APPENDIX 10

Traffic And Access Impact Assessment : CIRQA

SOUTHERN BAROSSA WINERY AND TOURIST ACCOMMODATION PROJECT

TRAFFIC AND ACCESS IMPACT ASSESSMENT

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Report title:	Southern Barossa Winery and Tourist Accommodation Project
Project number:	24590
Client:	Strategic Alliance
Client contact:	Ekistics / Turner & Townsend

Version	Date	Details/status	Prepared by	Approved by
Draft 1	30 Jun 25	For review	JJB BNW	BNW
Draft 2	15 Jul 25	For review	JJB BNW	BNW
V1.0	28 Aug 25	For submission	JJB BNW	BNW

CIRQA Pty Ltd
ABN 17 606 952 309
PO Box 144, Glenside SA 5065
Level 1, 27 Halifax Street, Adelaide SA 5000
(08) 7078 1801
www.cirqa.com.au

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1. EXECUTIVE SUMMARY

CIRQA has been engaged to provide design and assessment advice for the proposed Southern Barossa Winery and Tourist Accommodation Project at Lot 102 Hoffnungsthal Road, Williamstown. Specifically, CIRQA has been engaged to provide advice in respect to traffic, access and parking aspects of the proposal.

This report provides a review of the subject site, the proposed developments (winery and tourist accommodation), the associated access and parking provisions, and the associated traffic impact on the adjacent road network.

The proposal comprises the development of a new winery (including production, storage and cellar door facilities) and a new five-star tourist accommodation facility (including associated rooms, food and beverage, meeting, function and wellness areas). The two land use components (winery and tourist accommodation units) will be developed within separate portions of the site.

Separate vehicle access points are proposed for the two land uses. Specifically, it is proposed that the winery be accessed directly via Hoffnungsthal Road, whereas the tourist accommodation is proposed to be accessed directly from Menzel Road.

The two development components have been designed such that all vehicles can enter and exit each site in a forward direction. The parking and access areas for each component will be provided in accordance with the relevant Australian Standards. Adequate areas for waste storage and collection have been provided within the site (further detail regarding waste management has been addressed in the separate Colby Phillips 'Waste Management Report').

A total of 334 formalised parking spaces will be provided across the two development components. Based on a detailed review of parking requirements and demands associated with both uses, it is considered that the level of parking provision is sufficient to accommodate peak demands. The proposals sufficiently address the relevant Performance Outcome (related to parking supply) of the Planning and Design Code.

Analysis of the potential traffic generation associated with the proposed uses identifies forecast traffic volumes of 50 peak hour trips associated with the winery and 60 peak hour trips associated with the tourist accommodation (during operation, with lower volumes generated during the construction phase). Based on the typical conditions associated with such uses (as well as information provided by the client and broader consultant team), it is anticipated that peak traffic movements associated with the two uses will typically occur

mid-Saturdays with lower volumes generated during the weekday am and pm peak hours (and other times).

While there will be an increase in movements on Hoffnungsthal Road and Menzel Road, the additional movements would generally be accommodated without significant impact on traffic conditions or road safety. Similarly, impacts on the broader road network would be minimal (particularly given relatively low traffic volumes on the surrounding network). However, based on the assessment, the following key findings have been identified in respect to impacts on the broader road network:

- **Lyndoch Valley Way / Hoffnungsthal Road Intersection** – based on assessment against the Austroads' turn treatment warrants, the additional traffic generated would warrant the provision of a short Channelised Right Turn (CHR) treatment (i.e. separated right turn deceleration and storage lane) and a Basic Auxiliary Left Turn (AUL) treatment (i.e. shoulder widening adjacent the southbound through lane).
- **Hoffnungsthal Road / Linder Road intersection** – based on review of vehicle turn paths within the curved section of Hoffnungsthal Road, it is desirable to undertake shoulder widening/sealing on the southern/western side of Hoffnungsthal Road in the vicinity of Lindner Road. This would improve the ability to accommodate simultaneous movements of a commercial vehicle (such as a Heavy Rigid Vehicle) and a car in the vicinity of the Lindner Road intersection;
- **Hoffnungsthal Road (in the vicinity of Menzel Road and Tweedies Gully Road)** – given the existing constraints in respect to the vertical alignment, roadside vegetation and increased level of vehicular activity, it is recommended that a speed reduction to at least 80 km/h be sought in the vicinity of the subject site (and the intersections of Menzel Road and Tweedies Gully Road); and
- **Menzel Road** – the level of additional traffic distributed via Menzel Road will be above that typically accepted for accommodation via an unsealed road. In order to accommodate the forecast movements, it is desirable that an upgrade to the Menzel Road surface be undertaken (at least a spray seal of the carriageway).

Overall, it is considered that the additional movements associated with the proposal (both during construction and operation) can be adequately, efficiently and safely accommodated on the adjacent road network (subject to the above items being addressed).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site comprises Lot 102 Hoffnungsthal Road at Williamstown. The site is located approximately 5 km north-east of the township of Williamstown, 3.5 km south-east of the township of Lyndoch and 44 km north-east of the Adelaide CBD. The site is bounded by Hoffnungsthal Road to the north-west, Menzel Road to the south-west and rural properties to the north-east and south-east. Figure 1 illustrates the subject site in respect to the surrounding area and road network.

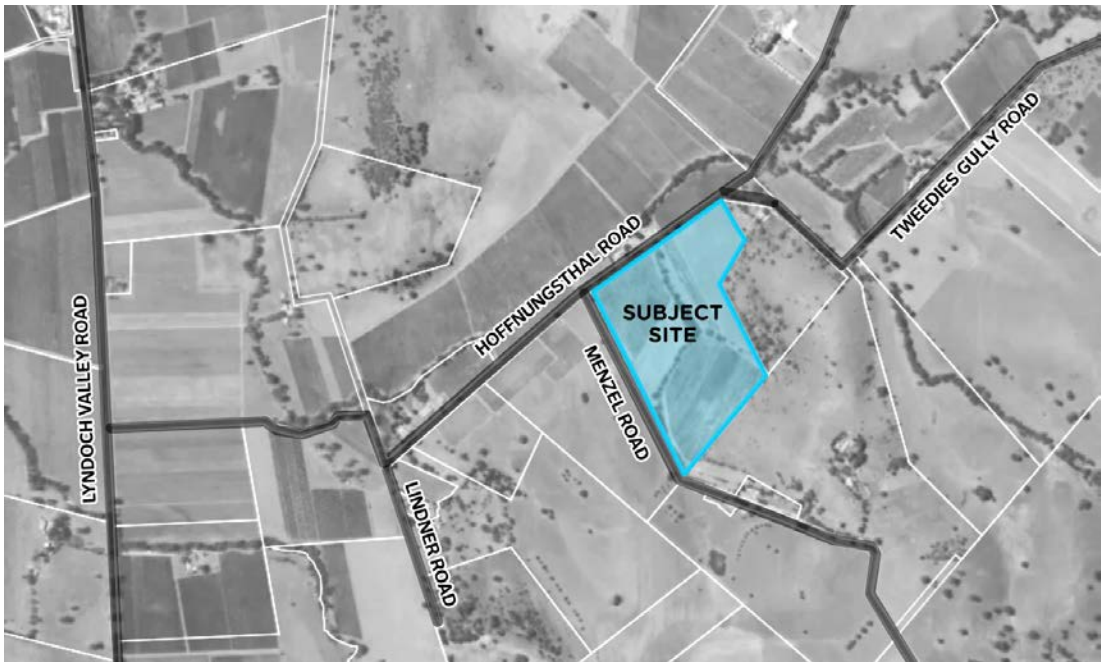


Figure 1 - Location of the subject site and adjacent road network

The Planning and Design Code identifies that the site is situated within a Rural Zone and that the following Overlays are applicable:

- Character Preservation District - Not In Township;
- Hazards (Bushfire - High Risk);
- Hazards (Flooding - Evidence Required);
- Limited Land Division;
- Native Vegetation;
- Prescribed Water Resources Area;
- Significant Landscape Protection;
- Water Protection Area; and
- Water Resources.

The site is currently utilised for horticultural purposes (vineyards) and is accessed via an informal (unsealed) crossover on Hoffnungsthal Road (located approximately mid-block along the site's frontage).

2.2 ADJACENT ROAD NETWORK

As noted above, the site has direct frontage to both Hoffnungsthal Road and Menzel Road. More broadly, the primary access route to/from the site is via the connection of Hoffnungsthal Road to Lyndoch Valley Way (to the west). The only other 'through-bound' access route available for the site is via Tweedies Gully Road and Trial Hill Road (which are both unsealed and circuitous). Trial Hill Road provides connection to/from Barossa Valley Way (to the north of the site) as well as other minor, unsealed road connections to the east (albeit associated routes are extremely circuitous and would be infrequently utilised by drivers associated with the site).

The key roads considered as part of the transport and access investigations are detailed as follows:

- **Hoffnungsthal Road –**a Council-managed local access route with the default rural speed limit of 100 km/h applicable. Based on CIRQA's site inspections during a weekday and weekend it is expected that daily traffic volumes are than 200 vehicles per day (vpd). The road is sealed with varying carriageway and shoulder widths varies along its length. The pavement is generally in good condition and provides all weather access along Hoffnunsthal Road (refer Figure 2);

Figure 2 - Hoffnungsthal Road (view looking east, approximately 320 m west of Menzel Road)

- **Menzel Road –**an unsealed rural road under the care and control of the Barossa Council. The applicable speed limit is 100 km/h, although actual travel speeds are likely lower due to the unsealed surface (refer Figure 3) as well as the horizontal and vertical alignments. Traffic volumes would be very low (below 100 vpd). The carriageway width varies along its alignment, with informal shoulders that can be narrow or undefined in places. Given its limited use and rural character, the road functions adequately;

Figure 3 - Menzel Road (view looking south mid-block)

- **Lyndoch Valley Road –** Lyndoch Valley Road is a regional arterial route managed by the Department for Infrastructure and Transport (DIT). The road comprises a sealed carriageway with a single traffic lane in each direction. A speed limit of 100 km/h applies on Lyndoch Valley Road in the vicinity of its intersection with Hoffnungsthal Road. Lyndoch Valley Road forms a key link between Williamstown and Lyndoch (with broader connectivity to/from Gawler and the Barossa). The cross-section is designed to accommodate regional through-traffic, agricultural vehicles, and tourist traffic;

Figure 4 – Lyndoch Valley Road (looking north from Hoffnungsthal Road)

- **Tweedies Gully Road –** Tweedies Gully Road is an unsealed, Council-maintained road with a rural character and limited (rural) property access. The general rural speed limit of 100 km/h applies albeit typical speeds would be well below such a level. Tweedies Gully Road would likely accommodate volumes in the order of 100 vpd or less. The carriageway is of variable width with informal shoulders;
- **Trial Hill Road –** Trial Hill Road serves a similar rural function to the other Council roads in the area, with a speed limit of 100 km/h and a daily traffic volume of approximately 190 vpd (at its northern end). Trial Hill Road is generally unsealed, though a section between Barossa Valley Way and (slightly) north of Tweedies Gully Road is sealed.

Available traffic volume data for the above roads is provided in Appendix A.

In addition to the above roads, the following key intersections have also been considered (and as identified in the EIS Criteria):

- **Hoffnungsthal Road/Menzel Road –** a basic T-intersection under the control of the local Council. It provides local connectivity between Hoffnungsthal Road and the lightly trafficked, unsealed Menzel Road. There are no specific control measures or priority treatments identified (standard Give Way/priority rules of the Australian Standards apply), and traffic volumes are low. On-site assessment has indicated that, while there are some vertical

alignment constraints, sufficient sight distance is achievable at the intersection (albeit vegetation within the adjacent verge, particularly on the western corner, should be maintained to ensure sight distances are impacted);

- **Hoffnungsthal Road/Linder Road –** a 'realigned' T-intersection under the care and control of Council with priority assigned to the Hoffnungsthal Road approaches. and is also managed by Council. The 'realigned' arrangement accommodates reasonable sight distances, albeit large (and likely significant or regulated) trees are located in relatively close proximity to the carriageway;
- **Hoffnungsthal Road/Tweedies Gully Road –** a standard T-intersection controlled by Council. No priority treatments are installed with the basic priority rules applicable. Sight distance provision between drivers exiting Tweedies Gully Road to others approaching from the west is limited due to the crest in the immediate vicinity of the intersection;
- **Hoffnungsthal Road/Lyndoch Valley Road –** a standard T-intersection where Hoffnungsthal Road terminates at Lyndoch Valley Road. Standard priority rules apply with priority assigned to Lyndoch Valley Road. No formalised turn treatments (i.e. channelised turn lanes) are currently provided at the intersection. Clear sight distances are provided on approach to and at the intersection;
- **Tweedies Gully Road/Trial Hill Road –** a Council-controlled rural T-intersection where the two unsealed roads meet. Both roads carry low volumes and serve agricultural and local residential traffic. The intersection likely operates under standard priority rules with Trial Hill Road forming the priority approaches;
- **Trial Hill Road/Barossa Valley Way –** a 'realigned' T-intersection layout with Barossa Valley Way forming the priority approaches. Due to historic safety issues, various traffic control treatments have been implemented at the intersection including a short right turn lane for turns from the western Barossa Valley Way approach into Trial Hill Road and various linemarking treatments. Recent crash data (provided in Section 2.3) indicates there is not a notable crash issue within recent years (i.e. treatments installed appear to have been effective in reducing conflict risk);
- **Lyndoch Valley Road/Gilbert Street/Barossa Valley Way –** a four-way intersection (under DIT control) located on the main regional route through the Lyndoch. The intersection is controlled with Stop signs and holding bars (linemarking) on the Lyndoch Valley Road (southern) leg and Barossa Valley Way (northern) leg;
- **Miamba Road/Lyndoch Valley Road/Sugar Loaf Road –** a four-way intersection is controlled with Give Way signs on Miamba Road and Sugar

Loaf Road, with Lyndoch Valley Road forming the priority approaches. While generally unsealed, both Miamba Road and Sugar Loaf Road are sealed in the vicinity of the intersection.

- **Williamstown Road/Miamba Road –** a T-intersection managed by DIT, with priority assigned to Williamstown Road. The priority reflects the higher order classification of Williamstown Road. It is noted that Miamba Road provides a shorter travel distance between Williamstown to Lyndoch Valley Road than continuing on Williamstown Road (to the south). However, travel time difference is neglible given the difference in road surface and route selection/GPS tools such as Google Maps and Apple Maps direct drivers to remain on the sealed section of Williamstown Road rather than utilise Miamba Road (when travelling between Cockatoo Valley to the west and the subject site); and
- **Victoria Terrace/Mount Crawford Road/Queen Street –** a T-intersection within the DIT network. Priority is assigned to Mount Crawford Road and Queen Street approaches with Victoria Terrace forming the non-priority approach. Victoria Terrace approaches Mount Crawford Road and Queen Street on the outside apex of a curve in the road alignment. This affords reasonable sight distance provisions for drivers approaching the intersection. No separated turn facilities are provided (albeit given relatively low volumes vehicles turning from the priority approaches into Victoria Terrace would likely have minimal impact on through-bound movements.

