



Appendix M:

Traffic Impact Assessment

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Camperdown Battery Energy Storage System (BESS)

Traffic Impact Assessment

Camperdown BESS Pty Ltd

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SLR Project No.: 620.041535.00015

8 May 2026

Revision: v3.0

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Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
v3.0	8 May 2026	Duong Nguyen	Charlie Seventekin	Taylor Beauchamp
v2.2	1 May 2026	Duong Nguyen	Charlie Seventekin	Taylor Beauchamp
v2.1	21 April 2026	Duong Nguyen	Charlie Seventekin	Taylor Beauchamp
v1.2	19 May 2025	Duong Nguyen	Taylor Beauchamp	Charlie Seventekin
v1.1	31 January 2025	Duong Nguyen	Taylor Beauchamp	Charlie Seventekin

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Camperdown BESS Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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Executive Summary

SLR Consulting Australia Pty Ltd (SLR) has been commissioned by Camperdown BESS Pty Ltd (Camperdown BESS) to prepare a Traffic Impact Assessment (TIA) for a Battery Energy Storage System (BESS) development.

Camperdown BESS proposes a BESS with a capacity of 60 megawatts (MW)/ approximately 240 megawatt hours (MWh) at the point of connection to be constructed on land formally described as Lot 2 of PS817143 and Lot 2 of LP34716 at Wire Lane, Camperdown, Victoria (VIC). The Subject Site is located approximately 190km south-west of Melbourne and 2km east of Camperdown. The development plans, as prepared by ARES, are provided at **Appendix A**.

Based on the analysis and discussion documented in this report, the following is concluded:

- It is proposed that vehicular access to/ from the Subject Site will be provided from Wiridgil Road via Camperdown-Lismore Road. During the construction phase, a wider site access (approx. 20m wide) will be provided to facilitate turning movements required for the OSOM materials (i.e. transformer). Following this, the access driveway will be reconstructed to meet the relevant Australian Standards (AS) for design vehicles required during the operational phase.
- The Project will generate additional daily traffic of approximately 29 inbound & 29 outbound trips per day during the construction period of 12 months.
- SLR has undertaken intersection performance analysis at two (2) study intersections (one {1} external intersection and one {1} proposed new site access driveway). It was identified that the proposed Camperdown-Lismore Road/ Wiridgil Road intersection form and the proposed Subject Site access driveway on Wiridgil Road will operate satisfactorily during the construction of the Project.
- To accommodate the anticipated construction traffic movements at the Camperdown-Lismore Road/ Wiridgil Road intersection, upgrades are necessary to accommodate the turning movements of the heavy vehicles required for construction works. Based on the traffic demands, a BAL arrangement is triggered for the northern approach; however, to accommodate the design vehicle swept path, an AUL(s) is required.
- The publicly available crash dataset for the surrounds of the Subject Site does not indicate any recurring crash type or theme that would preclude or warrant significant safety mitigations.
- Sight distances available at the Camperdown-Lismore Road/ Wiridgil Road intersection and the Subject Site access driveway on Wiridgil Road exceed the sight distance requirements outlined in Austroads Guidelines and Australian Standards.

As per the analysis provided in this report, the following is recommended:

- 1 The light/ power poles on the eastern verge of Camperdown-Lismore Road, in proximity to the Wiridgil Road intersection, are to be removed and relocated to facilitate heavy vehicle construction movements.
- 2 The Camperdown-Lismore Road/ Wiridgil Road intersection be upgraded to provide sufficient hardstand to enable left-turn movements of the heavy vehicles from Camperdown-Lismore Road into Wiridgil Road.
- 3 Camperdown BESS seek a permit, in consultation with National Heavy Vehicle Register (NHVR), to allow for B-Double access onto Wiridgil Road for the duration of the construction phase.



- 4 A Construction Traffic Management Plan (CTMP) is to be prepared following the progression of the Project through detailed design.
- 5 An Over Size Over Mass (OSOM) material route study be prepared following the progression of the Project through detailed design, documenting the route details for the transportation of the transformer from the port of import to the Subject Site.
- 6 Dilapidation reports to be prepared for the review of the Council prior to and following the construction activities.

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Appendix B	Swept Path Assessments
Appendix C	Traffic Flow Diagrams (Desktop Models)
Appendix D	SIDRA Outputs
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Acronyms and Abbreviations

Acronym	Description
AADT	Annual Average Daily Traffic
AS	Australian Standards
ATC	Automatic Tube Count
AV	Articulated Vehicle
BAL	Basic Left Turn
BAR	Basic Right Turn
BESS	Battery Energy Storage System
CTMP	Construction Traffic Management Plan
CSC	Corangamite Shire Council
DA	Development Application
DCA	Definition for Coding Accidents
DOS	Degree of Saturation
DTP	Victoria Department of Transport and Planning
EOL	End of Operational Life
FTE	Full Time Equivalent
GML	General Mass Limit
LGA	Local Government Area
LGIP	Local Government Infrastructure Plan
LOS	Level of Service
LPT	Large Power Transformer
MRV	Medium Rigid Vehicle
MW	Megawatt
MWh	Megawatt Hour
NHVR	National Heavy Vehicle Regulator
OSOM	Over Size Over Mass
PWD	People with Disabilities
SRV	Small Rigid Vehicle
SISD	Safe Intersection Sight Distance
SLR	SLR Consulting Australia Pty Ltd
TGS	Traffic Guidance Scheme
TIA	Traffic Impact Assessment

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1.0 Introduction

1.1 Terminology

The areas of investigation and assessment discussed within this report for the Project include:

- *the Project* – the proposed Camperdown BESS.
- *Subject Site* – consisting of Lot 1 and Lot 2 of TP86359.
- *Project Area* – the area of proposed ground disturbance associated with the Project within the Subject Site.

1.2 Context

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Camperdown BESS Pty Ltd to prepare a Traffic Impact Assessment (TIA) report in support of the proposed BESS located at Wiridgil Road, Camperdown, VIC 3260 (Lot 2 LP34716 and Lot 2 PS817143) (the Project).

Camperdown BESS proposes a BESS with a capacity of 60 megawatts (MW)/ approximately 240 megawatt hours (MWh) at the point of connection to be constructed at Wire Lane in Camperdown, located approximately 190km south-west of Melbourne, within the Corangamite Shire Council LGA.

The Project will involve the construction, operation and eventual decommissioning of the Project Area, including:

- Construction/ installation of a BESS with a proposed capacity of up to 240 MWh.
- The construction and operation of a 33/ 66 kilovolt (kV) substation for the BESS. The BESS will be connected into the existing 66kV sub-transmission network to the line which runs from the Camperdown Zone Substation to Colac Zone Substation via a line-in-line-out configuration. Powercor, as the network provider, will facilitate effective integration into the existing power grid.
- The construction and operation of a transmission substation and switching yard.
- Installation of electrical collection and conversion systems, including inverter and transformer units, switchyard, and control room.
- Ancillary construction activities, including earthworks, temporary laydown areas and construction compounds.
- Ancillary operational activities, including site office, construction compounds, and ongoing maintenance, including the maintenance storage area.
- Rehabilitation of the Project Area after decommissioning.

The development plans, prepared by ARES, are provided at **Appendix A**.

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1.3 Assessment Scope

This TIA report assesses the consistency of the Project with Council and State planning and evaluates the impacts of the Project on the surrounding transport network. This TIA identifies the transport infrastructure required to support the Project and provides an assessment of the traffic- and transport-specific aspects of the Project against the requirements of the following relevant authorities:

- Corangamite Shire Council.
- Victoria Department of Transport and Planning.

1.4 Report Structure

The structure of this TIA report is shown in **Table 1**.

Table 1 TIA Report Structure

Section	Title	Description
1	Introduction	Identifies the context of the Project.
2	Project Description	Describes the Project, including location, site design, and access arrangements.
3	Existing Conditions Appraisal	Describes the existing transport network, including traffic volumes, crash history, bus service, and heavy vehicle routes.
4	Future Network Planning	Details future Government or Council road planning including any impacts to the Project.
5	Project Traffic Demands	Details the Project generated traffic demands and assessed traffic volumes.
6	Traffic Engineering Considerations	Outlines the technical analysis undertaken to confirm the appropriateness of the Project from a traffic engineering perspective.
7	Operational Assessment	Outlines the technical analysis to assess the capacity of the site access intersection and surrounding road network.
8	Construction Traffic Management Strategies	Outlines the possible strategies for the future construction traffic management plan and provides high-level advice.
9	Recommendations	Outlines the recommended actions following the progression of the Project through detailed design.
10	Conclusion	Summarises the findings of the Traffic Impact Assessment.
11	RPEV Certification	Statement of endorsement by appropriately qualified RPEV.

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2.0 Project Description

2.1 Overview

Camperdown BESS proposes to construct and operate a BESS with a maximum discharge rate of 60MW and a maximum amount of stored energy of approximately 240MWh at the point of connection. The BESS units will be connected to the sub-transmission network via the Camperdown Zone Substation adjacent to the 66kv sub-transmission line, which transects the Subject Site with connections to the sub-transmission network via above-ground sub-transmission lines. The purpose of the Project is to act as a means of storing energy during off-peak periods for later use, notably being able to be procured during periods of peak energy demand.

The Project would be located adjacent to Wiridgil Road and Wire Lane, Camperdown, VIC and contained within the following Lot numbers:

- Lot 2 of PS817143.
- Lot 2 of LP34716.

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2.2 Site Context

The Subject Site is located in the suburb of Camperdown within the jurisdiction of the Corangamite Shire Council LGA. The entirety of the site is zoned as FZ1 – Farming Zone under the Corangamite Planning Scheme Local Provision Map No. 16 (2022) and is surrounded by large rural lots under the same zoning.

The Subject Site is clear and void of development except for the property fencing surrounding the two (2) abovementioned lots. Neighbouring lots are predominantly large rural lots, with some including residential housing.

Figure 1 provides an overview of the Subject Site in the regional context while **Figure 2** provides the site-specific context.

Figure 1 Site Location in the Regional Context

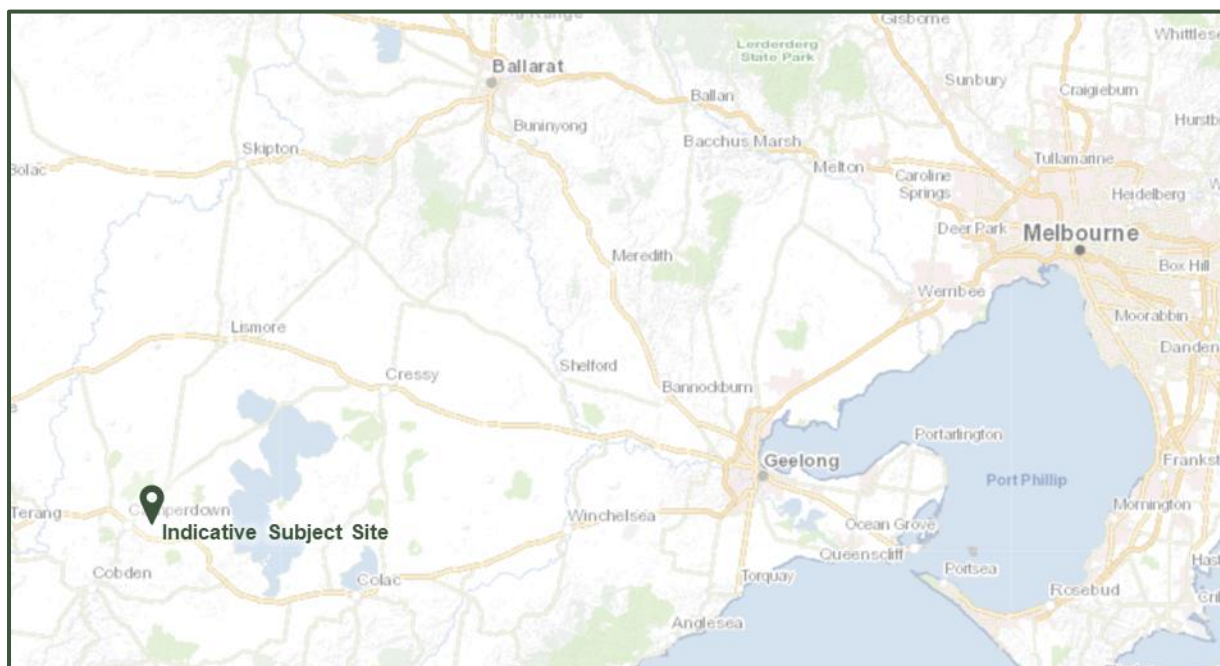
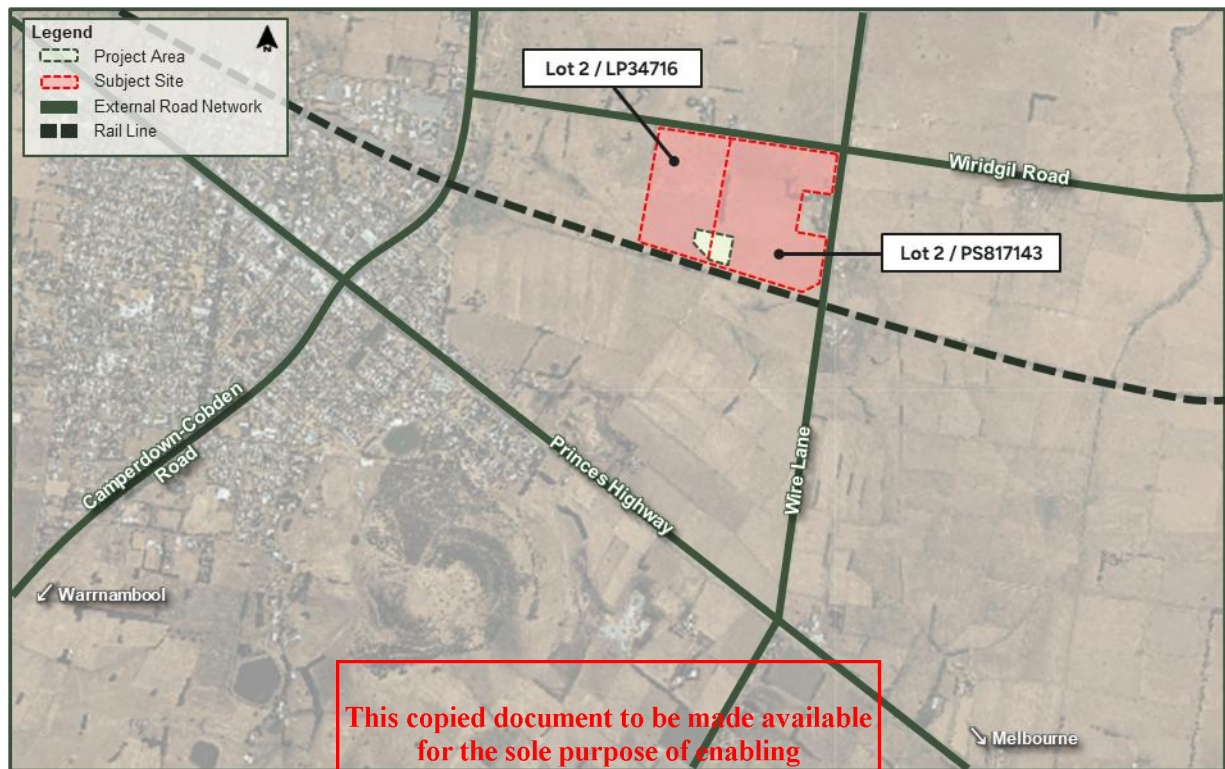


Figure 2 Site Location in the Local Context



2.3 Project Program

2.3.1 Construction Phase

The Client has informed SLR that the Project will commence mid-2027, with the phases to occur as follows:

- Pre-construction – 6 months
- Construction – 12 months
- Commissioning and Energisation – 6 months

For the purposes of the following assessment, the construction phase is the primary phase that will be generating traffic to/ from the Subject Site and has been assessed herein for impacts. The pre-construction phase relates to the external road works and mobilisation required prior to the construction phase. The phase following construction will relate to the commissioning and energisation of the site. The Subject Site is to be constructed within 12 months, with construction commencing by 2028.

For traffic generation purposes, a linear traffic generation estimate has been applied for construction phase movements associated with material, equipment, and workforce mobilisation and decommissioning.

2.3.2 Operational and Decommissioning Phase

The Project is expected to operate for approximately 25-30 years, providing short-term, medium-term and long-term local employment opportunities. Camperdown BESS is anticipated to be obliged to decommission and rehabilitate the Project Area at its end of life (EOL). Decommissioning of the Project Area EOL would include disassembly and removal of the associated infrastructure, returning the land to its original use.



The operation and decommissioning processes will generate much less traffic than the construction period, as BESS systems are low-maintenance investments, and decommissioning would require a limited workforce.

It is important to note that the construction scenario of the Project Area would have the largest traffic impacts, compared to their impacts during the operation and demobilisation phases, noting that the Project's decommissioning will occur beyond the typical 10-year assessment horizon. Based on this, no detailed assessments are undertaken in this report for the operational and demobilisation, provided that sufficient infrastructure is developed for the construction phase.

2.4 Construction Phase

2.4.1 Construction Activities

For the purposes of forecasting peak traffic demands associated with the Project construction phase, the following key construction activities are anticipated to generate traffic on the external road network:

- Site clearance and establishment.
- Construction machinery deliveries.
- Equipment and material deliveries.
- Workforce transportation.

2.4.2 Construction Workforce

It is anticipated that a maximum of 96 persons, consisting of 76 workers and 20 supervisors/contractors, will travel to the Subject Site via Toyota Coaster type shuttle buses and light vehicles at the peak of construction activities. This represents the highest volume of personnel potentially on-site at a given time. On a typical day, there will likely be fewer workers on-site. However, for a conservative assessment, it has been assumed that there will be 96 workers accessing the Subject Site throughout the duration of the construction phase.

2.4.3 Construction Workforce Accommodation

Camperdown BESS has undertaken initial investigations to identify accommodation for the construction workforce. As mentioned above, it is anticipated that a maximum of 96 personnel will be required for the peak of construction activities; however, Camperdown BESS is committed to maximising the employment of local contractors. As a result, it is anticipated that a significantly smaller number of beds will be required from the nearby hotels at any given time.

A detailed accommodation plan will be prepared as part of the future CTMP however, at this stage, hotels and motels in the following towns are considered:

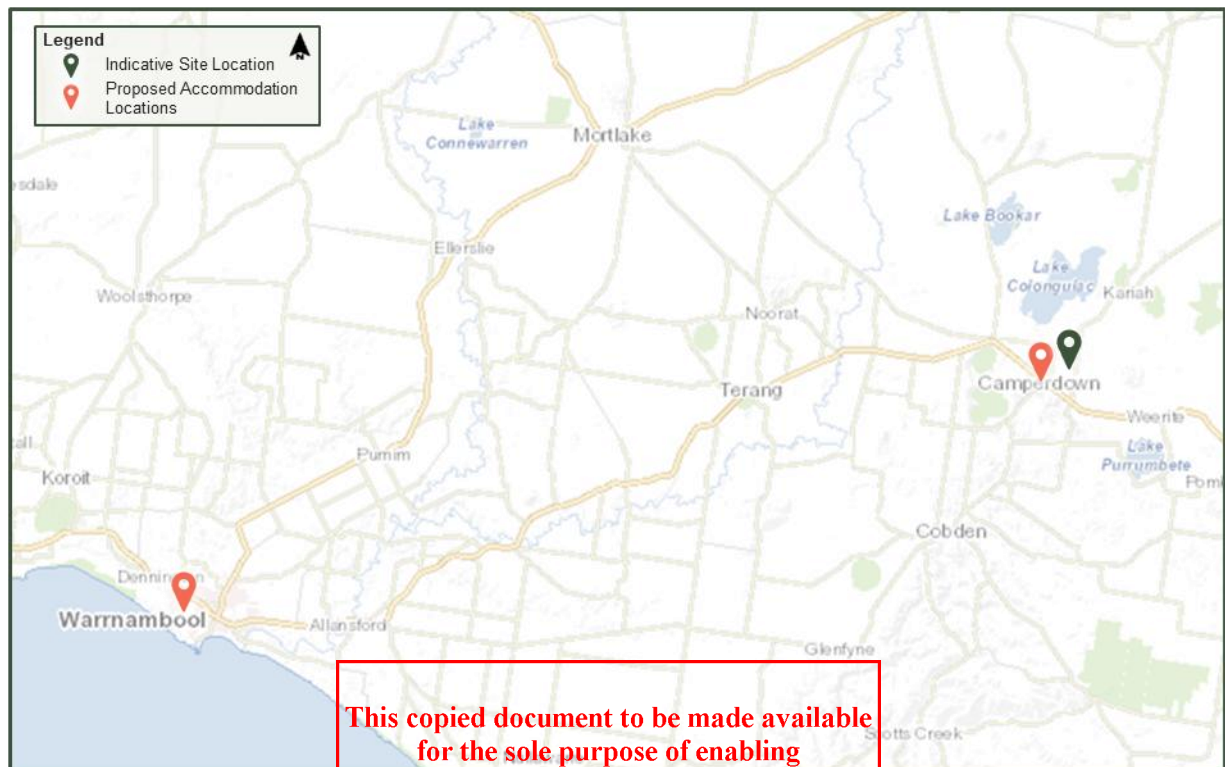
- Warrnambool.
- Camperdown.

For the purposes of assessing project traffic demands, it has been assumed that a 50%/ 50% split between the accommodation locations will be adopted. The location of the abovementioned towns with respect to the Project has been reproduced on **Figure 3**.

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Figure 3 Accommodation Locations



2.5 Operational Phase

2.5.1 Operational Activities

Once the Project is operational, there will be activities that require a significant workforce to be present within the Project Area. It is understood that for most of the Project's life, the operation phase will involve a range of preventative, corrective, and condition-based maintenance activities, which will entail inspecting and servicing the Project Area including the associated electrical network and maintaining the internal road infrastructure.

The external movements associated with these tasks will generally be performed by 5.2m long VANS, 6.4m long SRVs and 8.8m long MRVs.

2.5.2 Operational Workforce

It is anticipated that there will be up to two (2) FTE staff on site and up to two (2) FTE staff off-site, with the potential for up to three (3) FTE ad-hoc contractors being present on-site at any one time, noting that these staff will not be on-site 100% of the time with remote monitoring of the Project Area undertaken.

2.6 Site Access

It has been proposed that access to/ from the Subject Site will be provided on Wiridgil Road via one (1) driveway crossover, approximately 780m west of Wire Lane. It is noted that an existing access gate is present at this location. During the construction phase, the access driveway (approx. 20m wide) will be constructed to facilitate the swept path of the OSOM access turn movement, as shown in **Appendix B**, which will be significantly wider than the minimum requirements outlined in the relevant Australian Standards. Following the construction phase, the access will be reconstructed and provided in accordance with the



relevant Australian Standards and Austroads Guidelines for the design vehicles during the operational phase.

The internal site arrangements are yet to be finalised, with internal roads and intersections to be established by Camperdown BESS as required during the detailed design stage.

