Proposed Solar Farm

4785 Western Highway, Ledcourt

Traffic Impact Assessment Report

Client:

ACEnergy Pty Ltd

Project No. 190764

Final Report Rev D – 20/07/2020

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EXECUTIVE SUMMARY

Trafficworks has been engaged by ACEnergy Pty Ltd to undertake a Traffic Impact Assessment (TIA) for a proposed solar farm at Ledcourt (approximately 16 km west of Stawell).

The proposed development involves constructing a series of solar panel arrays, a power station and inverter on approximately 7 ha of currently cropping and grazing land at 4785 Western Highway (see Overall Layout plan in Attachment A).

Based on the information provided it is understood that the peak traffic generation from the development will occur during the twelve-week construction phase. Therefore, the TIA's primary focus is to determine the traffic impacts of the construction phase of the development.

It has been identified that the proposed development would not adversely affect traffic conditions on the adjacent road network if the recommendations in this report are implemented.

A summary for the site, the proposed development and recommendations resulting from this assessment are shown in Table 1 below.

Table 1: Development Proposals and Recommended Actions

Address	4785 Western Highway, Ledcourt
Existing Zoning	Farming Zone (FZ)
Proposed Development	Solar farm
Road Network	Western Highway • Default 100km/h rural speed limit • carries estimated <4,300 vehicles per day (with 46% CVs)
Recommendation	• **Recommendation 1:** that detailed design of the driveway include the DoT requirements as set out in VicRoads standard drawing SD 2065. • **Recommendation 2:** that a traffic management plan be prepared covering the key delivery phase, to include the use of a VMS on the southeast approach to the site access.

Referenced Documents

References used in the preparation of this report include the following:

- *Northern Grampians Shire Council Planning Scheme*
- Local Government Infrastructure Design Association's *Infrastructure Design Manual (IDM),* Version 5.20 released March 2019
- *RTA Guide to Traffic Generating Developments – Version 2.2A 2002*
- Austroads *Guide to Road Design Part 4: Intersections and Crossings: General*
- Austroads *Guide to Road Design, Part 4A – Unsignalised and Signalised Intersections* (referenced as AGRD4A in this report)
- Austroads *Guide to Traffic Management, Part 6 – Intersections, Interchanges and Crossings* (referenced as AGTM6 in this report).

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1. INTRODUCTION

Trafficworks has been engaged by ACEnergy Pty Ltd to undertake a Traffic Impact Assessment (TIA) for a proposed solar farm at 4785 Western Highway, Ledcourt.

The subject site, and all surrounding land, is located within a Farming Zone (FZ) under the Northern Grampians Shire Council Planning Scheme. The site is within a property abutting the south side of the Western Highway that is located in a Road Zone Category 1 (RDZ1).

Based on the information provided it is understood that the peak traffic generation from the development is likely to occur during the twelve-week construction phase. Therefore, the TIA has been carried out primarily focussing on the impacts of the construction phase of the development.

The TIA was undertaken to:

- estimate the traffic generation and distribution to / from the proposed development
- determine the suitability of the existing access
- determine the likely traffic impacts on the existing road network
- identify any necessary mitigation works.

