0	3	33	0	47	1	0	0	0
7:00	7:15	0	4	21	0	40	0	0	0	2
7:15	7:30	0	5	29	0	45	1	0	0	1
7:30	7:45	0	5	38	0	51	1	0	0	2
7:45	8:00	0	8	53	0	55	2	0	1	2
8:00	8:15	0	3	49	0	42	1	0	1	0
8:15	8:30	0	3	55	0	58	0	0	0	5
8:30	8:45	0	3	66	0	50	0	0	1	6
8:45	9:00	0	2	57	0	52	1	0	0	2
15:00	15:15	0	1	66	0	64	0	0	0	12
15:15	15:30	0	2	63	1	73	1	0	0	5
15:30	15:45	0	4	78	0	65	3	0	0	5
15:45	16:00	0	4	64	0	64	0	0	1	9
16:00	16:15	0	3	56	0	52	2	0	2	8
16:15	16:30	0	1	59	0	53	2	0	0	4
16:30	16:45	0	2	56	0	48	0	0	3	5
16:45	17:00	0	4	66	0	59	0	0	0	2
17:00	17:15	0	3	68	0	51	1	0	1	1
17:15	17:30	0	1	48	0	57	0	0	0	2
17:30	17:45	0	2	67	0	34	1	0	1	2
17:45	18:00	0	0	51	0	29	0	0	0	1
18:00	18:15	0	0	29	0	31	0	0	0	1
18:15	18:30	0	0	39	0	35	0	0	0	0
18:30	18:45	0	0	25	0	13	0	0	0	1
18:45	19:00	0	0	14	0	15	0	0	0	2

Peak Time		North Approach Honour Ave			South Approach Honour Ave			West Approach Bullecourt Rd			Peak total
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	
8:00	9:00	0	11	227	0	202	2	0	2	13	457
15:00	16:00	0	11	271	1	266	4	0	1	31	585

Heavy Vehicles

Time		North Approach Honour Ave			South Approach Honour Ave			West Approach Bullecourt Rd		
Period Start	Period End	U	R	SB	U	NB	L	U	R	L
6:00	6:15	0	0	2	0	3	0	0	0	0
6:15	6:30	0	1	0	0	1	0	0	0	0
6:30	6:45	0	0	7	0	3	0	0	0	1
6:45	7:00	0	0	3	0	3	0	0	0	1
7:00	7:15	0	0	3	0	4	0	0	0	1
7:15	7:30	0	0	5	0	5	0	0	0	0
7:30	7:45	0	0	7	0	8	0	0	0	0
7:45	8:00	0	0	3	0	4	0	0	0	0
8:00	8:15	0	1	8	0	2	0	0	0	1
8:15	8:30	0	0	6	0	6	0	0	0	0
8:30	8:45	0	0	5	0	6	0	0	1	0
8:45	9:00	0	1	7	0	6	0	0	0	1
15:00	15:15	0	0	5	0	4	0	0	0	1
15:15	15:30	0	0	3	0	7	0	0	0	1
15:30	15:45	0	2	5	0	1	0	0	1	0
15:45	16:00	0	0	7	0	2	0	0	0	1
16:00	16:15	0	0	5	0	3	0	0	0	1
16:15	16:30	0	0	6	0	1	0	0	0	0
16:30	16:45	0	1	2	0	4	0	0	0	0
16:45	17:00	0	0	4	0	3	0	0	0	1
17:00	17:15	0	0	1	0	3	0	0	0	0
17:15	17:30	0	0	3	0	5	0	0	0	0
17:30	17:45	0	0	2	0	3	0	0	0	0
17:45	18:00	0	0	0	0	2	0	0	0	0
18:00	18:15	0	1	1	0	2	0	0	0	0
18:15	18:30	0	0	3	0	2	0	0	0	0
18:30	18:45	0	1	1	0	3	0	0	0	0
18:45	19:00	0	0	2	0	1	0	0	0	0

Peak Time		North Approach Honour Ave			South Approach Honour Ave			West Approach Bullecourt Rd			Peak total
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	
8:00	9:00	0	2	26	0	20	0	0	1	2	51
15:00	16:00	0	2	20	0	14	0	0	1	3	40

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

T. 1300 82 88 82 - F. 1300 83 88 83 - E. traffic@trafficsurvey.com.au - W. www.trafficsurvey.com.au

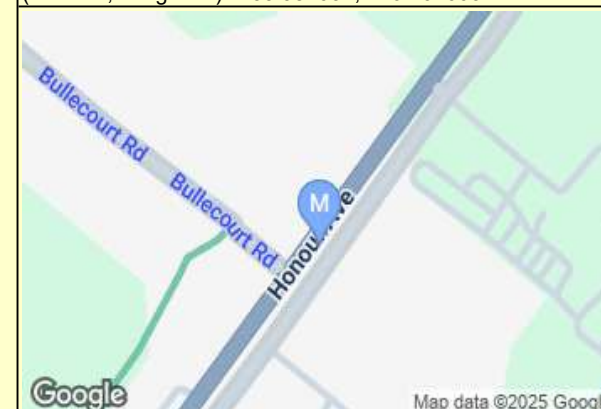
AUTOMATIC COUNT SUMMARY

Street Name :	Honour Ave	Location :	North of Bullecourt Rd
Suburb :	Corowa	Start Date :	00:00 Sat 18/October/2025
Machine ID:	SA33ZT3E	Finish Date :	00:00 Sat 25/October/2025
Site ID:	4189	Speed Zone :	80 km/h
Prepared By :	Vo Son Binh	Email:	binh@trafficsurvey.com.au

GPS information Lat 35° 59' 2.53 South Long 146° 24' 3.61 East		Direction of Travel		
		Both directions	Northbound	Southbound
Traffic Volume : (Vehicles/Day)	Weekdays Average	6,401	3,170	3,231
	7 Day Average	5,817	2,877	2,940
Weekday AM	08:00	504	250	254
Peak hour starts PM	15:00	559	289	270
Speeds : (Km/Hr)	85th Percentile	77.6	76.7	78.6
	Average	68.2	67.7	68.8
Classification % :	Light Vehicles up to 5.5m	88.4%	88.6%	88.1%

Location

GPS Information [Load Google Map \(internet required\)](#)
(Latitude, Longitude) -35.984037, 146.401003



[Speed Data](#) [Speed Graph](#) [Speed Bin](#)
[Volume Data](#) [Volume Graph](#) [Classification](#)



QUALITY ASSURED COMPANY BY ISO 9001:2015
OH&S SYSTEM CERTIFIED TO ISO 4801:2001
ENVIRONMENT MANAGEMENT SYSTEM CERTIFIED TO ISO14001:2015

TRANS TRAFFIC SURVEY

 trafficsurvey.com.au

Site Honour Ave

Direction ▼

[Back to Site Summary Page](#)

Day Date	Monday 20/10/2025	Tuesday 21/10/2025	Wednesday 22/10/2025	Thursday 23/10/2025	Friday 24/10/2025	Saturday 18/10/2025	Sunday 19/10/2025	7 days		Weekday		Weekend	
								Total	Average	Total	Average	Total	Average
AM Peak	09:00	08:00	08:00	08:00	09:00	11:00	09:00	N/A	09:00	N/A	09:00	N/A	11:00
PM Peak	15:00	15:00	15:00	15:00	15:00	12:00	13:00	N/A	15:00	N/A	15:00	N/A	12:00
00:00	4	15	12	11	14	17	23	96	14	56	11	40	20
01:00	2	7	15	2	6	5	7	44	6	32	6	12	6
02:00	4	5	8	7	3	5	7	39	6	27	5	12	6
03:00	6	6	10	8	8	1	2	41	6	38	8	3	2
04:00	17	22	19	9	18	12	3	100	14	85	17	15	8
05:00	80	54	71	66	74	28	13	386	55	345	69	41	21
06:00	143	154	149	152	144	53	39	834	119	742	148	92	46
07:00	214	220	250	229	220	76	76	1285	184	1133	227	152	76
08:00	237	237	252	269	263	158	131	1547	221	1258	252	289	145
09:00	251	235	226	248	292	180	192	1624	232	1252	250	372	186
10:00	218	206	227	214	248	219	182	1514	216	1113	223	401	201
11:00	202	229	244	198	278	236	188	1575	225	1151	230	424	212
12:00	245	196	225	213	260	197	178	1514	216	1139	228	375	188
13:00	203	228	213	255	253	156	195	1503	215	1152	230	351	176
14:00	221	229	227	220	241	127	191	1456	208	1138	228	318	159
15:00	277	314	258	333	264	157	176	1779	254	1446	289	333	167
16:00	244	244	223	254	215	134	123	1437	205	1180	236	257	129
17:00	189	190	195	188	180	147	88	1177	168	942	188	235	118
18:00	113	106	112	110	128	109	87	765	109	569	114	196	98
19:00	53	62	73	93	110	73	62	526	75	391	78	135	68
20:00	39	54	51	75	70	49	43	381	54	289	58	92	46
21:00	33	33	39	41	47	65	31	289	41	193	39	96	48
22:00	26	26	24	23	38	48	22	207	30	137	27	70	35
23:00	14	10	10	22	17	27	11	111	16	73	15	38	19
Total	3035	3082	3133	3240	3391	2279	2070	20230	2890	15881	3176	4349	2175
% Heavy	13.41%	12.52%	12.29%	13.12%	12.36%	6.89%	6.62%	11.45%		12.73%		6.76%	