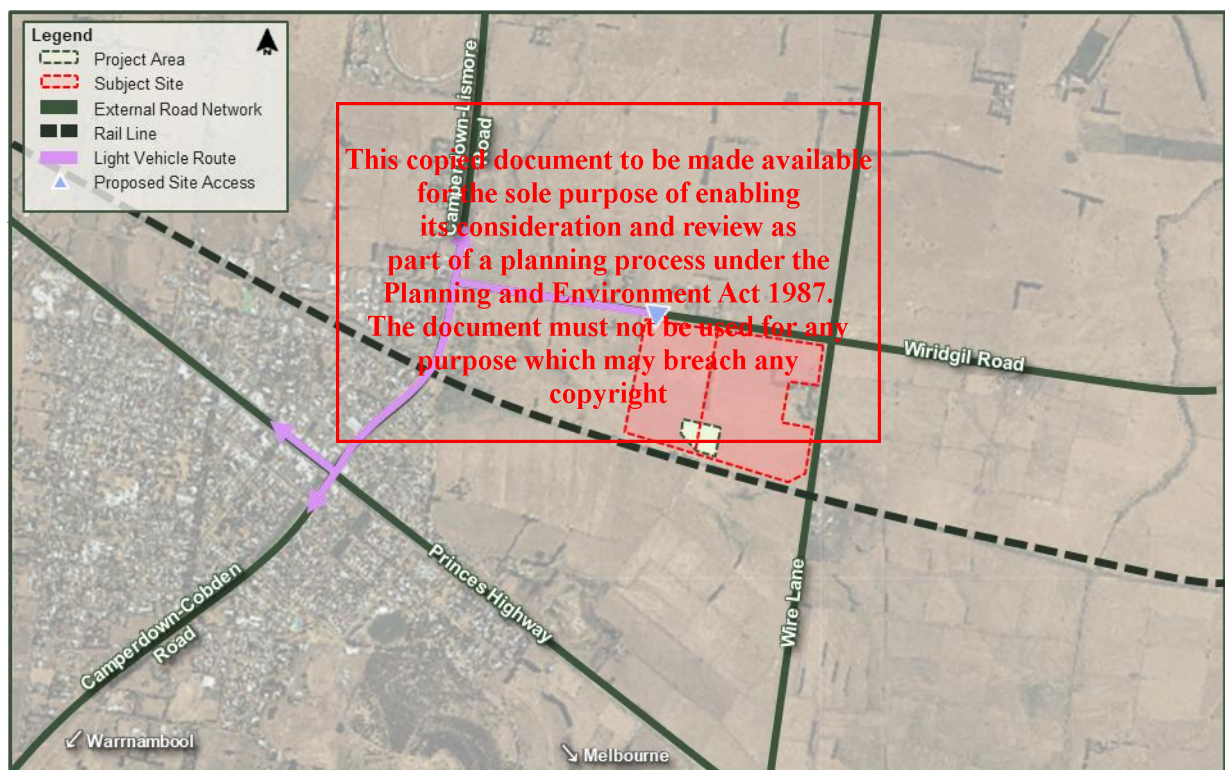
2.7 Traffic Routes

2.7.1 Light Vehicle Routes

Light vehicles will only be used by supervisors/ contractors throughout the construction phase, with their accommodation being planned in Camperdown or Warrnambool. Noting this, light vehicles can approach the Subject Site utilising different routes compared to heavy vehicles during construction.

For the inbound trips, light vehicles would perform a right-turn off Camperdown-Lismore Road onto Wiridgil Road to travel towards the proposed site access, as shown on **Figure 4**.

Figure 4 Proposed Light Vehicle Access Route



2.7.2 Heavy Vehicle Routes

The BESS equipment, other materials, and the construction machinery will be transported to the Subject Site via Hamilton Highway, Foxhow Road and Camperdown-Lismore Road from Melbourne and the Port of Melbourne.

For the majority of deliveries, the largest vehicle will be limited to 26m B-Doubles. All heavy vehicles will take the route to/ from the Subject Site as depicted on **Figure 5**. It is noted that the routing for heavy vehicles does not include OSOM vehicles.

All (non-OSOM) heavy vehicles will travel along Hamilton Highway, Foxhow Road and Camperdown-Lismore Road and turn left onto Wiridgil Road during their inbound journeys. The existing intersection arrangement at Camperdown-Lismore Road and Wiridgil Road



(based on Nearmap aerial imagery) is shown on **Figure 6**. Heavy vehicles will then continue along Wiridgil Road towards the Subject Site access, where they will enter the site with a right-turn movement. SLR has undertaken swept path assessments for the largest design vehicle within the construction fleet (i.e. 26m B-Double Design Vehicle) at the intersection of Camperdown-Lismore Road and Wiridgil Road and the movement into the Subject Site access, as provided at **Appendix B**.

In relation to the routing of shuttle buses, although they are considered heavy vehicles, it is noted that they are intended to be utilised for construction workforce transportation and will travel via the proposed light vehicle route detailed in **Section 2.7.1**.

Figure 5 Proposed Heavy Vehicle Access Route

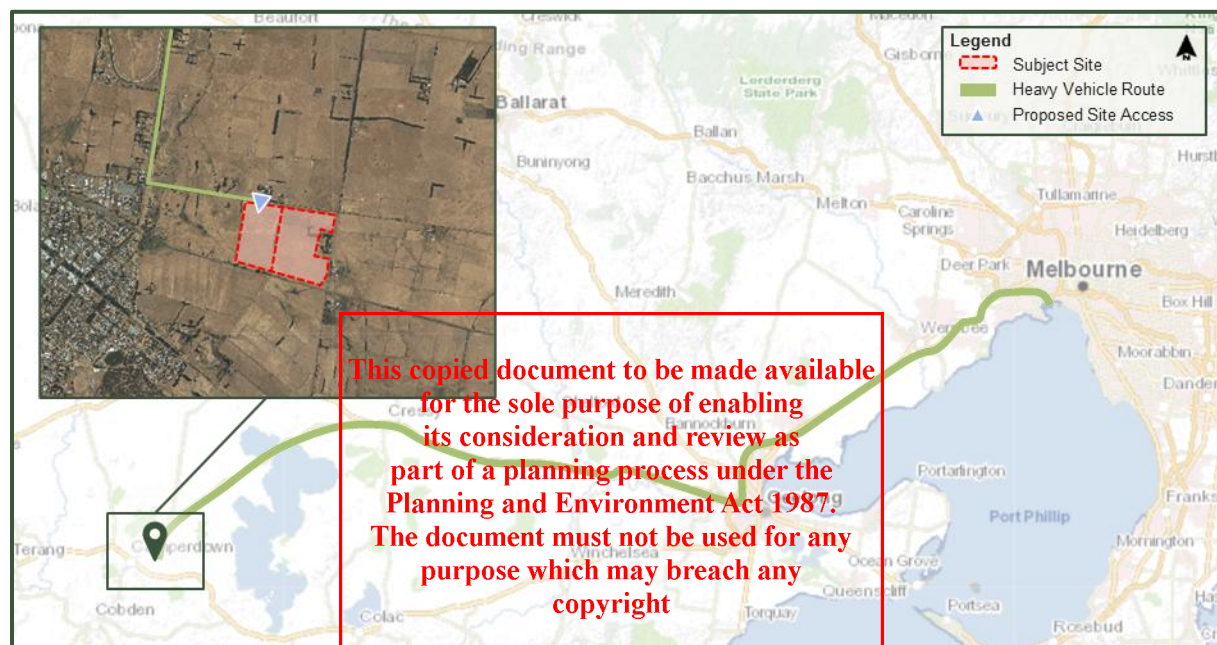


Figure 6 Existing Camperdown-Lismore Rd/ Wiridgil Rd Intersection Configuration



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2.7.3 OSOM Vehicle Routes

OSOM vehicles will be used to perform the one-off transformer transportation, the delivery of BESS containers, and the delivery of buildings as required via OSOM vehicles (i.e. the switch room). As mentioned in **Section 2.7.2**, OSOM vehicles will travel on a different route to other heavy vehicles due to the availability of approved routes as determined by NHVR. In accordance with the approved routes outlined by NHVR, OSOM vehicles will transport components to the Subject Site via Princes Highway, Manifold Street and Camperdown-Lismore Road from Melbourne and the Port of Melbourne. This routing is depicted on **Figure 7**.

OSOM vehicles will be required to travel along Princes Highway (from the east), continuing onto Manifold Street within Camperdown, before turning right onto Camperdown-Lismore Road or otherwise known as route C149. OSOM vehicles will travel northbound before performing a right-turn onto Wiridgil Road, where they will travel eastbound to the proposed site access, entering via a right-turn movement.

Figure 7 Proposed OSOM Vehicle Access Route



2.7.3.1 Transportation of the BESS and Buildings

Through discussions with the Client, it is understood that due (but not limited) to the weight of the BESS units and the switch room to be transported to the Subject Site, a Class 1 Low Loader that can carry up to 55t is anticipated to be sufficient to cater for these movements.

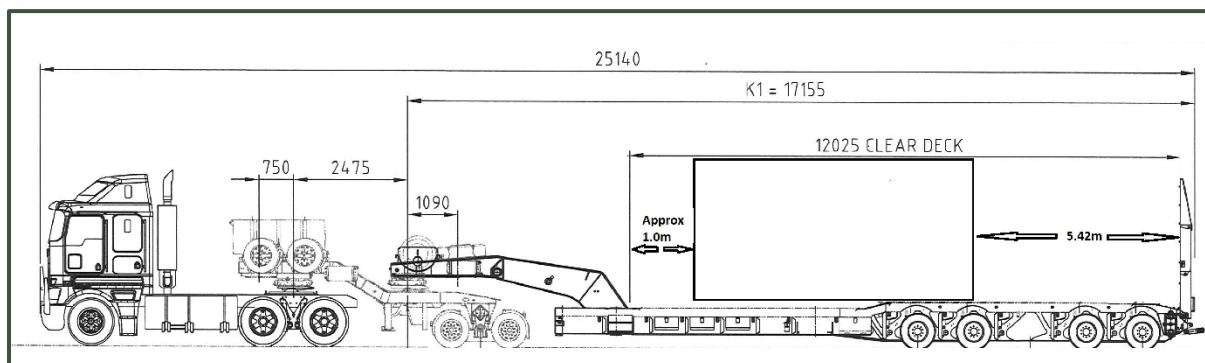
The geometric details of the anticipated design vehicle are shown on **Figure 8**.

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Figure 8 Proposed Methodology for BESS and Building Transportation



While indicative building transport movements are identified further in this report, the final number of movements will be confirmed at the detailed design stage and assessed as part of the OSOM Material Route Study.

In addition, it is noted that building and BESS height parameters are not yet confirmed at this stage of the Project. Height clearance requirements for the transport of each component will be reviewed during the detailed design stage to ensure compliance with relevant Victorian Highway clearance requirements (typically 4.6m) along the proposed route shown on **Figure 7**. Should any components exceed standard height restrictions, additional investigations and route assessments may be required, which can be carried out as part of the detailed route study undertaken by an OSOM material logistics company or in the CTMP.

2.7.3.2 One-Off Transportation of the Transformer

Based on discussions undertaken with Camperdown BESS, it is understood that the transformer required for the Project Area will weigh up to 160 tonnes. On this basis, it has been identified by SLR that a 31.0m Prime Mover transporter will be sufficient.

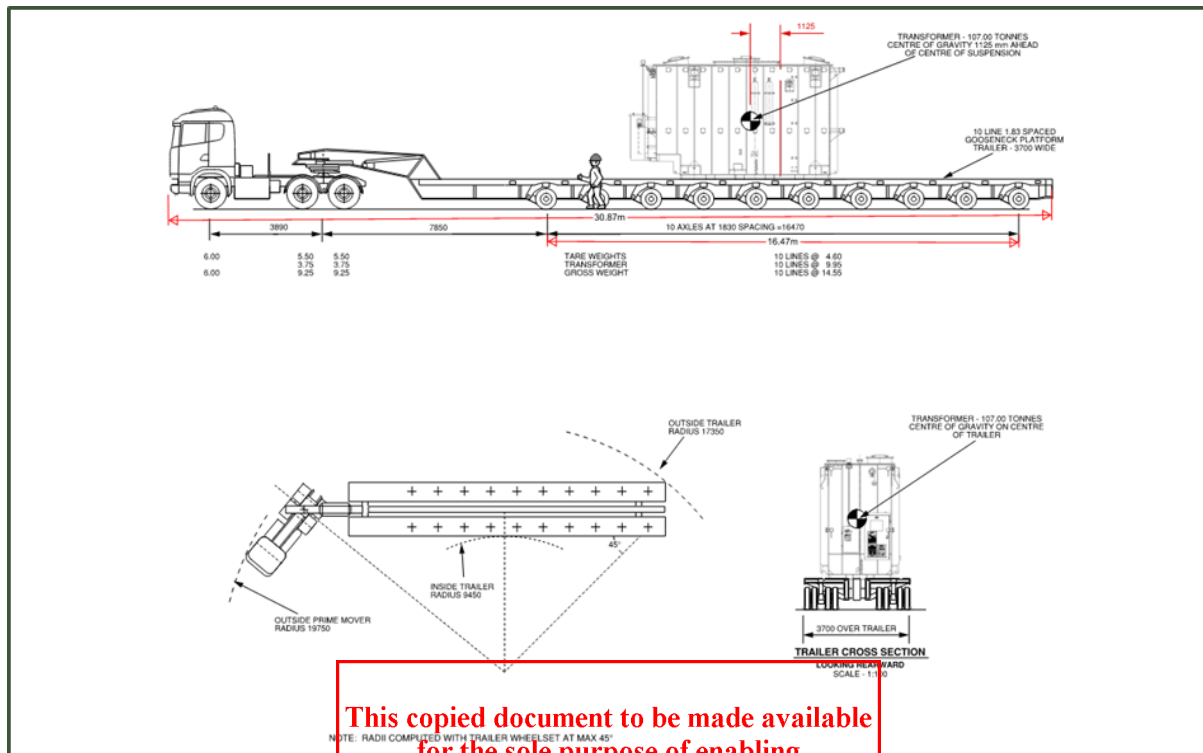
The geometric details of the anticipated design vehicle are shown on **Figure 9**.

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Figure 9 Proposed Methodology for Transformer Transportation



Based on SLR's experience with other BESS, solar farm and wind farm developments across Australia, it is anticipated that the entire transformer (loaded on a single platform trailer) would be approximately 4.5m high for transportation purposes. Given that the height of the transformer is within the typical clearances of 4.6m on Victorian Highways, the proposed route shown in **Figure 7** earlier in this report is considered appropriate. If any changes are suggested to the transformer specifications during the progression of the Project through detailed design, additional investigations may be required. As needed, these investigations can be carried out as part of the detailed route study undertaken by an OSOM material logistics company or in the CTMP.

2.7.3.3 OSOM Vehicle Route Assessment

SLR has undertaken swept path assessments for the two (2) proposed OSOM vehicle configurations transporting the transformer and building and BESS movements at the following intersections:

- Manifold Street/ Camperdown-Lismore Road;
- Camperdown-Lismore Road/ Wiridgil Road; and
- Wiridgil Road/ site access.

Based on the swept path assessments, temporary traffic management will be required in key locations along the transport route, such as at intersections and the site access driveway along Wiridgil Road, to manage the spatial requirements of the OSOM vehicle swept paths, as identified in the abovementioned assessment. As previously mentioned, it is noted that SLR has only undertaken swept path assessments for the OSOM vehicles at the intersections nominated above and proposed Subject Site access. Further investigation should be undertaken for the remainder of the transport route as part of the OSOM Material Route Study, as discussed in **Section 9.3**. This will include the assessment of potential short term closures

of Wiridgil Road whilst the BESS units and buildings traverse between Camperdown-Lismore Road and the site access due to the width of the OSOM movement.

Swept path assessments for the OSOM vehicles are provided on SK01 to SK06 at **Appendix B**.

2.7.4 NHVR Route Review

The route proposed for the transportation of the transformer above has been checked on the National Heavy Vehicle Regulator's website and is readily approved for the following standard design vehicle:

- VIC: *Gazetted B-Double Network*.
- VIC: *59.5t 2.4-3.5m GCW Low Loader Network*
- VIC: *2x8 Dolly & 9x8 Platform Trailer up to 191 tonnes – Reference Vehicle 7.*

2.7.4.1 B-Double Routing

The transport route described in **Section 2.7.2** was reviewed using the NHVR Route Planner Tool and NHVR Network Map and was identified to be generally B-Double gazetted/ approved.

It is noted that SLR identified that the Planner Tool did not include any conditions for Wiridgil Road for a B-Double design vehicle. Consultations will be required to obtain approvals for B-Double access along Wiridgil Road between Camperdown-Lismore Road and the Subject Site access location for the duration of the construction phase.

2.7.4.2 OSOM (BESS & Building (Transportation) Routing

It is noted that for the approved 59.5t 2.4-3.5m GCW Low Loader route on the NHVR Network Map, the approved route ends at the Princes Highway/ Camperdown-Lismore Road intersection. The residual travel distance from the Subject Site is approximately 2km. Therefore, for the final segment (i.e. from Princes Highway to the site access via Wiridgil Road) of the transformer movement, approvals will need to be obtained from NHVR and the local Council for the delivery of the BESS and building units.

2.7.4.3 OSOM (Transformer Transportation) Routing

Similar to the BESS transportation, the approved 2x8 Dolly & 9x8 Platform Trailer route on the NHVR Network Map ends at the Princes Highway/ Camperdown-Lismore Road intersection. The residual travel distance from the Subject Site is approximately 2km. Therefore, for the final segment (i.e. from Princes Highway to the site access via Wiridgil Road) of the transformer movement, approvals will need to be obtained from NHVR and the local Council for the one-off transformer movement.

2.7.4.4 NHVR Route Conditions

Following a review of the proposed route, SLR identified conditions along the route for OSOM movement, such as where bridges were present. These were identified to be “*Approved with Conditions*” with instructions provided for heavy vehicle drivers when they are required to navigate these locations. The conditions along this route are subject to change and should be revisited as part of the OSOM material. The proposed route can be reviewed digitally by entering the code **2MDB5-2** on the Route Planner page of the NHVR¹.

¹ <https://www.service.nhvr.gov.au/#page=informationHub/routePlannerTool>



3.0 Existing Conditions Appraisal

3.1 Existing Road Conditions

3.1.1 Surrounding Road Network

The typical characteristics of the key roads surrounding the Subject Site are provided in **Table 2** with the road hierarchy provided on **Figure 10**.

Table 2 Road Network Details

Road	Road Authority	Road Classification	Formation	Posted Speed Limit (km/h)	Approved Heavy Vehicle Type
Princes Highway	VIC DTP	Highway	Undivided carriageway with single traffic lane in either direction. Typically, a rural cross-section (approx. 10m carriageway width) with sealed shoulders and overtaking lanes.	100km/h	B-Double (26m)
Camperdown-Lismore Road/ Camperdown-Cobden Road		Arterial Road	Undivided carriageway with single traffic lane in either direction. Typically, a rural cross-section (approx. 9m carriageway width) with sealed shoulders.	80km/h	
Wiridgil Road	CSC	Link Road	Undivided carriageway with single traffic lane in either direction. Typically, a rural cross-section (approx. 7m carriageway width) with no shoulders.	100km/h ^[1]	General Access

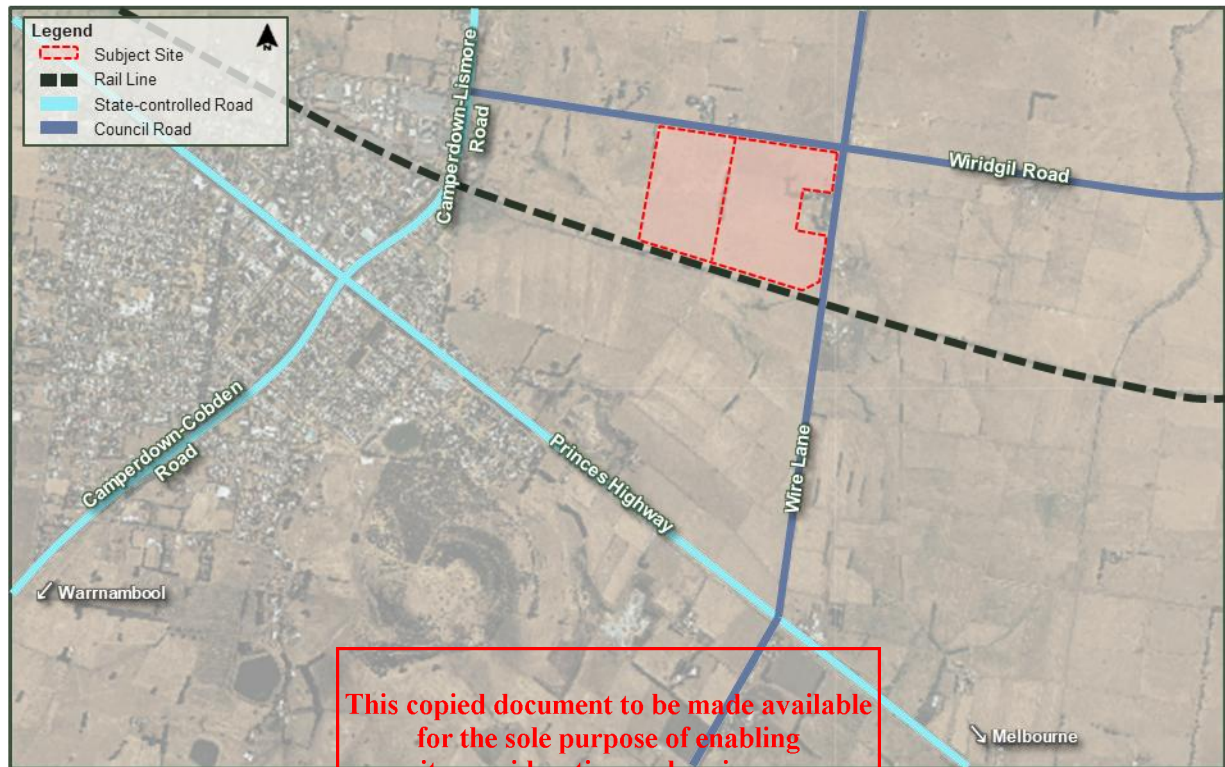
^[1] Unposted speed limit

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Figure 10 Road Hierarchy



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3.1.2 Site Inspection and Traffic Surveys

A site inspection was undertaken by SLR staff on Monday 25 November 2024 to review the geographic landscape in proximity to the Subject Site as well as reviewing the feasibility of transport route options.

To ascertain the existing traffic demands of the road network surrounding the site, SLR commissioned Traffic Information Specialist to undertake Automatic Traffic Count (ATC) surveys along Camperdown-Lismore Road from Sunday 1 December to Saturday 7 December 2024.

A review of the survey data indicated that the network peak hours were as follows:

- Weekday AM peak: 8:00am to 9:00am.
- Weekday PM peak: 2:30pm to 3:30pm.

3.1.3 Crash History

To highlight any safety deficiencies in the surrounding road network in proximity to the Subject Site, SLR has undertaken a review of crash data available on the DPT Transport Victoria website². Crashes are reported for the latest five (5) year period between 01 January 2019 and 01 January 2024.

The locations of the reported crashes are illustrated on **Figure 11**, with details and definitions for classifying accidents codes also provided in **Table 3**.

² https://opendata.transport.vic.gov.au/dataset/victoria-road-crash-data?v=1#use_cases



Figure 11 Crash History and Location (2019 – 2024)

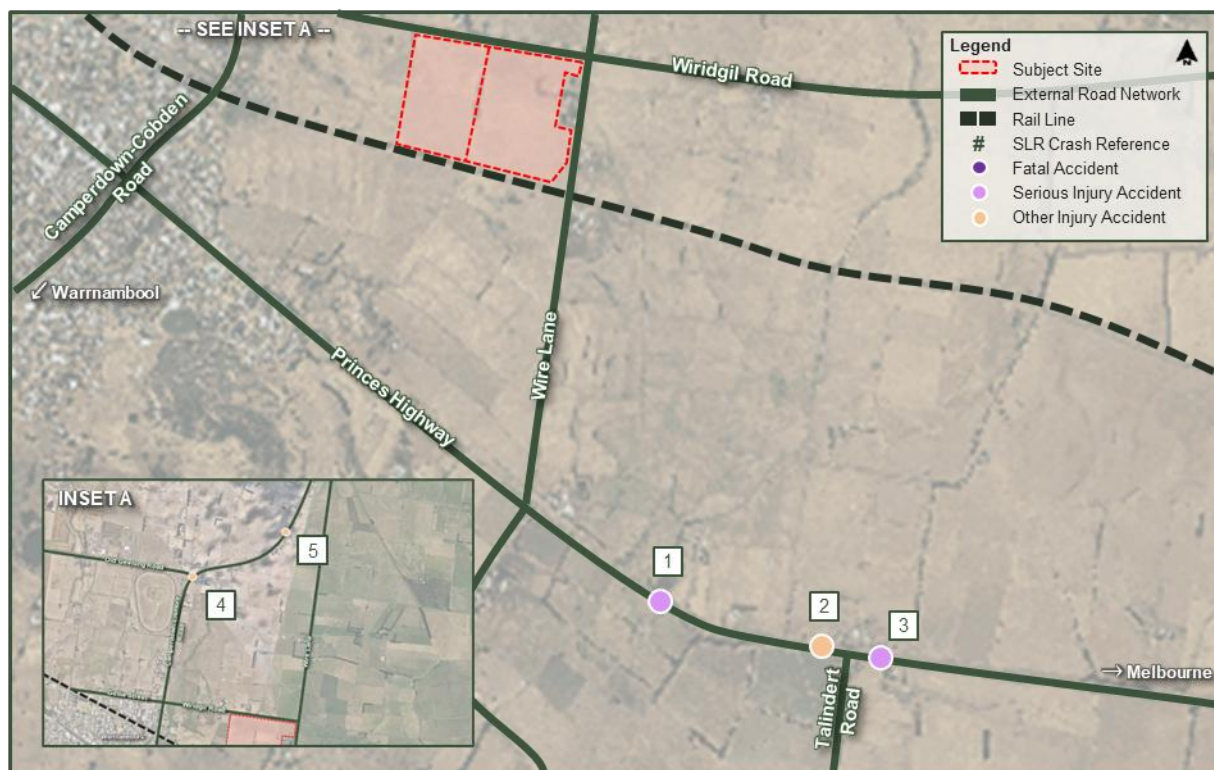


Table 3 Crash History (2019 – 2024)

SLR Ref.	DTP Accident Ref.	Year	Location	Crash Severity	DCA Code	DCA Description
1	T20230020702	2023	Camperdown-Lismore Rd	Other injury accident	175	Off End of Road/ T-Intersection
2	T20210025121	2021	Camperdown-Lismore Rd	Other injury accident	181	Off Right Bend into Object/ Parked Vehicle

As shown in **Table 3**, there were a total of two (2) crashes in the vicinity of the Subject Site within the abovementioned reporting period. Of these incidents, no reported crashes resulted in serious or fatal injuries.