2. EXISTING CONDITIONS

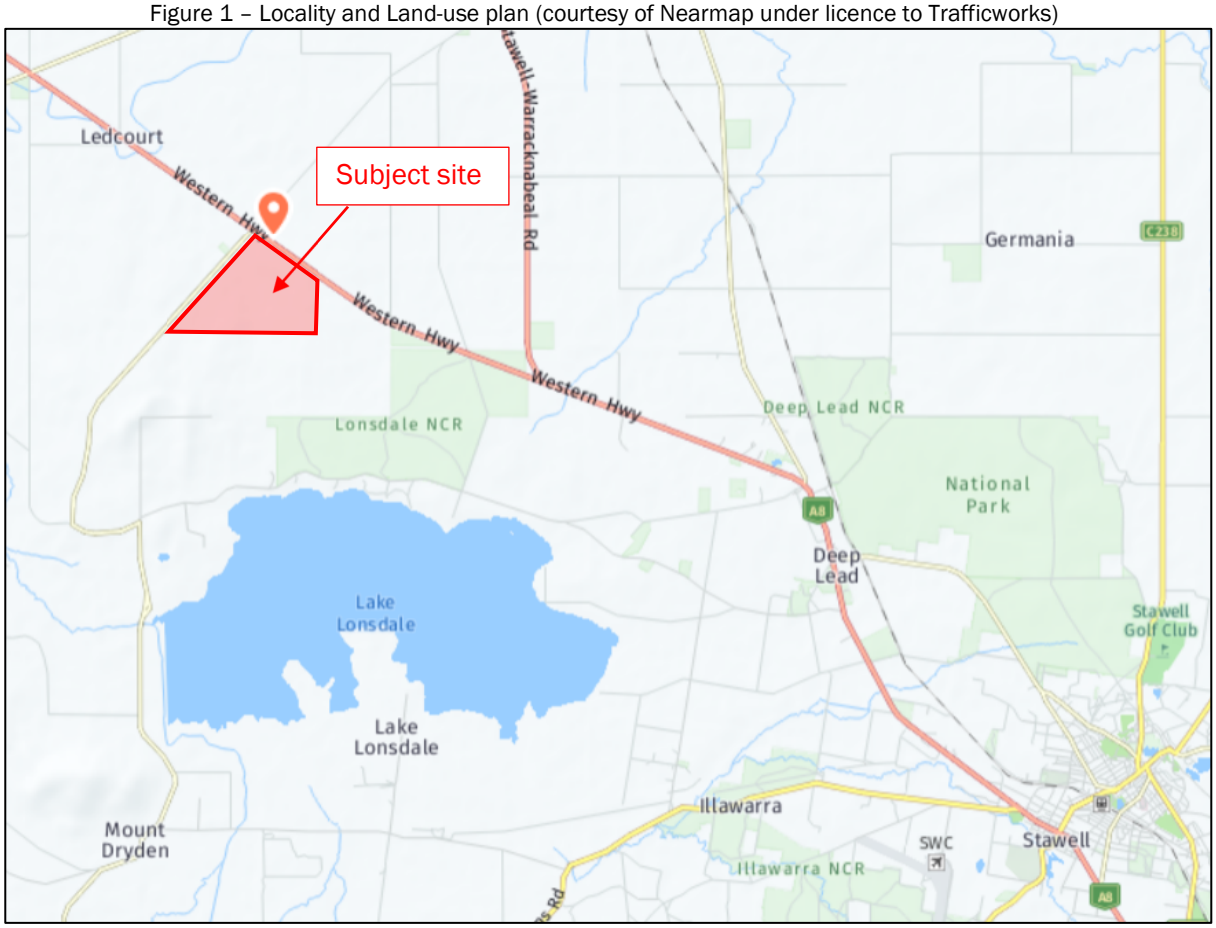
2.1 Subject site

The subject site at 4785 Western Highway, Ledcourt, and all adjacent land, is located within a Farming Zone (FZ) under the Northern Grampians Shire Council Planning Scheme. The site is within a property located abutting the south side of the Western Highway that is located in a Road Zone Category 1 (RDZ1).

The subject property contains an existing dwelling and agricultural buildings at the southwest end of the existing driveway, with a direct connection to the Western Highway that is also proposed to be the construction access for the facility.

The location of the site and its surrounding road network is shown in Figure 1.

Figure 1 – Locality and Land-use plan (courtesy of Nearmap under licence to Trafficworks)



2.2 Road network

The Western Highway is an arterial road managed by Regional Roads Victoria (RRV, now part of the Department of Transport). It is generally aligned in a northwest-southeast direction and provides connection between Ararat and Stawell to the southeast and Horsham to the northwest.

Near the subject site the Western Highway is generally configured as a two-way, three-lane road with a single 3.7 m wide northwest bound traffic lane and two southeast bound lanes that provide a passing/climbing lane comprising two 3.5 m wide traffic lanes (see Photos 1 & 2). New wire rope safety barriers (WRSB) along the southwestern edge of the highway formation has been accompanied by 3.3 m wide sealed shoulders to the northwest and southeast of the subject property access. However, no shoulder improvements have been implemented for a distance of 110 m southeast (at the approach to) the subject property driveway or 10 m northwest (departure from) the driveway, where the pre-existing shoulder configuration has been retained to provide 0.8 m seal widening outside the traffic lane and a 2.5 m wide gravel shoulder (see Photos 3 & 4).

The highway is subject to the rural default 100 km/h speed limit.

Photo 1: View to the southeast at the subject property driveway showing lane configuration of Western Highway.

Photo 2 – View to the northwest at the subject property driveway showing lane configuration of Western Highway.

Photo 3 – View to the northwest showing gap in shoulder sealing between end of WRSB and property entrance.

Photo 4 – View to the southeast showing gap in shoulder sealing downstream from the property entrance.

2.3 Traffic volumes

The *Department of Transport (DoT) Open Data Portal* details traffic volumes for many of the arterial roads in Victoria. Scrutiny of these records indicates that 2020 traffic volume estimates along the Western Highway at Deep Lead (10 km southeast of the subject site) were 4,600 vehicles per day (vpd) (2,300 vpd southeast bound and 2,300 vpd northwest bound), with a heavy vehicle content

of around 46% of the daily traffic volumes. The very high truck content is noted and will inform turn treatments at the site access. The 10-year trend in traffic growth along this section of the Western Highway, as shown in the DoT data, is 1% per annum compound.

Peak hour traffic volumes are assumed to be 10% of the average daily traffic volumes, thereby producing current-day peaks of 230 vph southeast and northwest-bound.

2.4 Crash history

The *DoT Open Data Portal* details all injury crashes on roads throughout Victoria. Scrutiny of these records indicates that eight casualty crashes have occurred on the highway within 5 km of the site during the most recent five-year period. Details of these crashes are as follows:

- 22/08/2013 at 2:40am: left off carriageway crash (DCA 171) involving a northwest-bound truck 700 m west of Nitschke Road at night in wet conditions and resulting in serious injuries
- 20/05/2014 at 2:05pm: head-on collision (DCA 120) involving two cars at Phillips Road and resulting in serious injuries
- 29/07/2015 at 11:55pm: struck animal (DCA 167) involving a northwest-bound truck 184 m southeast of Howard Road in darkness and resulting in other (minor) injuries
- 7/12/2015 at 7;15 am: head-on collision (DCA 120) involving two cars 380 m west of Lake Road and resulting in other (minor) injuries
- 19/09/2016 at 3:10pm: head-on collision (DCA 120) involving a car and a truck 250 m west of Nitschke Road involving fatal injuries
- 11/12/2016 at 2:40pm: left off carriageway crash (DCA 171) involving a northwest-bound car 780 m northwest of Rea Road and resulting in other (minor) injuries
- 28/12/2016 at10:45am: head-on collision (DCA 120) involving two light trucks 130 m west of Nitschke Road in wet conditions involving serious injuries
- 21/06/2018 at 8:54pm: left off carriageway crash (DCA 171) involving a northwest-bound utility 580 m northwest of Howard Road in darkness and resulting in serious injuries

The dominant crash types along this section of highway are head-on collisions (4 No.) and run-off-road crashes (3 No.), with three occurring at night and two in the wet. It is noted that none involved access to private property and, assuming the recommendations in this report are implemented, the highway crash history will have no bearing on the subject development.

3 PROPOSED DEVELOPMENT

3.1 Development summary

The proposed development at 4785 Western Highway, Ledcourt involves constructing a solar farm comprising solar panel array units, a power station and inverter, on approximately 7 ha of currently vacant pasture land (see Overall Layout plan in Attachment A).