TRANS TRAFFIC SURVEY

 trafficsurvey.com.au

Site Honour Ave

Direction ▼

[Back to Site Summary Page](#)

Day Date	Monday 20/10/2025	Tuesday 21/10/2025	Wednesday 22/10/2025	Thursday 23/10/2025	Friday 24/10/2025	Saturday 18/10/2025	Sunday 19/10/2025	7 days		Weekday		Weekend	
								Total	Average	Total	Average	Total	Average
AM Peak	09:00	08:00	11:00	08:00	11:00	10:00	11:00	N/A	11:00	N/A	08:00	N/A	11:00
PM Peak	16:00	15:00	15:00	15:00	16:00	15:00	14:00	N/A	15:00	N/A	15:00	N/A	14:00
00:00	2	10	7	8	9	11	17	64	9	36	7	28	14
01:00	1	9	13	6	10	10	14	63	9	39	8	24	12
02:00	3	3	3	7	4	5	8	33	5	20	4	13	7
03:00	5	10	9	9	11	7	1	52	7	44	9	8	4
04:00	23	25	26	24	31	12	6	147	21	129	26	18	9
05:00	100	94	93	95	98	32	18	530	76	480	96	50	25
06:00	119	129	135	132	114	42	24	695	99	629	126	66	33
07:00	159	181	150	159	180	72	29	930	133	829	166	101	51
08:00	239	266	254	274	242	106	54	1435	205	1275	255	160	80
09:00	243	223	235	230	222	188	122	1463	209	1153	231	310	155
10:00	210	206	209	196	233	225	164	1443	206	1054	211	389	195
11:00	211	211	257	220	300	211	194	1604	229	1199	240	405	203
12:00	240	232	252	232	270	186	203	1615	231	1226	245	389	195
13:00	219	232	213	220	243	149	218	1494	213	1127	225	367	184
14:00	242	243	251	232	256	180	236	1640	234	1224	245	416	208
15:00	242	304	267	292	246	205	186	1742	249	1351	270	391	196
16:00	264	265	262	276	276	190	154	1687	241	1343	269	344	172
17:00	239	246	224	234	250	165	136	1494	213	1193	239	301	151
18:00	124	116	153	146	179	131	92	941	134	718	144	223	112
19:00	69	62	66	86	94	81	64	522	75	377	75	145	73
20:00	45	50	49	76	83	53	33	389	56	303	61	86	43
21:00	35	36	38	33	67	44	35	288	41	209	42	79	40
22:00	24	26	21	31	42	37	16	197	28	144	29	53	27
23:00	17	8	15	27	21	35	15	138	20	88	18	50	25
Total	3075	3187	3202	3245	3481	2377	2039	20606	2944	16190	3238	4416	2208
% Heavy	13.07%	12.43%	11.68%	13.56%	12.58%	8.41%	9.27%	11.84%		12.66%		8.81%	

Appendix D

Site Access Design and Swept Path Assessments





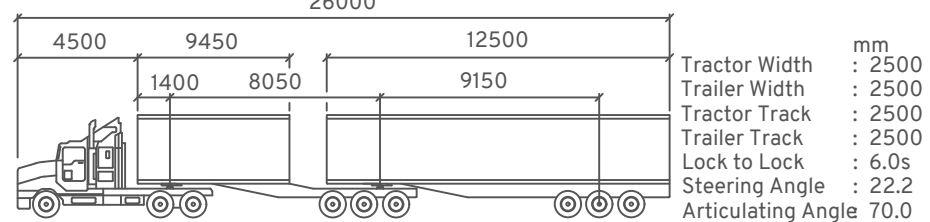
Corowa BESS
Whitehead Street / Site Access
Strategic Design

DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S01B
SCALE at A3: 1:500m



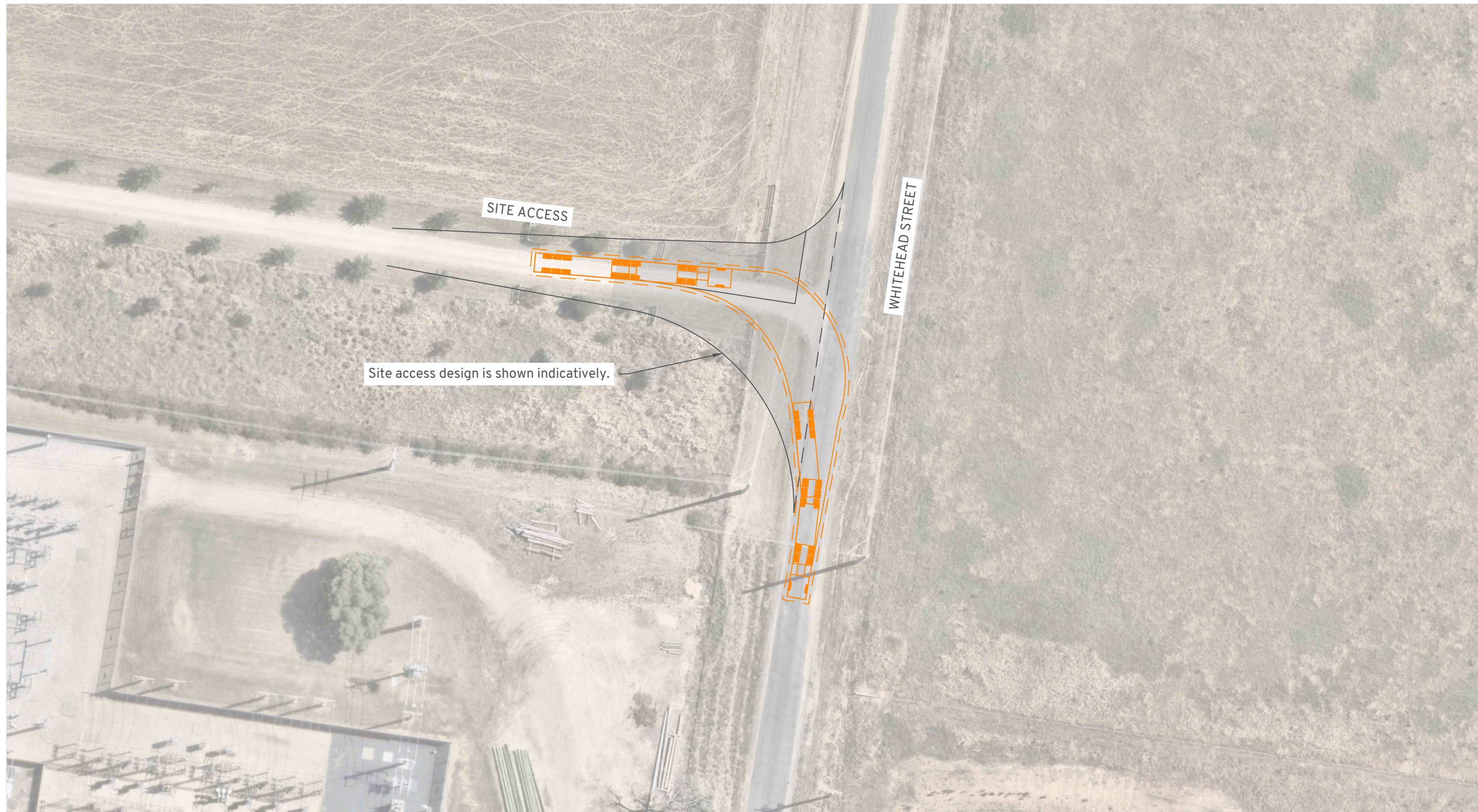
Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double