The comparatively low number of crashes occurring in proximity to the Subject Site demonstrates that the observed crash types will not be exacerbated by the low volume of additional traffic generated by the Project (discussed in **Section 5.0**). It is however, recommended that a Drivers Code of Conduct be prepared by Camperdown BESS. This is discussed further in **Section 8.1**.

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4.0 Future Network Planning

4.1 State Government Road Network Planning

DTP's *Victoria Big Build* website has been reviewed to identify if any works are planned on the state-controlled transport network that is of relevance to the assessment documented herein. The review showed that there are no programmed works located in proximity to the Project study area.

4.2 Local Government Road Network Planning

The Corangamite Shire Council Plans & Strategies documents have been reviewed to ascertain whether the local authority has any planned upgrades of relevance to the project. The review showed that there are no works planned in proximity to the Project study area.

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5.0 Project Traffic Demands

5.1 Seasonality

Planning for the project assumes that the region does not experience significant wet seasons. As previously discussed, construction phase will be undertaken over a 12-month period commencing in 2028.

5.2 Background Traffic Growth

Assessment of the Project's traffic demands focuses on the construction phase as this has the greatest traffic generation potential. A traffic growth rate of 2.31% has been applied to the background traffic movements to project future volumes. This is based on the following:

- SLR compared DTP Transport Victoria's Average Annual Daily Traffic (AADT) data³ in 2019 with the ATC surveys obtained in 2024 along Camperdown-Lismore Road.
- SLR's review determined that the estimated AADT volume from the ATC surveys in 2019 was 1,686 vehicles and in 2024 was 1,881 vehicles.
- Given the above, a 2.31% linear background traffic growth rate was calculated based on the AADT growth over a 5-year period (i.e. 2019 to 2024).

5.3 Vehicle Fleet

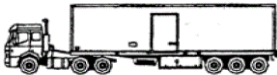
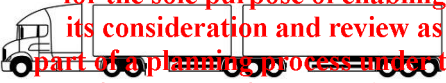
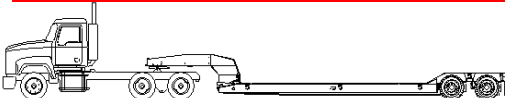
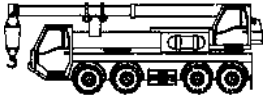
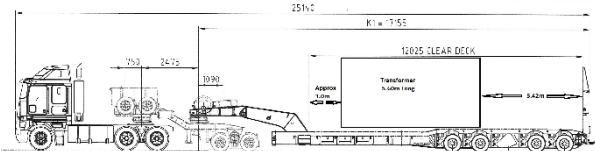
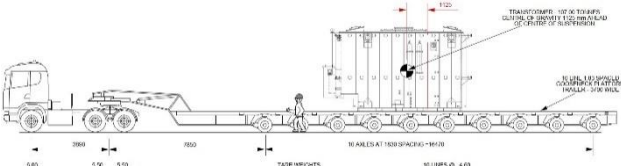
The anticipated vehicle fleet associated with the Project will predominantly comprise the following as outlined in **Table 4**.

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³ <https://opendata.transport.vic.gov.au/dataset/historical-annual-average-daily-traffic-volume>



Vehicle	Typical Vehicle Profile	Haulage Material
Private Vehicle (B99 design vehicle)		Supervision Workforce Assumed occupancy of 1 person per vehicle
Toyota Coaster Bus (22-seater)		Labour Workforce Assumed occupancy of 19 persons per vehicle
Heavy Rigid Vehicle (12.5m HRV)		Water (dust suppression etc) Waste removal
Six Axle Articulated Vehicle (20m AV)		Fuel delivery Fencing Substation electrical equipment 40ft Container (one full-size) Demountable Buildings
B-Double (23m or 26m)	This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright 	Aggregates Quarry Products 40ft and 20ft Containers (one full-size and one half-size) Construction mobilisation Construction demobilisation
Low Loader (25m long)		Excavator Bulldozer Grader Compactor Piling Rig
Crane		Construction mobilisation
Class 1 Low Loader (25m, up to 55t)		Energy storage batteries O&M Building Switch room
One platform trailer and one prime mover (up to 31m)		One-off transformer transportation

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5.4 Construction Stage Traffic Demands

Traffic that will be generated during the construction of the Project will largely be associated with the transportation of materials/ equipment and the workforce. To simplify the construction traffic calculations, SLR has broken down the traffic-generating elements of the proposed works into two (2) classes, as follows:

- Construction heavy vehicle traffic.
- Construction workforce.

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5.4.1 Construction Stage – Heavy Vehicles

The anticipated total heavy vehicle traffic demands associated with transporting the necessary construction material and equipment to the Subject Site are set out in **Table 5**. This excludes the Toyota Coaster shuttle buses identified in **Table 4**, as these heavy vehicle movements will be captured in the workforce traffic demands in **Section 5.4.2**.

Table 5 Trip Generation – Construction Material and Equipment

Construction Material/ Equipment	Vehicle Type ^[1]	Origin/ Destination ^[1]	No. Trucks ^[1]	Trip Movements
Imported Materials <i>[Sand, aggregates and cement, utilised for concrete batching and compacted road base. Site access road, Footings and foundations, Internal roads, Hardstand/ Laydown areas]</i>	26m B Double or 20m Articulated Vehicle or Heavy Rigid Vehicle	Melbourne and/or Local Quarry/Supplier	1,100 ^[4]	2,200 ^[4]
Battery Units	25m Class 1 Low Loader (OSOM) ^[2]	via Port of Melbourne	56	112
O & M Building	25m Class 1 Low Loader (OSOM) ^[2]	Melbourne	4	8
Substation Building/ Switch room		Via Port of Melbourne	1	2
Ancillary Equipment 1 <i>[Site mobilisation and establishment, Plant mobilisation, Substation electrical equipment, Construction demobilisation]</i>	25m Low Loader	Melbourne or Regional Supplier	52	104
Ancillary Equipment 2 <i>[Fencing, Inverter delivery and installation, BoS Material Delivery]</i>	20m Articulated Vehicle	Melbourne or Regional Supplier	66	132
Water <i>[Potable water and non-potable water for dust suppression/ landscaping]</i>	Heavy Rigid Vehicle (19,000 litre water truck ^[3])	Local Supplier	100 ^[1]	200
Fuel	20m Articulated Vehicle	Melbourne	50	100
Large Power Transformer <i>[up to 160 tonnes]</i>	Class 1 Over Size Over Mass (OSOM) ^[2]	via Port of Melbourne	1	2



Construction Material/ Equipment	Vehicle Type ^[1]	Origin/ Destination ^[1]	No. Trucks ^[1]	Trip Movements
TOTAL			1,430	2,860

^[1] Source: SLR, 2025

^[2] Source: ARES, 2025

^[3] Maximum expected tank size

^[4] Trips calculated represent 'worst case' based on the smallest design vehicle proposed (i.e. HRV). Reduction in trips will occur through the use of the larger design vehicles.

The construction movements will occur across all days of the week, however for the purpose of calculating trip movements, it has been conservatively assumed that construction activities occur across a 6-day week (6:30am to 6:30pm). Works are not planned to occur on Sundays, but on rare occasions, there might be some construction tasks undertaken due to weather conditions or severe project program delays. Based on the information that construction activities will take place over a 12-month program, the resulting number of working days is taken to be 303 days (excludes 10 public holidays). The average number of trucks per day is therefore five (5), resulting in ten (10) trip movements per day.

It is further conservatively assumed that 50% of the daily truck movements will occur during the following peaks:

- Weekday AM Peak – 8:30am to 9:30am.
- Weekday PM Peak – 3:30pm to 4:30pm.

Assuming an 70%/ 30% of trips occur during the peak hours, the resulting number of heavy trip movements is given in Table 6 below.

Table 6 Trip Generation – Construction Vehicle Movements (Peak Hour)

Parameter	AM Peak			PM Peak	
	IN	OUT	Total	IN	OUT
Split	70%	30%	100%	30%	70%
Trip Movements	4	1	5	1	4

As described in **Table 5**, the majority of construction material and equipment will be brought to the Subject Site by Class 2 Heavy Vehicles. The exception to this relates to the one (1) Large Power Transformer (LPT) for the proposed substation, the delivery of BESS containers (i.e. battery units), and buildings (i.e. the switch room). The LPT is a large indivisible item weighing 160 tonnes, with the BESS containers and switch room weighing approx. 50 tonnes. As such, Class 1 OSOM vehicles will be required to bring these components to the Subject Site. The transport of the LPT will comprise a prime mover and a platform trailer, with a Class 1 Low Loader to be utilised for the BESS units and buildings. The exact OSOM vehicle configurations will be subject to a future CTMP to be undertaken by a specialist logistics company prior to the substantial commencement of construction activities. Further details of the CTMP are provided in **Section 8.0**.

5.4.2 Construction Stage – Workforce Demands

The traffic generated by the workforce was determined by considering a maximum of 96 workers on-site, with 76 workers travelling to/ from the Subject Site in 22-seater Toyota Coaster type shuttle buses (maximum of 19 workers per bus) and the remaining 20 supervisors/ contractors all travelling privately in light vehicles as single occupants. The anticipated traffic demand for the construction workforce is shown in **Table 7**.

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The intent is for Toyota Coaster type shuttle buses and personal light vehicles to remain on-site for the duration of the shift. Once the work shift has been completed, the buses will take the construction workforce back to their designated accommodation at either Warrnambool or Camperdown. Based on the abovementioned assumptions, the resulting trip assignment for the construction workforce is given in **Table 8**.

This approach is intended to provide maximum flexibility to the future construction workforce transport strategy and provide road authorities confidence that a worst-case scenario has been assessed.

Table 7 Anticipated Peak Construction Traffic Volumes

Vehicle Type	Workforce	Hourly Peak (vph)	Daily Peak (vpd)
Private Vehicle	20	20	40
Coaster Buses	76	4 ^[1]	8 ^[1]

^[1] Based on a Coaster Bus capacity of 19 seats for workers

Table 8 Trip Generation – Construction Workforce Movements (Peak Hour)

Parameter	AM Peak			PM Peak		
	IN	OUT	Total	IN	OUT	Total
Split	100%	0%	100%	100%	0%	100%
Trip Movements	24	0	24	0	24	24

Source: ARES, 2026

5.4.3 Traffic Volumes

The peak hour Project traffic volumes were calculated using the traffic volumes outlined in **Section 3.1.2** and the assumptions detailed above. The construction traffic generation was considered in terms of light and heavy vehicle movements.

The construction traffic generation was assumed to progress linearly over the 12-month construction period, with all construction materials arriving from the east via Melbourne while the construction workforce was arriving/ departing the Subject Site to the west of Wiridgil Road. With this assumption, daily construction traffic generation was determined by adopting a 6-day work week, resulting in a total of 29 inbound and outbound trips per day.

For a conservative assessment, the peak hour estimate was established by assuming that all construction vehicles were to arrive on the Subject Site within a 1-hour period instead of spreading out equally across the day (8-hours).

The background traffic was determined by conducting ATCs along Camperdown-Lismore Road. The peak hour traffic was determined from these surveys, as discussed in **Section 3.1.2** earlier in this report.

The peak hour movements generated by the construction traffic, the anticipated workforce, and the determined background traffic are summarised in the desktop model, provided at **Appendix C**.

5.5 Operational Phase Traffic Generation

The Project Area typically comprise limited equipment that requires regular maintenance. Therefore, the operational traffic demands associated with the Project are expected to be

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minimal and limited to minor servicing activities. Based on this, the operational traffic of the Project is not considered a critical element within this traffic assessment.

Nonetheless, the operational workforce assumptions were provided by Camperdown BESS and are summarised below in **Table 9** for completeness of this report.

Table 9 Operational Workforce

Operational Parameter	Assumption
Roster	Rolling 7-day roster
Permanent Workforce	4 FTE persons maximum (per day) not 100% site based
Contractor Workforce	3 contractors maximum (per day) not 100% site based
Anticipated Fleet	Light vehicles, Disposal trucks (Small and Medium Rigid Vehicles)
Operational Period	30 years

Source: ARES, 2025

5.6 Decommissioning Phase Traffic Generation

The Project is proposed to be decommissioned and the infrastructure removed following the EOL of the BESS. Works will be undertaken to return the site as close as possible to its original state and use.

The standard construction hours and heavy vehicles, plant, and equipment required for the construction of the Project will also apply to the decommissioning phase.

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6.0 Traffic Engineering Considerations

6.1 Sight Distance Assessment

A sight distance assessment was undertaken for the site access location and junctions along the light and heavy vehicle routes in accordance with the following:

- *Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersection (AGRD4A-23)*.
- *Australian Standard 2890.1-2004: Off-street Car Parking (AS2890.1)*.

6.1.1 Camperdown-Lismore Rd/ Wiridgil Rd – Sight Distance Assessment

Safe Intersection Sight Distance (SISD) is the minimum sight distance that should be provided on the major road (Camperdown-Lismore Road in this instance) at any intersection, providing sufficient distance for a driver of a vehicle on the major road to observe a vehicle on the minor road (Wiridgil Road in this instance) moving into a collision situation (e.g. in the worst case, stalling across the traffic lane), and to decelerate to a stop before reaching the collision point.

The required SISD was calculated for the Princes Highway/ Wire Lane intersection per the *Austroads Guide to Road Design Part 4A Section 3.2.2*. The formula applied is illustrated in **Equation 1**.

Equation 1

AGRD4A-23 SISD Formula

where SISD = safe intersection sight distance (m) D_T = decision time (sec) = observation time (3 sec) + reaction time (sec) – refer to <i>AGRD Part 3 (Austroads 2016b)</i> for a guide to values V = operating (85th percentile) speed (km/h) d = coefficient of deceleration – refer to Table 3.3 and <i>AGRD Part 3</i> for a guide to values a = longitudinal grade in % (in direction of travel: positive for uphill grade, negative for downhill grade)		This document must be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright. $SISD = \frac{V \times D_T}{3.6} + \frac{V^2}{254 \times (d + 0.01 \times a)}$
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6.1.1.1 Sight Distance Calculations – Camperdown-Lismore Rd/ Wiridgil Rd

Table 10 summarises the determined SISD requirements for the Camperdown-Lismore Road/ Wiridgil Road intersection utilising **Equation 1**. **Table 11** provides a justification for the applied parameters in the SISD calculations adopted in **Table 10**.

Table 10 Camperdown-Lismore Rd/ Wiridgil Rd Intersection SISD and Parameters

Approach	D_T (sec)	V (km/h)	d	a (%)	SISD (m)
North	5	90	0.29	0	234.96
South	5	90	0.29	0	234.96

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Table 11 Camperdown-Lismore Rd/ Wiridgil Rd Intersection SISD Parameters

Parameter	Justification
D_T (sec)	A decision time of 5 seconds was adopted, which consists of: 3 seconds of observation time. 2 seconds of reaction time.
V (km/h)	It is noted that ATC surveys were undertaken further north on Camperdown-Lismore Road along the 100km/h section of road. No ATC surveys were undertaken for the 80km/h section of road in proximity to the subject intersection. Therefore, the design speed (posted speed limit + 10km/h) was applied as the 85 th percentile speed to complete this assessment. The data identified that the average 85 th percentile operating speeds were: - Southern direction of travel: 90km/h. - Northern direction of travel: 90km/h.
d	<i>Austroads Guide to Road Design Part 3: Guide to Road Design Section 5.2.3 (Longitudinal Deceleration)</i> specifies that a coefficient of deceleration of 0.29 is the 'Maximum value for calculating truck stopping sight distance for most urban and rural road types, and level crossings'. Therefore, a deceleration coefficient of 0.29 was adopted for the purposes of the SISD calculation.
a (%)	The following average longitudinal grades were adopted from Nearmap topographical data: - North approach: 0%. - South approach: 0%.

6.1.1.2 Sight Distance Results – Camperdown-Lismore Rd/ Wiridgil Rd

A sight distance assessment has been conducted at the Camperdown-Lismore Road/ Wiridgil Road intersection using a combination of on-site observations, Google Street View, and Nearmap aerial imagery. The results of the assessment have been summarised in Table 12.

Table 12 Camperdown-Lismore Rd/ Wiridgil Rd – Sight Distance Assessment

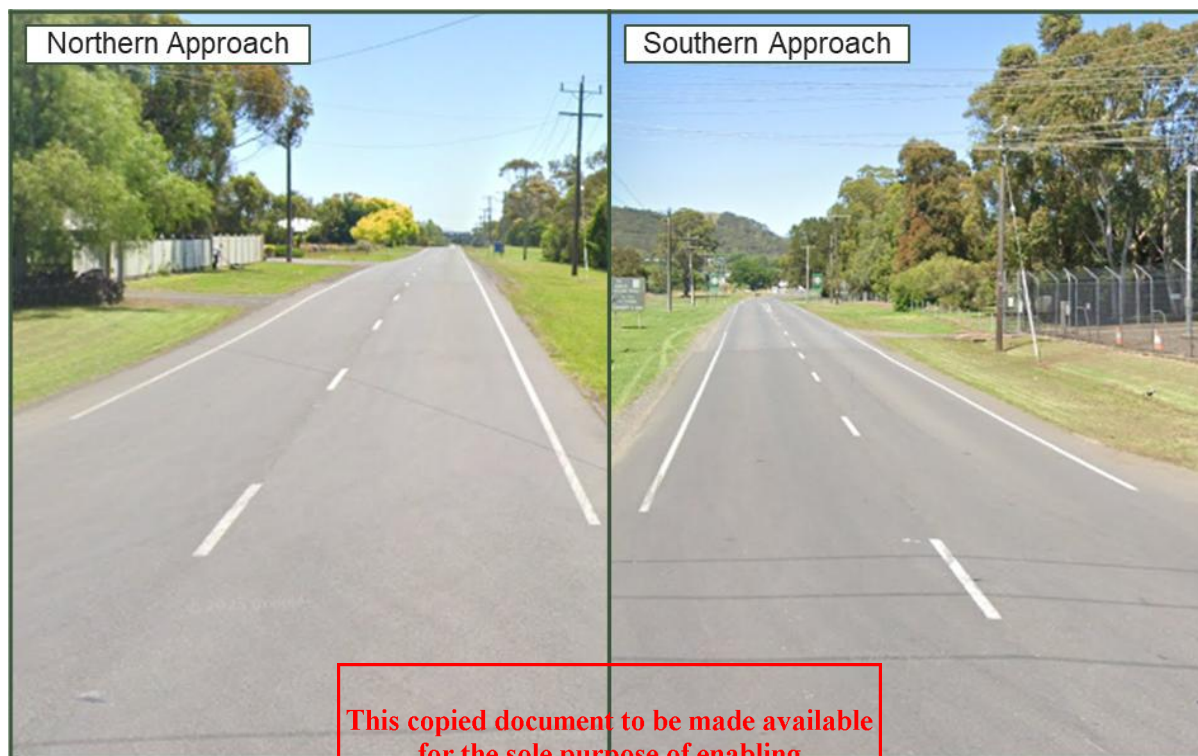
Northern Approach			Southern Approach		
Sight point		Distance	Sight point		Distance
Latitude	Longitude	(m)	Latitude	Longitude	(m)
-38° 13' 23"	143° 9' 22"	>400	-38° 13' 49"	143° 9' 15"	>350

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Figure 12 Sight Distance at Camperdown-Lismore Rd/ Wiridgil Rd



The results from **Table 12** above indicate that the northern and southern approaches to Camperdown-Lismore Road comply with the sight distance requirements outlined in AGRD4A-23. This is also illustrated on **Figure 12** above, which includes images taken from Google Street View (current as of Dec 2024).

6.1.2 Wiridgil Rd/ Subject Site Access Driveway – Sight Distance Assessment

Sight distance requirements for access driveways are prescribed in AS2890.1. The sight distance provided at the Subject Site access driveway should ideally satisfy the stipulated 'Desirable 5s gap', as illustrated on *Figure 3.2* of the standard. The 'Desirable 5s gap' is the level of sight distance which should be made available for a driver exiting the driveway to observe a vehicle travelling on the frontage road (Wiridgil Road) based on a 5s reaction time.

6.1.2.1 Sight Distance Calculations – Wiridgil Road/ Subject Site Access Driveway

Table 13 summarises the sight distance requirements for the Subject Site access in accordance with AS2890.1.

Table 13 Wiridgil Rd/ Subject Site Access Sight Distance Parameters

Approach	Frontage Road Speed (km/h)	Desirable 5s Gap (m)
West	80	111
East		

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6.1.2.2 Sight Distance Results – Wiridgil Rd/ Subject Site Access Driveway

Similar to the assessment undertaken at the Camperdown-Lismore Road/ Wiridgil Road intersection, a sight distance assessment was conducted using onsite observations, Google Street View, and Nearmap aerial imagery for the proposed Wiridgil Road/ Subject Site Access driveway. The results of this assessment have been summarised in **Table 14**.

Table 14 Wiridgil Rd/ Subject Site Access Sight Distance Assessment

Western Approach			Eastern Approach		
Sight point		Distance	Sight point		Distance
Latitude	Longitude	(m)	Latitude	Longitude	(m)
-38° 13' 36"	143° 9' 19"	>500	-38° 13' 43"	143° 10' 27"	>500

Figure 13 Sight Distance at Subject Site Access



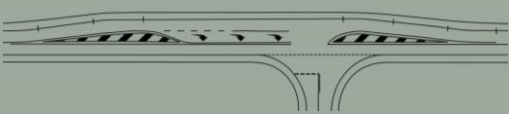
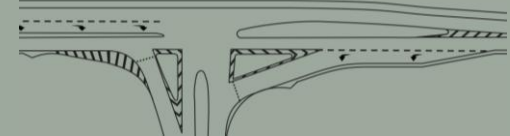
The results from **Table 14** above indicate that the Subject Site access location is compliant with sight distance requirements prescribed in AS2890.1. In addition, site images taken from Google Street View (current as of Dec 2024) and reproduced on **Figure 13** show that both the western and eastern approaches have sufficient sight distances with no obstructions caused by horizontal or vertical alignment changes.

6.2 Turn Warrant Assessment

A turn lane warrant assessment has been undertaken to establish the desirable form of the assessed intersections in accordance with industry research summarised in *Austrroads Guide to Traffic Management Part 6* (2020).

The warrants provide guidance on where turning lanes should be provided based on the design speed (*V*). To aid the reader's interpretation of the assessment, **Table 15** provides a pictorial description of the various turn treatments considered.