The proposed facility is remotely operated and will not be manned, requiring only sporadic ongoing attendance by maintenance staff. This infrequent access is proposed via the current driveway to No. 4785 (refer to Photo 5).

Based on the information provided the peak traffic generation from the development will occur during the seventeen-week construction phase. Therefore, the TIA's primary focus is on assessing impacts during the construction phase of the development. This more intensive construction access to the site is intended to be provided via the current domestic driveway for No. 4785.

Photo 5 - The existing farm driveway to No. 4785 looking south across the Western Highway.

3.2 Construction

On-site construction for the proposed solar farm is largely limited to the preparation of footings, delivery of a prefabricated inverter, construction and fitting of the power station, delivery of solar panels, assembly and connection of components. For the most part equipment and materials will be transported to the site via light rigid trucks. Delivery of the power station and inverter will also be by rigid trucks and not require access to the site by semi-trailers or B-Doubles.

The total construction period is estimated to be confined to 17 weeks (see Table 2).

3.3 Traffic generation

Typically, the traffic generation for new developments is estimated using the traffic generation rates provided in the *RTA Guide to Traffic Generating Developments – Version 2.2A 2002.* However, traffic generation rates for this type of facility are not covered in the RTA Guide.

Therefore, the traffic generation to/from the site for the construction phase of the development was estimated empirically to establish the likely peak traffic generation rates using the information provided by the client in Table 2.

3.3.1 Construction phase traffic volumes

Table 2 shows the construction and delivery schedule.

Table 2 – Construction and delivery schedule

Light vehicle	Construction period (weeks)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Site Mobilisation and & Demobolisation	20																10
Civil works - Hardstand, fence and drainage	10	10	10														
Major materials delivery - tracker arrays				20	20	20	20	20	20	20	20	20	20				
PV panel installation				20	20	20	20	20	20	20	20	20	20				
Inverter and HV switchgear installation				10	10	10	10	10	10	4	10	10	10				
Commissioning														20	20	20	20
Management/supervisory	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total light vehicle (per week)	40	20	20	60	60	60	60	60	60	54	60	60	60	30	30	30	40
Total light vehicle (per day)	8	4	4	11	11	11	11	11	11	10	11	11	11	6	6	6	8

Heavy vehicle	Construction period (weeks)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Site Mobilisation and & Demobolisation	3																3
Civil works - Hardstand, fence and drainage	3	0	3														
Major materials delivery - tracker arrays				5	5	5	5	5	5	5	5						
PV panel installation				6	6	6	6	6	6	6	6	6	6				
Electrical installation				3	3	3	3	3	3	3							
Inverter and HV switchgear installation													1				
Commissioning																	
Management/supervisory																	
Total Heavy vehicle (per week)	6	0	3	14	14	14	14	14	14	14	11	6	7	0	0	0	3
Total heavy vehicle (per day)	2	0	1	3	3	3	3	3	3	3	2	2	2	0	0	0	1

Note: The daily figure is calculated by dividing the total monthly vehicles by 4.3 (average weeks per month) and 5.5 (average days per week – i.e. Mon to Fri plus half day Sat operation).

Based on the details in Table 2, the peak vehicle traffic generation is likely to occur during weeks 3 and 4 of the construction phase, representing major material delivery and commencement of panel installation. This is when a total peak traffic generation, during weeks 4 - 11, is expected to involve access to the site by 60 light vehicles and 14 heavy vehicles. As entry and exit movements are counted as separate trips, this equates to average daily volumes of 28 vehicle trips (vpd) ([60 + 14] x 2 trips / 5.5 days).

Assuming the construction work will be undertaken during normal working hours of the day, it is anticipated that up to two light vehicles will access the site during the morning peak hour and depart during the evening peak hour, with the heavy vehicles making four entry movements and four departure movements throughout the working day (averaging one trip per hour).

As noted, the heavy vehicles accessing the site are restricted to rigid trucks only.

3.3.2 Operational phase traffic volumes

The proposed solar farm will have remote monitoring in real-time, allowing for constant surveillance and monitoring of the facility without the requirement for staffing on site.

The compound contains key infrastructure that requires a high degree of security. Upon identification of any potential issues, action can be taken indirectly from the control centre or directly through the use of chosen contractors to visit the site.

After completion of construction, there is expected to be a need for up to two light vehicles to attend the site every six months for ongoing general maintenance purposes.

Conclusion 1: The peak traffic generation by the development is likely to occur during weeks 4 to 11 of the construction phase of the development and involve:

- Up to two entries and two departures by light vehicles during the morning and evening peaks respectively
- 3 entries and 3 departures by heavy vehicles, spread throughout the day, with an average of one trip per hour. The heavy vehicles accessing the site are restricted to rigid trucks.

Operational traffic is expected to comprise two light vehicle trips every six months.

3.4 Traffic distribution

The tradesmen working on the site are likely to originate from Stawell (17 km to the southeast) with the possibility of some from Horsham (45 km to the northwest). Based on the advice provided by the client, it has been assumed that 100% of the light vehicle traffic will access the site to / from the southeast. Furthermore, it has been assumed that 100% of the heavy vehicle traffic will be accessing the site to / from the southeast.

It has been assumed that, during the construction phase, 95% of the light vehicles will be entering the site and 5% will be leaving the site the AM peak; and one of the heavy vehicle will be entering the site at that time (none departing). During the PM peak 5% of the light vehicles will be entering the site and 95% will be leaving the site; and one heavy vehicle will depart the site (none entering).

3.5 Traffic volumes

It is understood that the proposed solar farm will be built during 2020. From Section 2.3, the anticipated highway traffic volumes during this period are:

- Southeast-bound: 2,300 vpd or 230 vph in the peak periods
- Northwest-bound: 2,300 vpd or 230 vph in the peak periods.