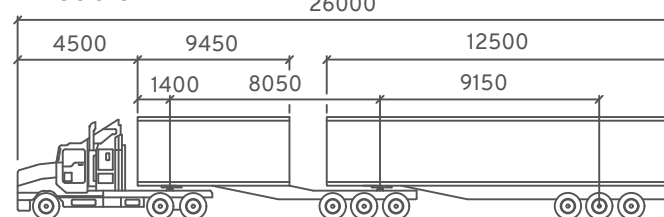
Corowa BESS
 Whitehead Street / Site Access
 Swept Path Assessment

DRAWN: WC
 DATE: 14/11/2025
 DWG NO: 1357 S01B
 SCALE at A3: 1:500m



Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double

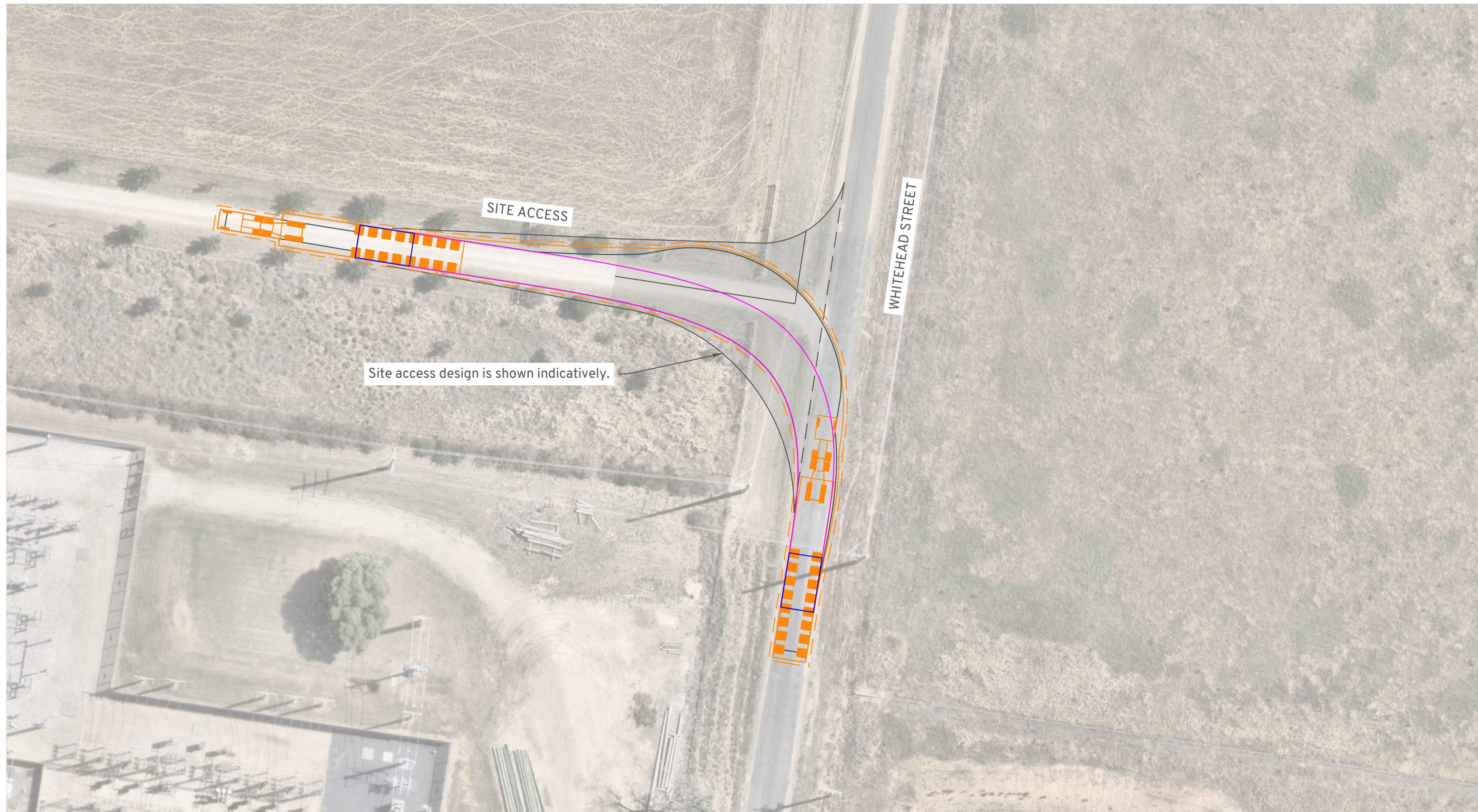


Tractor Width : 2500
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle : 70.0



Corowa BESS
 Whitehead Street / Site Access
 Swept Path Assessment

DRAWN: WC
 DATE: 14/11/2025
 DWG NO: 1357 S01B
 SCALE at A3: 1:500m



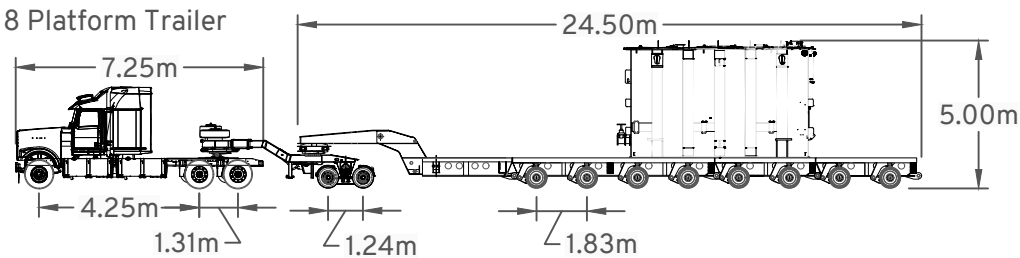
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

8 x 8 Platform Trailer



OSOM vehicle calibrated against similar configurations and is based on information available at the time of assessment

Overall Length : 32.500m
Overall Width : 4.376m
Overall Height : 5.00m
Load Length : 7.250m
Wall to Wall Turning Radius : 20.200m
Lock to Lock : 6.0s



Corowa BESS

Whitehead Street / Site Access

Swept Path Assessment

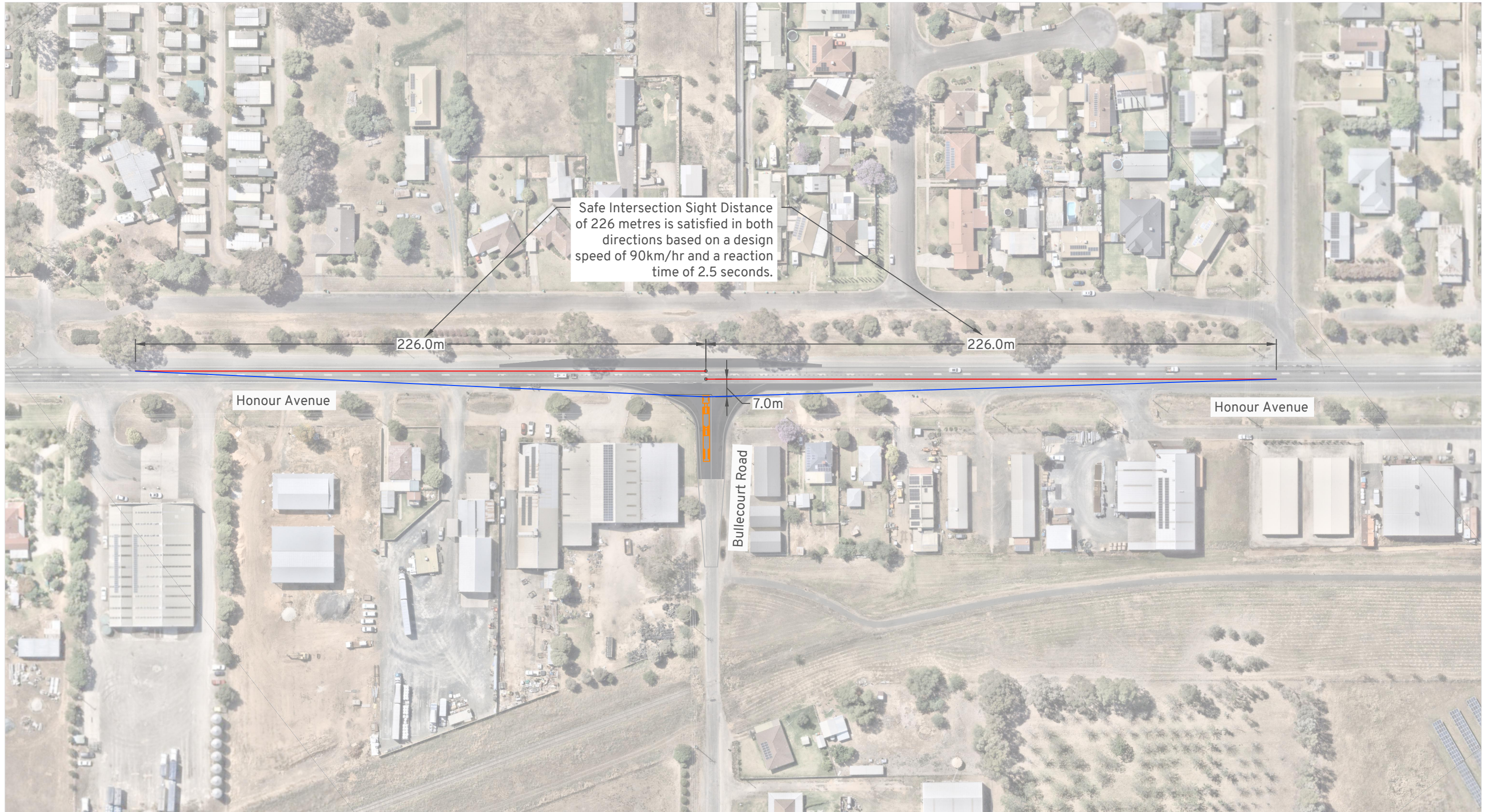
DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S01B
SCALE at A3: 1:500m