2.3 CRASH DATA

Crash data has been reviewed for the road network considered as part of these investigations. The data has been provided by DIT for the 5-year period between (and inclusive of) 2019 to 2023 (the most recently available data set). Table 1 summarises the report crash data.

Table 1 - Five-year crash data for subject roads and intersections

Location	Crash Count	Crash Rate	Comments
Key Intersections			
Hoffnungsthal Road/Menzel Road	0	0 per year	No recorded crashes
Hoffnungsthal Road/Linder Road	0	0 per year	No recorded crashes
Hoffnungsthal Road Tweedies Gully Road	0	0 per year	No recorded crashes
Hoffnungsthal Road/Lyndoch Valley Road	0	0 per year	No recorded crashes
Tweedies Gully Road/Trial Hill Road	0	0 per year	No recorded crashes
Trial Hill Road/Barossa Valley Way	1	0.2 per year	One fixed object crash
Lyndoch Valley Road/Gilbert Street / Barossa Valley Way	1	0.2 per year	One right-angle crash
Miamba Road/Lyndoch Valley Road/Sugar Load Road	0	0 per year	No recorded crashes
Williamstown Road/Miamba Road	0	0 per year	No recorded crashes
Victoria Terrace/Mount Crawford Road/Queen Street	1	0.2 per year	One rollover crash
Mid-Block (including intersections not listed above)			
Barossa Valley Way (Trial Hill Rd to Lyndoch Valley Rd)	5	0.37 crashes/km/year	Variety of crash types, two resulted in casualties
Lyndoch Valley Rd (Barossa Valley Way to Hoffnungsthal Rd)	1	0.06 crashes/km/year	One fixed object crash
Lyndoch Valley Rd (Hoffnungsthal Rd to Miamba Rd)	1	0.18 crashes/km/year	One rollover crash
Lyndoch Valley Rd (Miamba Rd to Queen Street)	11	0.63 crashes/km/year	Multiple fixed object crashes with one casualty. This section includes a number of intersections which contributes to the higher report crash rate
Queen Street (Lyndoch Valley Rd to Mount Crawford Rd)	2	1.21 crashes/km/year	One rear end and one hit parked vehicle crash
Hoffnungsthal Road (full length)	0	0 crashes/km/year	No crashes recorded
Tweedies Gully Road (full length)	1	0.049 crashes/km/year	Single serious injury crash (rollover)
Trial Hill Road (Tweedies Gully Rd to Barossa Valley Way)	0	0 crashes/km/year	No crashes recorded

Crash statistics across the study area indicate a generally low incidence of recorded crashes. In particular, the roads within the immediate vicinity of the subject site (including the full length of Hoffnungsthal Road and Trial Hill Road) have had no reported crashes (within the above period). Only one reported crash was identified on Tweedies Gully Road. Similarly, the associated intersections of these roads have operated without reported crashes over the above period including the intersection of Hoffnungsthal Road with Lyndoch Valley Road.

A higher number of crashes have been reported within the township of Williamstown. This is not unexpected given the higher traffic volumes and greater number of intersections and access points (conflict points). Nevertheless, the

crash rates identified are still well below levels of concern (the rates identified above would generally be considered within a low level of crash rate with the exception of Queen Street albeit that is primarily due to its limited length – the number of crashes was not significant).

Notably, the majority of crashes associated with the above road segments and intersections resulted in property damage only. There was only one serious injury report and no fatalities.

2.4 WALKING AND CYCLING

Given the rural location of the site, no footpaths or bicycle facilities are provided on roads surrounding the site.

2.5 PUBLIC TRANSPORT

Public transport access to Williamstown and the broader Barossa Valley region is limited, reflecting the area's rural character and relatively low population density. Bus services are provided intermittently, primarily catering to school transport and essential community needs. 'Public Transport South Australia' (PTSA) does not directly serve Williamstown or its surrounds. However, regional operators such as LinkSA and Barossa Coaches offer limited services connecting key towns like Gawler, Nuriootpa, Tanunda, Angaston and (closest to the site), Lyndoch. Nevertheless, the services are infrequent and are primarily geared toward weekday travel, with limited or no services on weekends or public holidays.

It is noted, however, that recent Government regulatory reforms now allow ride-sharing services (such as Uber) to operate within the Barossa Valley. The Barossa Valley is also serviced by local taxi operators.

3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

As noted above, the proposal comprises the development of a new winery and a new five-star tourist accommodation facility. Specifically, the two land uses will incorporate the following components:

- winery (as illustrated on the plans prepared by JBG Architects, Drawings 2445 A003 and A100, dated 4 July 2025):
  - wine production, operations and storage areas;
  - cellar door and restaurant facilities including tasting areas;
  - function areas (approx. 450 pax); and
  - 115 car parking spaces plus bus parking.
- tourist accommodation (as illustrated on the plans prepared by Baukultur, Drawings SK_1100 to SK_1106, dated 27 June 2025):
  - a multi-level, 5-star hotel with 150 accommodation rooms;
  - hotel restaurant, function/ballroom and meeting and conference facilities (with a maximum combined patronage of 450 pax.);
  - a wellness and spa facility;
  - various ancillary areas such as reception/administration, amenities, back-of-house and services areas; and
  - 219 car parking spaces (215 within the car park plus 4 within the porte cochere) plus bus parking.

3.2 ACCESS AND PARKING DESIGN

3.2.1 WINERY SITE

Access for the winery is proposed to be provided via a light vehicle ingress point and a shared two-way access point on Hoffnungsthal Road. While full separation of light vehicle and commercial vehicle movements was investigated, the ability to provide sufficient sight distance along the site's frontage is limited (due to large trees located within the verge as well as the road's vertical alignment. Accordingly, egress movements have been consolidated to a single location that maximises sight distance provision. The sight distance provisions have been optimised between the crest to the east (in the vicinity of the Tweedies Gully Road intersection), the large trees within the verge to the west of the proposed access and another crest in the road further to the west. As illustrated in Appendix B, the minimum sight distance provision is to/from the east with 111 m achieved. This aligns with the requirements of the "*Australian Standard for Parking Facilities – Part 2: Off-Street Commercial Vehicle Facilities*" for an 80 km/h speed limit. While the current speed limit is 100 km/h, the horizontal and vertical alignment of Hoffnungsthal Road on approach to the crest restricts vehicle

speeds (multiple 'test drives' through this section during site inspections have indicated speeds higher than 80 km/h are unlikely). Accordingly, the access arrangement is considered acceptable (and safe). Nevertheless, it is generally considered desirable that the speed limit on Hoffnungsthal Road be reduced to 80 km/h in the vicinity of the site given the reduced sight distance provisions and increased activity associated with both development components. This is detailed further in Section 6.

The access points will accommodate light vehicle access to/from a proposed car park and commercial vehicle access to/from the winery's loading area. The commercial vehicle access and circulation arrangements will also accommodate buses for customer access. Pedestrian connections will also be provided within the site.

The winery's car park is proposed to contain 115 parking spaces (including 2 spaces reserved exclusively for persons with disabilities). Two dedicated (large) bus parking spaces will also be provided (and, if required, additional buses could be accommodated within the hardstand area).

The design of the winery's parking area has been undertaken in accordance with the requirements of Australian/New Zealand Standard, *Parking Facilities Part 1: Off-street car parking* (AS/NZS 2890.1:2004) and Australian/New Zealand Standard, *Parking Facilities Part 6: Off-street parking for people with disabilities* (AS/NZS 2890.6:2009) in that:

- parking spaces will be 2.5 m wide and 5.4 m long or 4.8 m long with 600 mm overhang to lying landscaping;
- parking spaces for use by persons with disabilities will be at least 2.4 m wide and 5.4 m long with an adjacent shared area of the same dimension;
- parking aisles will be 6.2 m wide; and
- 0.3 m clearance will be provided (where applicable) to all objects greater than 0.15 m in height.

A variety of commercial vehicles will require access to/from the site including tourist/patron buses, heavy vehicles (including articulated vehicles) associated with the winery production activities and emergency services vehicles (the largest of which would be fire appliances). Appendix C provides turn path diagrams for the key commercial vehicle movements into, out of and within the site. All vehicles associated with the site (including commercial and emergency services vehicles) will be able to enter and exit the site in a forward direction. Commercial vehicle manoeuvring (i.e. reversing and/or turnaround movements) will be undertaken clear of areas associated with light vehicle access.

3.2.2 TOURIST ACCOMMODATION SITE

Access to the tourist accommodation site is proposed to be provided via a two-way access point on Menzel Road (approximately 440 m south of Hepenstahl Road). The access will accommodate both light vehicles (guest/patron and staff vehicles) and commercial vehicles (servicing, deliveries and emergency vehicles). The location of the access point has been identified to ensure establishment of sufficient sight distance provisions for vehicles accessing the site (refer Appendix B). Consideration was given to the provision of a separate access points for light and commercial vehicles. However, given sight distance limitations and topographic constraints (including a creek line), the combined access arrangement was considered preferable.

The access point will connect to an internal driveway and circulation system providing access to the site's primary car park, a porte cochere (with associated turnaround area), bus parking and the facility's servicing and delivery (loading) area. Additional access connections will be provided around the facility for maintenance and emergency services access purposes.

The car park is proposed to accommodate 215 car parking spaces (including 10 spaces reserved for use by persons with disabilities). In addition, the porte cochere will accommodate an additional 4 parking spaces (resulting in 219 spaces in total). Multiple bus parking spaces will also be provided.

The design of the tourist accommodation's parking areas has been undertaken in accordance with the requirements of AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009 in that:

- parking spaces will be 2.5 m wide and 5.4 m long (or 4.8 m long with 600 mm overhang to lying landscaping);
- parking spaces for use by persons with disabilities will be at least 2.4 m wide and 5.4 m long with an adjacent shared area of the same dimension;
- parking aisles will be at least 6.0 m wide (albeit the primary circulation aisles with be 6.5 m wide where bus and/or commercial vehicle movements are proposed); and
- 0.3 m clearance will be provided (where applicable) to all objects greater than 0.15 m in height.

The site has been designed to accommodate the movements of large service and delivery vehicles (including 11.0 m rigid vehicles typically associated with front-lift bin collection and keg delivery, as well as 12.5 m long large buses). Movements associated with such vehicles will be able to undertaken in a forward-in/forward-out arrangement either by the looped internal circulation

roads or turnaround provisions (for the loading area) separated from the light vehicle access areas. The circulation areas as well as maintenance/emergency track along the southern boundary (to/from the south-eastern corner of the site) will accommodate emergency services vehicles (including fire appliances). A turn path diagram for the relevant commercial vehicle movements within the tourist accommodation site is provided in Appendix C.

3.2.3 COMMON ACCESS PROVISIONS

The two development components have largely been designed to operate and function as separate sites. No guest vehicle access is intended to be provided between the two land use components. However, access tracks between the two components are proposed to allow for maintenance access, emergency vehicle access and shuttling of guests via 'golf carts' as well as pedestrian access between the site components.

4. PARKING ASSESSMENT

4.1 WINERY

The Planning and Design Code identifies the following parking provision rates relevant to the assessment of the winery component to meet the relevant Deemed-to-Satisfy/Designated Performance Feature (DTS/DPF) criteria:

- warehouse/storage – applied to finished product and barrel store – 0.5 spaces per 100 m²; and
- industry – applied to the laboratory and tanks/production area – 1.5 spaces per 100 m²; and
- shop (retail) – applied to the cellar door – 5.0 spaces per 100 m² gross leasable floor area (where in an integrated complex containing two or more tenancies – i.e. in this case, integrated with the restaurant component);
- shop (commercial kitchen) – applied to non-function patron capacity – 0.4 spaces per seat;
- meeting room/hall – applied to the function patronage – 0.2 spaces per seat (patron)

Based on the above rates, there would be a requirement for 176 parking spaces (rounded up) to meet the DTS/DPF criteria.

However, while the proposal would not meet the DTS/DPF criteria of the Code in respect to parking provision, it is noted that Performance Outcome 5.1 of the General Development Policies (Transport, Access and Parking) states the following:

> *"Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:*
>
> *(a) availability of on-street car parking*
> *(b) shared use of other parking areas*
> *(c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared*
> *(d) the adaptive reuse of a State or Local Heritage Place."* (our emphases)

The Planning and Design Code therefore contemplates acceptance of lower parking provisions (than suggested by the specified rates) based on development, land use and locality considerations.

Most notably, based on our experience, the Planning and Design Code rates are overly conservative for assessment of winery restaurants, cellar doors and function facilities due to a variety of factors including:

- in this instance, it is understood that the advised patronage for the winery includes the cellar door (therefore the above 'requirement' doubles up on demand associated with this component);
- application of the 'shop' rates to the cellar door use does not reflect realistic demands associated with cellar doors which typically generate lower demands than traditional retail shops. For instance, customers of a cellar door would typically be associated with a higher car occupancy than that of a regular shop (due to distances travelled to get to the site and consumption of alcohol) and a proportion of customers would also be expected to arrive by bus. As such, cellar doors typically have a lower peak parking demand than that of typical retail shops;
- winery restaurants and functions uses are also typically associated with higher levels of car occupancy (again, related to distances travelled and alcohol consumption) as well as higher levels of access by bus/minibus;
- there would be shared trips between the internal components (i.e. restaurant patrons who also patronise the cellar door in the one visit) which results in shared/complimentary parking efficiencies;
- the above assessment assumes full occupancy of all areas within the winery. Such an occurrence would be rare and typical occupancies would be well below the levels adopted for the assessment. Additionally, the peak staffing associated with production and administration would peak during the week and offset with the peak period associated with the hospitality components (which would peak on weekends); and
- in this instance, there would additional efficiencies achieved with guests of the tourist accommodation accessing by foot/golf cart and not requiring additional parking at the winery.

In comparison, based on previous reviews by CIRQA, a peak demand rate of 0.25 spaces per seat/patron (surveyed at a similar facility) is considered appropriate for the cellar door and restaurant uses.

Based on the adoption of the above rate for the cellar door and restaurant, the overall requirement would reduce to 125 parking spaces. However, this still assumes all uses peak consecutively. Allowing for 50% of winery production staff to be on-site on weekends (i.e. outside of the weekday production peaks), the overall demand would reduce to 115 parking spaces. This aligns with the level of formal parking proposed within the site. It is still considered that there are levels of conservatism in the assessment and realistic demands will typically be below

the above level. Additionally, if required during rare/infrequent high demand events, staff parking could be temporarily accommodated within hardstand areas to increase capacity within the primary car park.