Turning construction traffic from Western Highway into the site during the AM peak (critical for determining the impact on highway through traffic) are:

- right turns from northwest: 0 vph
- left turns from southeast: 2 vph (light) + 1 vph (heavy) = 3 vph.

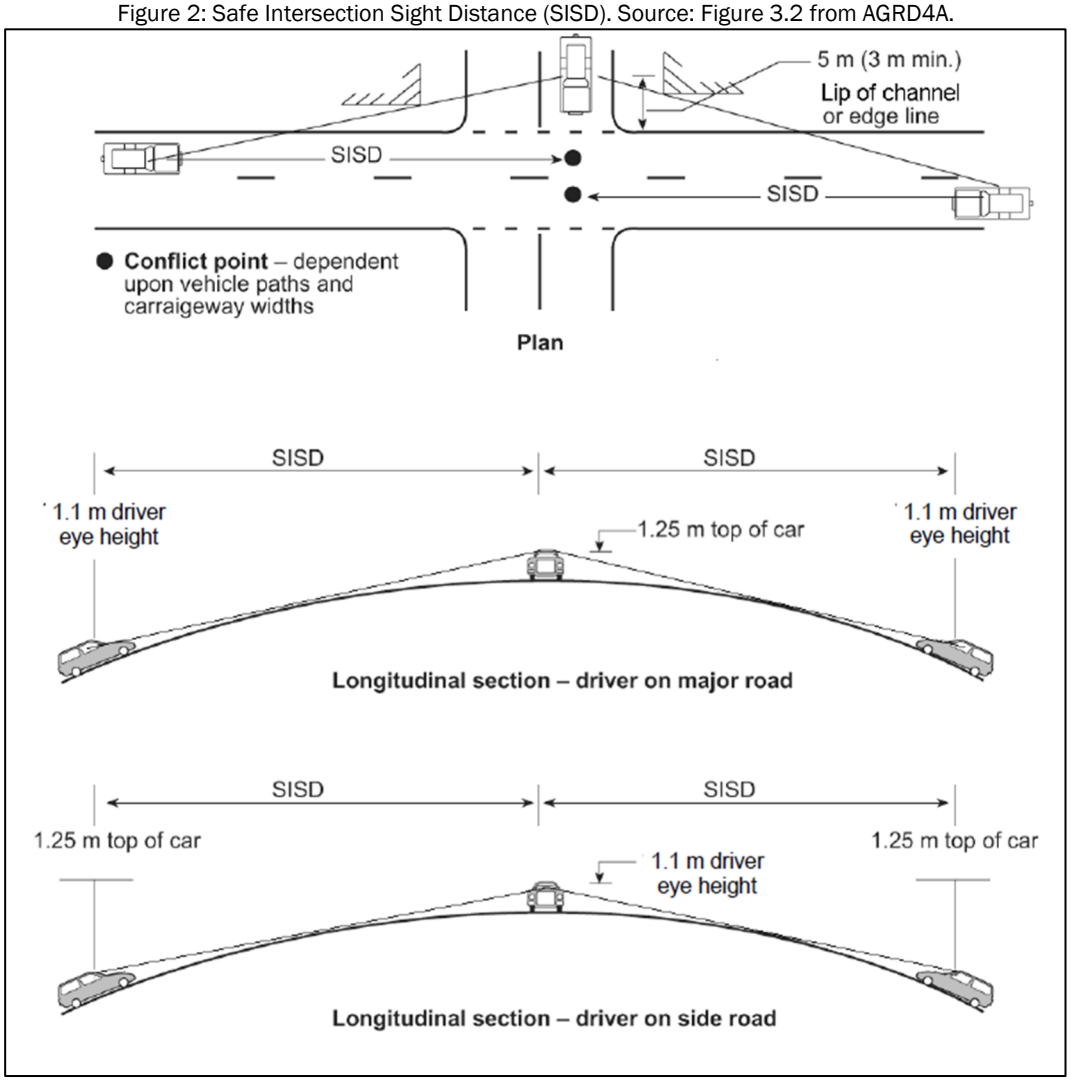
4 ASSESSMENT

The impacts of the development on the adjacent road network are primarily related to the need to provide adequate visibility at the access points for safe ingress/egress and to accommodate low speed turning manoeuvres by vehicles accessing the development. These impacts are quantified below with appropriate mitigating works being considered.

4.1 Sight distance

The visibility criterion normally required by DoT for safe access to the arterial road network is Safe Intersection Sight Distance (SISD). This is nominated in the AGRD4A as the minimum distance which should be provided on the road at a minor intersection or significant traffic generating development (refer to Section 3.2.2 in AGRD4A) and provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle from the minor access approach moving into a collision situation (e.g. in the worst case, stalling across the traffic lanes) and to decelerate to a stop before reaching the collision point (refer Figure 2).

Figure 2: Safe Intersection Sight Distance (SISD). Source: Figure 3.2 from AGRD4A.



Note that the VicRoads Supplement VS AGRD4A requires sight lines to be measured at a 7.0 m (5.0 m minimum) offset from the conflict point that is taken as the centre of the respective traffic lane.

The minimum SISD criterion specified in Table 3.2 of AGRD4A requires clear visibility for a desirable minimum distance of 285 m for a design speed of 110 km/h[1], adopting a general reaction time R_T of 2 seconds and from a driver's position at 5.0 m (3.0 m min) from the edge of traffic lane. It is noted that the VicRoads Supplement to AGRD4A requires visibility along the Western Highway to be established from a driver positioned 7 m (5 m min) from the potential collision point, i.e. centre of nearest traffic lane and this criterion has been used to assess SISD along the Western Highway. Grade corrections need to be applied in accordance with Table 3.3 of AGRD4A for the 3.5% upgrade to the southeast and 3% downgrade to the northwest along the highway from the site entry, giving adjusted SISD values of 300 m (285 m+15 m) to the southeast and 275 m (285 m - 10 m) to the northwest.