Amber 04

Appendix E

Sight Distance Assessments





Sight Distance

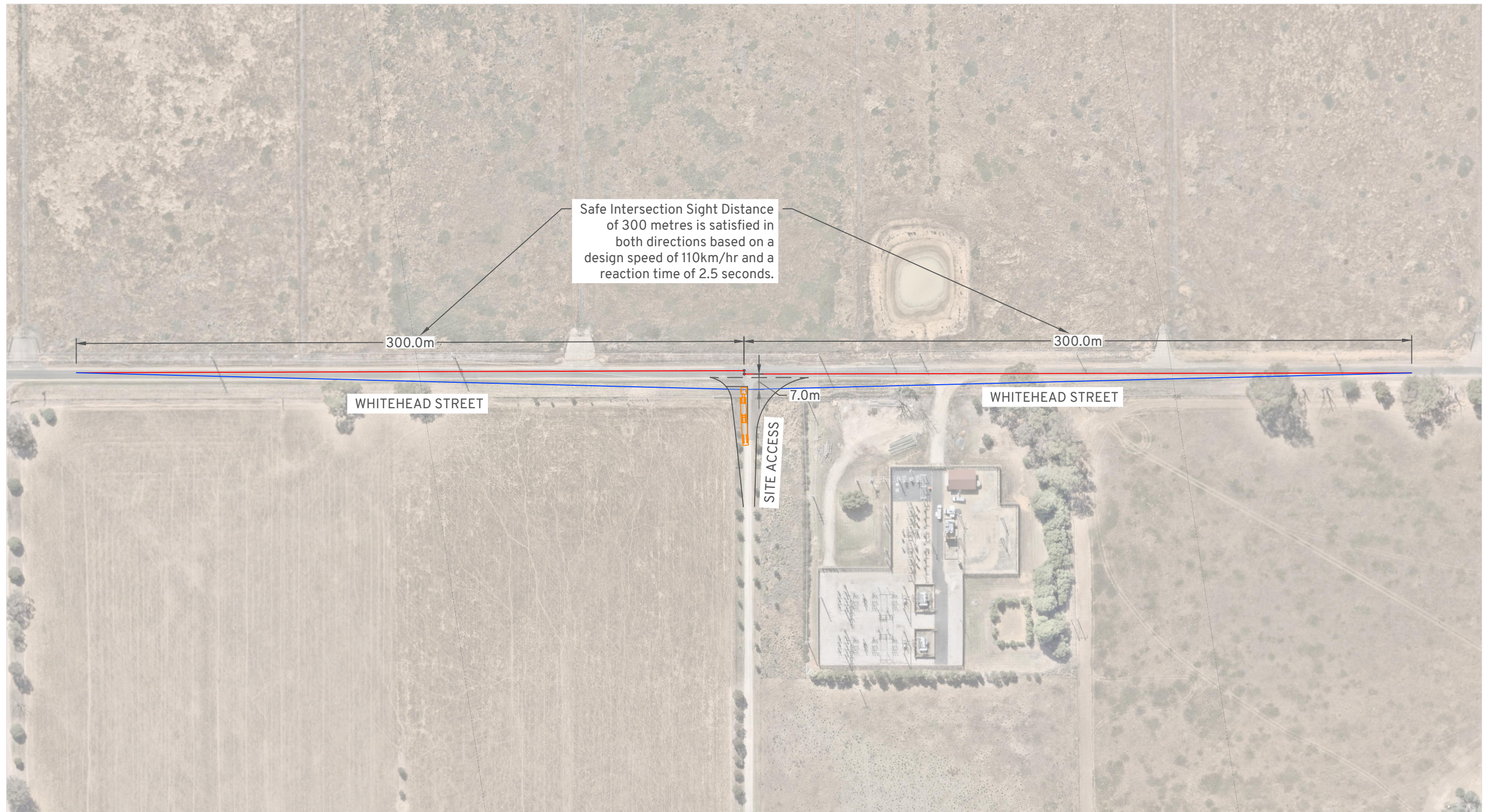
Sight Line



Corowa BESS

Honour Avenue / Bullecourt Road Intersection
Sight Distance Assessment

DRAWN: WC
DATE: 21/10/2025
DWG NO: 1357 S01A
SCALE at A3: 1:1500m



Sight Distance

Sight Line



Corowa BESS
Whitehead Street / Site Access
Sight Distance Assessment

DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S01B
SCALE at A3: 1:1700m

Appendix F

SIDRA Intersection Analysis

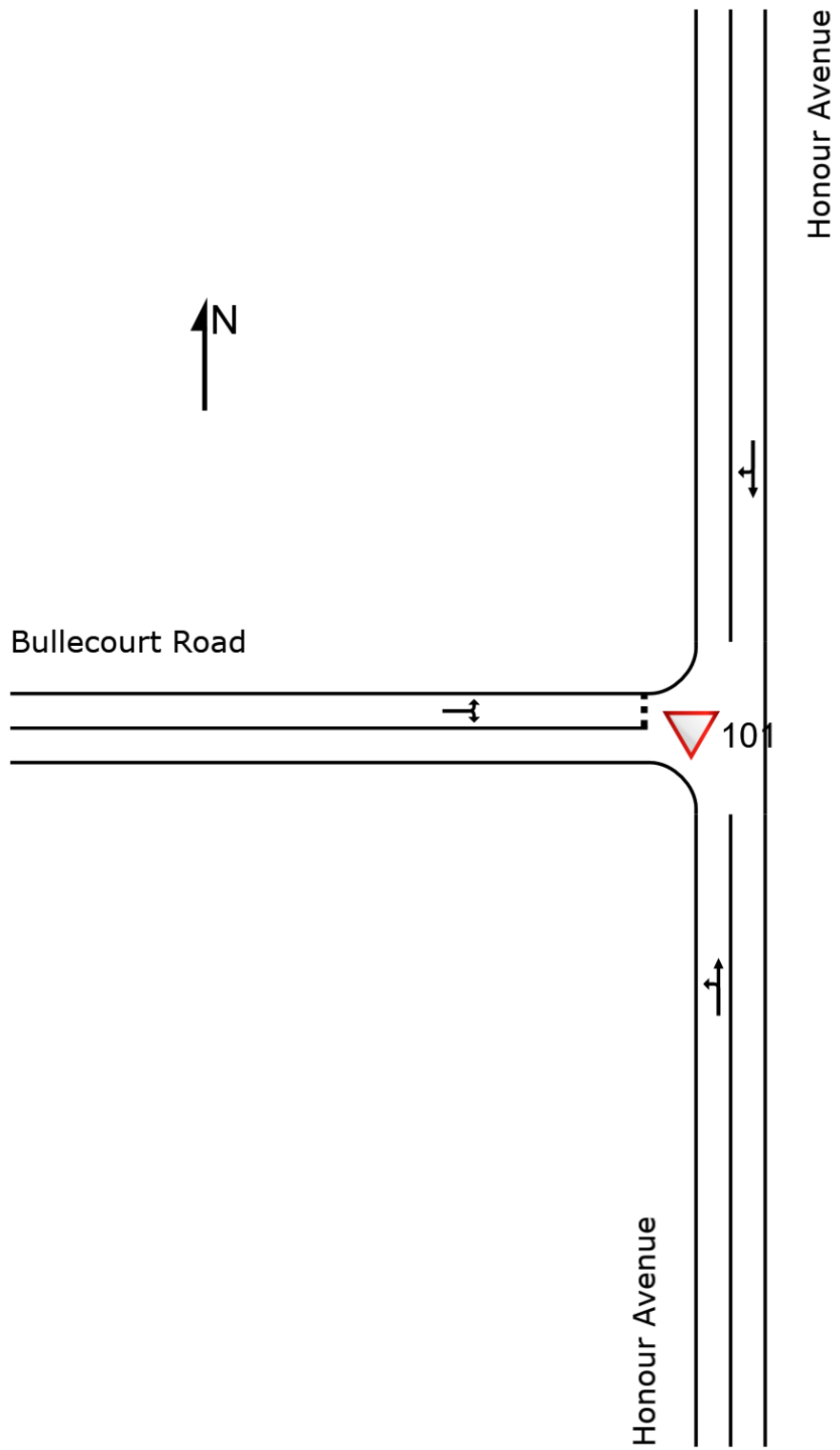


SITE LAYOUT

▼ Site: 101 [Honour Ave / Bullecourt Rd AM Peak Hour (Site Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Honour Ave / Bullecourt Rd AM Peak Hour (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Honour Avenue															
1	L2	All MCs	1	0.0	1	0.0	0.090	7.0	LOS A	0.0	0.0	0.00	0.00	0.00	73.5
2	T1	All MCs	164	7.1	164	7.1	0.090	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			165	7.0	165	7.0	0.090	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Honour Avenue															
8	T1	All MCs	124	11.0	124	11.0	0.117	0.4	LOS A	0.4	3.4	0.21	0.28	0.21	75.1
9	R2	All MCs	61	20.7	61	20.7	0.117	7.8	LOS A	0.4	3.4	0.21	0.28	0.21	61.6
Approach			185	14.2	185	14.2	0.117	2.8	NA	0.4	3.4	0.21	0.28	0.21	70.1
West: Bullecourt Road															
10	L2	All MCs	7	28.6	7	28.6	0.007	8.1	LOS A	0.0	0.2	0.28	0.58	0.28	55.3
12	R2	All MCs	1	0.0	1	0.0	0.007	8.0	LOS A	0.0	0.2	0.28	0.58	0.28	63.1
Approach			8	25.0	8	25.0	0.007	8.1	LOS A	0.0	0.2	0.28	0.58	0.28	56.2
All Vehicles			359	11.1	359	11.1	0.117	1.7	NA	0.4	3.4	0.12	0.16	0.12	73.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Honour Ave / Bullecourt Rd PM Peak Hour (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Honour Avenue															
1	L2	All MCs	1	0.0	1	0.0	0.085	7.0	LOS A	0.0	0.0	0.00	0.00	0.00	73.5
2	T1	All MCs	155	6.8	155	6.8	0.085	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			156	6.8	156	6.8	0.085	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Honour Avenue															
8	T1	All MCs	214	3.0	214	3.0	0.116	0.0	LOS A	0.0	0.2	0.01	0.01	0.01	79.8
9	R2	All MCs	3	33.3	3	33.3	0.116	7.5	LOS A	0.0	0.2	0.01	0.01	0.01	60.5