Based on the above, it is considered that sufficient parking will be provided within the winery site to easily accommodate realistic peak demands and in line with the provisions of the Planning and Design Code.

4.2 TOURIST ACCOMMODATION

The Planning and Design Code identifies a parking rate of one parking space per accommodation unit/room to meet the relevant DTS/DPF criteria. Notably, the definition of 'tourist accommodation' within the Code includes consideration of "*...onsite services and facilities primarily for the use by guests... [and]... facilities for the management of the accommodation*" (i.e. the above parking provision rate effectively includes consideration of demands associated with other components within such facilities). There is therefore a requirement for 150 parking spaces to meet the DTS/DPF criteria of the Planning and Design Code. Such a level of parking provision will be met and exceeded by the provision of 219 parking spaces within the tourist accommodation site (by 69 parking spaces – equating to a provision level 40% above the minimum requirement).

It is important to note that while the level of parking provision satisfies (and exceeds) the minimum requirements, the surplus has been intentionally allowed to ensure there is additional operational capacity to accommodate a proportion of external patrons utilising the site's facilities. Nevertheless, the principal focus of the parking allocation remains firmly on meeting the needs of accommodation guests, with any parking demand from external site users expected to be secondary and relatively minor in comparison. Furthermore, use of facilities by external patrons will typically occur in the middle of the day (i.e. patrons staying off-site visiting the restaurant or wellness centre) whereas peak hotel parking demands occur between approximately 9 pm and 9 am (as the majority of hotel guests are off-site during the day). This will achieve additional efficiencies within the parking conditions associated with the tourist accommodation and allow ample parking supply even during peak occupancy periods.

5. TRAFFIC GENERATION AND DISTRIBUTION

5.1 CONSTRUCTION PHASE

Movements generated during the construction phase for both developments would relate to the removal of demolition waste (limited given minimal on-site infrastructure) and delivery of construction equipment and materials as well as the movement of workers associated with the project. These movements will be associated with a range of vehicle types (from light vehicles to heavy commercial). Specific details are not yet available in respect to the number of anticipated staff/trades associated with the construction nor commercial vehicle movements. Such details will be dependent on the selection of the construction contractor, their construction methodology and timing. This could be further reviewed as part of the preparation of a Construction Environmental Management Plan (CEMP) once development approval has been achieved. However, for the purposes of this assessment, the following commentary is provided in respect to construction traffic management considerations.

Based on other projects CIRQA has provided advice on, it is anticipated that there would typically be the following light vehicles associated with construction for the two development components:

- winery – 20 to 30 staff/trades vehicles on site each day; and
- tourist accommodation – 10 to 20 staff/trades vehicles on site each day.

This would result in the order of 60 to 100 light vehicle movements per day (albeit this may be slightly higher as some workers may need to undertake additional trips). Generally, it is considered that in the order of 100 to 150 light vehicle movements could be generated per day (of construction) assuming the construction of both developments peak concurrently (and no allowance for trades servicing both developments). Vehicles associated with workers will typically be light/domestic vehicles (up to dual-cab 'ute'/vans in size or similar).

Vehicle types associated with the construction of the infrastructure will include a range of demolition, general construction/delivery vehicles and earthmoving equipment. It is anticipated that such movements would be undertaken by 19.0 m Semi-Trailers or smaller rigid trucks (i.e. general access vehicles). Should access to the site be sought with larger and/or specialised vehicles (including Restricted Access Vehicles, oversize and/or overmass vehicles), access permits would be required to be sought from the National Heavy Vehicle Regulator (NHVR) and the relevant road authorities (the respective Councils and/or DIT). While numbers would need to be confirmed by the construction contractor, based on CIRQA's experience, it is anticipated there would typically be in the order of the following:

- winery – 10 to 15 commercial vehicle movements per day; and
- tourist accommodation – 20 to 40 commercial vehicle movements per day.

Therefore, in the order of 30 to 55 commercial vehicle movements per day could be associated with the construction. However, this will vary dependent on construction phase and the timing of construction of the two development components.

In order to minimise impacts on the broader road network, it is recommended that the construction methodology seeks to:

- solely distribute traffic to/from the west of the site the Hoffnungsthal Road/Lyndoch Valley Road intersection (i.e. construction related traffic should be directed not to utilise Tweedies Gully Road/Trials Hill Road;
- retain as much construction equipment/plant on-site during the duration of the construction phase to minimise movements by heavy vehicles to/from the site; and
- consider temporary traffic control messages such as advisory/warning signage (trucks entering or similar) and reduced speed limits (where slow moving commercial vehicles enter/exit the site).

It is anticipated that the majority of commercial vehicles associated with the construction phase will access the site via the north-west (i.e. to/from Main North Road and the Northern Expressway via Lyndoch Valley Road). Light vehicle movements associated with staff and trades (light vehicle related) would be split between the north and south via Lyndoch Valley Road.

5.2 OPERATIONAL PHASE

5.2.1 WINERY

The RMS "Guide to Transport Impact Assessment", and its subsequent updates, are documents commonly used by traffic engineers in order to determine the forecast traffic generation of a variety of land uses. The RTA Guide identifies the following peak hour traffic generation rates which are relevant to the proposal:

- industry/factory – 1.0 peak hour trip per 100 m^2 of gross leasable floor area;
- store/warehouse – 0.5 am peak hour trips per 100 m^2 of gross leasable floor area; and
- restaurant – 5 peak hour trips per 100 m^2.

In reality, based on CIRQA's experience, the 'restaurant' trip generation rate identified by the Guide is much higher than typical generated at winery restaurants and cellar doors. This is due to factors such as higher average vehicle occupancies as well as a greater proportion of guests accessing by minibuses or buses (which is rare at metropolitan restaurants). Based on reviews of similar winery developments by CIRQA, traffic generation is typically in the order of 50% less than the above theoretical rate. For conservatism, a reduction of only 30% has been applied to the above restaurant rate.

For the purposes of the assessment, the above rates have been adopted as follows:

- **tanks and laboratory areas** – 1.0 peak hour trip per 100 m^2;
- **barrels and finished goods** – 0.5 peak hour trips per 100 m^2; and
- **cellar door, restaurant and function** – 2.5 peak hour trips per 100 m^2.

In total, the above rates would equate to 63 peak hour trips. However, the peak period associated with the winery production would typically occur during weekdays, whereas the patron-based uses would generate peak demands on weekends (with weekday demands in the order of 20% or less of weekend demands). On this basis, it is forecast that the winery would generate in the order of 45 to 50 peak hour movements on weekends (Saturdays) with a lesser generation in the order of 25 to 30 peak hour movements on weekdays. During peak periods, the majority of movements would be associated with patrons and, to a lesser degree, staff. These will typically be undertaken in light/domestic vehicles (cars, utes etc.) albeit a small proportion of the above movements will, at times, be associated with larger vehicles such as buses. There will also be additional movements associated with commercial vehicle servicing of the winery (including production related movements as well as servicing and deliveries for the hospitality components). Such movements, however, would generally be spread across operating hours with the level of movements during the peak periods relatively low.

In comparison to the above, the winery operator has advised that (based on their own data of similar facilities), patronage levels are anticipated to typically be in the order of 0 to 42 pax per weekday and 236 to 260 pax on weekends (with Saturdays being the peak visitation day). Assuming the majority of vehicle movements occur over 4 hours on a Saturday and that there is an average of 2.5 patrons per vehicle, there would 24 guest vehicles anticipated per hour. Assuming each of these vehicles remained on site for less than an hour, there would be 46 movements on average per hour. In reality, however, a portion would remain on-site longer (particularly those associated with the restaurant) and the hourly generation rate would be lower. Nevertheless, the quantum of movements is

similar to that theoretically forecast and the above forecasts are considered to be appropriate.

5.2.2 TOURIST ACCOMMODATION

The RMS "Guide to Transport Impact Assessment" identifies a traffic generation rate of 0.4 evening peak hour trips per unit within 'motels' (including allowance for 'in-house' facilities such as restaurants). On this basis, the proposal would generate in the order of 60 peak hour movements. Such rates have historically been adopted for other tourist accommodation facilities (including hotels similar to the proposed facility). However, the data utilised to inform the rate identified in the RMS Guide is from 1979 and significantly outdated.

The RMS Guide notes that while the above rate is useful as a reference point, consideration should be given to rates from comparable facilities. Of particular relevance, Austraffic (on behalf of CIRQA) has previously recorded traffic volumes in the vicinity of the Novotel Barossa tourist accommodation facility (Friday 1 to Thursday 7 September 2023). The Novotel survey indicated peak hour volumes of approximately 32 am and 30 pm trips during the weekday and 46 weekend (2 pm) peak hour trips. Based on the 140 accommodation rooms at the Novotel, this equates to a rate of approximately 0.22 weekday and 0.33 weekend peak hour trips per accommodation room (with meeting/conference/function and restaurant areas treated as ancillary). However, such rates are conservative compared to the subject situation as the Novotel volumes also include movements associated with the golf course adjacent to the tourist accommodation (whereas the subject development does not include such a facility). Nevertheless, inclusion of the golf-related trips within the above rates, provides a level of additional conservatism for assessment of the subject proposal (i.e. allowing for fluctuation in seasonal demands and occupancy rates) and would easily accommodate any small additional level of movements associated with the wellness facility within the proposed development.

The above observed (realistic) rate is lower than the historic rate identified by the RMS Guide. Notably, the Novotel rates confirm that inclusion of areas such as meeting/conference, function and restaurants spaces are adequately included within the above 'per room' generation rates. This is reflective of typical use of such areas primarily being associated with guests of the tourist accommodation facility (nevertheless, these rates do allow for some external patron use as would also occur at the Novotel). On the basis of the above, the conservative forecast determined by application of the RMS rate has been adopted for these investigations.

Based on information provided by the hotel consultant, it is anticipated that the peak hour associated with guest movements (and other partially ancillary uses within the site) would occur at approximately 1pm to 2pm on a Saturday. Trips

generation during the weekday (commuter) peak hours would be less and anticipated to be in the order of 25% to 33% of the weekend peak (or 15 to 20 trips).

As with the winery, the vast majority of movements during these peak hours will be associated with light/domestic vehicles. There will be occasional commercial vehicle movements during these peak hours, however, service and delivery movements would be spread throughout the day. The number of commercial vehicle movements during any one hour would be relatively low.

5.2.3 COMBINED GENERATION AND DISTRIBUTION

Based on the above forecasts, the following total (upper level) peak hour volumes are forecast for the proposals:

- weekday peak hours – 30 winery-related trips and 20 tourist accommodation-related trips equating to a total of 50 peak hour trips; and
- weekend peak hour – 50 winery-related trips and 60 tourist accommodation-related trips equating to a total of 110 peak hour trips.

It should be noted that the total peak hour trips above assume the peak periods associated with the two land uses directly coincide and that there are no efficiencies achieved by their co-location (i.e. accommodation guests who walk to winery rather than drive). Realistic peak hour volumes would be less than noted above. The above rates also assume full occupancy of both land use components and typical traffic volumes would be less than identified.

In order to determine the distribution of the above movements, a number of assumptions have been adopted in respect to movements into and out the site. This has included review of travel distances and times (using online tools such as Google Maps and on-site inspection) to identify realistic access routes for drivers accessing the site. Specifically, the following assumptions have been adopted:

- for the winery, weekday am peak hour movements will be split 70% inbound and 30% outbound, and weekday pm peak hour movements will be split 30% inbound and 70% outbound and Saturday peak hour movements will be split 50% inbound and 50% outbound;
- for the tourist accommodation, weekday am peak hour movements will be split 40% inbound and 60% outbound, and weekday pm peak hour movements will be split 60% inbound and 40% outbound and Saturday peak hour movements will be split 60% inbound and 40% outbound;
- 5% of movements will be distributed to/from the east of the site (via Tweedies Gully Road and Trial Hill Road);

- 95% of movements will be distributed to/from the west (via Hoffnungsthal Road's connection to Lyndoch Valley Road) and then distributed as follows:
  - 60% to/from the north along Lyndoch Valley Road (to/from Lyndoch and beyond via Barossa Valley Way north and east and Gilbert Street);
  - 40% to/from south along Lyndoch Valley Road (to/from Williamstown and beyond via Miamba Road, Williamstown Road, Victoria Terrace and Mount Crawford Road).

Based on the above assumptions (as well as review of existing traffic data for the surrounding road network), forecast additional movements for the surrounding road network have been forecast. These are identified in Appendix D.

6. TRAFFIC IMPACT

6.1 CONSTRUCTION PHASE

The number of vehicle movements associated with the construction phase would not be significant. Notably, the peak hour volumes during the construction phase would be well below that forecast for the operational phase. Detailed capacity analysis of impacts during the construction phase is not considered warranted (the analytic results would simply show more favourable results than identified for the operational phase as detailed in the following sub-section).

However, it is acknowledged that the construction phase would have a higher level of commercial vehicle movements to/from the site. As detailed above, to minimise impacts on the adjacent road network, it is recommended that vehicle access during construction be undertaken via the connection of Hoffnungsthal Road to Lyndoch Valley Road to the maximum extent feasible.

The impacts of the construction vehicle movements should be considered further as part of the development with a CEMP prepared once the construction contractor has been appointed and their methodology identified. Further liaison with Council should be undertaken as the methodology is refined.

6.2 OPERATIONAL PHASE

For the purposes of the traffic impact assessment, it has been assumed that both development components are completed and operational (i.e. the 'worst case'/combined volumes in respect to potential impacts associated with the proposals).

Based on the review of the forecast traffic volumes (identified in Section 5.2.3 above), the following impacts and associated outcomes have been identified for the relevant sections of surrounding roads and intersections (as per the EIS criteria). These have been separated into the initial high level review requested by DIT (Section 6.2.1) and the more detailed review of conditions on the roads closer to the subject site requested by both DIT and Council (Section 6.2.2).