SISD for trucks should also be considered along the Western Highway. SISD for trucks can be established from SSD (stopping sight distance) for trucks (given in Table 5.6 of AGRD3) plus 3 seconds reaction time. This equates to SISD for trucks of 274 m for a 100 km/h approach speed[2]. The grade-adjusted truck sight distance values are 270 m (274 m – 4 m) to the northwest and 292 m (278 m + 18 m) to the southeast.

The above SISD requirements along the Western Highway from the position of a driver departing the site at the existing driveway access are satisfied, with clear sight lines in excess 500m available in both directions from the specified offset (refer photos 1 & 2).

Conclusion 2: Austroads SISD requirements are satisfied in both directions from the driveway at No. 4785 Western Highway.

4.2 Turn provisions

Separate turn lanes are normally provided to avoid congestion and/or delays to through traffic and to improve safety for traffic movements at intersections and significant access points, such as the driveway to the proposed development. The type of turn treatment is determined, based on speed environment and the combination of through and turning traffic volumes. Figure 2.26(a) of AGTM6 (reproduced in Figure 4) is used for the selection of treatment types at locations with a design speed of 100 km/h or more.

In the following sections of this report, these criteria have been applied to the driveway to No. 4785 as also being the proposed access to the solar farm site.

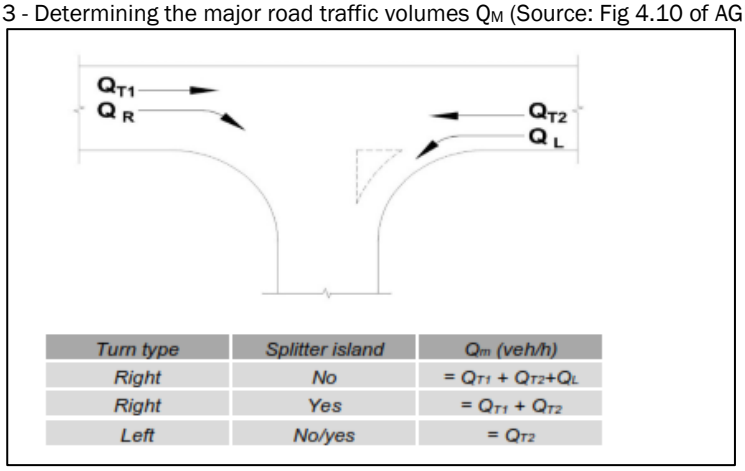
From Section 3.5 of this report, current one-way traffic on the Western Highway is estimated at 230 vph southeast-bound and 230 vph northwest-bound during the daily peak hours.

Superimposed over these peak traffic flows are the additional traffic movements generated by the development construction traffic. These are estimated to represent negligible right turn movements from the northwest and 3 vph left turns from the southeast during the AM peak. Applying Figure 4.10 from AGRD*4A* (reproduced in Figure 3), these volumes have been used in Table 3 to derive the Q_L and Q_R values and the major road traffic parameters Q_M that reflect the worst-case conditions at the start of the day's construction.

[1] Clause 3.4.2 of VS AGRD3 requires the operating speed used in high speed rural road assessments to adopt the posted speed limit + 10 km/h

[2] The design speed for trucks is the posted speed limit

Figure 3 - Determining the major road traffic volumes Q_M (Source: Fig 4.10 of AGRD4A)

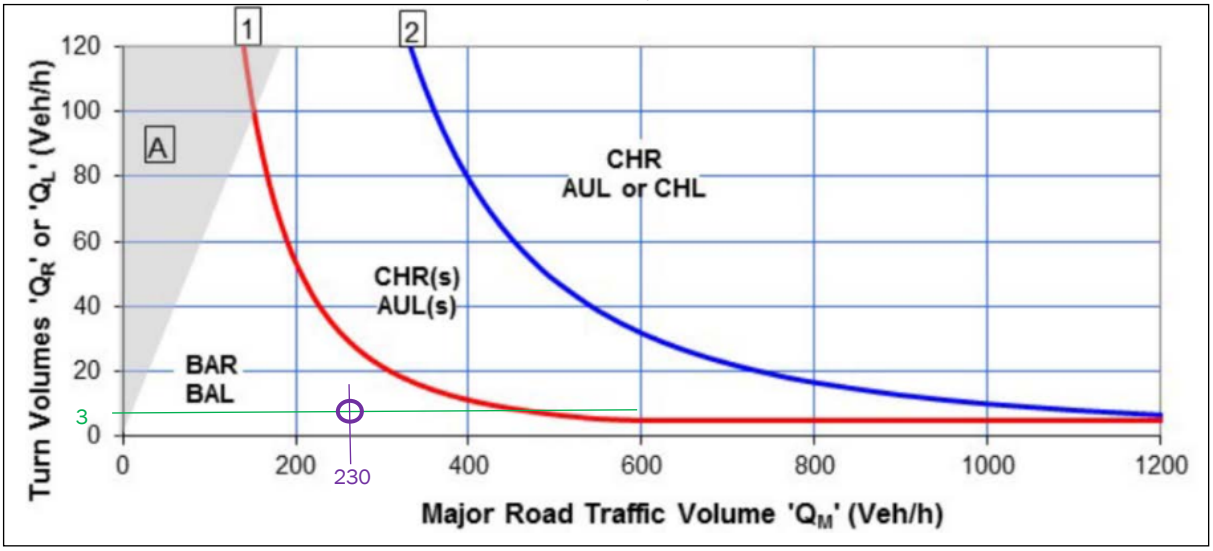


Turn type	Splitter island	Q_m (veh/h)
Right	No	= Q_{T1} + Q_{T2}+Q_L
Right	Yes	= Q_{T1} + Q_{T2}
Left	No/yes	= Q_{T2}

Table 3 - Warrants for the turn treatments at the Western Highway site access – AM in peak construction phase

Major Road	Minor Access	Left Turn	Right Turn	Thru Q_T		Q_M Left Turn	Q_M Right Turn
		Q_L	Q_R	Q_{T1}	Q_{T2}	Q_M=Q_{T2}	Q_M=Q_{T1}+Q_{T2}+Q_L
Western Highway	Driveway to No. 4785	3	Nil	230	230	230	463

Figure 3: Warrants for turn treatments at intersections with design speed >70km/h>100km/h (Source: Figure 2.26(b) in AGTM6)



Applying the volumes from Table 3 to Figure 3 indicates that existing traffic plus construction traffic turning into the site access during the AM peak in the critical weeks requires the provision of Type BAL treatment and no specific right turn treatment in the highway.