Approach			217	3.4	217	3.4	0.116	0.1	NA	0.0	0.2	0.01	0.01	0.01	79.4
West: Bullecourt Road															
10	L2	All MCs	45	25.6	45	25.6	0.038	8.0	LOS A	0.1	1.3	0.27	0.59	0.27	56.0
12	R2	All MCs	1	0.0	1	0.0	0.038	8.1	LOS A	0.1	1.3	0.27	0.59	0.27	63.1
Approach			46	25.0	46	25.0	0.038	8.0	LOS A	0.1	1.3	0.27	0.59	0.27	56.2
All Vehicles			419	7.0	419	7.0	0.116	1.0	NA	0.1	1.3	0.04	0.07	0.04	76.1

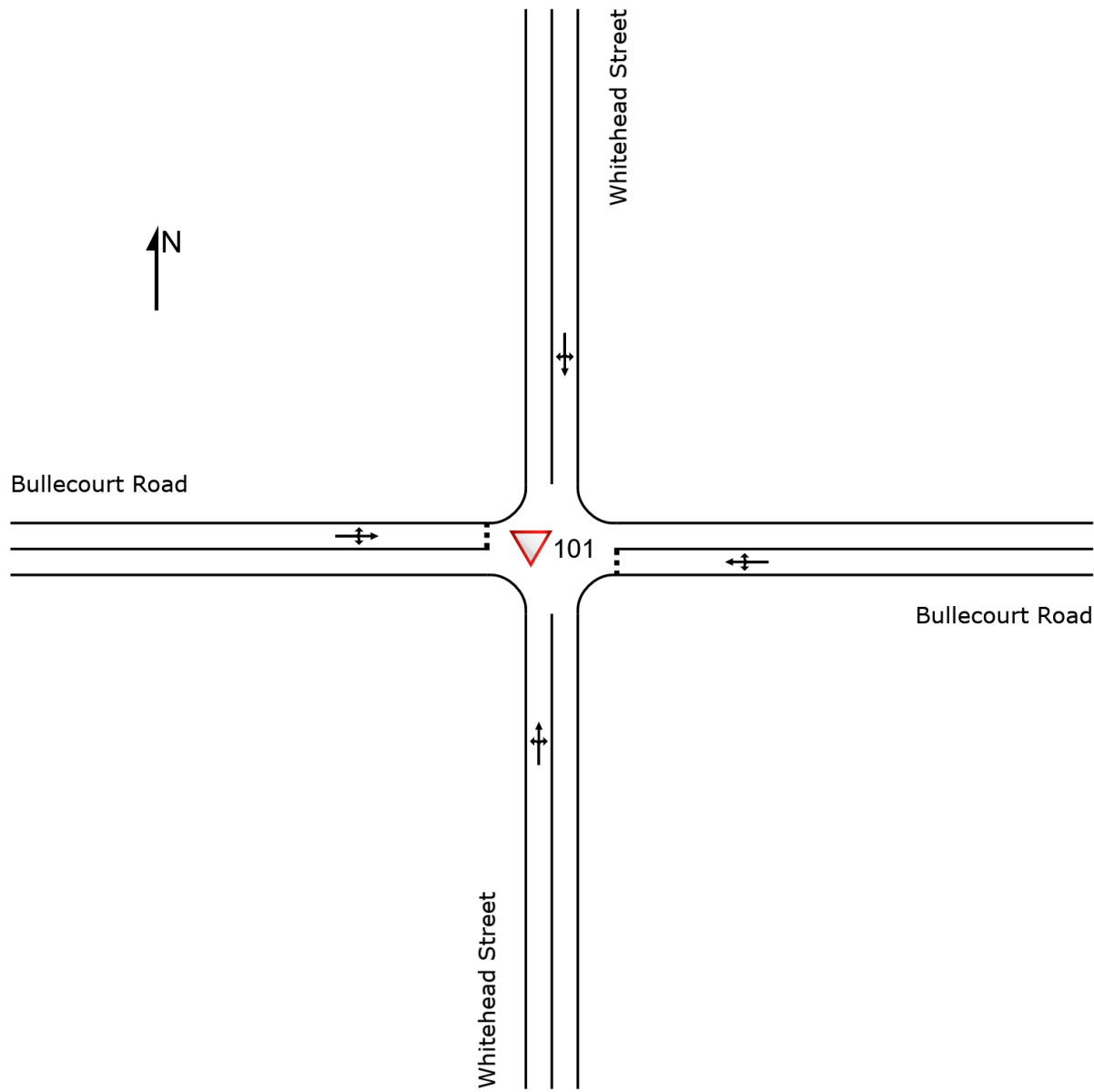
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▼ Site: 101 [Whitehead St / Bullecourt Rd AM Peak Hour (Site Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Whitehead St / Bullecourt Rd AM Peak Hour (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Whitehead Street															
1	L2	All MCs	1	0.0	1	0.0	0.019	6.9	LOS A	0.0	0.1	0.00	0.08	0.00	72.3
2	T1	All MCs	31	3.4	31	3.4	0.019	0.0	LOS A	0.0	0.1	0.00	0.08	0.00	78.5
3	R2	All MCs	3	0.0	3	0.0	0.019	6.6	LOS A	0.0	0.1	0.00	0.08	0.00	72.0
Approach			35	3.0	35	3.0	0.019	0.8	NA	0.0	0.1	0.00	0.08	0.00	77.7
East: Bullecourt Road															
4	L2	All MCs	1	0.0	1	0.0	0.061	6.9	LOS A	0.2	1.7	0.10	0.61	0.10	64.9
5	T1	All MCs	21	5.0	21	5.0	0.061	5.9	LOS A	0.2	1.7	0.10	0.61	0.10	63.7
6	R2	All MCs	41	28.2	41	28.2	0.061	7.5	LOS A	0.2	1.7	0.10	0.61	0.10	56.0
Approach			63	20.0	63	20.0	0.061	7.0	LOS A	0.2	1.7	0.10	0.61	0.10	58.5
North: Whitehead Street															
7	L2	All MCs	1	0.0	1	0.0	0.003	7.1	LOS A	0.0	0.1	0.11	0.46	0.11	66.9
8	T1	All MCs	1	0.0	1	0.0	0.003	0.1	LOS A	0.0	0.1	0.11	0.46	0.11	72.1
9	R2	All MCs	2	50.0	2	50.0	0.003	7.8	LOS A	0.0	0.1	0.11	0.46	0.11	51.9
Approach			4	25.0	4	25.0	0.003	5.7	NA	0.0	0.1	0.11	0.46	0.11	59.4
West: Bullecourt Road															
10	L2	All MCs	4	25.0	4	25.0	0.009	7.5	LOS A	0.0	0.3	0.11	0.58	0.11	57.2
11	T1	All MCs	5	40.0	5	40.0	0.009	6.5	LOS A	0.0	0.3	0.11	0.58	0.11	54.4
12	R2	All MCs	1	0.0	1	0.0	0.009	6.9	LOS A	0.0	0.3	0.11	0.58	0.11	64.5
Approach			11	30.0	11	30.0	0.009	7.0	LOS A	0.0	0.3	0.11	0.58	0.11	56.4
All Vehicles			113	15.9	113	15.9	0.061	5.0	NA	0.2	1.7	0.07	0.44	0.07	63.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Whitehead St / Bullecourt Rd PM Peak Hour (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