6.2.1 HIGH LEVEL REVIEW

DIT requested review of the following locations within the broader network (in a high-level sense) as reflected in the EIS criteria:

- **Lyndoch Valley Road/Barossa Valley Way/Gilbert Street intersection** – the distribution diagram provided in Section 5.2.3 indicates that the level of additional movements distributed to/from this intersection is relatively low (particularly when distributed between the various turning movements). Additionally, the level of existing traffic at this intersection is not significant and would be within the capacity of the existing treatment. It is

acknowledged that a priority-controlled four-way intersection would not typically be desirable for the intersection of arterial roads. Nevertheless, the available crash statistics (one reported crash in five years) do not suggest an existing issue at this location. Consideration could be given to additional linemarking treatments (such as providing separated turn lanes on approaches currently not treated as such). However, in the context of the existing operation of the intersection and the relatively low traffic volumes distributed via the intersection, it is not considered that this would be warranted as part of the subject proposals. Conditions at the intersection should continue to be monitored by DIT as part of their standard maintenance and management practices;

- **Williamstown Road-Miamba Road-Lyndoch Valley Road route from Sandy Creek** – as per the above distribution forecasts, the level of traffic anticipated to utilise this route for access to/from the subject is not considered to be significant. As noted above, while Miamba Road presents a shorter route in respect to distance, travel time benefits are not realised due to its unsealed nature. Google Maps and Apple Maps direct drivers to utilise either Barossa Valley Way (via Lyndoch) or Williamstown Road (without utilising Miamba Road). The majority of tourist/guests/patrons accessing the site would therefore be likely to utilise these routes. There may be a very small proportion who do utilised Miamba Road as well as some staff who reside within nearby areas to the west (such as Cockatoo Valley, Sandy Creek and Gawler East) who may also utilise this route. However, the overall numbers are very low and would not have notable impact on conditions (including road safety) along this route; and
- **Victoria Terrace/Mount Crawford Road/Queen Street intersection** – existing traffic count data is not available for this intersection, however, based on DIT data for the three approach roads, the existing volumes are not significant. As with the Lyndoch Valley Road/Barossa Valley Way/Gilbert Street intersection, the additional movements distributed to/from this intersection will be low. Such volumes would have negligible impact on conditions (there may be slight increases in delays and queues but these would not be of any notable amount – particularly given the conservatism in the above assessment). It is not considered that treatment is warranted as a result of the proposals. Again, DIT should undertaken appropriate maintenance and management of this intersection regardless of the proposals.

6.2.2 DETAILED REVIEW

- **Menzel Road** – the level of additional traffic distributed via Menzel Road will be above that typically accepted for accommodation via an unsealed road. It is also anticipated that sealing of the road may be desirable for the hotel operator in respect to guest arrival experience. In order to accommodate the

forecast movements, it is desirable that an upgrade to the Menzel Road surface be undertaken. At a minimum, it is recommended that a spray seal be implemented along Menzel Road between Hoffnungsthal Road and the tourist accommodation access point (extending slightly further south). However, pavement details have been considered separately by MLEI (the civil engineering consultants for the project);

- **Hoffnungsthal Road (in the vicinity of Menzel Road and Tweedies Gully Road)** – the current condition of Hoffnungsthal Road is generally considered sufficient and appropriate to accommodate the additional traffic volumes generated by the proposals (albeit refer to the separate dot point addressing its intersection with Lindner Road). However, given the level of additional traffic movements (both into/out of Menzel Road and the winery access points), it is recommended that a speed reduction to at least 80 km/h be sought in the vicinity of the subject site (and the intersections of Menzel Road and Tweedies Gully Road). There are a number of sight distance limitations (including vertical crests, large roadside trees etc.) along Hoffnungsthal Road particularly in relation to the requirements associated with a 100 km/h speed limit. The reduction in speed would reduce stopping distances and, by extension, sight distance requirements and provide a safer outcome for access to/from the site as well as generally along this section of Hoffnungsthal Road. This has been discussed with both Council's engineering representative and DIT who have given initial indication that such a reduction is considered (while Hoffnungsthal Road is not under DIT control, DIT manages speed zoning for all roads and will ultimately need to approved any change in speed limit);
- **Hoffnungsthal Road / Menzel Road intersection** – The existing intersection layout is generally considered sufficient to accommodate the additional movements associated with the proposed developments, albeit with the noted upgrade of Menzel Road extending to this intersection (design details should include review of commercial vehicle paths to ensure adequate corner radii are adopted when sealed). While the forecast future traffic volumes would warrant basic turn treatments based on the recommendations of the Austroads' guide, so would the existing situation (there is no lower form of treatment). The provision of such treatments would not be feasible within the existing road reserve and topography of the verges. Importantly, the traffic volumes are very low and adequate sight distance is achievable. From both a safety and capacity perspective, it is considered that the intersection will adequately accommodate the forecast movements (without BAL/BAR treatments). Nevertheless, as noted above, reduction of the speed limit in the vicinity of this intersection would be desirable to optimise safety outcomes;
- **Hoffnungsthal Road / Linder Road intersection** – A review of vehicle turn paths within the curved section of Hoffnungsthal Road indicates that

simultaneous movements of a commercial vehicle (such as a Heavy Rigid Vehicle) and a car (B99 design vehicle) could not be accommodated within the existing carriageway width in the vicinity of the Lindner Road intersection. While there is some argument that this is an existing deficiency within the road network that should be addressed by Council, the existing volumes are low and the probability of conflict in this location is minimal. The increase in volumes associated with the proposal (including increased commercial vehicle movements) would, however, increase the probability of conflict. Desirably, widening would be undertaken in the vicinity of the intersection to improve accommodation of the above movements (and it is likely that Council will seek such works to be addressed as part of the development). The ability to undertake significant improvement is limited by large (significant and/or regulated) trees for which removal would unlikely be approved. It is therefore recommended that shoulder sealing along the south-eastern and south-western sides of the curve in Hoffnungsthal Road (in the vicinity of the connection of Lindner Road) be sealed to provide the ability for drivers of vehicles to increase clearance to vehicles travelling in the opposite direction, if required). Figure 5 illustrates a high-level concept of such a treatment (the layout is subject to survey information, detailed design and further discussion with Council).

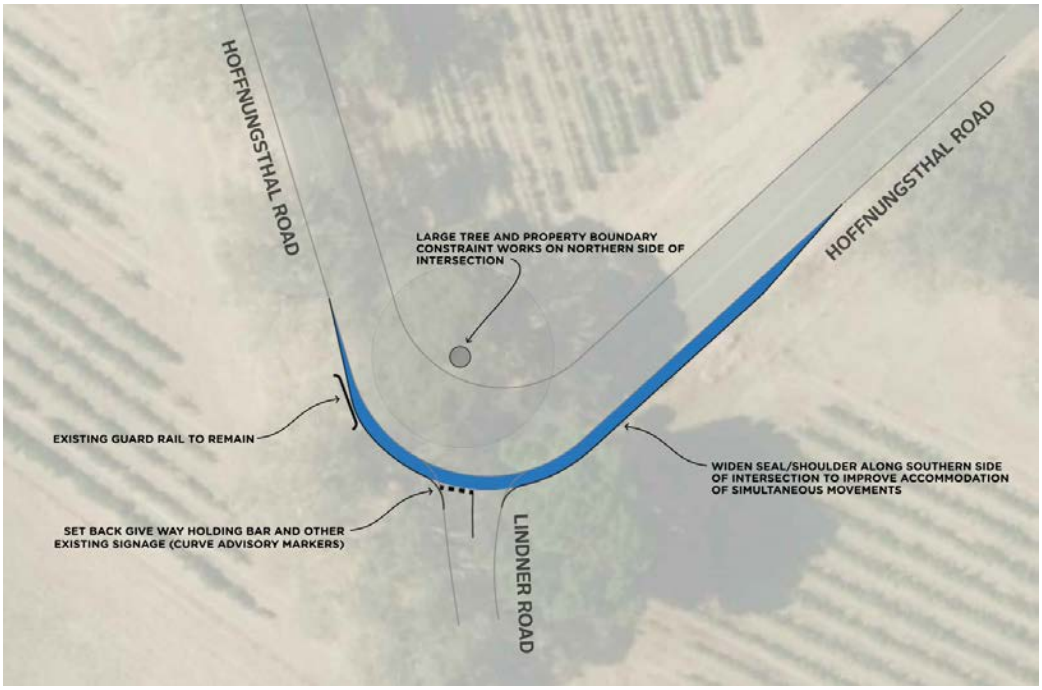


Figure 5 - High level concept for possible widening of Hoffnungsthal Road near Lindner Road

- **Lyndoch Valley Way / Hoffnungsthal Road intersection** – An assessment has been undertaken in respect to the forecast future traffic movements and the warrants for turn treatment of the Austroads' *"Guide to Traffic Management"*. The Austroads' Guide provides the industry standard

approach to assessment of the need for traffic control treatments at intersections. DIT's initial comments included commentary that such warrants should be assessed at this intersection (as is typical for projects such as the subject proposal). In addition to the above forecast development volumes as well allowance for existing movements into/out of Hoffnungsthal Road, the following through-bound movements (from DIT data) have been utilised for the assessment:

- northbound: 210 am, 106 pm and 151 Saturday peak hour movements; and
- southbound: 95 am, 220 pm and 134 Saturday peak hour movements.

The Austroads' assessment identifies that the additional traffic generated by the proposed developments would warrant the provision of a Short Channelised Right Turn (CHR(s)) treatment (i.e. separated right turn deceleration and storage lane) and a Basic Auxiliary Left Turn (AUL) treatment (i.e. shoulder widening adjacent the southbound through lane). Figure 6 illustrates a high-level concept of such a treatment.

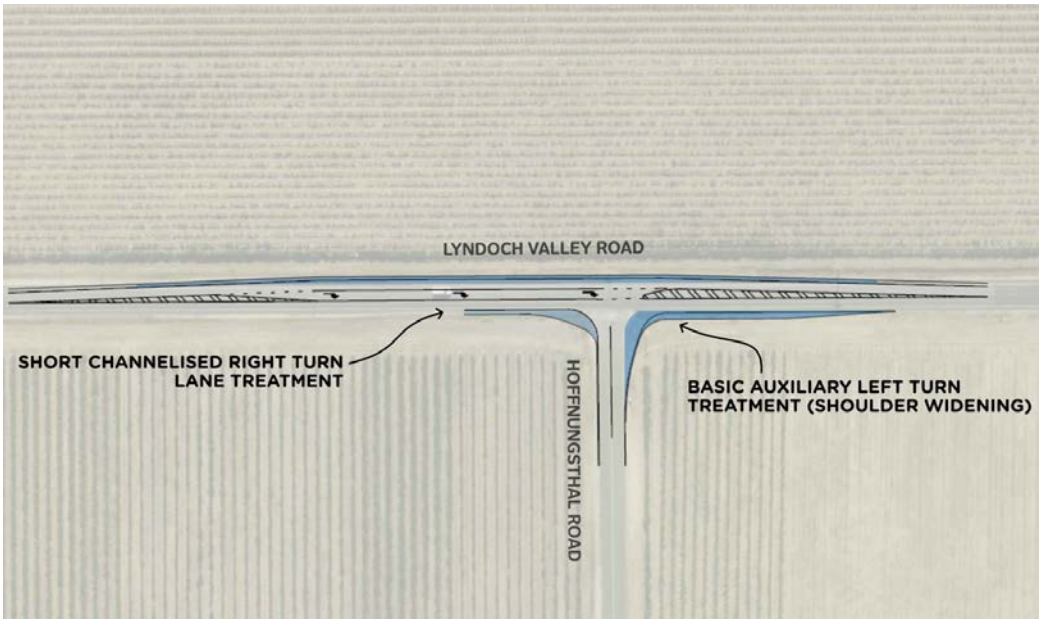


Figure 6 - High level concept for turn treatments at Hoffnungsthal Road/Lyndoch Valley Way intersection (as per Austroads' Guide)

- **Hoffnungsthal Road/Tweedies Gully Road intersection** – The existing intersection layout has some existing deficiencies due to adjacent crest in Hoffnungsthal Road. The ability to undertake improvements to this intersection are limited given the existing constraints. Significant distribution of movements via this intersection would not be desirable. Nevertheless, given the unsealed nature of Tweedies Gully Road (and Trial Hill Road), it is anticipated that use of these roads and this intersection by drivers associated with the proposed developments would be low. Navigation tools

(such as Google Maps and Apple Maps) direct drivers wishing to drive between the site and destinations north-east of Trial Hill Road to avoid this route and utilise Lyndoch Valley Way. As with Miamba Road, it is anticipated that while there may be some limited use associated with a small proportion of guests and staff (and an even smaller proportion utilising the nearby helicopter facility or Lavender Farm), there would not be notable increases in the use of this intersection. It is recommended, however, that wayfinding signage as well as information provided to guests/patrons reflect the desire that drivers utilise Lyndoch Valley Road for all movements to/from the site. Similarly, the CEMP developed to manage construction methodology should require all construction related movements to occur via the Lyndoch Valley Road route;

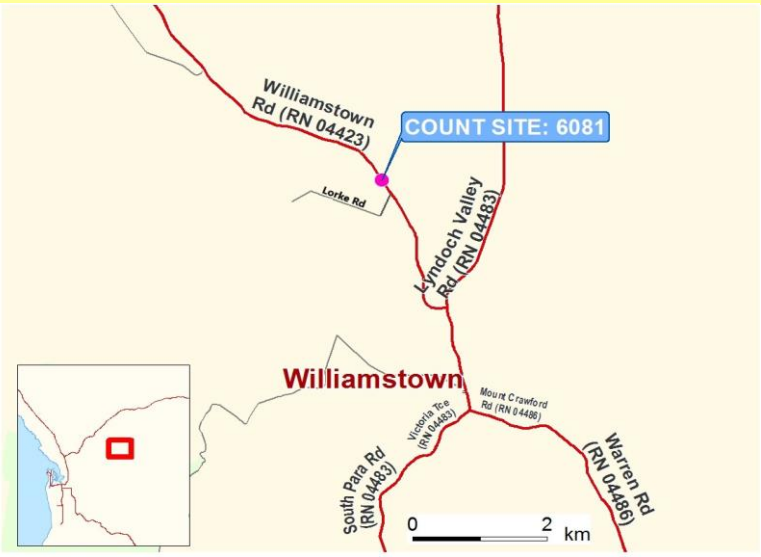
- **Tweedies Gully Road and Trial Hill Road** – as with the comments regarding the use of Tweedies Gully Road at its intersection with Hoffnungsthal Road, it is not considered that there would be notable use of Tweedies Gully Road nor Trial Hill Road for access to/from the site. This can be reinforced with wayfinding signage and information provide to patrons/guests as well as construction staff and contractors. It is not considered that any specific treatment is required to enable safe and appropriate use of these two roads to accommodate the forecast movements associated with the proposal.
- **Trial Hill Road/Barossa Valley Way intersection** – similarly, volumes distributed into and out of Trial Hill Road via this intersection will be low. There will also be additional through-bound movements along Barossa Valley Way generated by the proposal (i.e. associated with drivers utilising the Lyndoch Valley Road route to travel to/from the north-east). In the context of existing volumes at the intersection, the forecast increases are low. It is considered that the existing intersection is functioning appropriately and that there would be negligible impact on conditions at the intersection (particularly given the primary increase will be on the priority approaches). No further treatment is considered warranted to safely accommodate the forecast increases in volumes at the intersection.