Table 15 Turn Treatment Types

Acronym	Right Turn Treatment	Left Turn Treatment
BAR or BAL	 BAR (Basic Right Turn)	 BAL (Basic Left Turn)
CHR(S) or AUL(S)	 CHR(S) (Channelised Right Turn (Short))	 AUL(S) (Auxiliary Left Turn (Short))
CHR or AUL or CHL	 CHR (Channelised Right Turn)	 AUL (Auxiliary Left Turn)
		 CHL (Channelised Left Turn)

As background, it is identified that the warrants were produced by establishing the conflicting traffic volumes at which benefits of providing a higher level of treatment (i.e. the reduction in estimated crash costs) are equal to the additional construction costs associated with providing the higher treatment. The benefits and costs of a higher-level treatment were compared to the base case (minimum turn treatments).

Relevant to the assessment presented herein, the research assumed the following:

- The warrants are strictly applicable to the construction of intersections on new roads (i.e. greenfield sites). For existing roads, the application of the warrants as adopted herein is therefore conservative as it tends to overestimate the benefit ratio of providing higher-order treatments.
- The warrants are intended to be utilised to determine appropriate turn treatments at the intersection of public roads and are not strictly intended to be utilised for private access locations. Their application to private access locations as adopted herein is therefore conservative as it ensures that private accesses are afforded the same standard of safety as provided for public road intersections.

The turn warrants for a greenfield site with a design speed greater than 100km/h are shown in **Figure 14**.

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Figure 14 Turn Warrant Assessment (Major Road Design Speed $\geq 100\text{km/h}$)

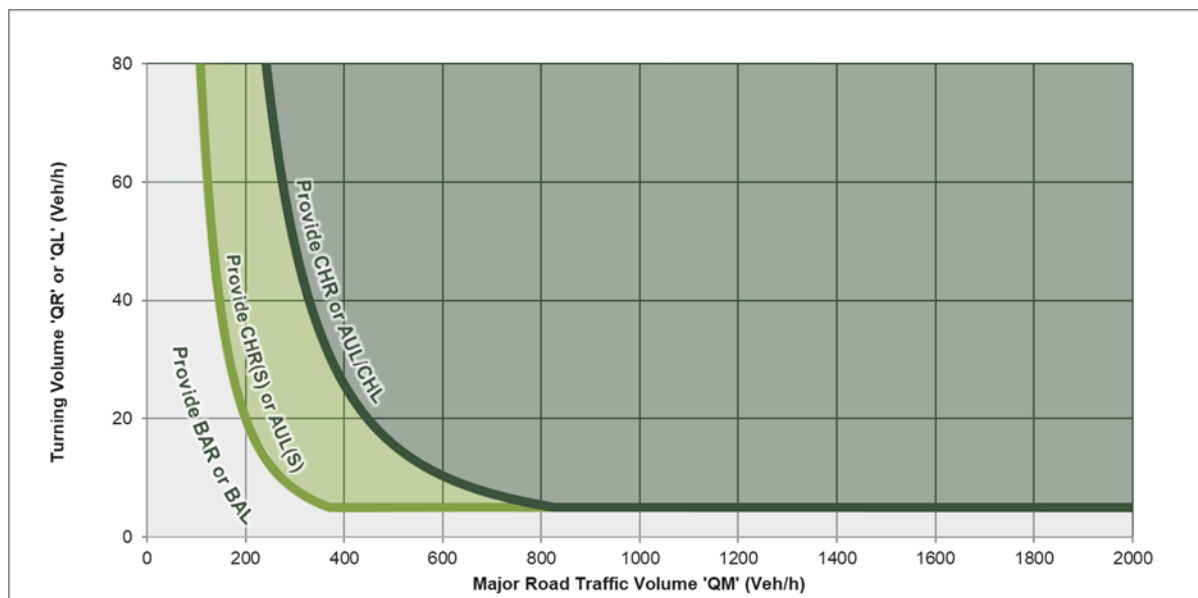
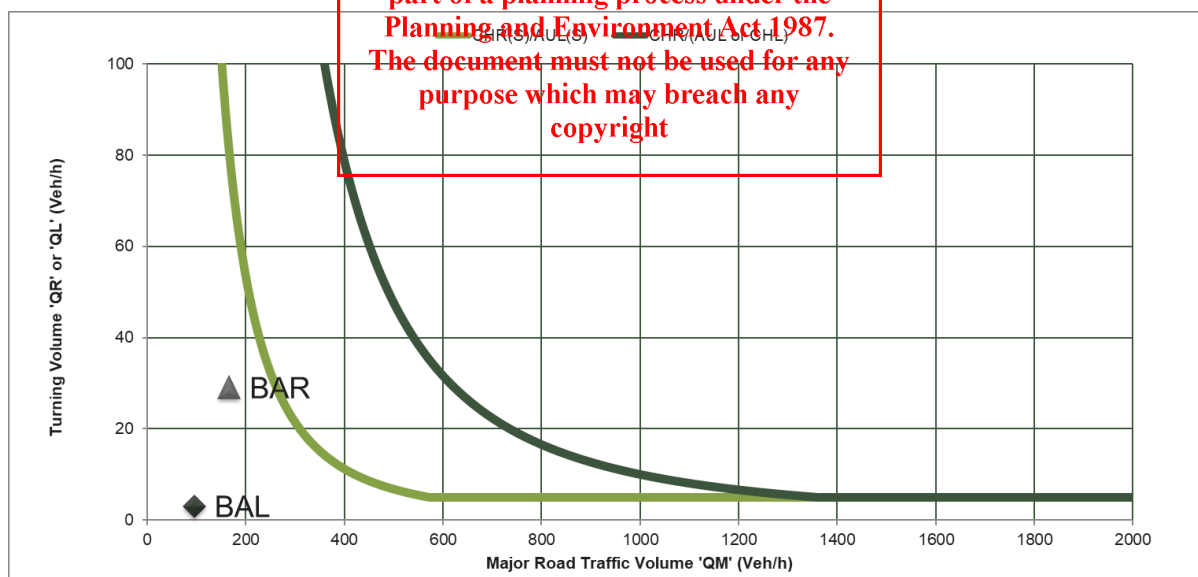


Figure 15 below illustrates the recommended intersection treatment for the existing Camperdown-Lismore Road/ Wiridgil Road intersection under AM peak traffic conditions only. The AM peak was identified as the worst-case scenario according to the traffic surveys and with the highest increase in major road turn volumes due to the project.

Figure 15 Camperdown-Lismore Rd/ Wiridgil Rd Turn Warrant Assessment



The warrants show that a BAR/ BAL turn treatment is appropriate for the given turning movements. It is noted that no dedicated turn lane treatments are currently in place at the subject intersection. At a minimum, it is recommended that a left-turn lane treatment (BAL) be provided for the northern approach of Camperdown-Lismore Road at the Camperdown-Lismore Road/ Wiridgil Road intersection.

Whilst the above assessment outlines the requirement for a BAL, the provision of a short auxiliary left turn lane (AUL(S)) is necessary to facilitate the swept paths of the proposed design vehicles (i.e. 26m B-Double) for the construction stage.

It is noted that there are light/ power poles in proximity to the roadway, along the eastern verge of Camperdown-Lismore Road, adjacent to the intersection. Light/ power poles identified as conflicting with the turning movements of design vehicles within the construction fleet are to be removed and relocated. The infrastructure to be relocated, based on SLR's review, is shown in the swept path assessment drawings provided at **Appendix B**.

A right-turn treatment upgrade is not considered warranted at this intersection, Given the overall short period of time associated with the Project and the low volume of traffic generated. In addition, swept path assessments undertaken for the Class 1 OSOM vehicles demonstrated that the existing right-turn treatment is suitable to accommodate vehicle turning movements.

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7.0 Operational Assessment

7.1 Assessment Scenarios

Consistent with standard industry practice, the following traffic assessment scenarios have been adopted:

- **‘2024 Existing (Survey)’**: To establish operational conditions and baseline results at the time of the traffic surveys.
- **‘2028 Background with Construction’**: To quantify the incremental impact of construction traffic conditions at the start of the construction phase.

The operational performance of the study intersections has been analysed for each of these assessment scenarios during both the Weekday AM and Weekday PM peak hour periods. Peak traffic demands are illustrated graphically in the desktop models, which are provided at **Appendix C**.

It should also be noted that the weekend AM and PM peaks were not modelled, as weekday peaks provided higher volumes, and, therefore, a more representative model.

7.2 Performance Criteria

SIDRA Intersection 9.1 (**SIDRA**) is a computer-based modelling software that determines the operational performance of intersections based on input parameters, including carriageway geometry and traffic volumes. Amongst other parameters, SIDRA provides an estimate of the intersection’s Degree of Saturation (DOS), queues, and delays.

According to *Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (AGTM12-20)*, the maximum DOS thresholds identified for each intersection type are reproduced in **Table 16**.

Table 16 Degree of Saturation Thresholds

Intersection Type	DOS Threshold
Signalised intersections	Less than or equal to 0.90
Roundabout	Less than or equal to 0.85
Priority-controlled intersections	Less than or equal to 0.80

DOS values exceeding those presented in **Table 16** indicate that an intersection is nearing its practical capacity and upgrade works may be required. Above these threshold values, users of the intersection are likely to experience increasing delays and queues.

In addition, the RMS (now TfNSW) *Guide to Traffic Generating Developments (2002)* recommends that the average delay statistic for the critical movement provides a better indication of intersection performance and safety for roundabouts and priority-controlled intersections than DOS. A summary of the delay thresholds recommended by TfNSW is provided in **Table 17**.

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Table 17 Critical Delay Thresholds

LOS	Description	Critical Delay (sec/vehicle)
A	Good operation	< 14 sec
B	Acceptable delays and spare capacity	15 – 28 sec
C	Satisfactory	29 – 42 sec
D	Near capacity	43 – 56 sec
E	At capacity, requires other control modes	57 – 70 sec

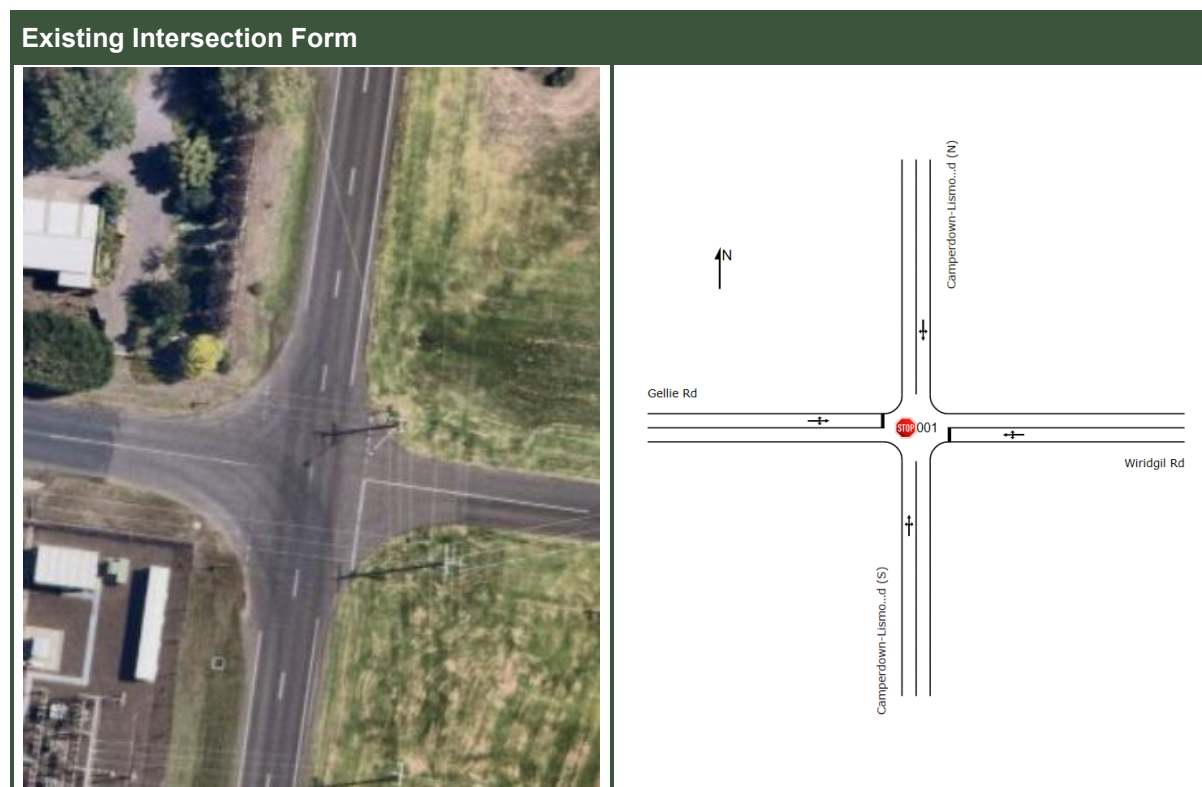
The operational performance documented herein has been conducted considering the above performance criteria.

7.3 Intersection Assessment

7.3.1 I1 Camperdown-Lismore Road/ Wiridgil Road

Camperdown-Lismore Road/ Wiridgil Road is a 4-way priority-controlled intersection, with Gellie Road (local road) forming the western leg connection. It is proposed that as part of the Project, a left-turn treatment will be included to accommodate B-Double turning movements into Wiridgil Road. The existing layout and the proposed intersection form have been reproduced in SIDRA and are shown on **Figure 16**. A summary of the output from the SIDRA assessment is presented in **Table 18**, with detailed outputs provided at **Appendix D**.

Figure 16 I1 Camperdown-Lismore Rd/ Wiridgil Rd – Intersection Form



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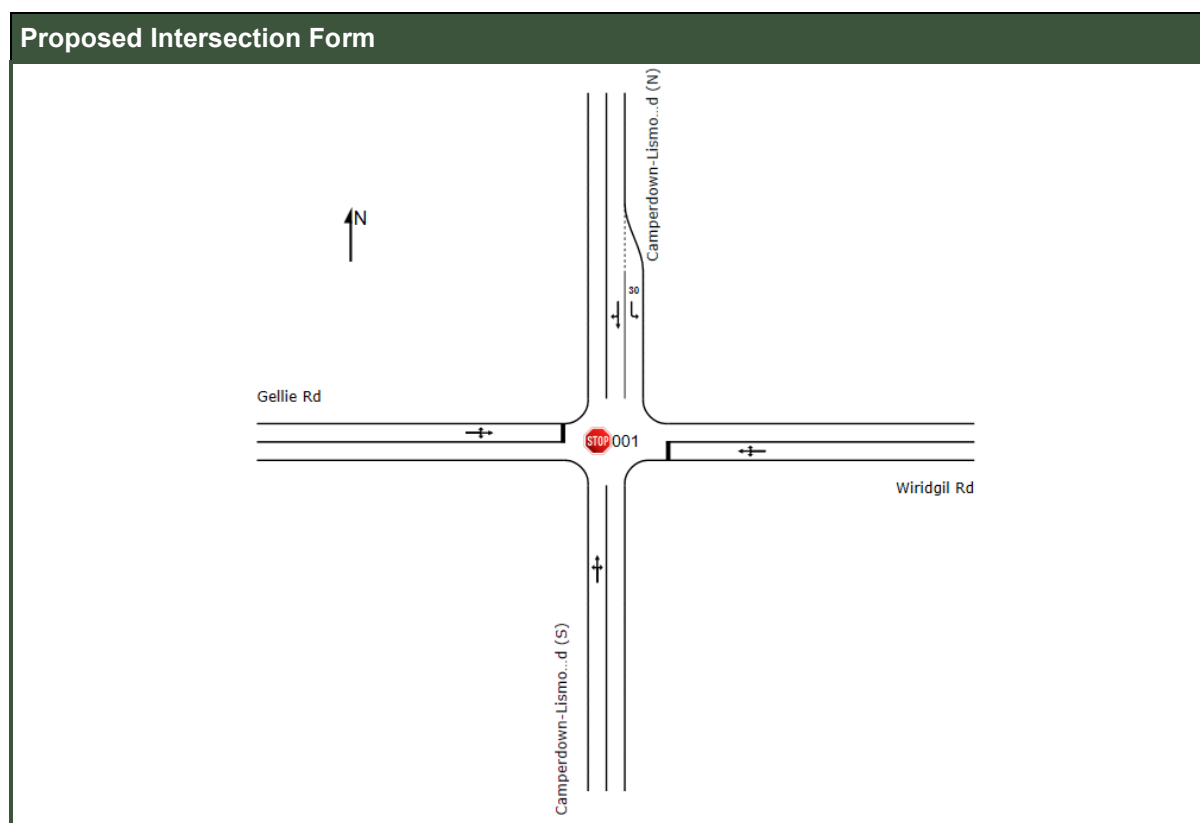


Table 18 I1 Camperdown-Lismore Rd/ Wiridgil Rd – SIDRA Output

Scenario	AM Peak Hour			PM Peak Hour		
	Max DOS	Crit. Delay	95 th ile Queue	Max DOS	Crit. Delay	95 th ile Queue
2024 Survey	0.05	8.5s	0.2m	0.06	8.6s	0.1m
2028 Background + Construction	0.07	11.8s	1.5m	0.07	13.7s	1.1m

The summary results from the SIDRA analysis presented in **Table 18** indicate that the existing intersection is expected to perform within the adopted performance thresholds (DOS of 0.80 and delay of 42 seconds for a priority-controlled intersection) with the addition of the construction traffic and therefore no mitigation works from a capacity perspective are required.

7.3.2 I2 Wiridgil Road/ Subject Site Access

The proposed access to the Subject Site will be provided via a reconstructed driveway from Wiridgil Road under a 3-way priority-controlled driveway. The site layout for the proposed arrangement, as extracted from the SIDRA model, is shown on **Figure 17**. A summary of the output from the SIDRA assessment is presented in **Table 19**, with detailed outputs provided at **Appendix D**.

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Figure 17 I2 Wiridgil Rd/ Subject Site Access – Proposed Access Form

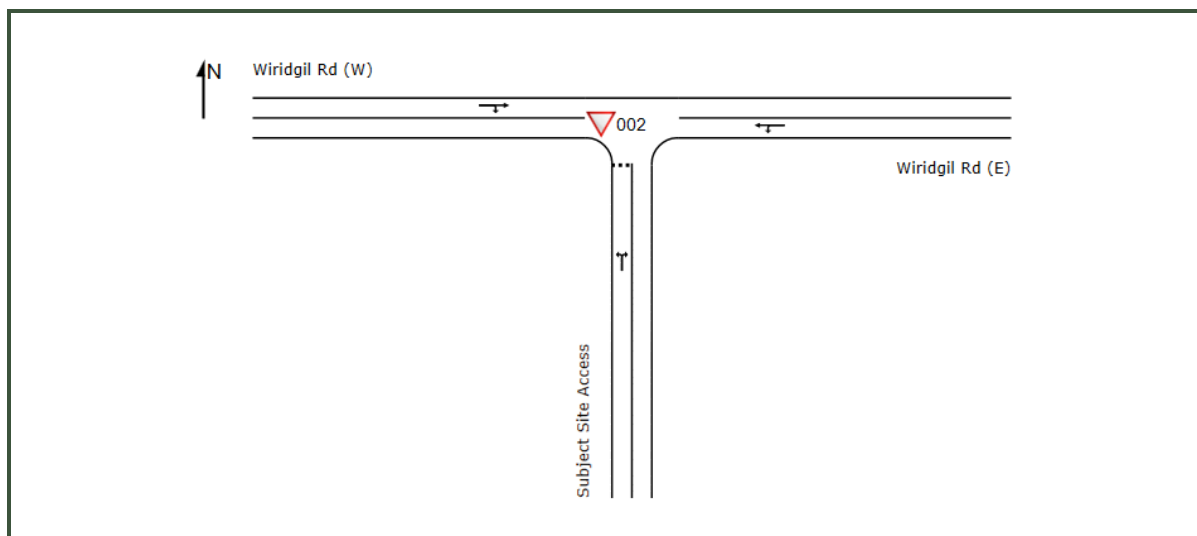


Table 19 I2 Wiridgil Rd/ Subject Site Access – SIDRA Output

Scenario	AM Peak Hour			PM Peak Hour		
	Max DOS	Crit. Delay	95 th ile Queue	Max DOS	Crit. Delay	95 th ile Queue
2028 Background + Construction	0.02	6.7s	0.7m	0.02	6.7s	0.6m

The summary results from the SIDRA analysis presented in **Table 19** indicate that the Subject Site access is expected to perform within the adopted performance thresholds (DOS of 0.80 and delay of 42 seconds for a priority-controlled intersection) for the duration of construction.

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8.0 Construction Traffic Management Strategies

These preliminary comments have been prepared to provide a strategic advice for the future CTMP which will only be prepared following the detailed design of the Project when more information is available around the proposed construction strategy. This information includes workforce accommodation, construction program and the vehicle fleet that will be used which are subject to availability of hotels and availability of construction vehicles, respectively.

Notwithstanding, at a high level, it is recommended that the information provided in the following sections be considered or prepared as part of the future CTMP.

8.1 Drivers Code of Conduct

SLR recommends that the CTMP includes a Drivers Code of Conduct. This Drivers Code of Conduct should include, but not limited to, the proposed approach/ departure routes to/ from the Subject Site, and the possibility of black ice on the roads during the winter months. SLR has prepared a conceptual Drivers Code of Conduct which is provided at **Appendix E**.

8.2 Traffic Guidance Schemes

It is anticipated that each CTMP will have their own Traffic Guidance Schemes (TGSs). In the absence of information on construction methodologies and programmes, it is not possible for this TIA to comment on respective traffic management strategies in detail.

Notwithstanding, the CTMP for access via Windgill Road and Camperdown-Lismore Road must be prepared to the satisfaction of the Corangamite Shire Council and DTP, respectively.

It is important to note that the majority of works during the construction phase will be carried out within the property boundary of the acquired land, and no works will be undertaken on any public roads.

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8.3 Site Management

The following procedures are to be observed by all vehicle drivers accessing the Subject Site:

- Drivers are to obey all site signage and the directions of the site personnel.
- All vehicles are to park and load/ unload within the Subject Site using the designated parking and loading areas where possible. Vehicles are not park or load/ unload within the public road reserve.
- All drivers are required to operate vehicles in a safe and courteous manner, within and external to the Subject Site.

8.4 Heavy Vehicle Management

8.4.1 General Requirements

Heavy vehicles accessing the site will need to abide by their respective company operating procedures in addition to standard Victorian road rules when operating the vehicle.

The following rules must also be followed:

- The majority of the workforce must be transported by shuttle buses that are similar to Toyota Coaster.
- Consistent with the OSOM material transportation requirements, pilot vehicles and escorts must be utilised for non-standard loads.



- Temporary signage must be positioned at critical intersections to inform construction vehicle drivers and to warn the general public about the construction activities in the vicinity.
- Residents of the area must be informed prior to the commencement of construction works.

It is also worth noting that there are no school zones or dense urban areas that construction vehicles will have to travel through in the vicinity of the Subject Site. Also, there will be no requirement to obtain approvals to access a private property. The entirety of the proposed road upgrades will be undertaken in the state or local road reserves.

8.4.2 Noise Management

To limit heavy vehicle noise associated with construction activities, drivers are to abide by the following requirements:

- Posted speed limits on the external road network are to be observed.
- Vehicles are to be turned off when not in use.

8.4.3 Dust Management

The Contractor should identify appropriate mitigation measures and list strategies for dust management in the CTMP.

8.5 Contingency Plan

The Contractor shall establish a contingency plan in accordance with the requirements of Camperdown BESS Pty Ltd.

8.6 Communications Strategy

A communications strategy shall be established by the Contractor in accordance with the requirements of Camperdown BESS Pty Ltd.

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9.0 Recommendations

Based on SLR's analysis provided in this report, the following recommendations have been made and documented herein.

9.1 Camperdown-Lismore Road/ Wiridgil Road Turn Treatment

Whilst the TWA undertaken found a BAL was triggered, to accommodate the design vehicle, an AUL(s) turn treatment is to be implemented on the northern approach of the Camperdown-Lismore Road/ Wiridgil Road intersection. This will enable the left-turn movements for the design vehicles (B-Doubles) travelling towards the site to turn into Wiridgil Road. Swept paths analysis provided at **Appendix B** demonstrates the indicative spatial requirements for the left-turn of the design vehicle.