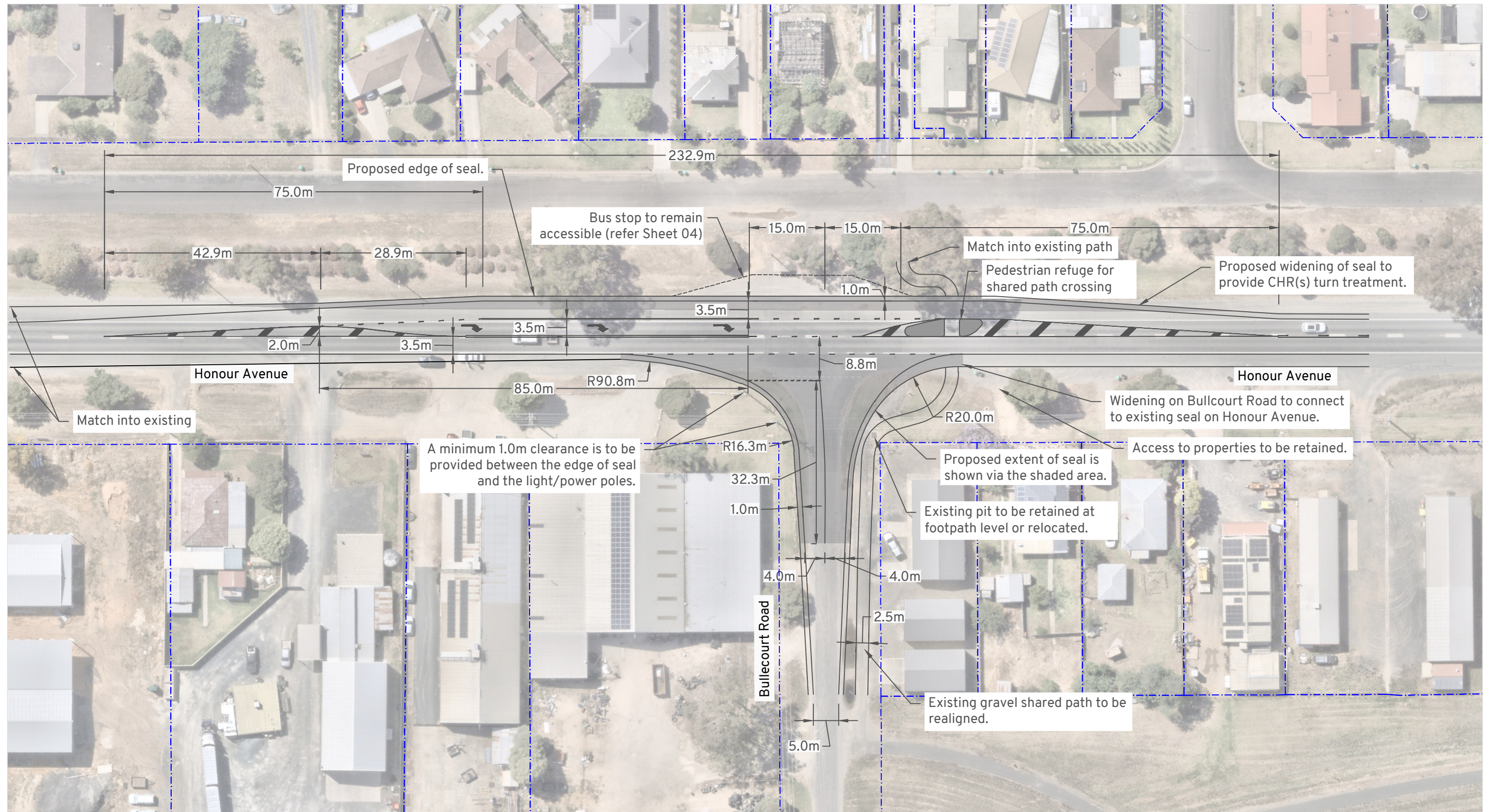
Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Whitehead Street															
1	L2	All MCs	3	0.0	3	0.0	0.003	7.0	LOS A	0.0	0.0	0.09	0.49	0.09	65.8
2	T1	All MCs	1	0.0	1	0.0	0.003	0.1	LOS A	0.0	0.0	0.09	0.49	0.09	70.9
3	R2	All MCs	1	0.0	1	0.0	0.003	6.8	LOS A	0.0	0.0	0.09	0.49	0.09	65.6
Approach			5	0.0	5	0.0	0.003	5.6	NA	0.0	0.0	0.09	0.49	0.09	66.7
East: Bullecourt Road															
4	L2	All MCs	1	0.0	1	0.0	0.005	7.0	LOS A	0.0	0.1	0.13	0.58	0.13	64.8
5	T1	All MCs	3	33.3	3	33.3	0.005	6.5	LOS A	0.0	0.1	0.13	0.58	0.13	55.9
6	R2	All MCs	1	0.0	1	0.0	0.005	6.9	LOS A	0.0	0.1	0.13	0.58	0.13	64.5
Approach			5	20.0	5	20.0	0.005	6.7	LOS A	0.0	0.1	0.13	0.58	0.13	59.1
North: Whitehead Street															
7	L2	All MCs	41	28.2	41	28.2	0.043	7.5	LOS A	0.0	0.1	0.00	0.38	0.00	59.3
8	T1	All MCs	29	3.6	29	3.6	0.043	0.0	LOS A	0.0	0.1	0.00	0.38	0.00	74.1
9	R2	All MCs	1	0.0	1	0.0	0.043	6.6	LOS A	0.0	0.1	0.00	0.38	0.00	68.3
Approach			72	17.6	72	17.6	0.043	4.4	NA	0.0	0.1	0.00	0.38	0.00	64.8
West: Bullecourt Road															
10	L2	All MCs	2	50.0	2	50.0	0.006	7.9	LOS A	0.0	0.2	0.03	0.61	0.03	51.7
11	T1	All MCs	4	0.0	4	0.0	0.006	5.8	LOS A	0.0	0.2	0.03	0.61	0.03	65.8
12	R2	All MCs	1	0.0	1	0.0	0.006	6.7	LOS A	0.0	0.2	0.03	0.61	0.03	65.2
Approach			7	14.3	7	14.3	0.006	6.5	LOS A	0.0	0.2	0.03	0.61	0.03	61.0
All Vehicles			89	16.5	89	16.5	0.043	4.8	NA	0.0	0.2	0.02	0.41	0.02	64.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Appendix G