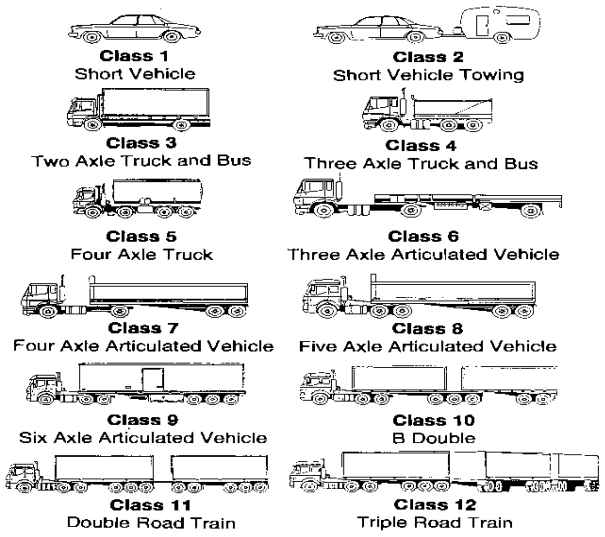
APPENDIX A

EXISTING TRAFFIC VOLUME DATA

Road Name	WILLIAMSTOWN ROAD	**Site No.**	6081
Road No.	4423 RRD 6.47	**AMG**	UG053644
Locality	WILLIAMSTOWN	**Meter Type**	Metrocount
Location	2.6km north of RN 4483 (Lyndoch Valley Road)	**Latitude, Longitude**	-34.63962,138.87433

Click to view the location in Google Maps *(imagery may not be current)*





Count Summary (Two Way) **Count Period : Wednesday 8/05/2024 to Tuesday 14/05/2024 inclusive**

5 Day Average Daily Traffic	*2801*	5 Day Average Heavy Vehicles	*414*
7 Day Average Daily Traffic	*2836*	7 Day Average Heavy Vehicles	*374*
Est AADT (Annual Average Daily Traffic)*	*2,800*	7 Day Average Heavy Vehicle Content	*13%*

COMMENTS:

Totals by AUSTROADS Vehicle Classification (Dominant vehicles shown in diagram above) See Back Page for detailed description

Two Way Traffic *No seasonal factor applied NB. Bin 13 contains unclassifiable vehicles

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
8/05/2024	Wednesday	2239	167	240	17	18	23	26	15	60	19	2	0	0	2826
9/05/2024	Thursday	2196	147	240	20	3	10	38	7	49	15	0	0	0	2725
10/05/2024	Friday	2383	192	272	39	6	20	41	13	63	9	1	0	1	3040
11/05/2024	Saturday	2571	202	254	3	0	16	41	3	12	0	0	0	0	3102
12/05/2024	Sunday	2404	119	175	2	1	4	26	4	8	2	0	0	0	2745
13/05/2024	Monday	2121	142	220	28	4	17	26	12	93	6	1	0	2	2672
14/05/2024	Tuesday	2186	157	231	22	4	13	22	12	89	4	0	0	0	2740
5 Day Ave		*2225*	*161*	*241*	*25*	*7*	*17*	*31*	*12*	*71*	*11*	*1*	*0*	*1*	*2801*
7 Day Ave		*2300*	*161*	*233*	*19*	*5*	*15*	*31*	*9*	*53*	*8*	*1*	*0*	*0*	*2836*

South Bound

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
8/05/2024	Wednesday	1152	79	133	7	9	12	15	8	30	7	1	0	0	1453
9/05/2024	Thursday	1144	76	125	10	2	4	20	4	19	8	0	0	0	1412
10/05/2024	Friday	1215	95	138	19	4	14	21	4	32	6	1	0	1	1550
11/05/2024	Saturday	1313	97	148	2	0	10	18	2	7	0	0	0	0	1597
12/05/2024	Sunday	1183	60	83	1	1	1	13	2	4	1	0	0	0	1349
13/05/2024	Monday	1104	62	118	12	4	9	16	7	46	4	0	0	1	1383
14/05/2024	Tuesday	1124	68	119	8	1	6	14	7	38	3	0	0	0	1388
5 Day Ave		*1148*	*76*	*127*	*11*	*4*	*9*	*17*	*6*	*33*	*6*	*0*	*0*	*0*	*1437*
7 Day Ave		*1176*	*77*	*123*	*8*	*3*	*8*	*17*	*5*	*25*	*4*	*0*	*0*	*0*	*1447*

North Bound

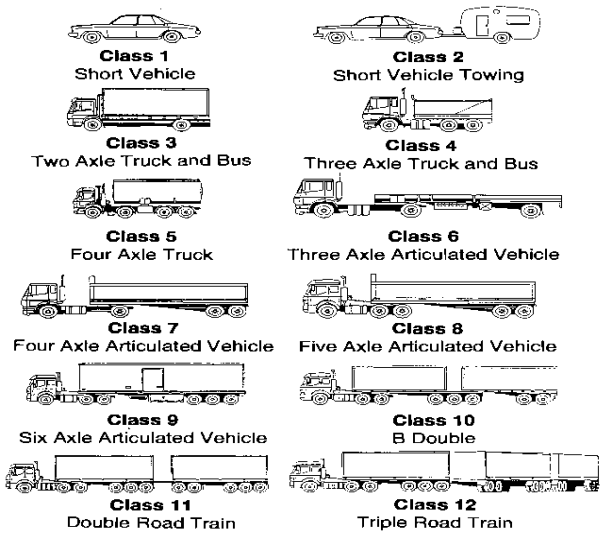
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
8/05/2024	Wednesday	1087	88	107	10	9	11	11	7	30	12	1	0	0	1373
9/05/2024	Thursday	1052	71	115	10	1	6	18	3	30	7	0	0	0	1313
10/05/2024	Friday	1168	97	134	20	2	6	20	9	31	3	0	0	0	1490
11/05/2024	Saturday	1258	105	106	1	0	6	23	1	5	0	0	0	0	1505
12/05/2024	Sunday	1221	59	92	1	0	3	13	2	4	1	0	0	0	1396
13/05/2024	Monday	1017	80	102	16	0	8	10	5	47	2	1	0	1	1289
14/05/2024	Tuesday	1062	89	112	14	3	7	8	5	51	1	0	0	0	1352
5 Day Ave		*1077*	*85*	*114*	*14*	*3*	*8*	*13*	*6*	*38*	*5*	*0*	*0*	*0*	*1363*
7 Day Ave		*1124*	*84*	*110*	*10*	*2*	*7*	*15*	*5*	*28*	*4*	*0*	*0*	*0*	*1388*

Transport Analytics

Government of South Australia
Department for Infrastructure and Transport

Road Name	SOUTH PARA ROAD	**Site No.**	6390
Road No.	4483 RRD 10.75	**AMG**	UG054590
Locality	WILLIAMSTOWN	**Meter Type**	Metrocount
Location	2.5km south of RN 4486 (Warren Road)	**Latitude, Longitude**	-34.68948,138.87714

Click to view the location in Google Maps *(imagery may not be current)*



Count Summary (Two Way) **Count Period : Tuesday** **22/10/2024** **to** **Monday** **28/10/2024** **inclusive**

5 Day Average Daily Traffic	*1185*	5 Day Average Heavy Vehicles	*209*
7 Day Average Daily Traffic	*1239*	7 Day Average Heavy Vehicles	*193*
Est AADT (Annual Average Daily Traffic)*	*1,200*	7 Day Average Heavy Vehicle Content	*16%*

COMMENTS:

Totals by AUSTROADS Vehicle Classification (Dominant vehicles shown in diagram above) See Back Page for detailed description

Two Way Traffic *No seasonal factor applied NB. Bin 13 contains unclassifiable vehicles

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	885	22	179	17	2	5	8	0	1	0	0	0	0	1119
23/10/2024	Wednesday	975	21	181	11	0	4	5	2	2	0	0	0	0	1201
24/10/2024	Thursday	1013	26	195	12	1	9	11	2	1	0	0	0	0	1270
25/10/2024	Friday	1020	32	173	18	0	9	12	0	7	1	0	0	0	1272
26/10/2024	Saturday	1103	30	137	3	1	5	11	0	0	0	0	0	0	1290
27/10/2024	Sunday	1263	46	127	5	2	8	6	0	0	0	0	0	1	1458
28/10/2024	Monday	857	29	154	5	0	4	9	1	3	2	0	0	0	1064
5 Day Ave		*950*	*26*	*176*	*13*	*1*	*6*	*9*	*1*	*3*	*1*	*0*	*0*	*0*	*1185*
7 Day Ave		*1017*	*29*	*164*	*10*	*1*	*6*	*9*	*1*	*2*	*0*	*0*	*0*	*0*	*1239*

South Bound

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	447	12	90	10	1	2	1	0	0	0	0	0	0	563
23/10/2024	Wednesday	501	11	90	7	0	0	3	1	1	0	0	0	0	614
24/10/2024	Thursday	509	16	102	8	1	3	6	1	1	0	0	0	0	647
25/10/2024	Friday	515	12	85	10	0	3	4	0	4	1	0	0	0	634
26/10/2024	Saturday	559	18	61	2	1	3	4	0	0	0	0	0	0	648
27/10/2024	Sunday	680	22	59	3	1	6	4	0	0	0	0	0	1	776
28/10/2024	Monday	431	20	76	4	0	0	4	1	2	0	0	0	0	538
5 Day Ave		*481*	*14*	*89*	*8*	*0*	*2*	*4*	*1*	*2*	*0*	*0*	*0*	*0*	*599*
7 Day Ave		*520*	*16*	*80*	*6*	*1*	*2*	*4*	*0*	*1*	*0*	*0*	*0*	*0*	*631*

North Bound

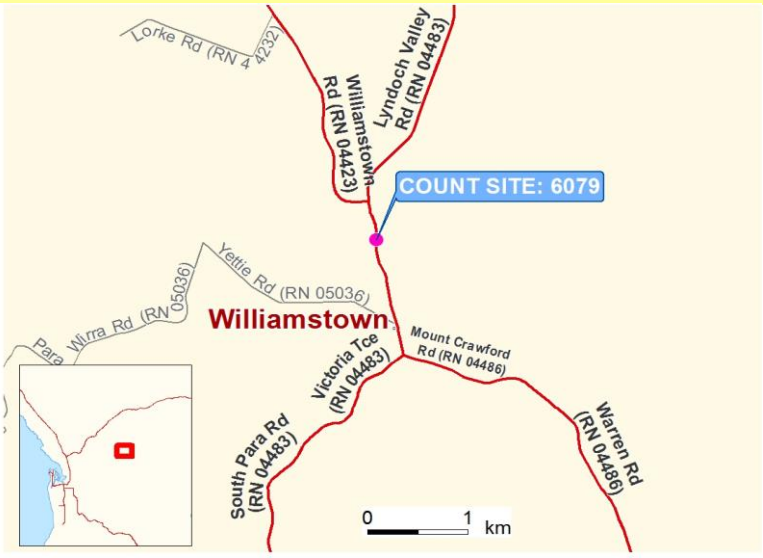
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	438	10	89	7	1	3	7	0	1	0	0	0	0	556
23/10/2024	Wednesday	474	10	91	4	0	4	2	1	1	0	0	0	0	587
24/10/2024	Thursday	504	10	93	4	0	6	5	1	0	0	0	0	0	623
25/10/2024	Friday	505	20	88	8	0	6	8	0	3	0	0	0	0	638
26/10/2024	Saturday	544	12	76	1	0	2	7	0	0	0	0	0	0	642
27/10/2024	Sunday	583	24	68	2	1	2	2	0	0	0	0	0	0	682
28/10/2024	Monday	426	9	78	1	0	4	5	0	1	2	0	0	0	526
5 Day Ave		*469*	*12*	*88*	*5*	*0*	*5*	*5*	*0*	*1*	*0*	*0*	*0*	*0*	*586*
7 Day Ave		*496*	*14*	*83*	*4*	*0*	*4*	*5*	*0*	*1*	*0*	*0*	*0*	*0*	*608*

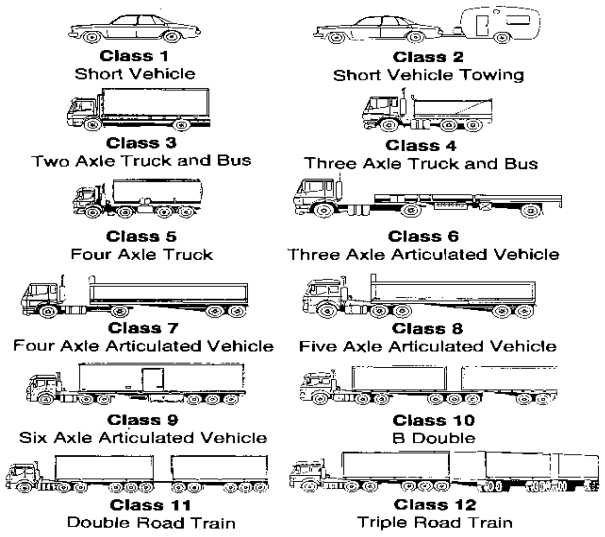
Transport Analytics

Government of South Australia
Department for Infrastructure and Transport

Road Name	LYNDOCH VALLEY ROAD	**Site No.**	6079
Road No.	4483 RRD 7.00	**AMG**	UG063625
Locality	WILLIAMSTOWN	**Meter Type**	Metrocount
Location	400m south of RN 4423 (Williamstown Road)	**Latitude, Longitude**	-34.66186,138.88745

Click to view the location in Google Maps *(imagery may not be current)*





Count Summary (Two Way) **Count Period : Tuesday 22/10/2024 to Monday 28/10/2024 inclusive**

5 Day Average Daily Traffic	*5425*	5 Day Average Heavy Vehicles	*764*
7 Day Average Daily Traffic	*5221*	7 Day Average Heavy Vehicles	*677*
Est AADT (Annual Average Daily Traffic)*	*5,200*	7 Day Average Heavy Vehicle Content	*13%*

COMMENTS:

Totals by AUSTROADS Vehicle Classification (Dominant vehicles shown in diagram above) See Back Page for detailed description

Two Way Traffic *No seasonal factor applied NB. Bin 13 contains unclassifiable vehicles

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	4199	175	540	33	9	14	32	16	92	14	0	0	1	5125
23/10/2024	Wednesday	4275	178	519	26	9	17	33	7	78	10	2	1	1	5156
24/10/2024	Thursday	4545	234	560	32	10	28	49	12	75	15	0	0	0	5560
25/10/2024	Friday	4916	311	589	38	5	37	58	14	81	20	6	0	2	6077
26/10/2024	Saturday	4039	286	368	6	5	21	41	0	15	0	1	0	1	4783
27/10/2024	Sunday	3867	304	356	1	5	33	47	7	14	2	0	0	1	4637
28/10/2024	Monday	4275	192	513	34	12	26	41	7	79	24	3	0	0	5206
5 Day Ave		*4442*	*218*	*544*	*33*	*9*	*24*	*43*	*11*	*81*	*17*	*2*	*0*	*1*	*5425*
7 Day Ave		*4302*	*240*	*492*	*24*	*8*	*25*	*43*	*9*	*62*	*12*	*2*	*0*	*1*	*5221*