In addition, the existing light/power pole infrastructure on the eastern verge of Camperdown-Lismore Road is to be removed and relocated to facilitate the left-turn treatment.

9.2 Construction Traffic Management Plan (CTMP)

A CTMP or equivalent document should be prepared following detailed design and planning of the Project but prior to the substantial commencement of any construction activities. It would be appropriate for the CTMP to be prepared in accordance with the requirements set out by the relevant regulatory bodies.

The purpose of the CTMP would be to identify any changes to Project planning that occur subsequent to the preparation of this assessment and the impact of these changes on the conclusions of this assessment. In addition, the document would typically detail impact mitigation strategies, including soft strategies such as busing the workforce as what is assumed herein and hard strategies such as road works to construct a left-turn treatment on the northern approach of the Camperdown-Lismore Road/ Wiridgil Road intersection, including the relocation of any associated infrastructure.

The CTMP should mention the use of shuttle buses to transport the Project workforce and heavy vehicle trip management procedures such as pilot vehicles and escorts, temporary signage and notification to nearby properties, safety management for any travel through school zones or dense urban areas and addressing access warrants.

The CTMP should also provide operational information, such as the maintenance contractor's contact details. However, it is not considered necessary to investigate the operational impacts in detail, given BESSs require minimal maintenance effort.

9.3 OSOM Route Study

It is recommended that an OSOM material transportation assessment (A Route Study) be conducted for the transportation of the transformer, BESS and switch room from the port of import to the Subject Site, following the progression of the Project through detailed design and the confirmation of the port of import and type/ quantity of the equipment.

This report should consider all aspects of the preferred route in its entirety, such as bridge and tunnel clearances (from a vertical perspective) and carriageway widths, such as tight turns (from a horizontal perspective). In addition, this report should document any conditions agreed in consultation with NHVR regarding the routes (see **Section 2.7.4** for further detail) not currently approved for the required standard design vehicle. The report should also outline any agreed conditions with Council regarding procedures for implementing short term road closures on Wiridgil Road.

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9.4 Dilapidation Surveys

It is recommended that dilapidation surveys be undertaken to assess the condition of Wiridgil Road to identify changes prior to and subsequent to the completion of the proposed construction works.

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10.0 Conclusions

SLR Consulting Australia Pty Ltd (SLR) has been commissioned by Camperdown BESS Pty Ltd to prepare a Traffic Impact Assessment (TIA) for a Battery Energy Storage System (BESS) development.

Camperdown BESS proposes a BESS with a capacity of 60 megawatts (MW)/ approximately 240 megawatt hours (MWh) at the point of connection to be constructed on land formally described as Lot 2 of PS817143 and Lot 2 of LP34716 at Wire Lane, Camperdown, Victoria (VIC). The Subject Site is located approximately 190km south-west of Melbourne and 2km east of Camperdown. The development plans, as prepared by ARES, are provided at **Appendix A**.

Based on the analysis and discussion documented in this report, the following is concluded:

- It is proposed that vehicular access to/ from the Subject Site will be provided from Wiridgil Road via Camperdown-Lismore Road. During the construction phase, a wider site access (approx. 20m wide) will be provided to facilitate turning movements required for the OSOM materials (i.e. transformer). Following this, the access driveway will be reconstructed to meet the relevant Australian Standards (AS) for design vehicles required during the operational phase.
- The Project will generate additional daily traffic of approximately 29 inbound & 29 outbound trips per day during the assumed construction period of 12 months.
- SLR has undertaken intersection performance analysis at two (2) study intersections (one {1} external intersection and one {1} proposed new site access driveway). It was identified that the proposed Camperdown-Lismore Road/ Wiridgil Road intersection form and the Subject Site access driveway on Wiridgil Road will operate satisfactorily during the construction of the Project.
- To accommodate the anticipated construction traffic movements at the Camperdown-Lismore Road/ Wiridgil Road intersection, upgrades are necessary to accommodate the turning movements of the heavy vehicles required for construction works. Based on the traffic demands, a BAL arrangement is triggered for the northern approach; however, to accommodate the design vehicle swept path, an AUL(s) is required.
- The publicly available crash dataset for the surrounds of the Subject Site does not indicate any recurring crash type or theme that would preclude or warrant significant safety mitigations.
- Sight distances available at the Camperdown-Lismore Road/ Wiridgil Road intersection and the Subject Site access driveway on Wiridgil Road exceed the sight distance requirements outlined in Austroads Guidelines and Australian Standards.

As per the analysis provided in this report, the following is recommended:

- 1 The light/ power poles on the eastern verge of Camperdown-Lismore Road, in proximity to the Wiridgil Road intersection, are to be removed and relocated to facilitate heavy vehicle construction movements.
- 2 The Camperdown-Lismore Road/ Wiridgil Road intersection be upgraded to provide sufficient hardstand to enable left-turn movements of the heavy vehicles from Camperdown-Lismore Road into Wiridgil Road.
- 3 Camperdown BESS seek a permit, in consultation with NHVR, to allow for B-Double access onto Wiridgil Road for the duration of the construction phase.

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- 4 A CTMP is to be prepared following the progression of the Project through detailed design.
- 5 An OSOM material route study be prepared following the progression of the Project through detailed design, documenting the route details for the transportation of the transformer from the port of import to the Subject Site.
- 6 Dilapidation reports to be prepared for the review of the Council prior to and following the construction activities.

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11.0 RPEV Certification

This traffic assessment and report has been prepared under the direction of a Registered Professional Engineer of Victoria (**RPEV**) who is experienced in traffic engineering and transport planning. The report is endorsed by that RPEV accordingly.

Sincerely,

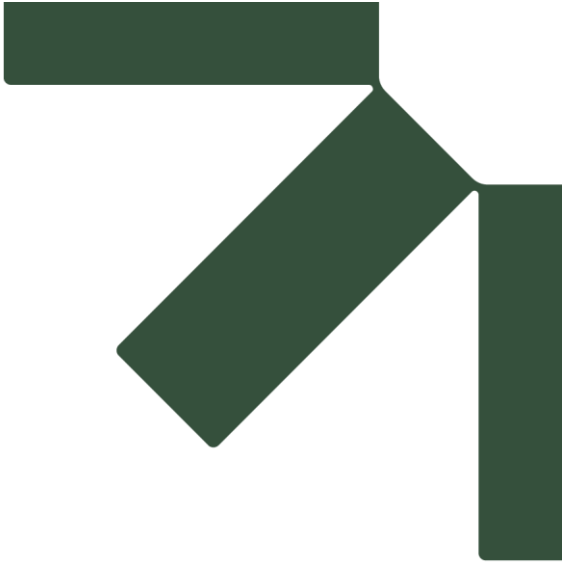


Taylor Beauchamp
Associate Consultant – Transport Advisory
RPEV No. PE0018510

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Appendix A Development Plans

Camperdown Battery Energy Storage System (BESS)

Traffic Impact Assessment

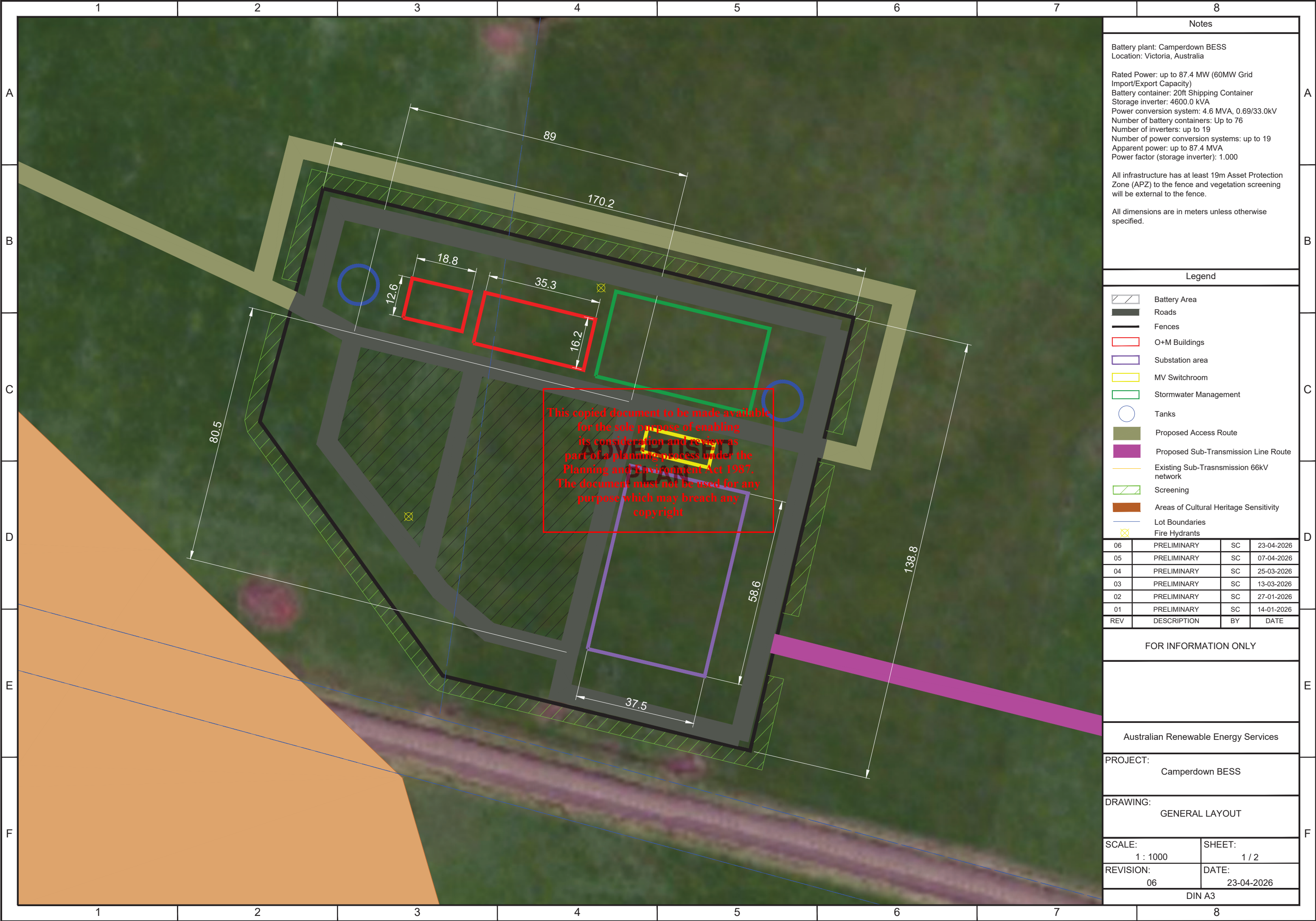
Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00015

8 May 2026

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Notes

Battery plant: Camperdown BESS
Location: Victoria, Australia

Rated Power: up to 87.4 MW (60MW Grid Import/Export Capacity)
Battery container: 20ft Shipping Container
Storage inverter: 4600.0 kVA
Power conversion system: 4.6 MVA, 0.69/33.0kV
Number of battery containers: Up to 76
Number of inverters: up to 19
Number of power conversion systems: up to 19
Apparent power: up to 87.4 MVA
Power factor (storage inverter): 1.000

All infrastructure has at least 19m Asset Protection Zone (APZ) to the fence and vegetation screening will be external to the fence.

All dimensions are in meters unless otherwise specified.

Legend

Battery Area

Roads

Fences

O+M Buildings

Substation area

MV Switchroom

Stormwater Management

Tanks

Proposed Access Route

Proposed Sub-Transmission Line Route

Existing Sub-Trasnmission 66kV network

Screening

Areas of Cultural Heritage Sensitivity

Lot Boundaries

Fire Hydrants

06	PRELIMINARY	SC	23-04-2026
05	PRELIMINARY	SC	07-04-2026
04	PRELIMINARY	SC	25-03-2026
03	PRELIMINARY	SC	13-03-2026
02	PRELIMINARY	SC	27-01-2026
01	PRELIMINARY	SC	14-01-2026
REV	DESCRIPTION	BY	DATE

FOR INFORMATION ONLY

Australian Renewable Energy Services

PROJECT:

Camperdown BESS

DRAWING:

GENERAL LAYOUT

SCALE:

1 : 1000

SHEET:

1 / 2

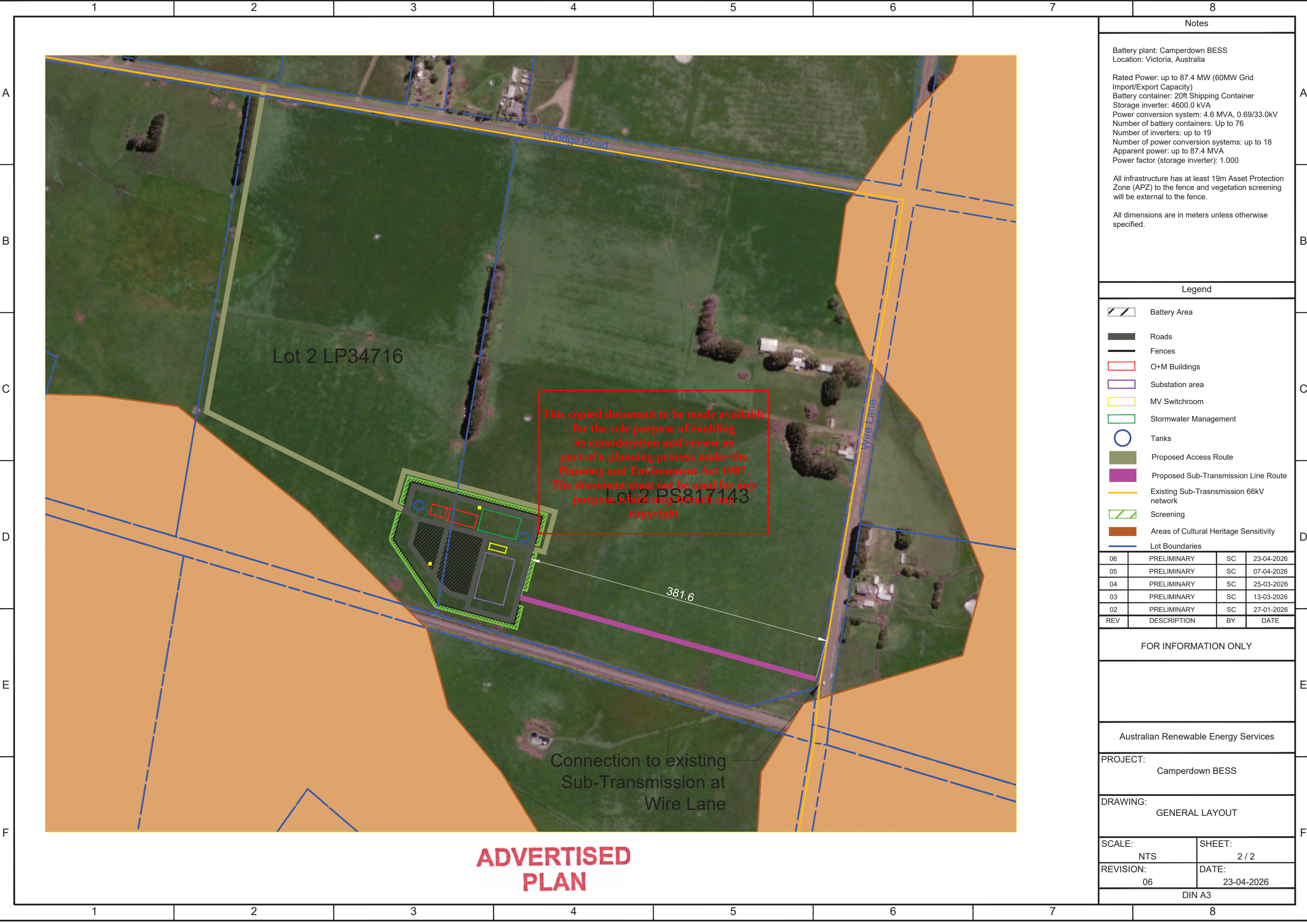
REVISION:

06

DATE:

23-04-2026

DIN A3



Notes
Battery plant: Camperdown BESS Location: Victoria, Australia
Rated Power: up to 87.4 MW (60MW Grid Import/Export Capacity) Battery container: 20ft Shipping Container Storage inverter: 4600.0 kVA Power conversion system: 4.6 MVA, 0.69/33.0kV Number of battery containers: Up to 76 Number of inverters: up to 19 Number of power conversion systems: up to 18 Apparent power: up to 87.4 MVA Power factor (storage inverter): 1.000
All infrastructure has at least 19m Asset Protection Zone (APZ) to the fence and vegetation screening will be external to the fence.
All dimensions are in meters unless otherwise specified.

Legend
Battery Area Roads Fences O+M Buildings Substation area MV Switchroom Stormwater Management Tanks Proposed Access Route Proposed Sub-Transmission Line Route Existing Sub-Trasnmission 66kV network Screening Areas of Cultural Heritage Sensitivity Lot Boundaries

06	PRELIMINARY	SC	23-04-2026
05	PRELIMINARY	SC	07-04-2026
04	PRELIMINARY	SC	25-03-2026
03	PRELIMINARY	SC	13-03-2026
02	PRELIMINARY	SC	27-01-2026
REV	DESCRIPTION	BY	DATE

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Australian Renewable Energy Services

PROJECT:
Camperdown BESS

DRAWING:
GENERAL LAYOUT

SCALE: NTS	SHEET: 2 / 2
REVISION: 06	DATE: 23-04-2026
DIN A3	

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Appendix B Swept Path Assessments

Camperdown Battery Energy Storage System (BESS)

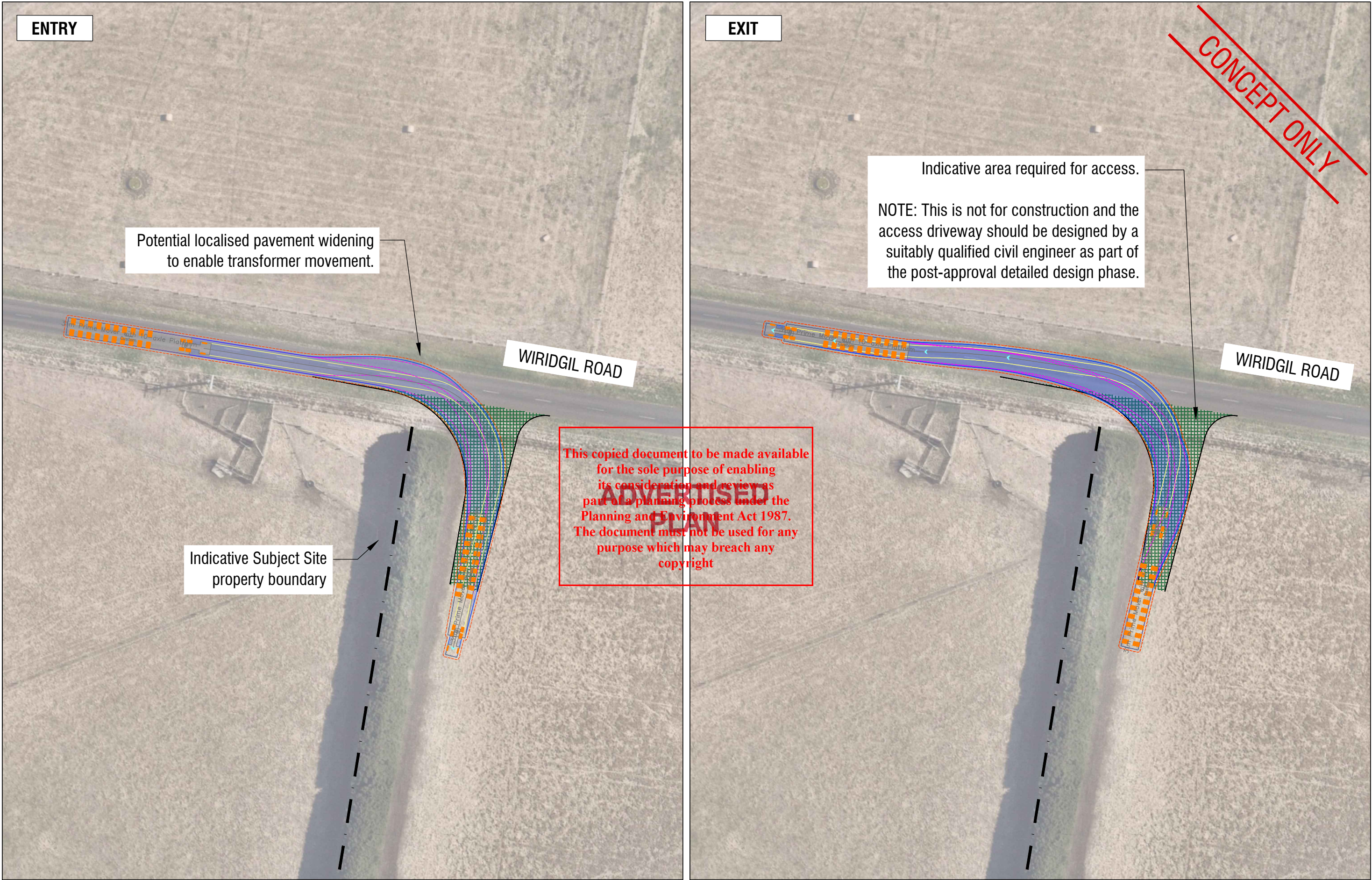
Traffic Impact Assessment

Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00015

8 May 2026

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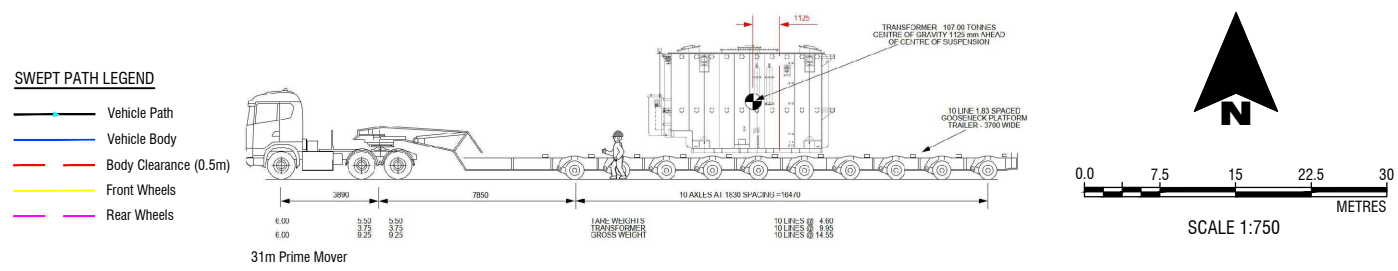