Intersection Design and Swept Path Assessment





The following design details have been taken from Austroads Guide to Road Design Part 4A:

- Short Channelised Right-turn Treatment [CHR(s)] Section 7.2.3.
- 1: Design speed of 90km/h as per Section 5.2.1 of Austroads Guide.
 - 2: Lane widths of 3.5m have been used.
 - 3: Minimum lateral movement (A) is 75m.
 - 4: Diverge/deceleration length (D) is 55m.
 - 5: Taper length used is 28.9m.
 - 6: Storage length is 30m for one 26.0m B-Double vehicle.
 - 7: Distance based on design vehicle turning path is 15m.

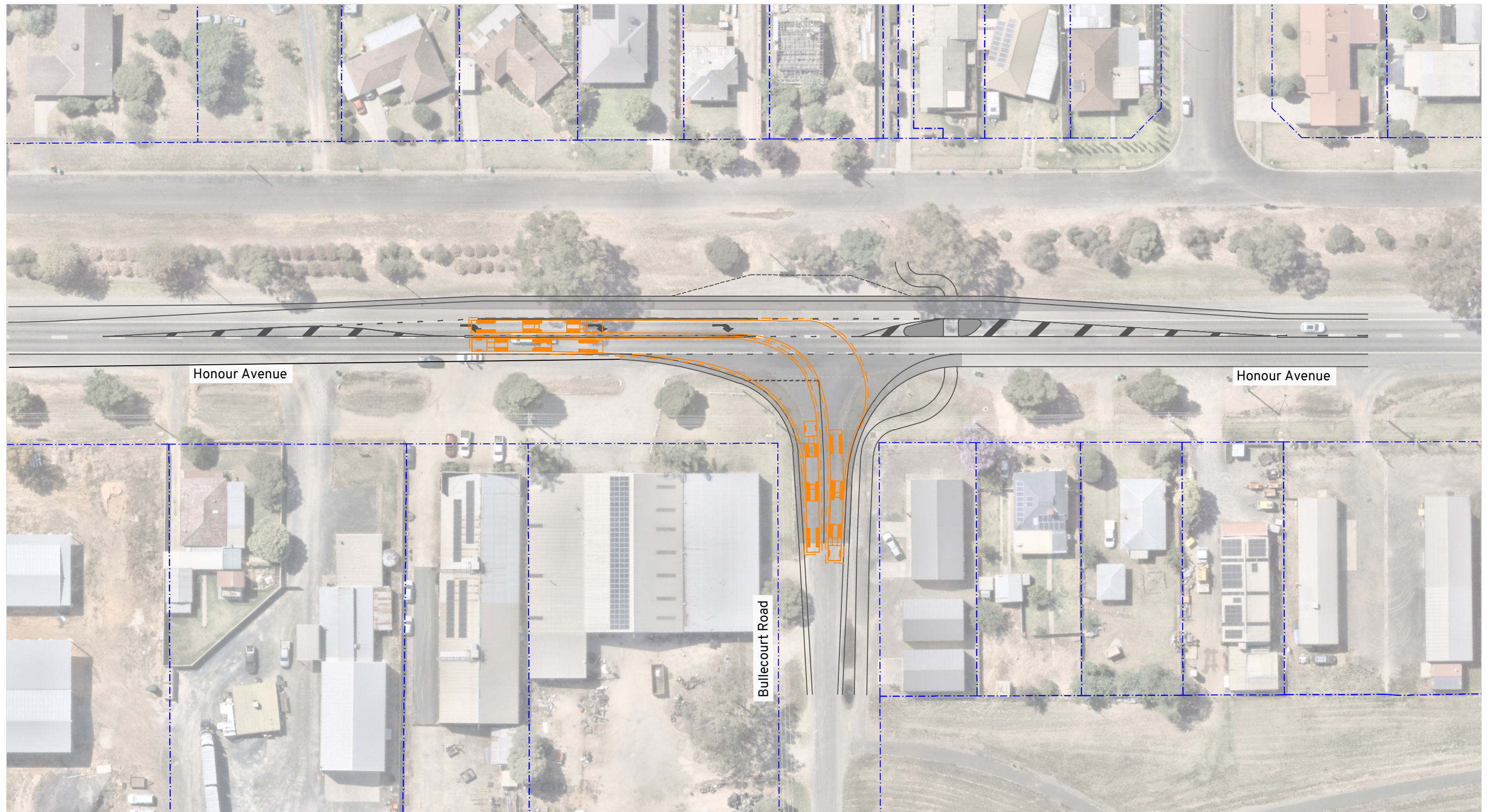


Corowa BESS

Honour Avenue / Bullecourt Road Intersection

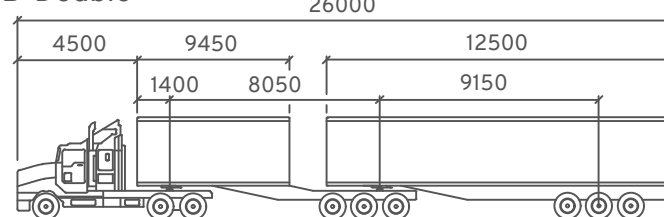
Strategic Design - CHR(s)

DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S02C
SCALE at A3: 1:750m



Vehicle Envelope
500mm Clearance
Reverse Manoeuvre
Min. Design Speed 5km/h

26.0m B-Double



Tractor Width : 2500
Trailer Width : 2500
Tractor Track : 2500
Trailer Track : 2500
Lock to Lock : 6.0s
Steering Angle : 22.2
Articulating Angle : 70.0



Corowa BESS

Honour Avenue / Bullecourt Road Intersection
Swept Path Assessment

DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S02C
SCALE at A3: 1:750m

Amber 02



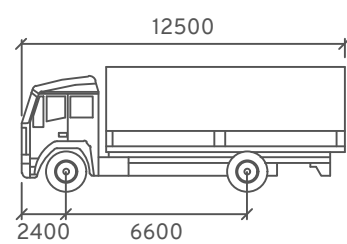
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