South Bound

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	2132	78	264	16	6	5	14	9	45	7	0	0	1	2577
23/10/2024	Wednesday	2168	95	263	13	5	8	13	3	35	4	1	0	1	2609
24/10/2024	Thursday	2323	129	295	21	5	15	21	6	33	8	0	0	0	2856
25/10/2024	Friday	2506	173	305	19	3	21	26	8	41	13	1	0	2	3118
26/10/2024	Saturday	2042	146	182	3	1	13	18	0	8	0	0	0	1	2414
27/10/2024	Sunday	1936	132	175	1	3	7	18	3	7	2	0	0	1	2285
28/10/2024	Monday	2181	85	257	20	4	15	16	4	43	11	2	0	0	2638
5 Day Ave		*2262*	*112*	*277*	*18*	*5*	*13*	*18*	*6*	*39*	*9*	*1*	*0*	*1*	*2760*
7 Day Ave		*2184*	*120*	*249*	*13*	*4*	*12*	*18*	*5*	*30*	*6*	*1*	*0*	*1*	*2642*

North Bound

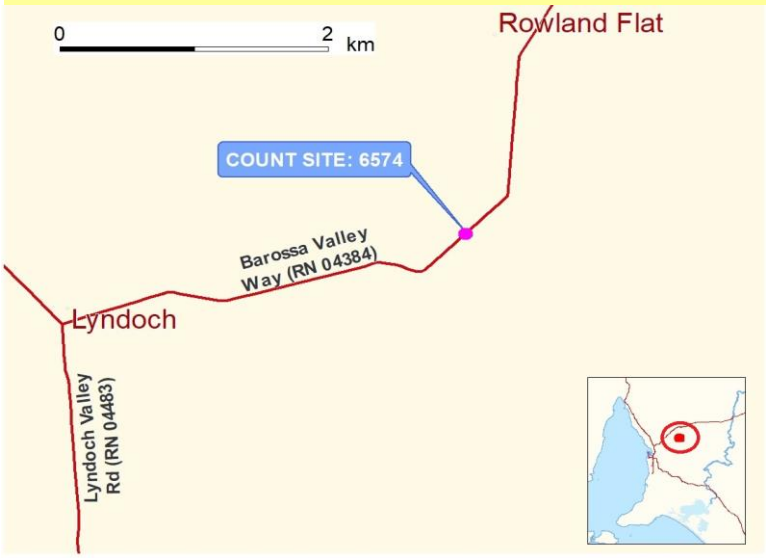
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	2067	97	276	17	3	9	18	7	47	7	0	0	0	2548
23/10/2024	Wednesday	2107	83	256	13	4	9	20	4	43	6	1	1	0	2547
24/10/2024	Thursday	2222	105	265	11	5	13	28	6	42	7	0	0	0	2704
25/10/2024	Friday	2410	138	284	19	2	16	32	6	40	7	5	0	0	2959
26/10/2024	Saturday	1997	140	186	3	4	8	23	0	7	0	1	0	0	2369
27/10/2024	Sunday	1931	172	181	0	2	26	29	4	7	0	0	0	0	2352
28/10/2024	Monday	2094	107	256	14	8	11	25	3	36	13	1	0	0	2568
5 Day Ave		*2180*	*106*	*267*	*15*	*4*	*12*	*25*	*5*	*42*	*8*	*1*	*0*	*0*	*2665*
7 Day Ave		*2118*	*120*	*243*	*11*	*4*	*13*	*25*	*4*	*32*	*6*	*1*	*0*	*0*	*2578*

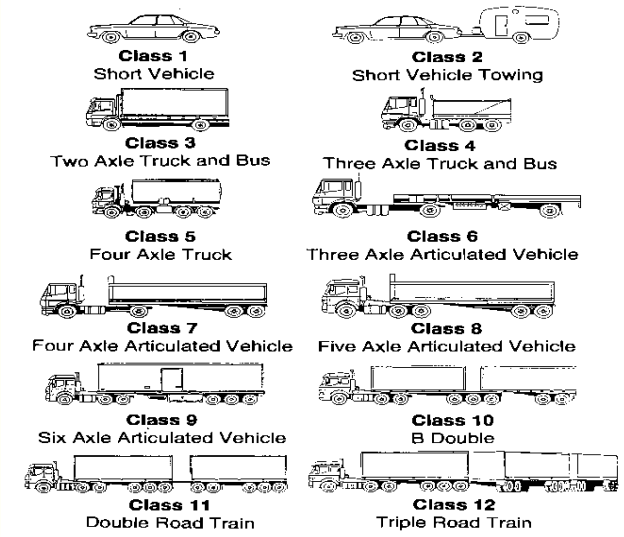
Transport Analytics

Government of South Australia
Department for Infrastructure and Transport

Road Name	BAROSSA VALLEY WAY	**Site No.**	6574
Road No.	4384 RRD 17.50	**AMG**	UG094697
Locality	ROWLAND FLAT	**Meter Type**	Metrocount
Location	3.3km east of RN 4483 (Lyndoch Valley Road)	**Latitude, Longitude**	-34.59398,138.92365

Click to view the location in Google Maps *(imagery may not be current)*





Count Summary (Two Way) **Count Period : Tuesday** **22/10/2024** **to** **Monday** **28/10/2024** **inclusive**

5 Day Average Daily Traffic	3804	5 Day Average Heavy Vehicles	504
7 Day Average Daily Traffic	3585	7 Day Average Heavy Vehicles	434
Est AADT (Annual Average Daily Traffic)*	3,600	7 Day Average Heavy Vehicle Content	12%

COMMENTS:

Totals by AUSTROADS Vehicle Classification (Dominant vehicles shown in diagram above) See Back Page for detailed description

Two Way Traffic *No seasonal factor applied NB. Bin 13 contains unclassifiable vehicles

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	3061	90	424	22	12	9	13	7	31	2	0	0	0	3671
23/10/2024	Wednesday	3215	65	384	15	12	18	9	7	23	2	0	0	0	3750
24/10/2024	Thursday	3399	69	459	19	16	15	10	5	22	6	0	0	0	4020
25/10/2024	Friday	3417	90	377	35	6	19	18	4	18	3	0	0	2	3989
26/10/2024	Saturday	2840	78	225	7	0	10	11	0	2	1	0	0	0	3174
27/10/2024	Sunday	2573	65	234	2	7	6	10	2	3	0	0	0	1	2903
28/10/2024	Monday	3017	78	409	30	12	15	16	3	6	5	0	0	0	3591
5 Day Ave		*3222*	*78*	*411*	*24*	*12*	*15*	*13*	*5*	*20*	*4*	*0*	*0*	*0*	*3804*
7 Day Ave		*3075*	*76*	*359*	*19*	*9*	*13*	*12*	*4*	*15*	*3*	*0*	*0*	*0*	*3585*

East Bound

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	1540	43	205	13	6	5	10	4	17	0	0	0	0	1843
23/10/2024	Wednesday	1624	27	198	8	4	11	5	4	10	1	0	0	0	1892
24/10/2024	Thursday	1711	39	220	10	9	7	7	2	12	2	0	0	0	2019
25/10/2024	Friday	1724	48	187	17	3	11	9	2	9	1	0	0	1	2012
26/10/2024	Saturday	1363	36	123	3	0	9	5	0	0	1	0	0	0	1540
27/10/2024	Sunday	1195	27	116	1	5	3	7	1	3	0	0	0	1	1359
28/10/2024	Monday	1512	34	221	14	5	9	11	2	2	2	0	0	0	1812
5 Day Ave		*1622*	*38*	*206*	*12*	*5*	*9*	*8*	*3*	*10*	*1*	*0*	*0*	*0*	*1916*
7 Day Ave		*1524*	*36*	*181*	*9*	*5*	*8*	*8*	*2*	*8*	*1*	*0*	*0*	*0*	*1782*

West Bound

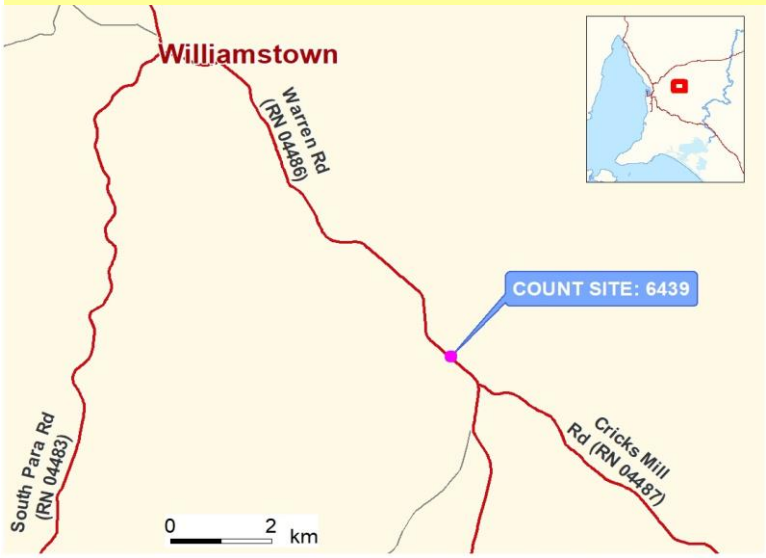
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	1521	47	219	9	6	4	3	3	14	2	0	0	0	1828
23/10/2024	Wednesday	1591	38	186	7	8	7	4	3	13	1	0	0	0	1858
24/10/2024	Thursday	1688	30	239	9	7	8	3	3	10	4	0	0	0	2001
25/10/2024	Friday	1693	42	190	18	3	8	9	2	9	2	0	0	1	1977
26/10/2024	Saturday	1477	42	102	4	0	1	6	0	2	0	0	0	0	1634
27/10/2024	Sunday	1378	38	118	1	2	3	3	1	0	0	0	0	0	1544
28/10/2024	Monday	1505	44	188	16	7	6	5	1	4	3	0	0	0	1779
5 Day Ave		*1600*	*40*	*204*	*12*	*6*	*7*	*5*	*2*	*10*	*2*	*0*	*0*	*0*	*1889*
7 Day Ave		*1550*	*40*	*177*	*9*	*5*	*5*	*5*	*2*	*7*	*2*	*0*	*0*	*0*	*1803*

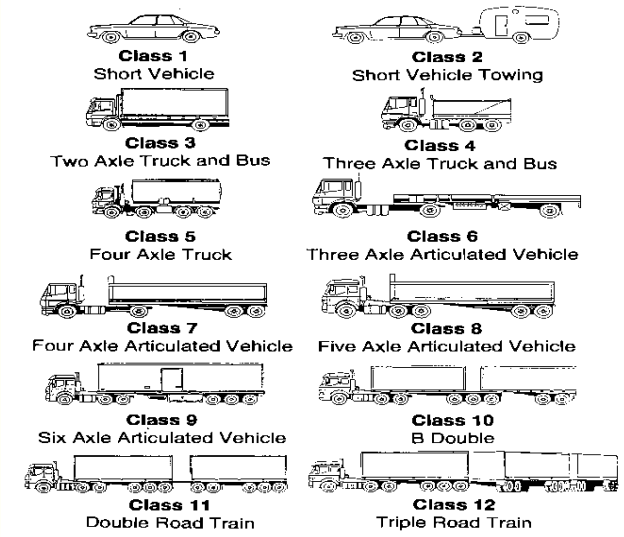
Transport Analytics

Government of South Australia
Department for Infrastructure and Transport

Road Name	WARREN ROAD	**Site No.**	6439
Road No.	4486 RRD 9.45	**AMG**	UG124552
Locality	MOUNT CRAWFORD	**Meter Type**	Metrocount
Location	800m north of RN 4487 (Cricks Mill Road)	**Latitude, Longitude**	-34.72838,138.95573

Click to view the location in Google Maps *(imagery may not be current)*





Count Summary (Two Way) **Count Period : Tuesday** **22/10/2024** **to** **Monday** **28/10/2024** **inclusive**

5 Day Average Daily Traffic	2300	5 Day Average Heavy Vehicles	427
7 Day Average Daily Traffic	2354	7 Day Average Heavy Vehicles	368
Est AADT (Annual Average Daily Traffic)*	2,400	7 Day Average Heavy Vehicle Content	16%

COMMENTS:

Totals by AUSTROADS Vehicle Classification (Dominant vehicles shown in diagram above) See Back Page for detailed description

Two Way Traffic *No seasonal factor applied NB. Bin 13 contains unclassifiable vehicles

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	1541	128	247	19	5	17	18	17	91	12	0	0	0	2095
23/10/2024	Wednesday	1591	123	257	13	4	14	22	6	78	8	1	0	0	2117
24/10/2024	Thursday	1687	150	257	19	7	22	36	13	78	12	1	0	1	2283
25/10/2024	Friday	2087	261	265	22	6	25	42	11	80	13	1	0	0	2813
26/10/2024	Saturday	1989	220	139	2	3	25	16	1	13	0	1	0	0	2409
27/10/2024	Sunday	2062	266	161	4	1	18	36	5	13	2	0	0	0	2568
28/10/2024	Monday	1629	168	233	15	8	13	19	5	77	23	0	2	0	2192
5 Day Ave		*1707*	*166*	*252*	*18*	*6*	*18*	*27*	*10*	*81*	*14*	*1*	*0*	*0*	*2300*
7 Day Ave		*1798*	*188*	*223*	*13*	*5*	*19*	*27*	*8*	*61*	*10*	*1*	*0*	*0*	*2354*

South Bound

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	792	62	119	10	3	9	10	9	46	6	0	0	0	1066
23/10/2024	Wednesday	777	64	123	5	2	5	10	3	36	3	1	0	0	1029
24/10/2024	Thursday	863	88	129	13	3	14	15	9	33	7	1	0	1	1176
25/10/2024	Friday	1073	145	144	10	4	16	22	5	40	8	1	0	0	1468
26/10/2024	Saturday	996	111	77	1	1	13	7	0	7	0	1	0	0	1214
27/10/2024	Sunday	974	110	60	3	1	2	11	2	7	1	0	0	0	1171
28/10/2024	Monday	835	74	111	10	3	6	9	2	42	11	0	2	0	1105
5 Day Ave		*868*	*87*	*125*	*10*	*3*	*10*	*13*	*6*	*39*	*7*	*1*	*0*	*0*	*1169*
7 Day Ave		*901*	*93*	*109*	*7*	*2*	*9*	*12*	*4*	*30*	*5*	*1*	*0*	*0*	*1176*