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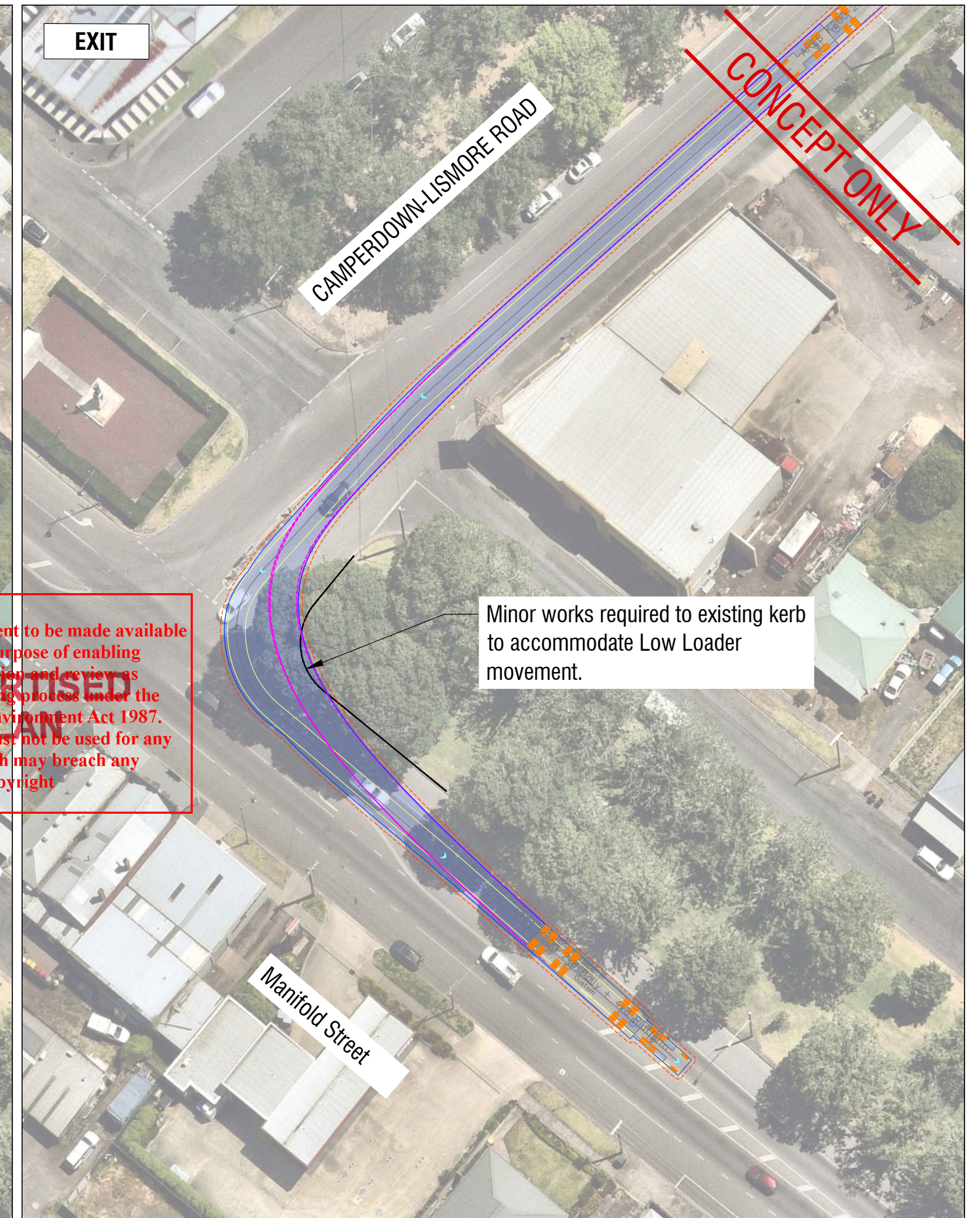
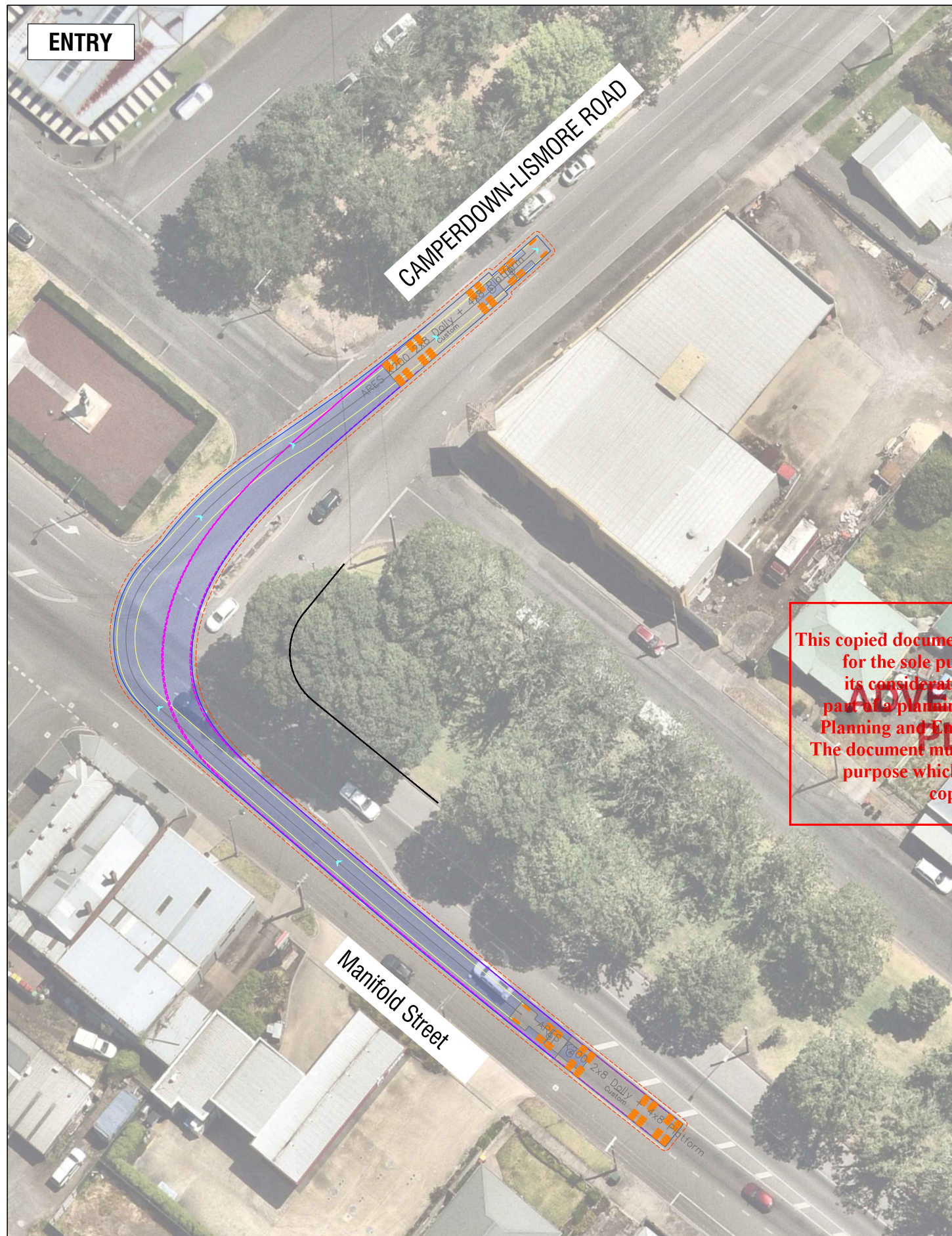
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Camperdown BESS

Site Access

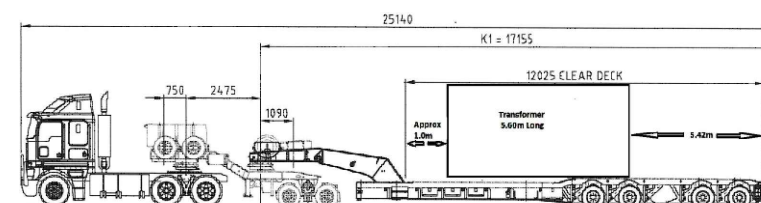
31m Transformer Transportation

FIGURE SK03

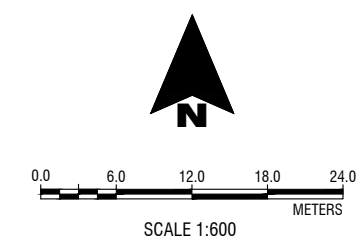


SWEPT PATH LEGEND

- Vehicle Path
- Vehicle Body
- Body Clearance (0.5m)
- Front Wheels
- Rear Wheels



25m Class 1 Low Loader





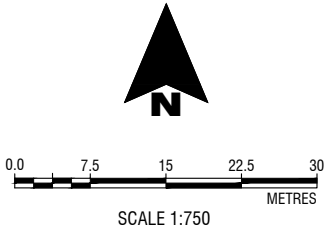
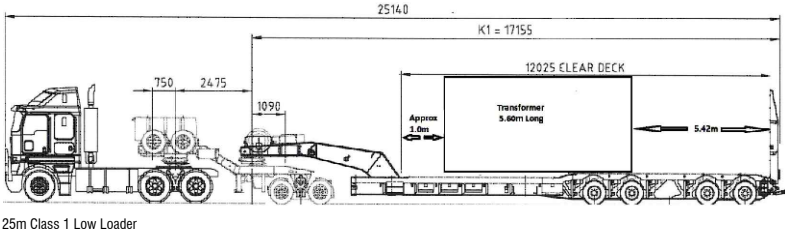


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- SWEPT PATH LEGEND**
- Vehicle Path
 - Vehicle Body
 - Body Clearance (0.5m)
 - Front Wheels
 - Rear Wheels

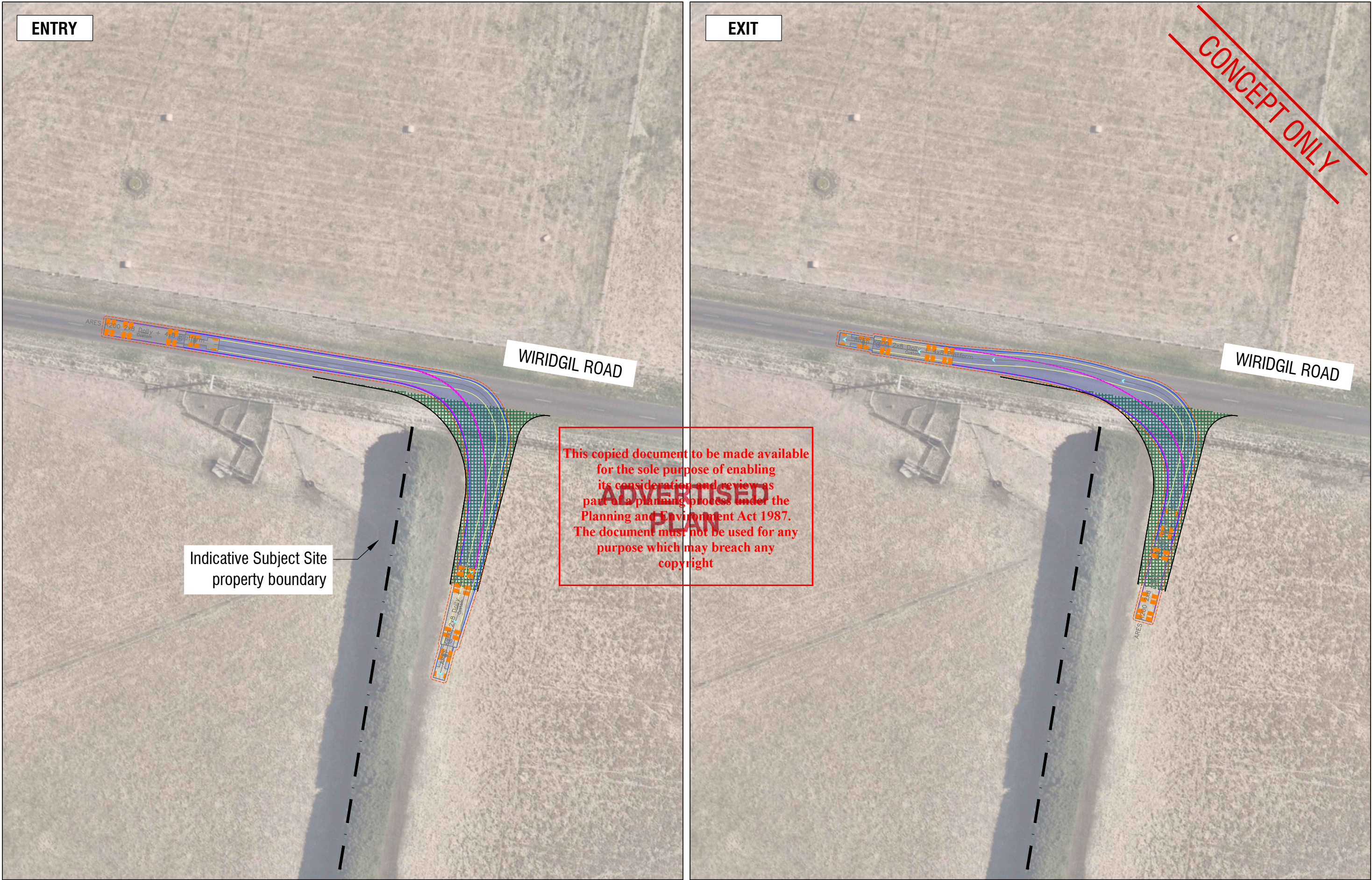


Camperdown BESS Pty Ltd

Camperdown BESS

**Camperdown-Lismore Road
Low Loader Transportation**

FIGURE SK05



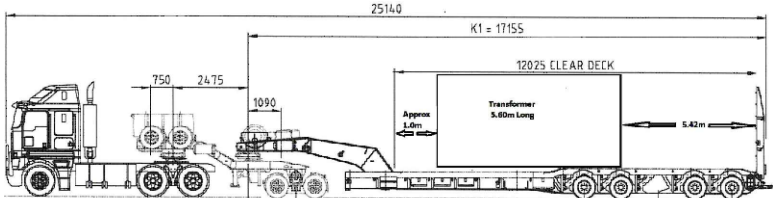


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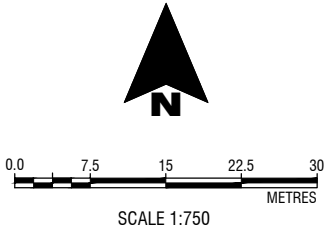
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- SWEPT PATH LEGEND**
- Vehicle Path
 - Vehicle Body
 - Body Clearance (0.5m)
 - Front Wheels
 - Rear Wheels



25m Class 1 Low Loader

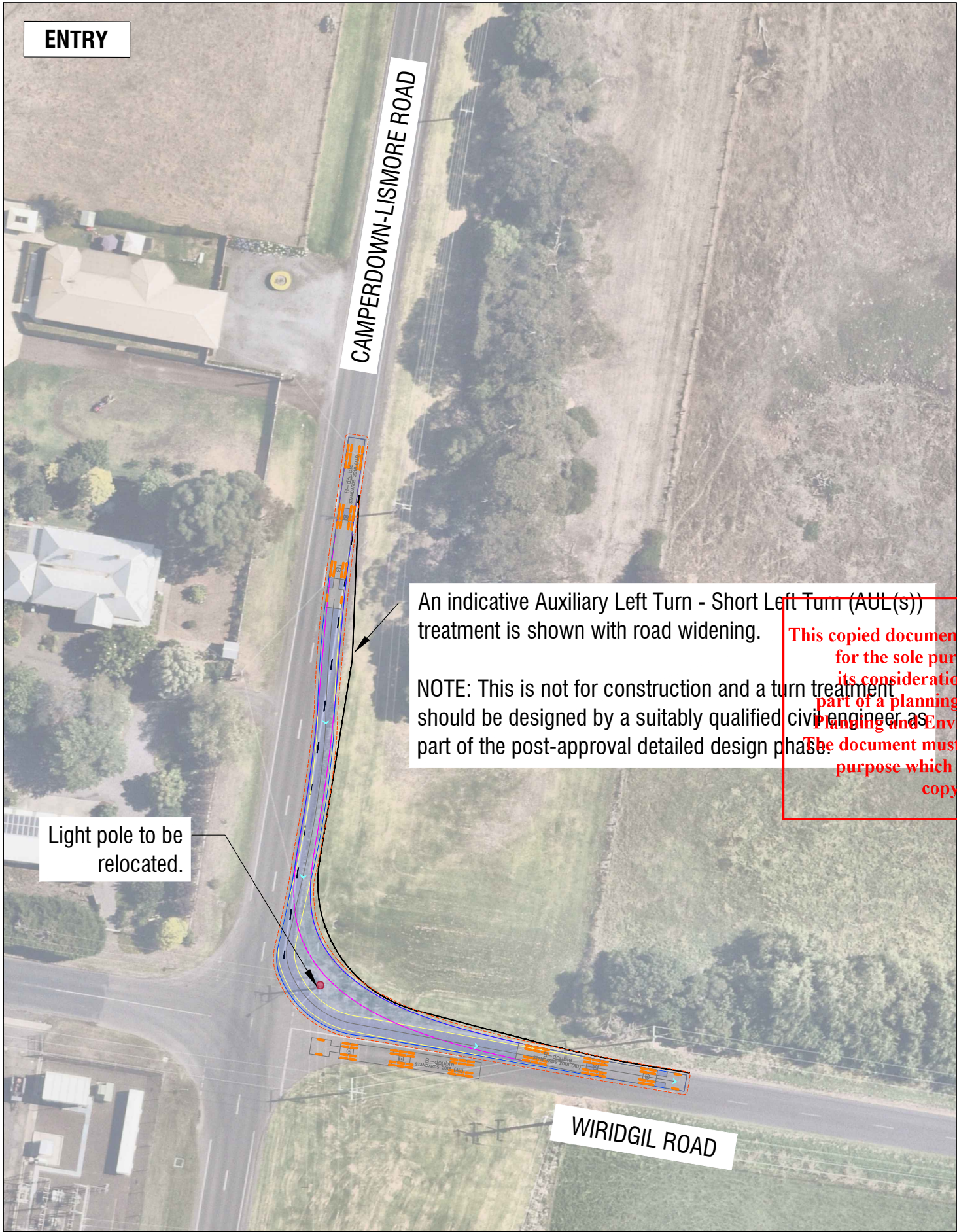


Camperdown BESS Pty Ltd

Camperdown BESS

Site Access
Low Loader Transportation

FIGURE SK06



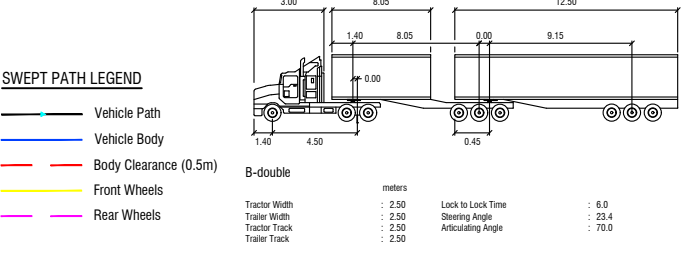
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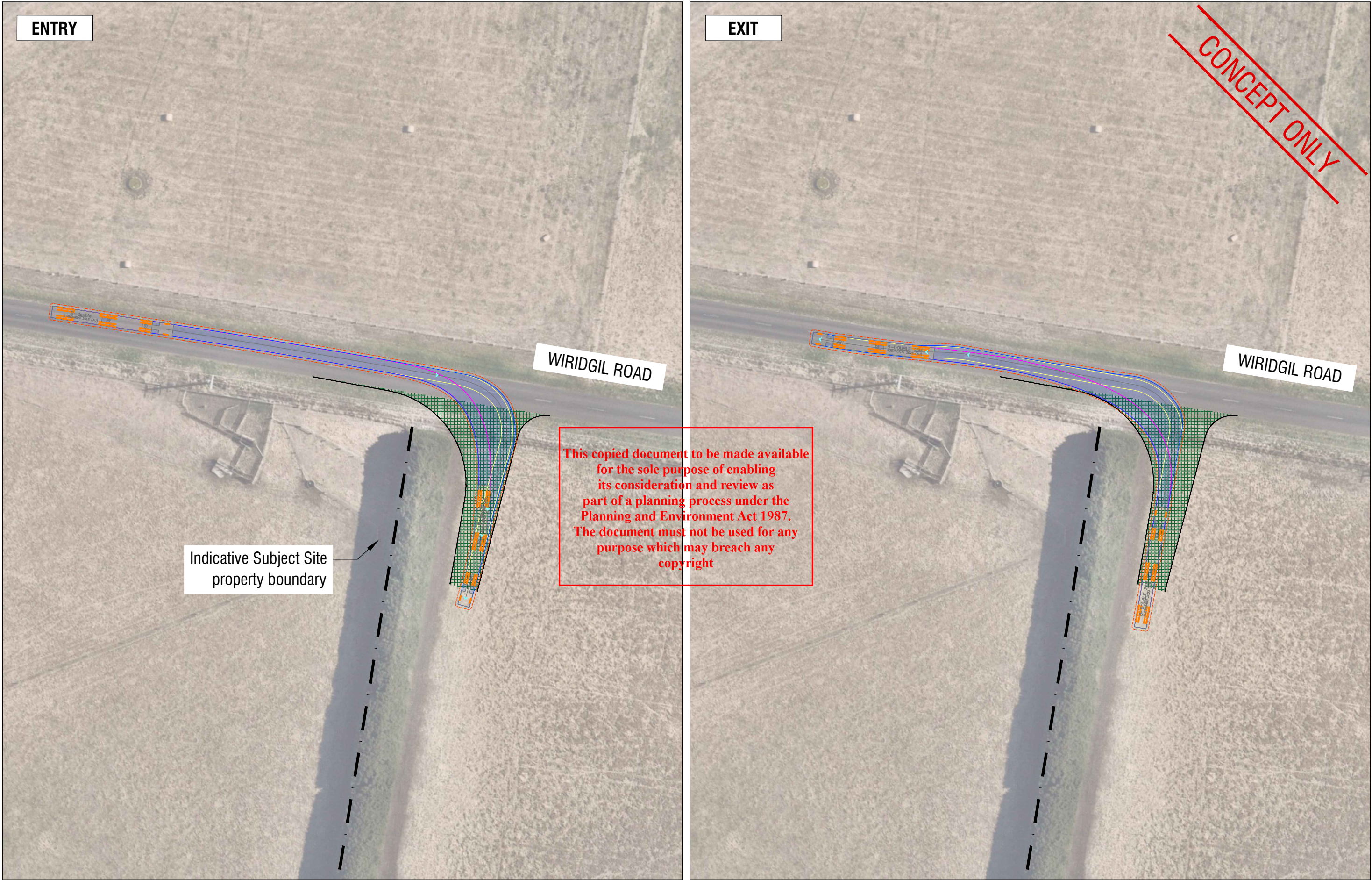


ADVERTISED PLAN

SCALE 1:750

0.0 7.5 15 22.5 30 METRES

Camperdown BESS Pty Ltd
Camperdown BESS
Camperdown-Lismore Road B-Double Transportation
FIGURE SK07





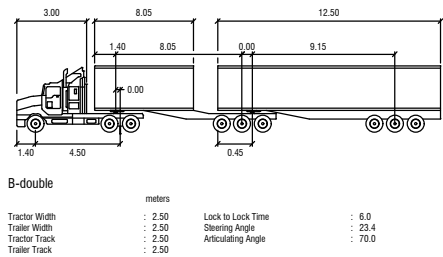
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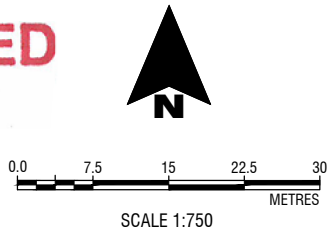
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Projection:	-

SWEPT PATH LEGEND

- Vehicle Path
- Vehicle Body
- Body Clearance (0.5m)
- Front Wheels
- Rear Wheels



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Camperdown BESS Pty Ltd

Camperdown BESS

Site Access
B-Double Transportation

FIGURE SK08

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Appendix C Traffic Flow Diagrams (Desktop Model)

Camperdown Battery Energy Storage System (BESS)