HRV



Width : 2500
Track : 2500
Lock to Lock : 6.0s
Steering Angle : 35.2

mm



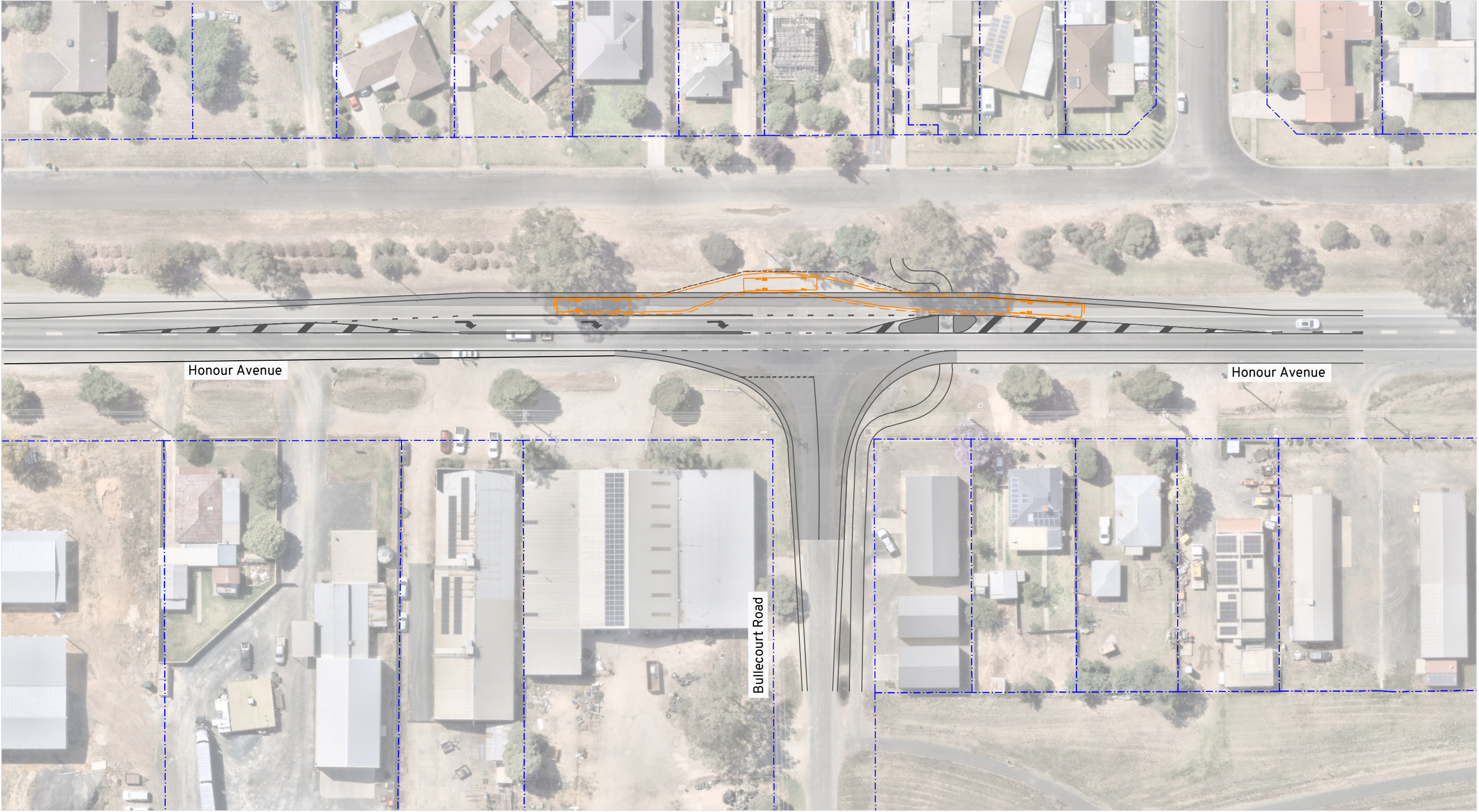
Corowa BESS

Honour Avenue / Bullecourt Road Intersection

Swept Path Assessment

DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S02C
SCALE at A3: 1:750m

Amber 03



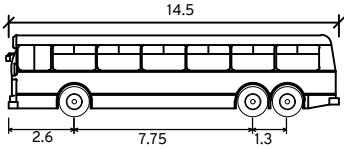
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

BUS (Austroads 2013)

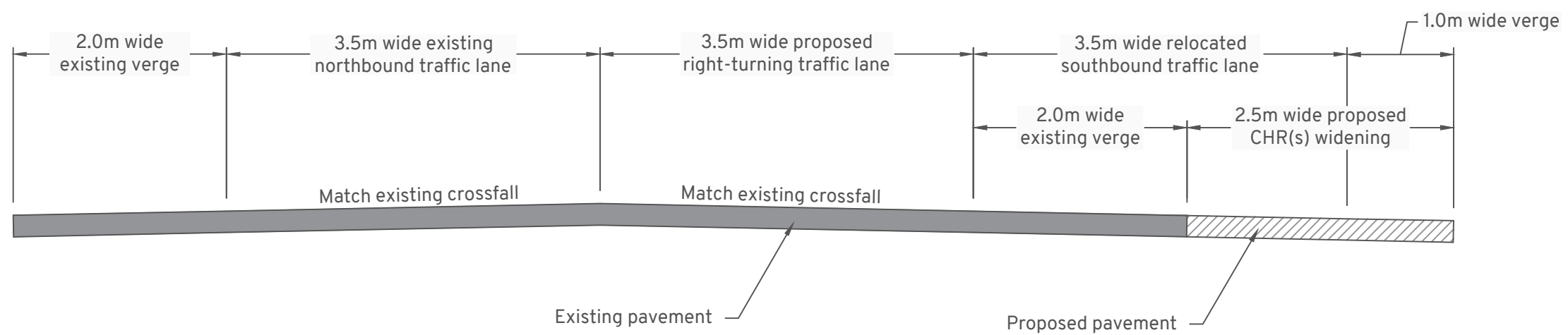


Overall Length 14.500m
Overall Width 2.500m
Overall Body Height 3.100m
Min Body Ground Clearance 0.337m
Track Width 2.500m
Lock to Lock Time 6.00 sec
Curb to Curb Turning Radius 15.000m



Corowa BESS
Honour Avenue / Bullecourt Road Intersection
Swept Path Assessment

DRAWN: WC
DATE: 14/11/2025
DWG NO: 1357 S02C
SCALE at A3: 1:750m



Proposed CHR(s) Cross Section

Corowa BESS

Honour Avenue / Bullecourt Road Intersection

Proposed CHR(s) Cross Section

DRAWN: WC
 DATE: 14/11/2025
 DWG NO: 1357 S02C
 SCALE at A3: NTS

Appendix H

Swept Path Assessment – Bullecourt Road / Whitehead Street





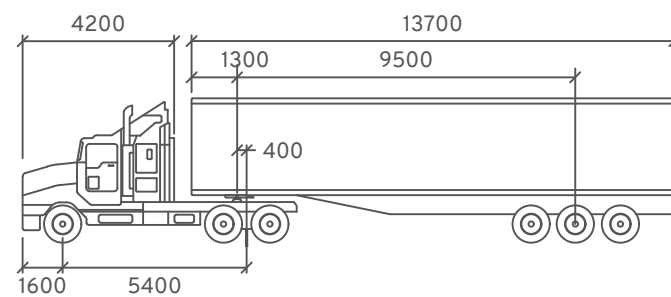
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

AV



Tractor Width	: 2500	mm
Trailer Width	: 2500	
Tractor Track	: 2500	
Trailer Track	: 2500	
Lock to Lock	: 6.0s	
Steering Angle	: 28.3	
Articulating Angle	: 70.0	



Corowa BESS

Bullecourt Road / Whitehead Street Intersection

Swept Path Assessment

DRAWN: WC
DATE: 21/10/2025
DWG NO: 1357 S01A
SCALE at A3: 1:500m

Amber 05



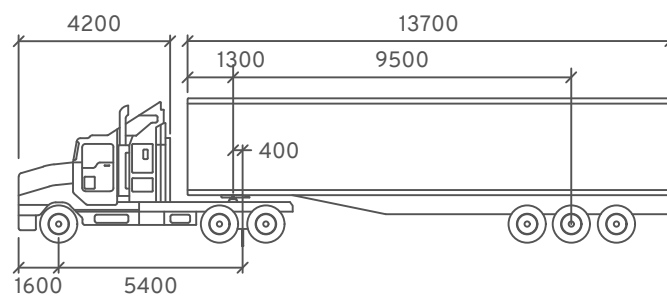
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

AV



Tractor Width	: 2500
Trailer Width	: 2500
Tractor Track	: 2500
Trailer Track	: 2500
Lock to Lock	: 6.0s
Steering Angle	: 28.3
Articulating Angle	: 70.0



Corowa BESS

Bullecourt Road / Whitehead Street Intersection

Swept Path Assessment

DRAWN: WC
DATE: 21/10/2025
DWG NO: 1357 S01A
SCALE at A3: 1:500m

Amber 06



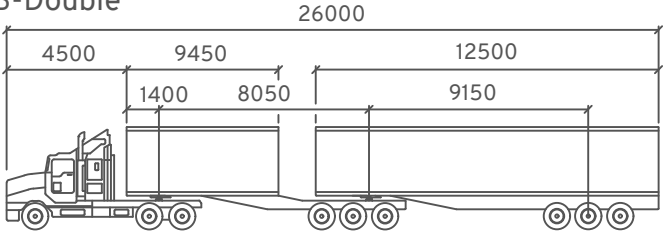
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

26.0m B-Double



Tractor Width	: 2500
Trailer Width	: 2500
Tractor Track	: 2500
Trailer Track	: 2500
Lock to Lock	: 6.0s
Steering Angle	: 22.2
Articulating Angle	: 70.0



Corowa BESS
Bullecourt Road
Swept Path Assessment

DRAWN: WC
DATE: 21/10/2025
DWG NO: 1357 S01A
SCALE at A3: 1:500m