4.3 Turn treatments

4.3.1 Right turn

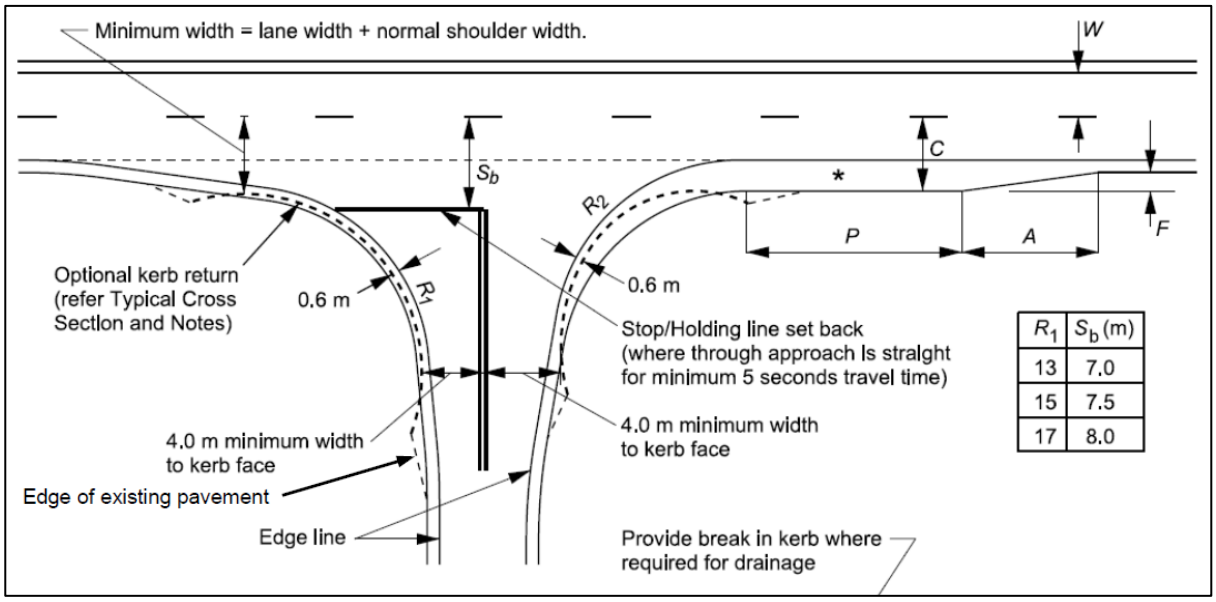
The highway is configured with two southeast-bound lanes, which currently provide a passing provision around any right turning vehicles entering the property. The occasional right turning car

during the morning peak hour is not considered to seriously impact on the present level of safety and amenity at the driveway. No additional treatment is proposed for the right turn.

4.3.2 Left turn

Figure 3 indicates that the combination of through traffic and left turn movements places the site entry in the range requiring a basic (Type BAL) left turn lane treatment. The BAL treatment is described in Section 8.2.1 and illustrated in Figure 8.2 of the AGRD4A (with Figure 8.2 reproduced in Figure 4 below). It requires adequate shoulder width at the approach to the access to permit a design vehicle entering the property to perform a left turn without encroaching into the opposing traffic lane.

Figure 4: Rural Type BAL left turn treatment (source Figure 8.2 in AGRD4A)



The relevant design parameters for the rural Type BAL treatment can be established from the notes accompanying Figure 8.3 as follows.

- Design speed V = 110 km/h (speed limit + 10 km/h)
- Nominal through lane width W = 3.7 m (existing)
- Total width C = 6.0 m (minimum on straight)
- Formation widening F = C – W = 2.3 m
- Length of parallel widened shoulder P = 35 m (from Table 8.1 for V = 110 km/h)
- Lateral movement length A = 35 m (from 0.5VF/3.6)
- Bell-mouth radius R_2 is determined by the swept path of the design vehicle. Adopt 10 m.

There is currently sufficient shoulder width and the appropriate single radius turn will be provided as part of the site access design (refer Section 4.4), requiring no further treatment.

Conclusion 3: No separate treatments are required for the right and left turns into the site from the Western Highway.

4.4 Site access

The VicRoads standard drawing SD 2065 (drawing No. 720259) for Truck Access to Rural Properties Type B is reproduced in Attachment B. It sets out the minimum standard that DoT is expected to apply to the driveway connection to the Western Highway, which will include:

- a sealed bell-mouth for a minimum distance of 21.0 m from the edge of traffic lane
- off-sets to the edge of bell-mouth from the driveway centre line as indicated to cater for the swept path of the largest design vehicle
- a set-back for any gate within the driveway of 25 m from the edge of traffic lane.

These design aspects will need to be incorporated into an upgraded driveway connection to the highway.

Recommendation 1: that detailed design of the driveway include the DoT requirements as set out in VicRoads standard drawing SD 2065.

Access driveway

The provision of access to the solar farm site from the property driveway is through currently vacant land to the east and skirting an existing farm dam (See Photo 6 and site plan in Attachment A)

Photo 6: looking east from the current driveway towards the proposed solar farm site adjacent to the tree line at the horizon.