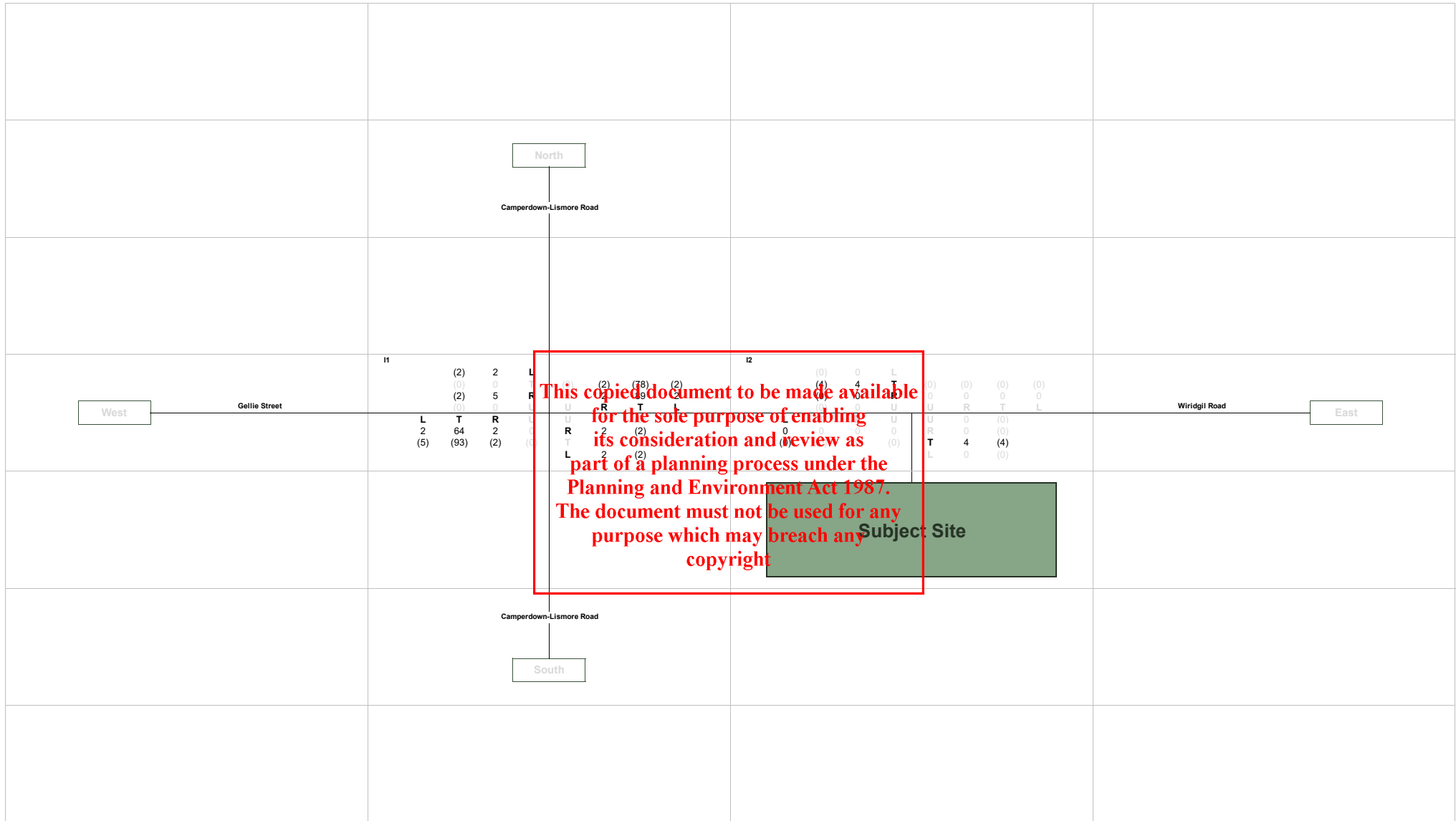
Traffic Impact Assessment

Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00015

8 May 2026

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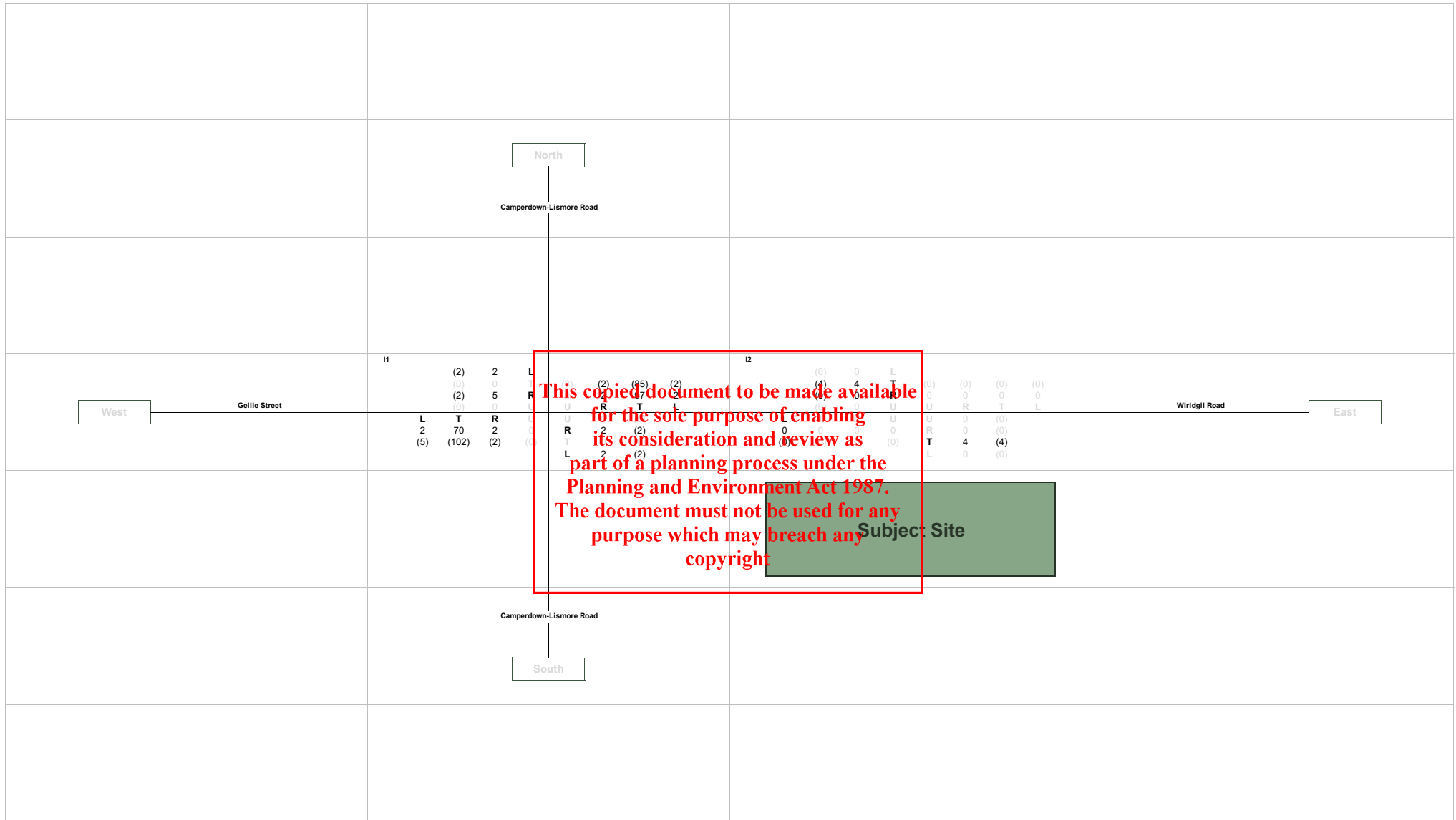
C1
2024 Survey Traffic Volumes
 620.041535.00001
 Camperdown BESS

**ADVERTISED
PLAN**

L Left Turn
T Through
R Right Turn
U U-Turn

Legend
 00 Weekday AM Peak Hour Volumes
 (00) Weekday PM Peak Hour Volumes
 [Green Box] **Subject Site**





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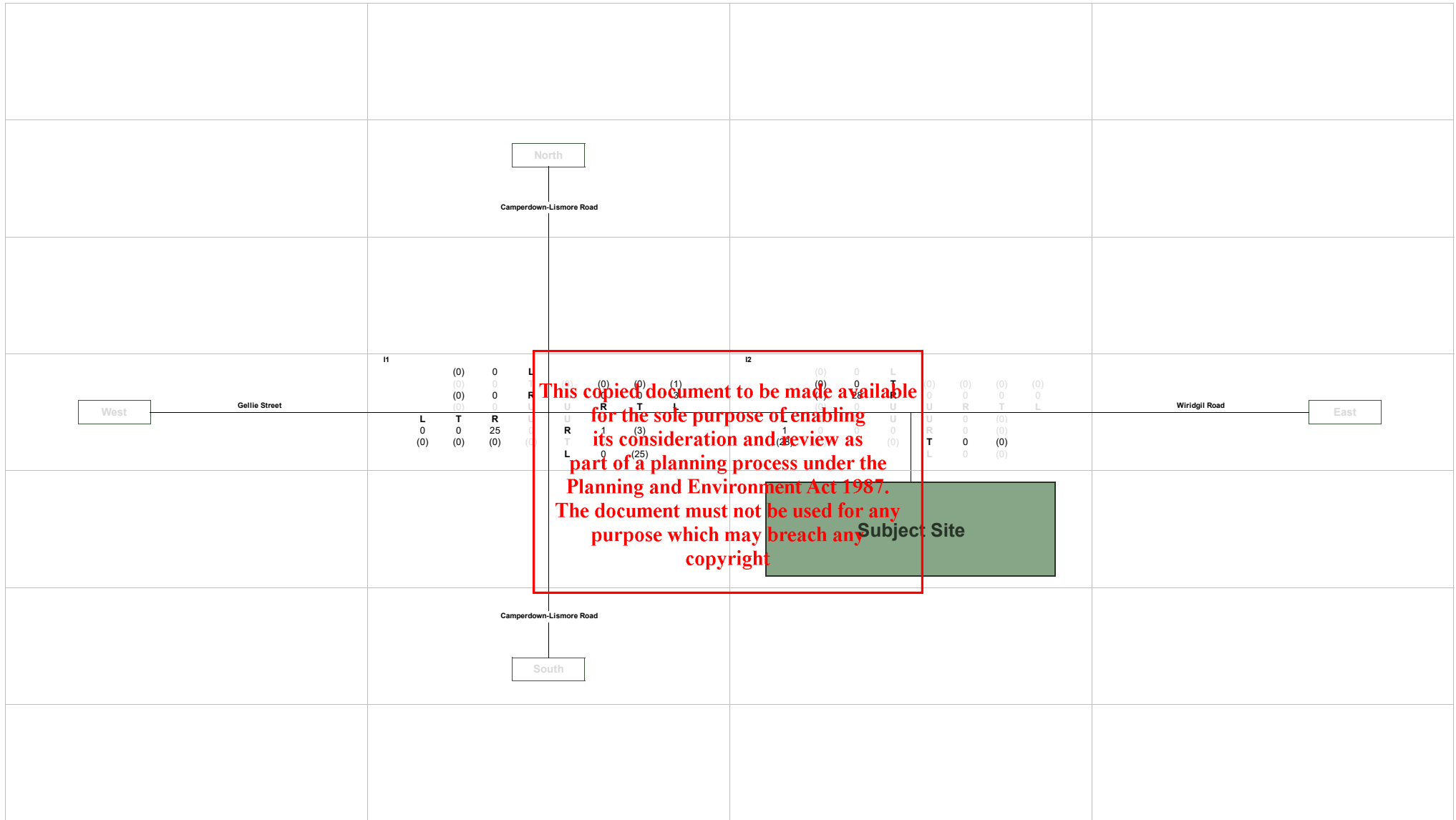
C2
2028 Background Traffic Volumes
 620.041535.00001
 Camperdown BESS

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PLAN**

L Left Turn
T Through
R Right Turn
U U-Turn

Legend
 00 Weekday AM Peak Hour Volumes
 (00) Weekday PM Peak Hour Volumes
Subject Site





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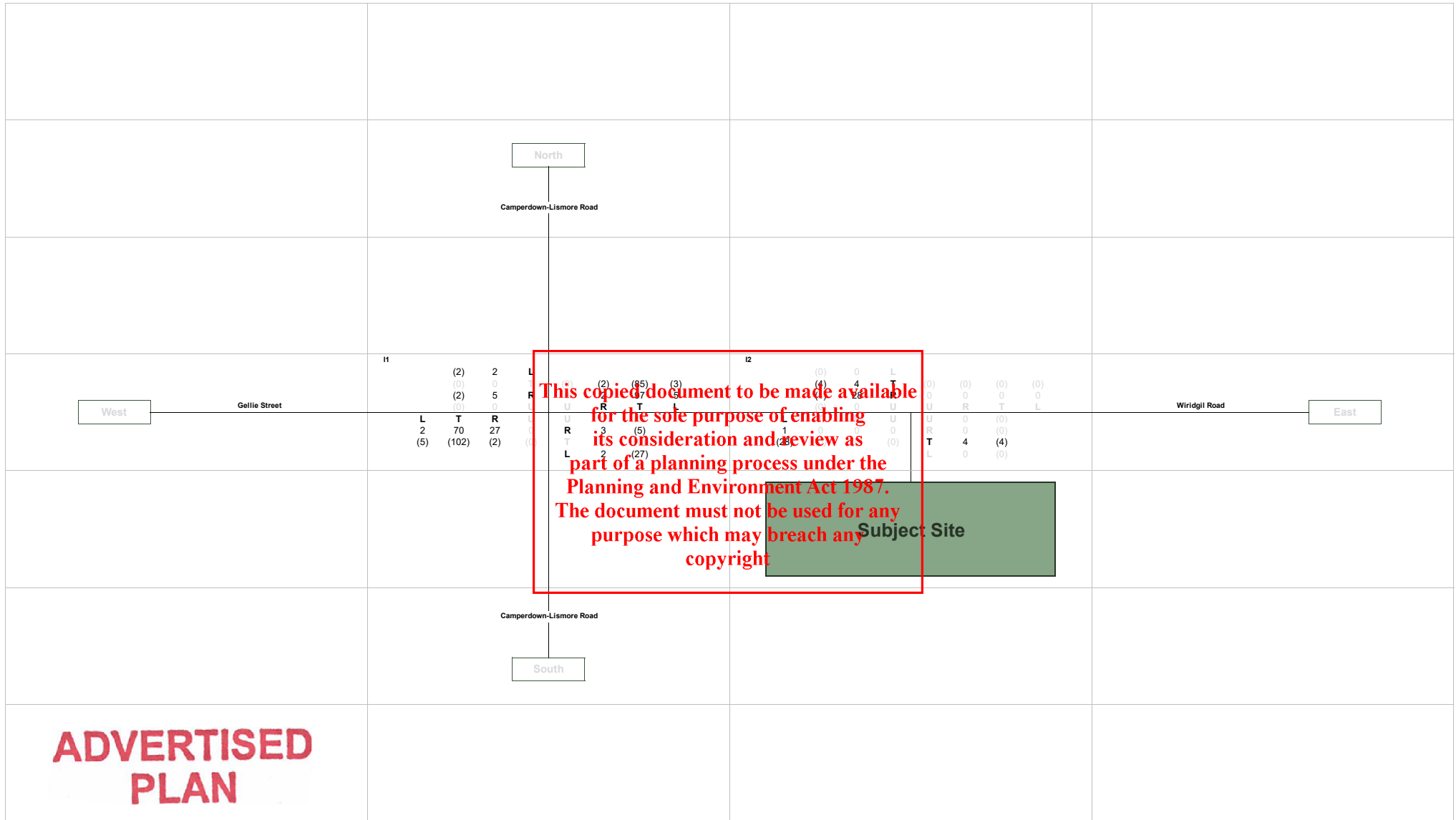
C3
Construction Phase Traffic Volumes
 620.041535.00001
 Camperdown BESS

**ADVERTISED
PLAN**

L Left Turn
 T Through
 R Right Turn
 U U-Turn

Legend
 00 Weekday AM Peak Hour Volumes
 (00) Weekday PM Peak Hour Volumes
 [Green Box] Subject Site





**ADVERTISED
PLAN**

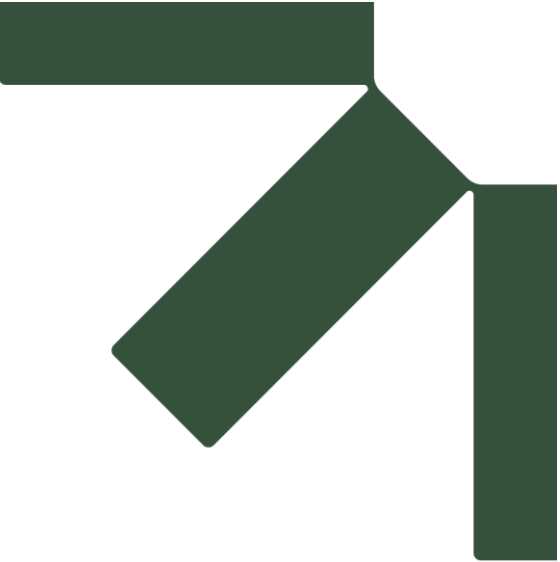


C4
2028 Background with Construction Traffic Volumes
 620.041535.00001
 Camperdown BESS

L Left Turn
 T Through
 R Right Turn
 U U-Turn

Legend
 00 Weekday AM Peak Hour Volumes
 (00) Weekday PM Peak Hour Volumes
 [Green Box] Subject Site





Appendix D SIDRA Outputs

Camperdown Battery Energy Storage System (BESS)

Traffic Impact Assessment

Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00015

8 May 2026

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PLAN**

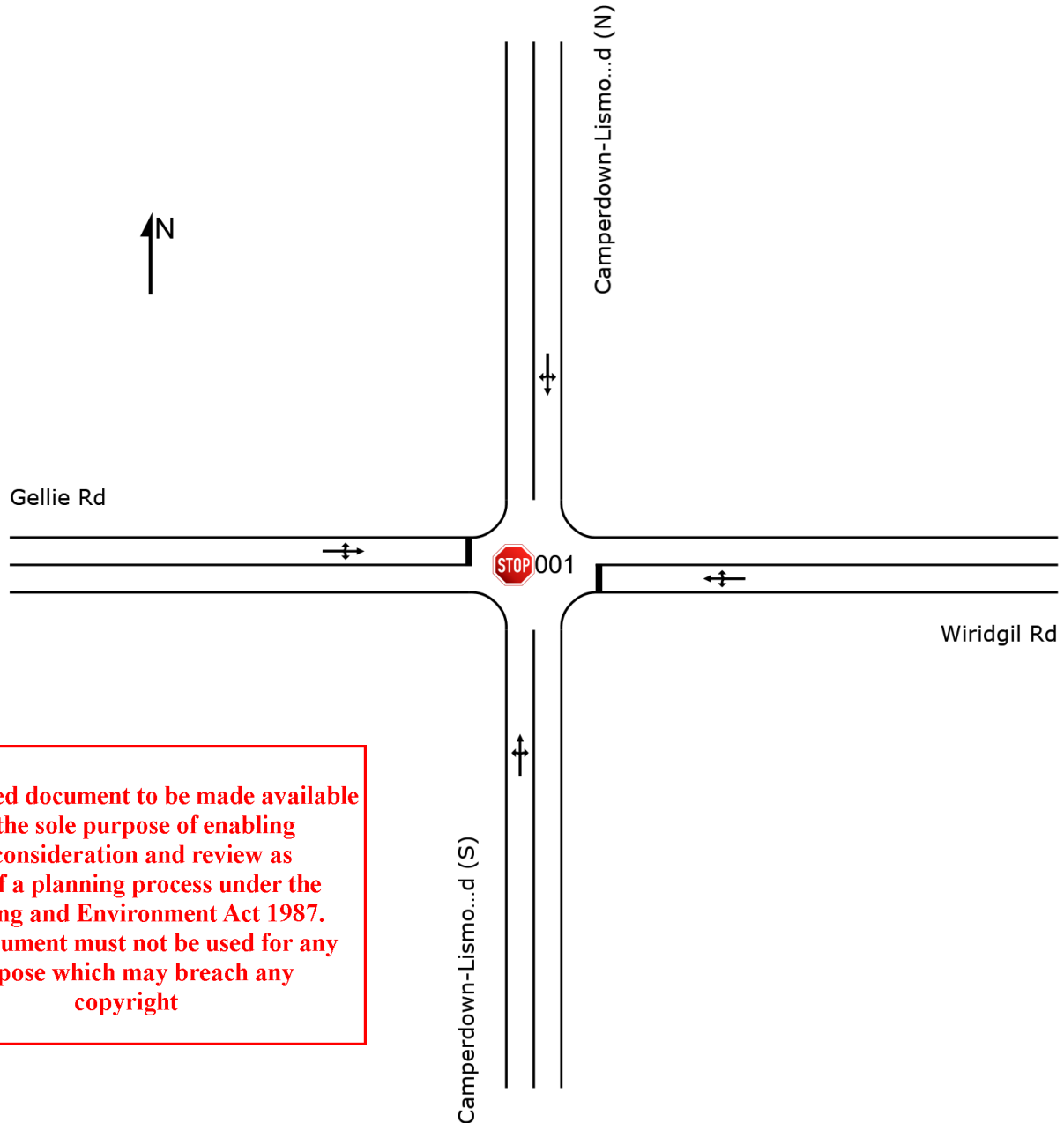
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SITE LAYOUT

 **Site: 001 [001 Camperdown-Lismore Road Int 2024 Survey
AM (Site Folder: Updated)]**

Camperdown-Lismore Road/ Wiridgil Road
Prepared by: DN
Reviewed by: TB
Site Category: Existing Conditions
Stop (Two-Way)

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



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**ADVERTISED
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MOVEMENT SUMMARY

 **Site: 001 [001 Camperdown-Lismore Road Int 2024 Survey AM (Site Folder: Updated)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Camperdown-Lismore Road/ Wiridgil Road
Prepared by: DN
Reviewed by: TB
Site Category: Existing Conditions
Stop (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: Camperdown-Lismore Rd (S)															
1	L2	All MCs	2	0.0	2	0.0	0.040	5.6	LOS A	0.0	0.1	0.02	0.04	0.02	57.1
2	T1	All MCs	67	15.0	67	15.0	0.040	0.0	LOS A	0.0	0.1	0.02	0.04	0.02	59.6
3	R2	All MCs	2	2.0	2	2.0	0.040	5.6	LOS A	0.0	0.1	0.02	0.04	0.02	56.7
Approach			72	14.2	72	14.2	0.040	0.3	NA	0.0	0.1	0.02	0.04	0.02	59.4
East: Wiridgil Rd															
4	L2	All MCs	2	2.0	2	2.0	0.005	8.4	LOS A	0.0	0.1	0.24	0.87	0.24	51.0
5	T1	All MCs	1	0.0	1	0.0	0.005	8.5	LOS A	0.0	0.1	0.24	0.87	0.24	51.1
6	R2	All MCs	2	2.0	2	2.0	0.005	8.5	LOS A	0.0	0.1	0.24	0.87	0.24	50.8
Approach			5	1.6	5	1.6	0.005	8.5	LOS A	0.0	0.1	0.24	0.87	0.24	50.9
North: Camperdown-Lismore Rd (N)															
7	L2	All MCs	2	2.0	2	2.0	0.055	5.6	LOS A	0.0	0.1	0.01	0.03	0.01	57.1
8	T1	All MCs	94	15.0	94	15.0	0.055	5.5	LOS A	0.0	0.1	0.01	0.03	0.01	59.7
9	R2	All MCs	2	0.0	2	0.0	0.055	5.5	LOS A	0.0	0.1	0.01	0.03	0.01	56.9
Approach			98	14.4	98	14.4	0.055	0.2	NA	0.0	0.1	0.01	0.03	0.01	59.6
West: Gellie Rd															
10	L2	All MCs	2	0.0	2	0.0	0.009	8.3	LOS A	0.0	0.2	0.24	0.87	0.24	51.1
11	T1	All MCs	1	0.0	1	0.0	0.009	8.5	LOS A	0.0	0.2	0.24	0.87	0.24	51.1
12	R2	All MCs	5	0.0	5	0.0	0.009	8.4	LOS A	0.0	0.2	0.24	0.87	0.24	50.9
Approach			8	0.0	8	0.0	0.009	8.4	LOS A	0.0	0.2	0.24	0.87	0.24	50.9
All Vehicles			183	13.3	183	13.3	0.055	0.9	NA	0.0	0.2	0.03	0.09	0.03	58.8

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.