North Bound

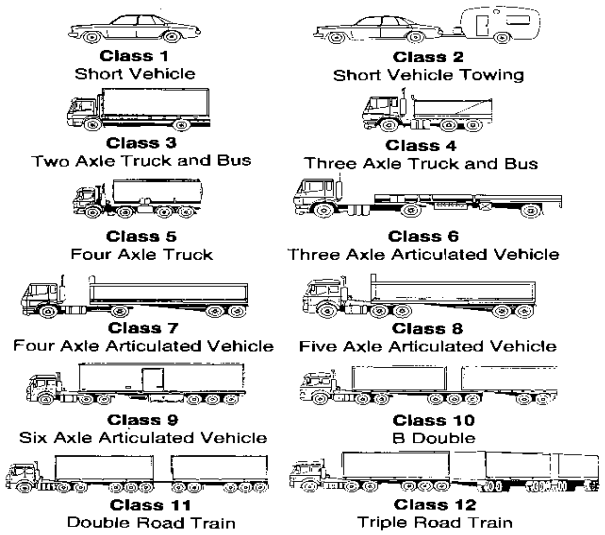
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	749	66	128	9	2	8	8	8	45	6	0	0	0	1029
23/10/2024	Wednesday	814	59	134	8	2	9	12	3	42	5	0	0	0	1088
24/10/2024	Thursday	824	62	128	6	4	8	21	4	45	5	0	0	0	1107
25/10/2024	Friday	1014	116	121	12	2	9	20	6	40	5	0	0	0	1345
26/10/2024	Saturday	993	109	62	1	2	12	9	1	6	0	0	0	0	1195
27/10/2024	Sunday	1088	156	101	1	0	16	25	3	6	1	0	0	0	1397
28/10/2024	Monday	794	94	122	5	5	7	10	3	35	12	0	0	0	1087
5 Day Ave		*839*	*79*	*127*	*8*	*3*	*8*	*14*	*5*	*41*	*7*	*0*	*0*	*0*	*1131*
7 Day Ave		*897*	*95*	*114*	*6*	*2*	*10*	*15*	*4*	*31*	*5*	*0*	*0*	*0*	*1178*

Transport Analytics

Government of South Australia
Department for Infrastructure and Transport

Road Name	LYNDOCH VALLEY ROAD	**Site No.**	6391
Road No.	4483 RRD 4.00	**AMG**	UG069650
Locality	LYNDOCH	**Meter Type**	Metrocount
Location	2.6km north of RN 4423 (Williamstown Road)	**Latitude, Longitude**	-34.6373,138.89481

Click to view the location in Google Maps *(imagery may not be current)*



Count Summary (Two Way) **Count Period : Tuesday** **22/10/2024** **to** **Monday** **28/10/2024** **inclusive**

5 Day Average Daily Traffic	2853	5 Day Average Heavy Vehicles	372
7 Day Average Daily Traffic	2698	7 Day Average Heavy Vehicles	324
Est AADT (Annual Average Daily Traffic)*	2,700	7 Day Average Heavy Vehicle Content	12%

COMMENTS:

Totals by AUSTROADS Vehicle Classification (Dominant vehicles shown in diagram above) See Back Page for detailed description

Two Way Traffic *No seasonal factor applied NB. Bin 13 contains unclassifiable vehicles

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	2307	83	312	9	4	8	11	4	22	3	0	0	0	2763
23/10/2024	Wednesday	2310	72	282	9	4	14	8	8	21	2	0	0	0	2730
24/10/2024	Thursday	2511	93	343	10	8	14	8	3	23	3	0	0	0	3016
25/10/2024	Friday	2602	98	292	17	2	18	13	3	19	16	1	0	0	3081
26/10/2024	Saturday	2065	98	180	3	1	12	12	0	3	0	0	0	3	2377
27/10/2024	Sunday	1964	85	169	4	2	8	11	3	2	0	0	0	0	2248
28/10/2024	Monday	2261	66	278	20	3	9	17	2	13	4	1	0	0	2674
5 Day Ave		*2398*	*82*	*301*	*13*	*4*	*13*	*11*	*4*	*20*	*6*	*0*	*0*	*0*	*2853*
7 Day Ave		*2289*	*85*	*265*	*10*	*3*	*12*	*11*	*3*	*15*	*4*	*0*	*0*	*0*	*2698*

South Bound

Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	1157	41	147	2	3	3	3	2	13	3	0	0	0	1374
23/10/2024	Wednesday	1158	42	128	4	1	4	4	3	12	1	0	0	0	1357
24/10/2024	Thursday	1269	47	173	5	4	6	2	2	13	2	0	0	0	1523
25/10/2024	Friday	1283	50	134	8	1	7	6	3	12	11	1	0	0	1516
26/10/2024	Saturday	1032	49	84	0	1	5	5	0	2	0	0	0	0	1178
27/10/2024	Sunday	1014	44	74	3	1	1	5	2	0	0	0	0	0	1144
28/10/2024	Monday	1136	34	140	12	2	7	8	0	10	3	1	0	0	1353
5 Day Ave		*1201*	*43*	*144*	*6*	*2*	*5*	*5*	*2*	*12*	*4*	*0*	*0*	*0*	*1425*
7 Day Ave		*1150*	*44*	*126*	*5*	*2*	*5*	*5*	*2*	*9*	*3*	*0*	*0*	*0*	*1349*

North Bound

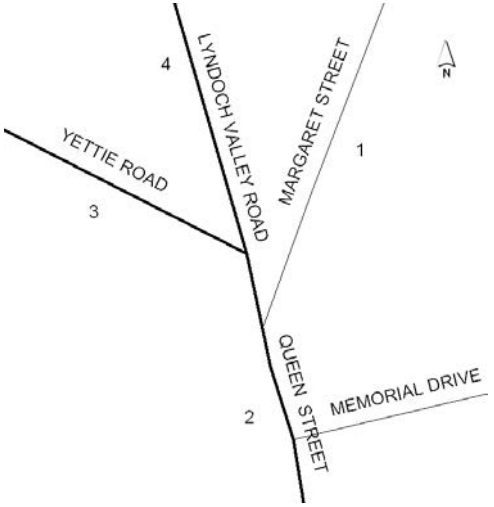
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
22/10/2024	Tuesday	1150	42	165	7	1	5	8	2	9	0	0	0	0	1389
23/10/2024	Wednesday	1152	30	154	5	3	10	4	5	9	1	0	0	0	1373
24/10/2024	Thursday	1242	46	170	5	4	8	6	1	10	1	0	0	0	1493
25/10/2024	Friday	1319	48	158	9	1	11	7	0	7	5	0	0	0	1565
26/10/2024	Saturday	1033	49	96	3	0	7	7	0	1	0	0	0	3	1199
27/10/2024	Sunday	950	41	95	1	1	7	6	1	2	0	0	0	0	1104
28/10/2024	Monday	1125	32	138	8	1	2	9	2	3	1	0	0	0	1321
5 Day Ave		*1198*	*40*	*157*	*7*	*2*	*7*	*7*	*2*	*8*	*2*	*0*	*0*	*0*	*1428*
7 Day Ave		*1139*	*41*	*139*	*5*	*2*	*7*	*7*	*2*	*6*	*1*	*0*	*0*	*0*	*1349*

Transport Analytics

Government of South Australia
Department for Infrastructure and Transport

Intersection of: QUEEN STREET / LYNDOCH VALLEY ROAD / YETTIE ROAD / MARGARET STREET
Locality: WILLIAMSTOWN
AMG Reference: UG065614
Date of Count: 01/05/2018 Day: Tuesday
Weather: Dry Control:
Survey Status:

Arm	Road Number - Name
1	MARGARET STREET
2	4483 - QUEEN STREET
3	5036 - YETTIE ROAD
4	4483 - LYNDOCH VALLEY ROAD



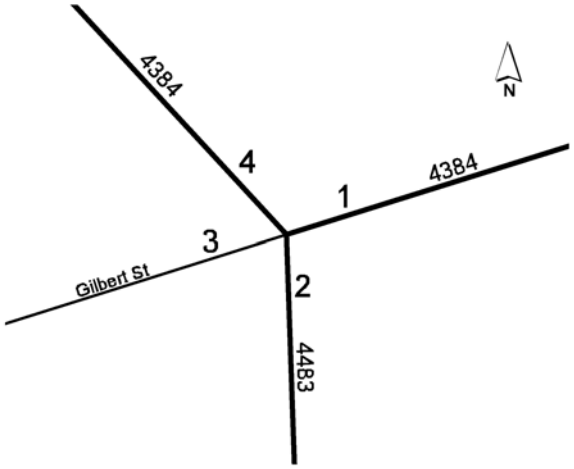
	Arm	1			2			3			4		
	Exit Arm	2 (L)	3	4 (R)	3 (L)	4	1 (R)	4 (L)	1	2 (R)	1 (L)	2	3 (R)
11 hour totals	Cars	**93**	**41**	**51**	**424**	**1387**	**83**	**67**	**31**	**354**	**69**	**1420**	**79**
	CV	**2**	**2**	**0**	**16**	**142**	**2**	**4**	**0**	**12**	**1**	**137**	**4**
	Total	**95**	**43**	**51**	**440**	**1529**	**85**	**71**	**31**	**366**	**70**	**1557**	**83**
AM Peak hour (08:00)	Cars	**25**	**11**	**18**	**38**	**204**	**32**	**16**	**20**	**30**	**16**	**101**	**24**
	CV	**1**	**0**	**0**	**2**	**10**	**1**	**1**	**0**	**1**	**0**	**10**	**0**
	Total	**26**	**11**	**18**	**40**	**214**	**33**	**17**	**20**	**31**	**16**	**111**	**24**
PM Peak hour (15:00)	Cars	**26**	**19**	**2**	**41**	**126**	**24**	**6**	**3**	**41**	**23**	**194**	**19**
	CV	**0**	**0**	**0**	**2**	**11**	**0**	**0**	**0**	**5**	**0**	**11**	**1**
	Total	**26**	**19**	**2**	**43**	**137**	**24**	**6**	**3**	**46**	**23**	**205**	**20**

		1	2	3	4
One-way Flows	11 Hour Totals	**(IN) 189 (OUT) 186**	**(IN) 2054 (OUT) 2018**	**(IN) 468 (OUT) 566**	**(IN) 1710 (OUT) 1651**
	AM Peak Hour	**08:15 58 08:00 69**	**07:45 313 08:15 182**	**07:45 74 08:00 75**	**08:15 165 07:45 263**
	PM Peak Hour	**15:00 47 14:45 57**	**16:00 226 16:45 315**	**15:45 62 15:15 87**	**16:45 258 16:15 176**
Two-way Flows	AM Peak Hour	**08:15 126**	**07:45 468**	**07:45 146**	**07:45 404**
	PM Peak Hour	**14:45 104**	**16:45 516**	**15:15 142**	**16:15 413**
All Vehicles	11 Hour Totals	**375 1.9% CV**	**4072 7.6% CV**	**1034 3.7% CV**	**3361 8.6% CV**
	Estimated AADT	**500 SF(1.00) ZF(1.32)**	**5400 SF(1.00) ZF(1.32)**	**1400 SF(1.00) ZF(1.32)**	**4400 SF(1.00) ZF(1.32)**

AADT - Annual Average Daily Traffic SF - Seasonal Factor ZF - Zone Factor CV - Commercial Vehicles

Intersection of: BAROSSA VALLEY WAY / LYNDOCH VALLEY ROAD / GILBERT STREET
Locality: LYNDOCH
AMG Reference: UG065690
Date of Count: 28/05/2024 Day: Tuesday
Weather: Dry Control:
Survey Status:

Arm	Road Number - Name
1	4384 - BAROSSA VALLEY WAY
2	4483 - LYNDOCH VALLEY ROAD
3	GILBERT STREET
4	4384 - BAROSSA VALLEY WAY



	Arm	1			2			3			4		
	Exit Arm	2 (L)	3	4 (R)	3 (L)	4	1 (R)	4 (L)	1	2 (R)	1 (L)	2	3 (R)
11 hour totals	Cars	**300**	**380**	**265**	**552**	**395**	**331**	**601**	**357**	**593**	**277**	**370**	**614**
	CV	**18**	**28**	**12**	**32**	**25**	**21**	**36**	**23**	**39**	**7**	**27**	**36**
	Total	**318**	**408**	**277**	**584**	**420**	**352**	**637**	**380**	**632**	**284**	**397**	**650**
AM Peak hour (08:00)	Cars	**29**	**62**	**42**	**58**	**37**	**8**	**57**	**20**	**44**	**33**	**67**	**100**
	CV	**0**	**3**	**0**	**8**	**5**	**0**	**9**	**1**	**7**	**3**	**2**	**9**
	Total	**29**	**65**	**42**	**66**	**42**	**8**	**66**	**21**	**51**	**36**	**69**	**109**
PM Peak hour (15:45)	Cars	**18**	**30**	**31**	**41**	**60**	**46**	**112**	**76**	**103**	**45**	**36**	**69**
	CV	**2**	**2**	**0**	**0**	**0**	**2**	**5**	**2**	**4**	**1**	**1**	**1**
	Total	**20**	**32**	**31**	**41**	**60**	**48**	**117**	**78**	**107**	**46**	**37**	**70**

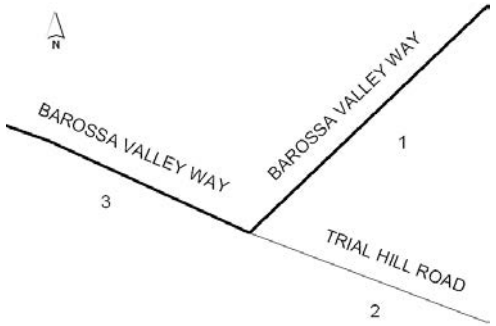
		1	2	3	4
One-way Flows	11 Hour Totals	**(IN) 1003 (OUT) 1016**	**(IN) 1356 (OUT) 1347**	**(IN) 1649 (OUT) 1642**	**(IN) 1331 (OUT) 1334**
	AM Peak Hour	**07:30 146 11:45 99**	**11:15 155 08:30 149**	**08:15 140 07:30 284**	**08:00 214 08:00 150**
	PM Peak Hour	**14:15 109 15:45 172**	**15:15 163 15:30 165**	**15:45 302 14:45 150**	**15:45 153 16:00 212**
Two-way Flows	AM Peak Hour	**08:15 210**	**11:15 289**	**07:45 405**	**08:00 364**
	PM Peak Hour	**16:00 256**	**15:15 325**	**15:45 445**	**15:45 361**
All Vehicles	11 Hour Totals	**2019 5.4% CV**	**2703 6.0% CV**	**3291 5.9% CV**	**2665 5.4% CV**
	Estimated AADT	**2700 SF(1.00) ZF(1.32)**	**3600 SF(1.00) ZF(1.32)**	**4300 SF(1.00) ZF(1.32)**	**3500 SF(1.00) ZF(1.32)**

AADT - Annual Average Daily Traffic SF - Seasonal Factor ZF - Zone Factor CV - Commercial Vehicles

Department of Planning, Transport and Infrastructure
Vehicle Turning Movement Survey