Swept path checks have indicated no need for special requirements for rigid truck access to the solar farm site during the construction phase and adequate space exists on-site for these vehicles to conduct a U-turn before departing the site in a forward direction.

Conclusion 4: That site access provision is satisfactory for the design vehicles.

Post construction

As noted earlier, after completion of construction, there is expected to be a need for up to two light vehicles to attend the site every six months for ongoing general maintenance purposes. This level of additional traffic requires no further work at the property driveway.

Conclusion 5: Post-construction traffic to the facility requires no additional work to be undertaken on the access network.

4.5 Safety considerations

In the context of the high commercial vehicle (truck) content of through traffic (refer Section 2.3), the client has indicated that the delivery of the 34 shipping containers with the solar panels will be compressed into a four to five day window, with deliveries timed to occur outside peak times (9:30 to 2:30) to cause the least interference to through traffic. In addition, a traffic management plan is to be prepared that will include the installation of a variable message sign (VMS) on the southeast approach for the duration of these deliveries. The VMS is to display a message stating CAUTION, TURNING TRUCKS (or similar) to alert other traffic of the likely presence of these delivery trucks making low speed turns into the site.

The above traffic management proposal is considered most desirable from a traffic safety perspective and should form part of the permit requirements.

Recommendation 3: That a traffic management plan be prepared covering the key delivery phase, to include the use of a VMS on the southeast approach to the site access.

4.6 Parking

The statutory car parking requirement for new and existing development is outlined in Clause 52.06 of the Corangamite Shire Planning Scheme. However, the parking requirement for this type of use is not included in Table 1 to Clause 52.06. Therefore, the car parking demand for the proposed development was estimated empirically.

As discussed in Section 4.1.1 of this report, during the construction phase of the development, up to eight light vehicles are likely to access the site daily. Assuming all vehicles will be at the site at the same time, the subject site is likely to have a car parking demand of up to five spaces during construction. The car parking demand for the site post construction is likely to be one space.

The proposed development indicates provision of a formal on-site car parking within the site compound.

Conclusion 6: That the Overall Layout Plan has a designated car parking area to accommodate the anticipated demand for tradesmen cars during construction.

5 CONCLUSIONS

The traffic assessment undertaken for the proposed solar farm at No. 4785 Western Highway, Ledcourt has made the following conclusions:

- **Conclusion 1:** The peak traffic generation by the development is likely to occur during weeks 4 to 11 of the construction phase of the development and involve:
    - Up to two entries and two departures by light vehicles during the morning and evening peaks respectively
    - 3 entries and 3 departures by heavy vehicles, spread throughout the day, with an average of one trip per hour. The heavy vehicles accessing the site are restricted to rigid trucks

  Operational traffic is expected to comprise two light vehicle trips every six months.

- **Conclusion 2:** Austroads SISD requirements are satisfied in both directions from the driveway at No. 4785 Western Highway
- **Conclusion 3:** No separate treatments are required for the right and left turns into the site from the Western Highway
- **Conclusion 4:** That site access provision is satisfactory for the design vehicles
- **Conclusion 5:** Post-construction traffic to the facility requires no additional work to be undertaken on the access network
- **Conclusion 6:** That the Overall Layout Plan has a designated car parking area to accommodate the anticipated demand for tradesmen cars during construction.

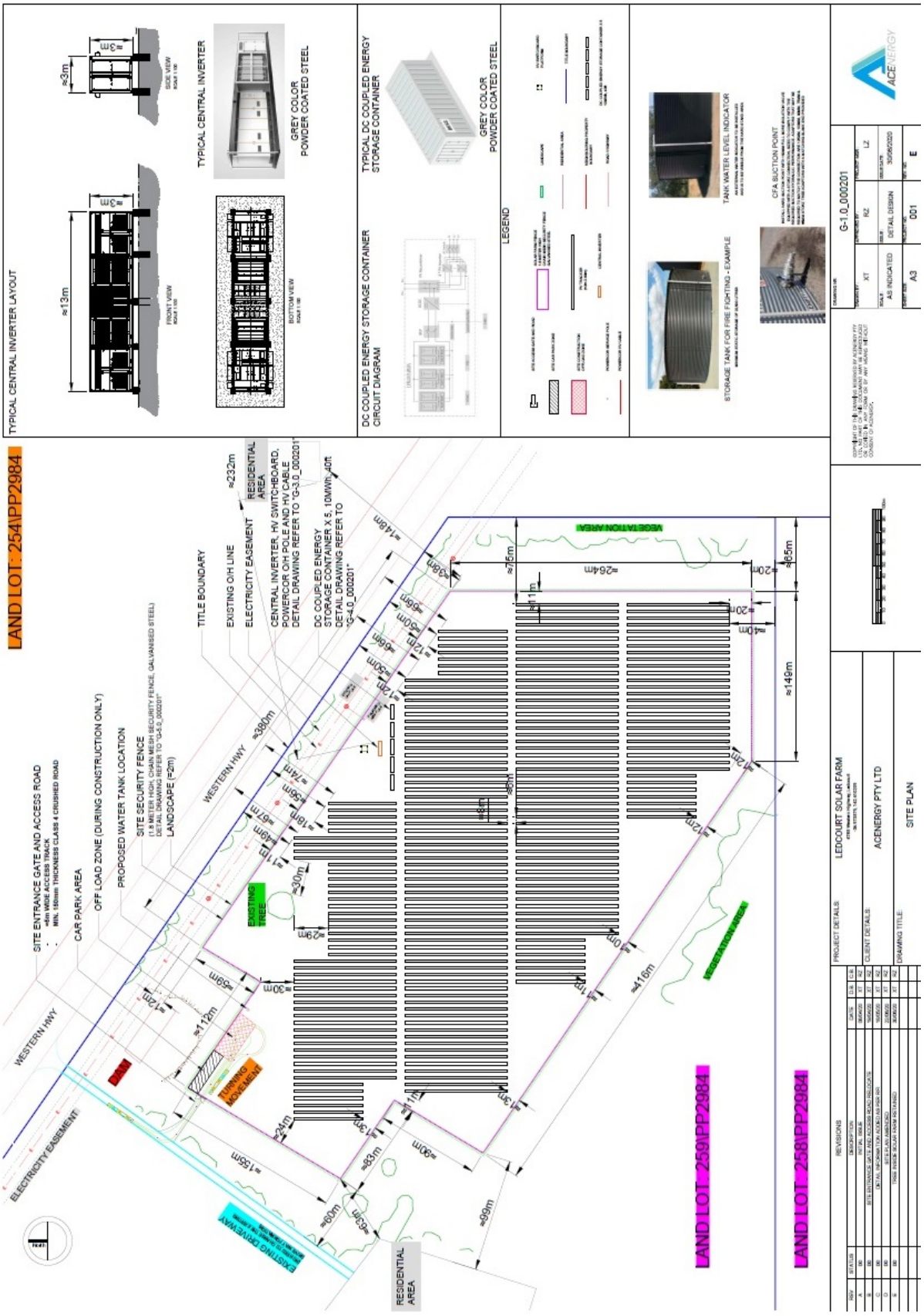
The key recommendations in the assessment are summarised below.