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MOVEMENT SUMMARY

 **Site: 001 [001 Camperdown-Lismore Road Int 2024 Survey PM (Site Folder: Updated)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Camperdown-Lismore Road/ Wiridgil Road
Prepared by: DN
Reviewed by: TB
Site Category: Existing Conditions
Stop (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]	%				[Veh. veh	Dist] m				km/h
South: Camperdown-Lismore Rd (S)															
1	L2	All MCs	5	0.0	5	0.0	0.059	5.6	LOS A	0.0	0.1	0.01	0.04	0.01	57.0
2	T1	All MCs	98	15.0	98	15.0	0.059	0.0	LOS A	0.0	0.1	0.01	0.04	0.01	59.5
3	R2	All MCs	2	2.0	2	2.0	0.059	5.5	LOS A	0.0	0.1	0.01	0.04	0.01	56.6
Approach			105	14.0	105	14.0	0.059	0.4	NA	0.0	0.1	0.01	0.04	0.01	59.3
East: Wiridgil Rd															
4	L2	All MCs	2	2.0	2	2.0	0.005	8.4	LOS A	0.0	0.1	0.24	0.87	0.24	51.0
5	T1	All MCs	1	0.0	1	0.0	0.005	8.6	LOS A	0.0	0.1	0.24	0.87	0.24	51.1
6	R2	All MCs	2	2.0	2	2.0	0.005	8.6	LOS A	0.0	0.1	0.24	0.87	0.24	50.7
Approach			5	1.6	5	1.6	0.005	8.5	LOS A	0.0	0.1	0.24	0.87	0.24	50.9
North: Camperdown-Lismore Rd (N)															
7	L2	All MCs	2	2.0	2	2.0	0.049	5.6	LOS A	0.0	0.1	0.01	0.03	0.01	57.1
8	T1	All MCs	82	15.0	82	15.0	0.049	5.5	LOS A	0.0	0.1	0.01	0.03	0.01	59.6
9	R2	All MCs	2	0.0	2	0.0	0.049	5.5	LOS A	0.0	0.1	0.01	0.03	0.01	56.8
Approach			86	14.3	86	14.3	0.049	0.3	NA	0.0	0.1	0.01	0.03	0.01	59.5
West: Gellie Rd															
10	L2	All MCs	2	0.0	2	0.0	0.005	8.4	LOS A	0.0	0.1	0.25	0.87	0.25	51.1
11	T1	All MCs	1	0.0	1	0.0	0.005	8.6	LOS A	0.0	0.1	0.25	0.87	0.25	51.1
12	R2	All MCs	2	0.0	2	0.0	0.005	8.5	LOS A	0.0	0.1	0.25	0.87	0.25	50.8
Approach			5	0.0	5	0.0	0.005	8.5	LOS A	0.0	0.1	0.25	0.87	0.25	51.0
All Vehicles			202	13.4	202	13.4	0.059	0.8	NA	0.0	0.1	0.03	0.08	0.03	58.9

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.

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SITE LAYOUT

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Camperdown-Lismore Road/ Wiridgil Road

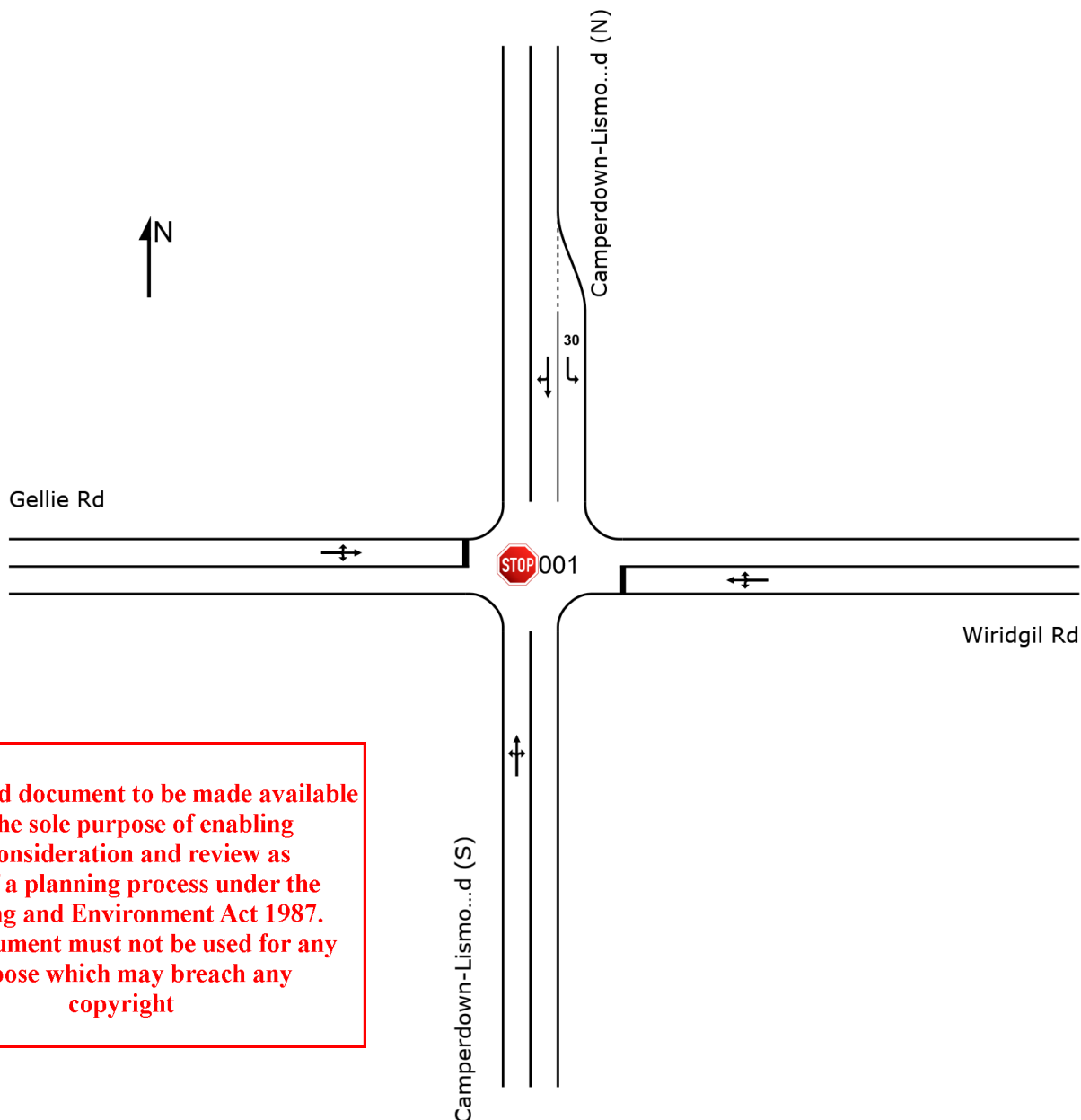
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Reviewed by: TB

Site Category: Existing Conditions

Stop (Two-Way)

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.041535.00001 Camperdown BESS - Phase 1 - Se\08 TA\02 Analysis\2026 04 - Updated assessment\2026 04 - SIDRA\620.041535 Camperdown SIDRA 20260429.sip9

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MOVEMENT SUMMARY

 **Site: 001 [001 Camperdown-Lismore Road Int 2028 BG+DEV AM (Site Folder: Updated)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Camperdown-Lismore Road/ Wiridgil Road
Prepared by: DN
Reviewed by: TB
Site Category: Existing Conditions
Stop (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]	%				[Veh. veh	Dist] m				
veh/h															
%															
v/c															
sec															
km/h															
South: Camperdown-Lismore Rd (S)															
1	L2	All MCs	2	0.0	2	0.0	0.065	6.0	LOS A	0.2	1.5	0.14	0.21	0.14	55.4
2	T1	All MCs	74	15.0	74	15.0	0.065	0.2	LOS A	0.2	1.5	0.14	0.21	0.14	57.8
3	R2	All MCs	28	3.7	28	3.7	0.065	6.0	LOS A	0.2	1.5	0.14	0.21	0.14	55.0
Approach			104	11.6	104	11.6	0.065	1.9	NA	0.2	1.5	0.14	0.21	0.14	56.9
East: Wiridgil Rd															
4	L2	All MCs	2	2.0	2	2.0	0.008	8.5	LOS A	0.0	0.3	0.33	0.85	0.33	50.4
5	T1	All MCs	1	0.0	1	0.0	0.008	9.2	LOS A	0.0	0.3	0.33	0.85	0.33	50.4
6	R2	All MCs	3	33.3	3	33.3	0.008	11.8	LOS B	0.0	0.3	0.33	0.85	0.33	49.1
Approach			6	17.3	6	17.3	0.008	10.3	LOS B	0.0	0.3	0.33	0.85	0.33	49.7
North: Camperdown-Lismore Rd (N)															
7	L2	All MCs	5	60.0	5	60.0	0.004	6.2	LOS A	0.0	0.0	0.00	0.57	0.00	50.5
8	T1	All MCs	102	15.0	102	15.0	0.059	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	59.8
9	R2	All MCs	2	0.0	2	0.0	0.059	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.0
Approach			109	16.9	109	16.9	0.059	0.4	NA	0.0	0.1	0.01	0.04	0.01	59.2
West: Gellie Rd															
10	L2	All MCs	2	0.0	2	0.0	0.010	8.3	LOS A	0.0	0.3	0.31	0.84	0.31	50.8
11	T1	All MCs	1	0.0	1	0.0	0.010	9.2	LOS A	0.0	0.3	0.31	0.84	0.31	50.8
12	R2	All MCs	5	0.0	5	0.0	0.010	9.2	LOS A	0.0	0.3	0.31	0.84	0.31	50.5
Approach			8	0.0	8	0.0	0.010	9.0	LOS A	0.0	0.3	0.31	0.84	0.31	50.6
All Vehicles			228	13.9	228	13.9	0.065	1.7	NA	0.2	1.5	0.09	0.17	0.09	57.5

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.

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MOVEMENT SUMMARY

 **Site: 001 [001 Camperdown-Lismore Road Int 2028 BG+DEV PM (Site Folder: Updated)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Camperdown-Lismore Road/ Wiridgil Road
Prepared by: DN
Reviewed by: TB
Site Category: Existing Conditions
Stop (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]	%				[Veh. veh	Dist] m				km/h
South: Camperdown-Lismore Rd (S)															
1	L2	All MCs	5	0.0	5	0.0	0.065	5.6	LOS A	0.0	0.2	0.01	0.04	0.01	57.1
2	T1	All MCs	107	15.0	107	15.0	0.065	0.0	LOS A	0.0	0.2	0.01	0.04	0.01	59.5
3	R2	All MCs	2	2.0	2	2.0	0.065	5.6	LOS A	0.0	0.2	0.01	0.04	0.01	56.6
Approach			115	14.1	115	14.1	0.065	0.4	NA	0.0	0.2	0.01	0.04	0.01	59.4
East: Wiridgil Rd															
4	L2	All MCs	28	10.0	28	10.0	0.035	8.8	LOS A	0.1	1.1	0.24	0.89	0.24	50.4
5	T1	All MCs	1	0.0	1	0.0	0.035	9.3	LOS A	0.1	1.1	0.24	0.89	0.24	50.8
6	R2	All MCs	5	60.0	5	60.0	0.035	13.7	LOS B	0.1	1.1	0.24	0.89	0.24	48.4
Approach			35	17.3	35	17.3	0.035	9.8	LOS A	0.1	1.1	0.24	0.89	0.24	50.1
North: Camperdown-Lismore Rd (N)															
7	L2	All MCs	3	33.3	3	33.3	0.002	5.9	LOS A	0.0	0.0	0.00	0.57	0.00	51.5
8	T1	All MCs	89	15.0	89	15.0	0.052	5.5	LOS A	0.0	0.1	0.01	0.02	0.01	59.8
9	R2	All MCs	2	0.0	2	0.0	0.052	5.5	LOS A	0.0	0.1	0.01	0.02	0.01	57.0
Approach			95	15.3	95	15.3	0.052	6.3	NA	0.0	0.1	0.01	0.03	0.01	59.4
West: Gellie Rd															
10	L2	All MCs	2	0.0	2	0.0	0.006	8.4	LOS A	0.0	0.2	0.31	0.83	0.31	50.8
11	T1	All MCs	1	0.0	1	0.0	0.006	9.2	LOS A	0.0	0.2	0.31	0.83	0.31	50.8
12	R2	All MCs	2	0.0	2	0.0	0.006	9.4	LOS A	0.0	0.2	0.31	0.83	0.31	50.6
Approach			5	0.0	5	0.0	0.006	9.0	LOS A	0.0	0.2	0.31	0.83	0.31	50.7
All Vehicles			249	14.7	249	14.7	0.065	1.8	NA	0.1	1.1	0.05	0.17	0.05	57.7

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.

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SITE LAYOUT

▽ Site: 002 [002 Site Access 2028 BG+DEV AM (Site Folder: Updated)]

Wiridgil Road/ Site Access

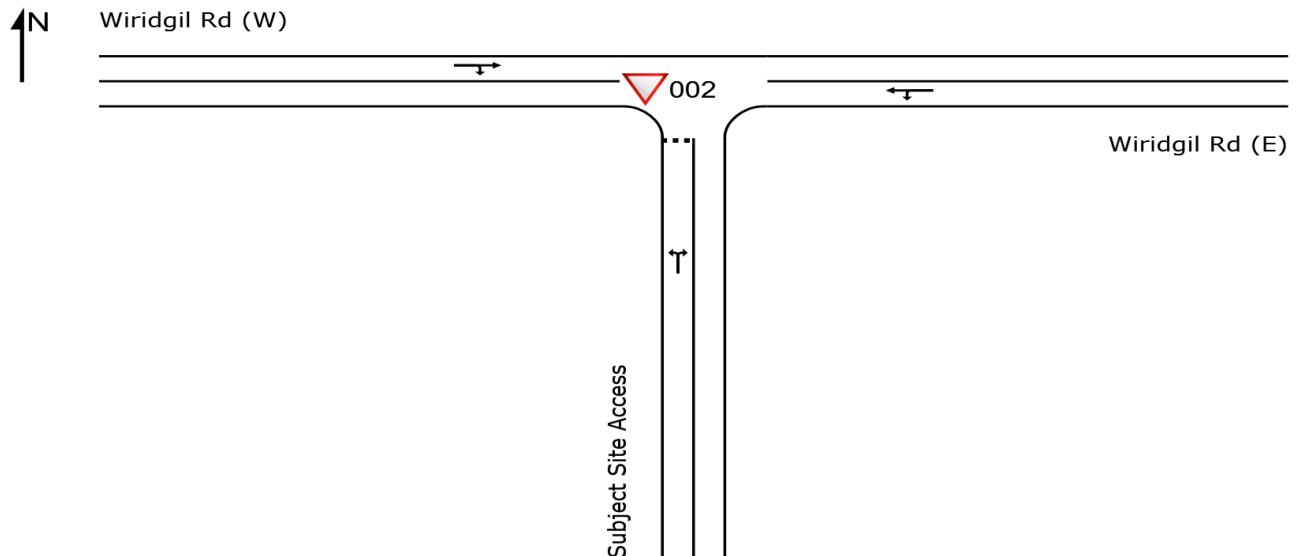
Prepared by: DN

Reviewed by: TB

Site Category: Proposed Design

Give-Way (Two-Way)

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



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MOVEMENT SUMMARY

▼ Site: 002 [002 Site Access 2028 BG+DEV AM (Site Folder: Updated)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Wiridgil Road/ Site Access
Prepared by: DN
Reviewed by: TB
Site Category: Proposed Design
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. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Subject Site Access															
1	L2	All MCs	1	100.0	1	100.0	0.002	6.7	LOS A	0.0	0.1	0.04	0.56	0.04	48.5
3	R2	All MCs	1	0.0	1	0.0	0.002	5.5	LOS A	0.0	0.1	0.04	0.56	0.04	52.1
Approach			2	50.0	2	50.0	0.002	6.1	LOS A	0.0	0.1	0.04	0.56	0.04	50.2
East: Wiridgil Rd (E)															
4	L2	All MCs	1	0.0	1	0.0	0.003	5.5	LOS A	0.0	0.0	0.00	0.12	0.00	56.5
5	T1	All MCs	4	2.0	4	2.0	0.003	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	58.9
Approach			5	1.6	5	1.6	0.003	1.1	NA	0.0	0.0	0.00	0.12	0.00	58.4
West: Wiridgil Rd (W)															
11	T1	All MCs	4	2.0	4	2.0	0.020	0.0	LOS A	0.1	0.7	0.04	0.51	0.04	55.6
12	R2	All MCs	29	14.3	29	14.3	0.020	5.6	LOS A	0.1	0.7	0.04	0.51	0.04	52.5
Approach			34	12.8	34	12.8	0.020	4.9	NA	0.1	0.7	0.04	0.51	0.04	52.9
All Vehicles			41	13.2	41	13.2	0.020	4.5	NA	0.1	0.7	0.03	0.47	0.03	53.4

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.

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MOVEMENT SUMMARY

▼ Site: 002 [002 Site Access 2028 BG+DEV PM (Site Folder: Updated)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Wiridgil Road/ Site Access
Prepared by: DN
Reviewed by: TB
Site Category: Proposed Design
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. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Subject Site Access															
1	L2	All MCs	29	14.3	29	14.3	0.020	5.7	LOS A	0.1	0.6	0.03	0.56	0.03	52.2
3	R2	All MCs	1	0.0	1	0.0	0.020	5.5	LOS A	0.1	0.6	0.03	0.56	0.03	52.5
Approach			31	13.8	31	13.8	0.020	5.7	LOS A	0.1	0.6	0.03	0.56	0.03	52.2
East: Wiridgil Rd (E)															
4	L2	All MCs	1	0.0	1	0.0	0.003	5.5	LOS A	0.0	0.0	0.00	0.12	0.00	56.5
5	T1	All MCs	4	2.0	4	2.0	0.003	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	58.9
Approach			5	1.6	5	1.6	0.003	1.1	NA	0.0	0.0	0.00	0.12	0.00	58.4
West: Wiridgil Rd (W)															
11	T1	All MCs	4	2.0	4	2.0	0.003	0.0	LOS A	0.0	0.1	0.02	0.12	0.02	58.6
12	R2	All MCs	1	100.0	1	100.0	0.003	6.7	LOS A	0.0	0.1	0.02	0.12	0.02	51.2
Approach			5	21.6	5	21.6	0.003	1.3	NA	0.0	0.1	0.02	0.12	0.02	57.0
All Vehicles			41	13.2	41	13.2	0.020	4.6	NA	0.1	0.6	0.03	0.45	0.03	53.5

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.

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Appendix E Drivers' Code of Conduct

Camperdown Battery Energy Storage System (BESS)

Traffic Impact Assessment

Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00015

8 May 2026

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DRIVERS CODE OF CONDUCT

All drivers must abide by the following requirements:

1. Be responsible and accountable for their own actions while travelling to/ from the Subject Site;
2. Must have a current driver's license for the class of vehicle they are operating;
3. Read this document and sign below that they acknowledge the requirements set out by management;
4. Undertake a site induction carried out by an authorised Camperdown BESS Pty Ltd staff member or suitably qualified person under the direction of the site manager;
5. Heavy vehicle drivers are to coordinate time of access into the site with on-site management which should aim to reduce travelling in the peak hours and therefore minimise impacts on the external road network;
6. All drivers are to adhere to the routes they are instructed to follow which are developed by the management with a view to prioritise the use of arterial roads and avoid the use of local streets;
7. Always display professional road courtesy towards other road users;
8. Appropriate signage is to be displayed on all trucks used to transport product from the development so that they can be readily identified by road users;
9. Secure all loads, with drawbars, tailgates and side combings cleaned down prior to leaving site;
10. Comply with all traffic and road legislations and drive within the legal speed limit and drive to the road conditions;
11. Trucks slowing down when approaching the residential area are not to use engine or compression braking systems except where required for safety reasons and turn off vehicles when not in use;
12. Do not queue on public roads unless an approval has been obtained from the local and state authorities;
13. Under any circumstance, never drive under the influence of alcohol and other drugs, inclusive of the prescriptions and over the counter medication that possibly could cause drowsiness;
14. Avoid any distractions while driving such as any form of interaction with their mobile phones. Adjustments to mirrors and vehicle stereo are to be done before taking off;
15. Report all near-misses, crashes, community complaints and vehicle defects to the management;
16. Keep loads covered at all times and do not leave the site if weight is in excess of the approved GVM;
17. Remain in the truck cabin whilst being loaded unless directed otherwise by the loading driver;
18. Do not use UHF radios inappropriately and unnecessarily;
19. Remain within the truck cabin unless instructed by the ground staff;
20. Wear steel cap boots and high visibility clothing at all times;
21. Acknowledge that all site mobile equipment will have right of way at all times;
22. Acknowledge that there will be regular alcohol and drug detection tests on the site.

NOTE: Non-compliance with any directive provided above, either on or off site, may lead to refusal of future employment or contract opportunities for the driver and vehicle owner.

Driver Name:

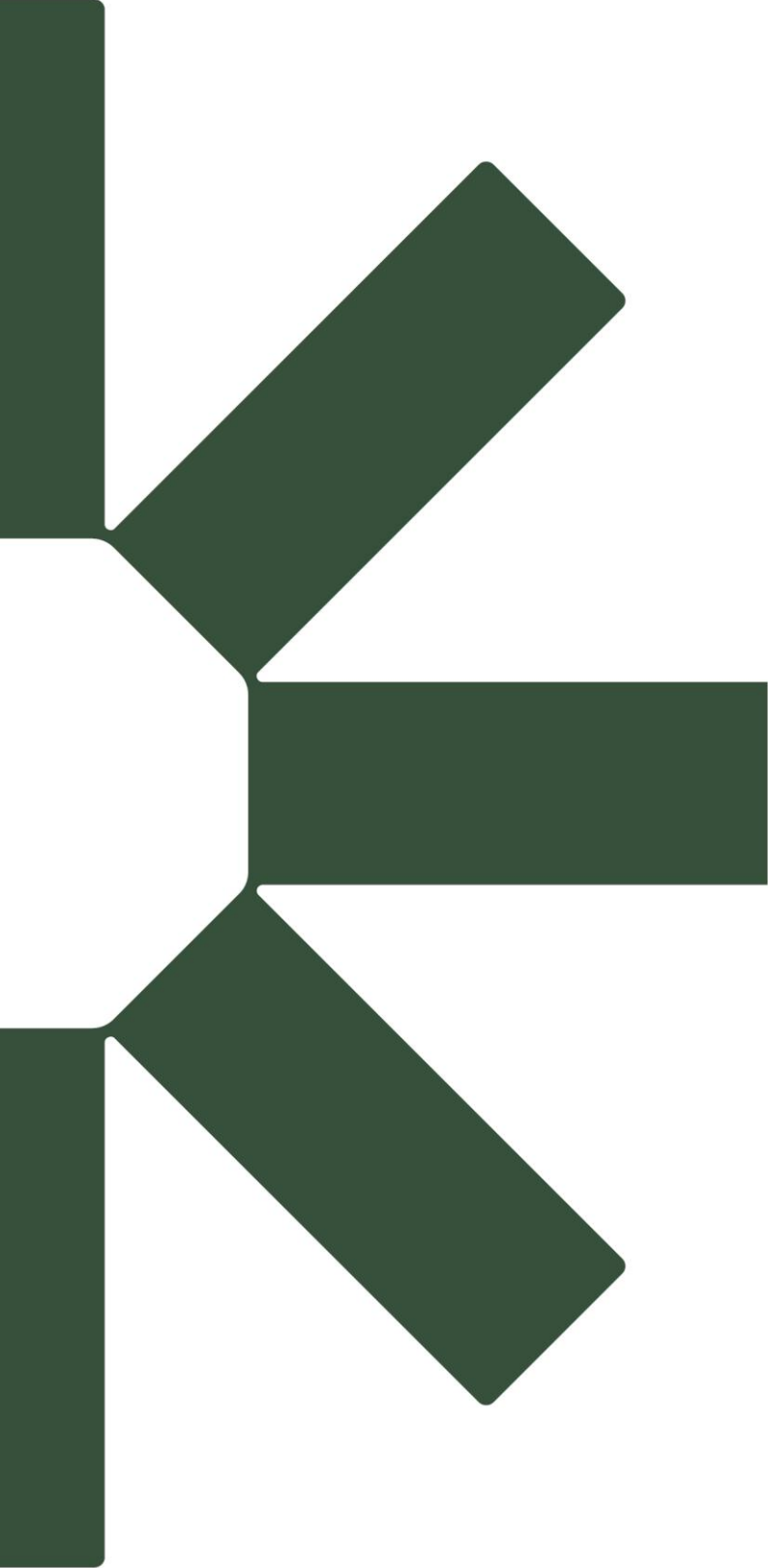
Vehicle Owner Company:

Driver Signature on behalf of the Vehicle Owner Company:

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