- **Recommendation 1:** that detailed design of the driveway include the DoT requirements as set out in VicRoads standard drawing SD 2065.
- **Recommendation 2:** that a traffic management plan be prepared covering the key delivery phase, to include the use of a VMS on the southeast approach to the site access.

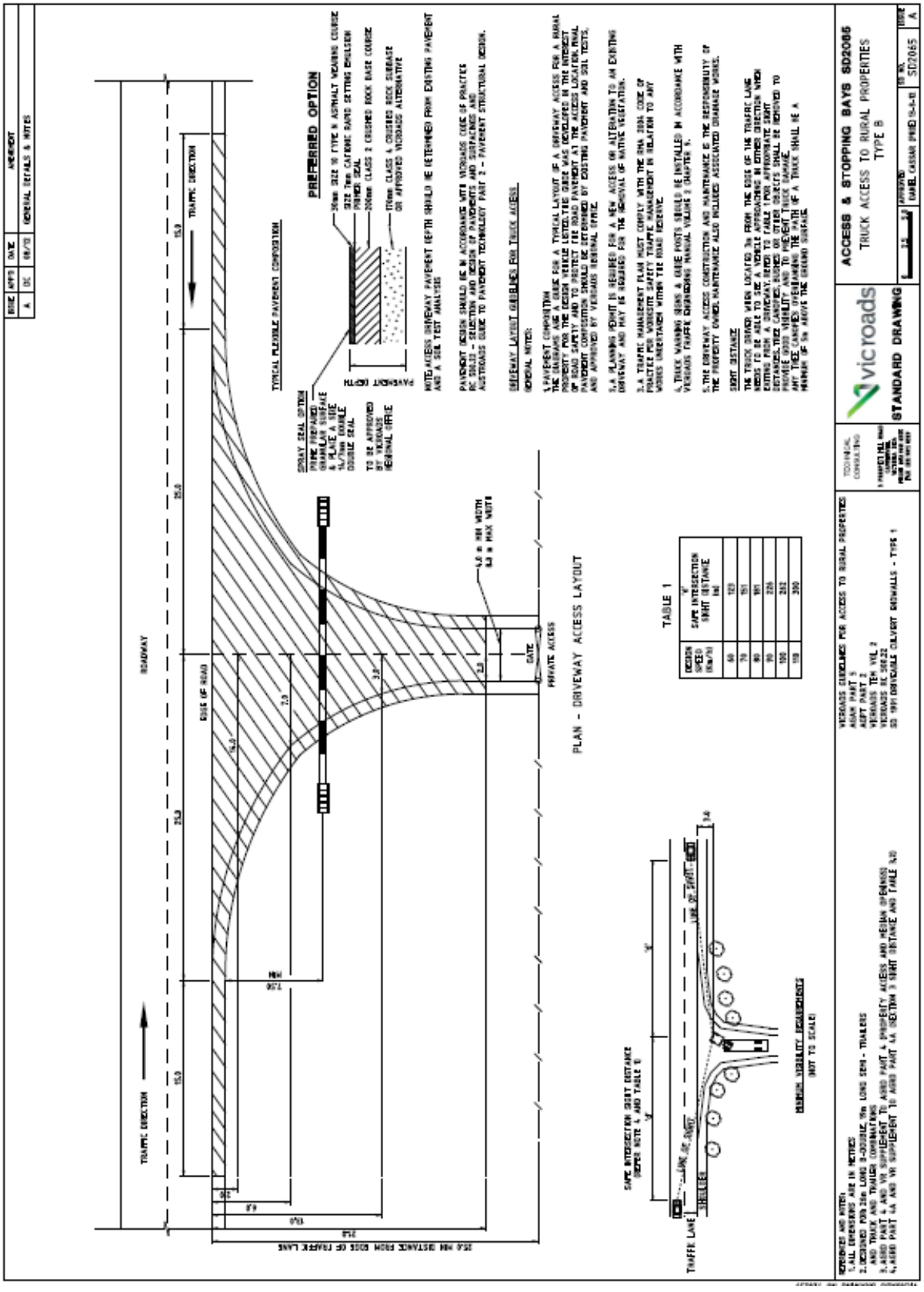
The proposed development would not adversely impact on the safety or operation of the surrounding road network, provided the recommended mitigations actions are implemented.

ATTACHMENT A – OVERALL LAYOUT PLAN

Figure A1 – Overall Site Plan



ATTACHMENT B – STANDARD DRAWING SD 2065



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