Intersection of: BAROSSA VALLEY WAY / TRIAL HILL ROAD
Locality: ALTONA
AMG Reference: UG091695
Date of Count: 05/03/2019 Day: Tuesday
Weather: Dry Control:
Survey Status:

Arm	Road Number - Name
1	4384 - BAROSSA VALLEY WAY
2	TRIAL HILL ROAD
3	4384 - BAROSSA VALLEY WAY



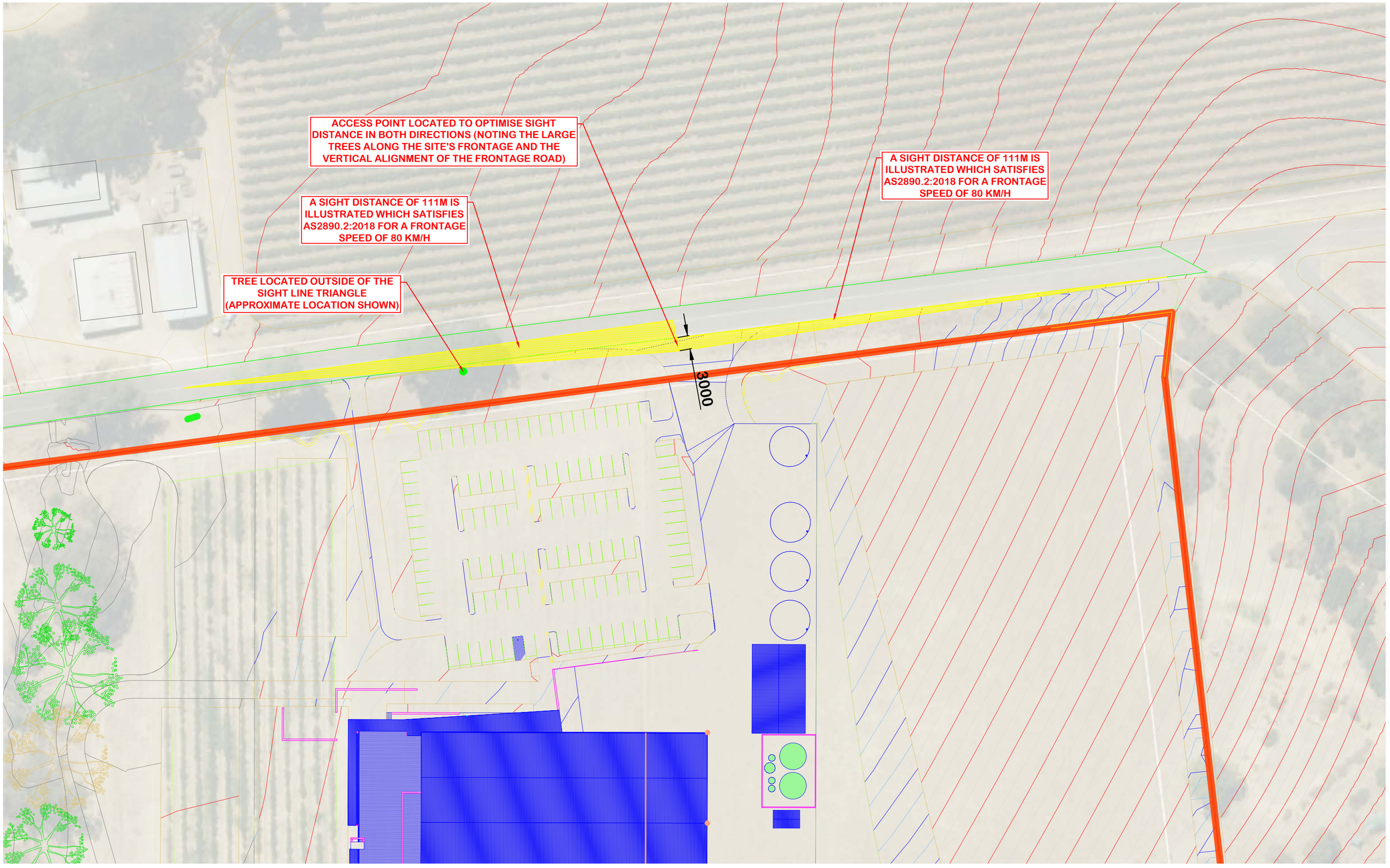
	Arm	1		2		3	
	Exit Arm	2 (L)	3	3 (L)	1 (R)	1	2 (R)
11 hour totals	Cars	**41**	**1559**	**24**	**45**	**1560**	**19**
	CV	**1**	**138**	**1**	**6**	**136**	**2**
	Total	**42**	**1697**	**25**	**51**	**1696**	**21**
AM Peak hour (07:45)	Cars	**3**	**93**	**5**	**3**	**291**	**1**
	CV	**0**	**12**	**1**	**1**	**19**	**2**
	Total	**3**	**105**	**6**	**4**	**310**	**3**
PM Peak hour (15:30)	Cars	**7**	**287**	**4**	**2**	**135**	**0**
	CV	**0**	**13**	**0**	**0**	**12**	**0**
	Total	**7**	**300**	**4**	**2**	**147**	**0**

		1	2	3
One-way Flows	11 Hour Totals	**(IN) 1739 (OUT) 1747**	**(IN) 76 (OUT) 63**	**(IN) 1717 (OUT) 1722**
	AM Peak Hour	**07:15 129 07:45 314**	**08:15 11 06:30 11**	**07:45 313 07:15 128**
	PM Peak Hour	**16:00 319 13:30 150**	**12:15 16 18:00 11**	**13:30 152 16:00 316**
Two-way Flows	AM Peak Hour	**07:45 422**	**06:30 19**	**07:45 424**
	PM Peak Hour	**15:30 456**	**12:30 24**	**15:30 451**
All Vehicles	11 Hour Totals	**3486 8.1% CV**	**139 7.2% CV**	**3439 8.1% CV**
	Estimated AADT	**4700 SF(1.00) ZF(1.34)**	**190 SF(1.00) ZF(1.34)**	**4600 SF(1.00) ZF(1.34)**

AADT - Annual Average Daily Traffic SF - Seasonal Factor ZF - Zone Factor CV - Commercial Vehicles

APPENDIX B

ACCESS POINT SIGHT DISTANCE DIAGRAMS



CIRQA™
ABN: 17 606 952 309 | PO Box 144, Glenside SA 5065 | E: info@cirqa.com.au

DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	TURN PATHS	JJB	BNW

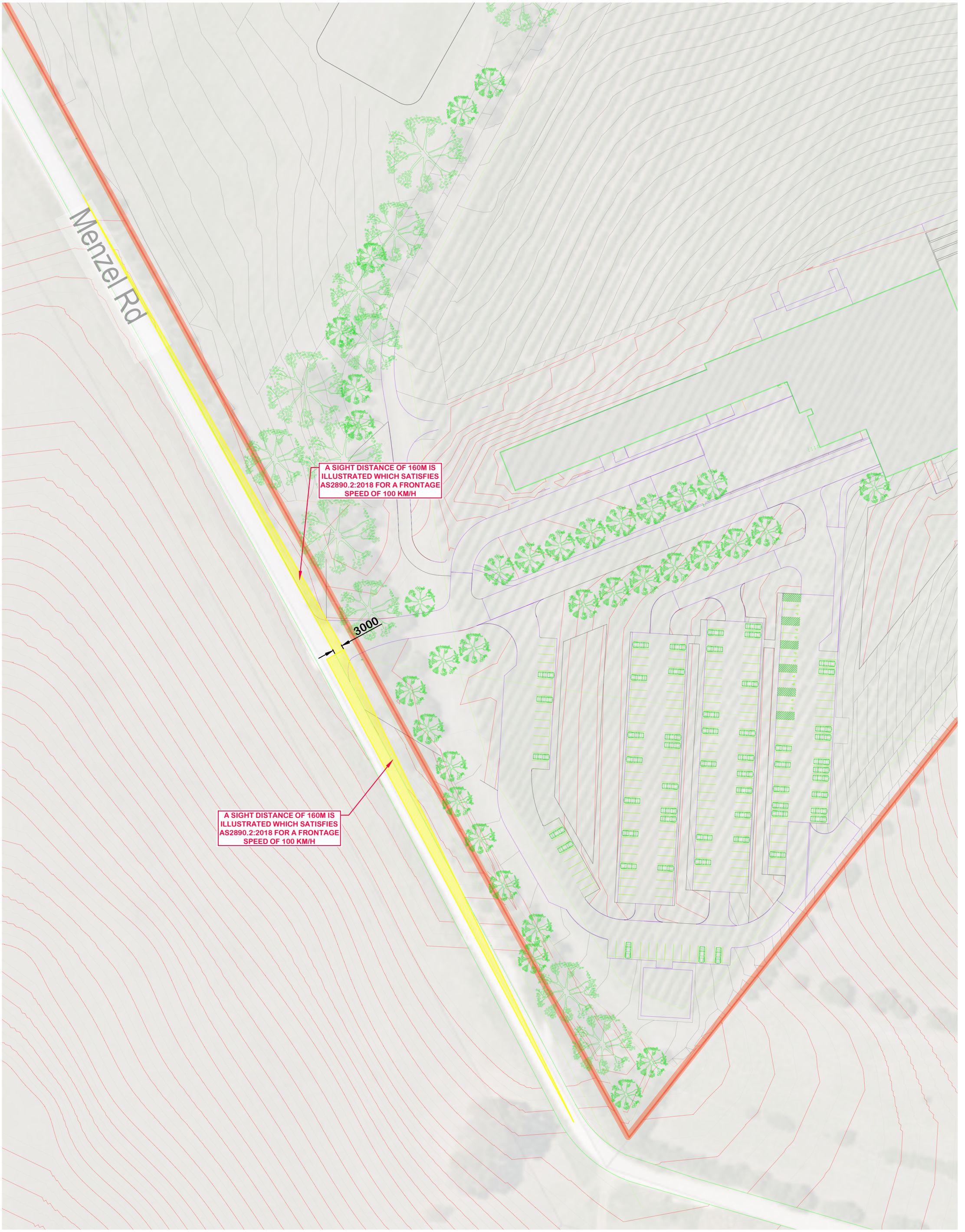
C24590_02F.DWG 27/8/2025 5:27 PM

N
1:750
@ A3

PROPOSED HOTEL

LOT 102 HOFFNUNGSTHAL ROAD, WILLIAMSTOWN
TURN PATH ASSESSMENT - 12.5 M HEAVY RIGID VEHICLE

PROJECT # 24590 SHEET # 01_SH01



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DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	SIGHT DISTANCE	JJB	BNW

C24590_02F.DWG 27/8/2025 5:27 PM

N

1:1,000 @ A3

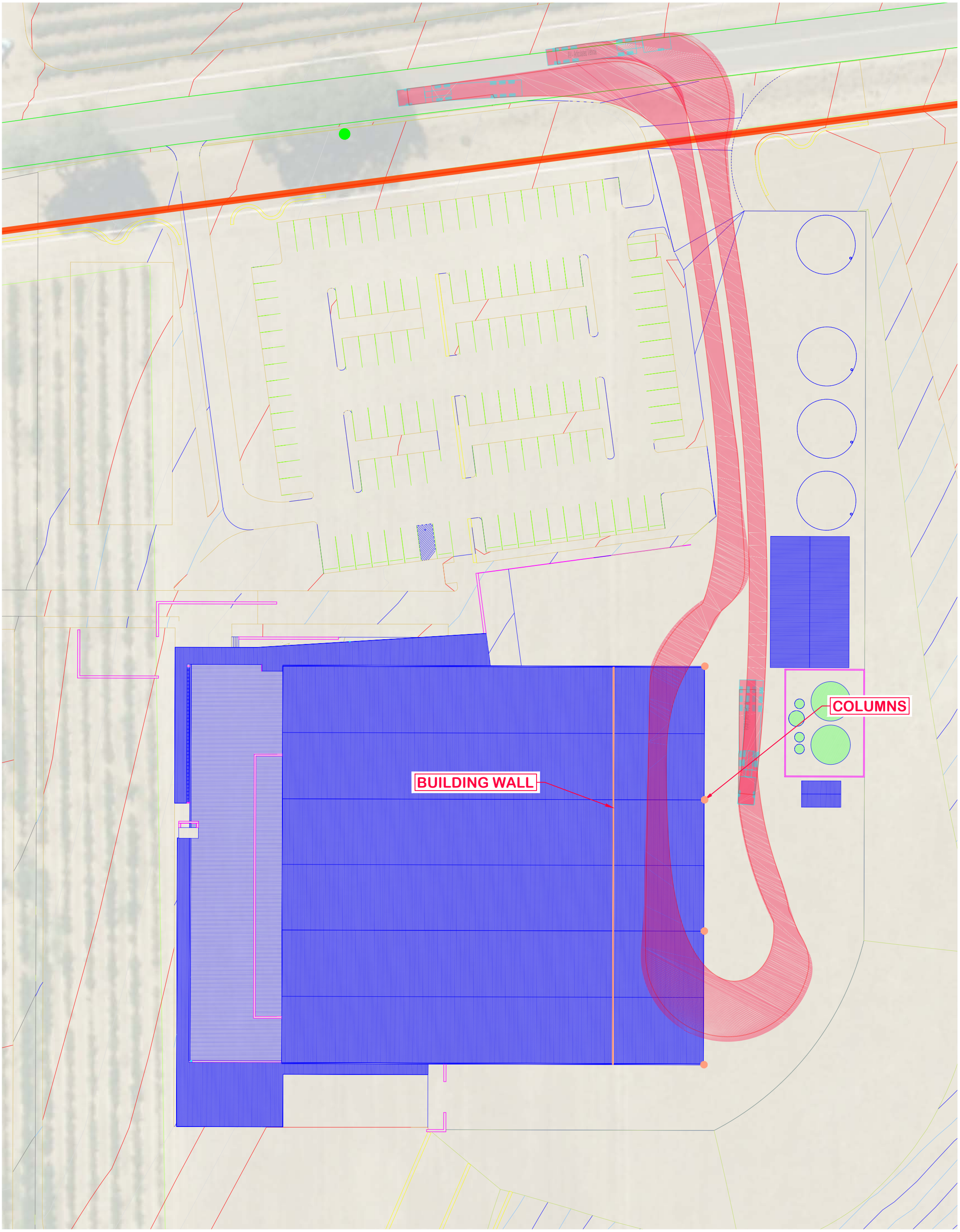
PROPOSED HOTEL

LOT 102 HOFFNUNGSTHAL RD, WILLIAMSTOWN
SIGHT DISTANCE AS2890.2:2018

PROJECT # 24590 SHEET # 01_SH04

APPENDIX C

VEHICLE TURN PATH DIAGRAMS



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DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	SIGHT DISTANCE	JJB	BNW

C24590_02F.DWG 27/8/2025 5:27 PM

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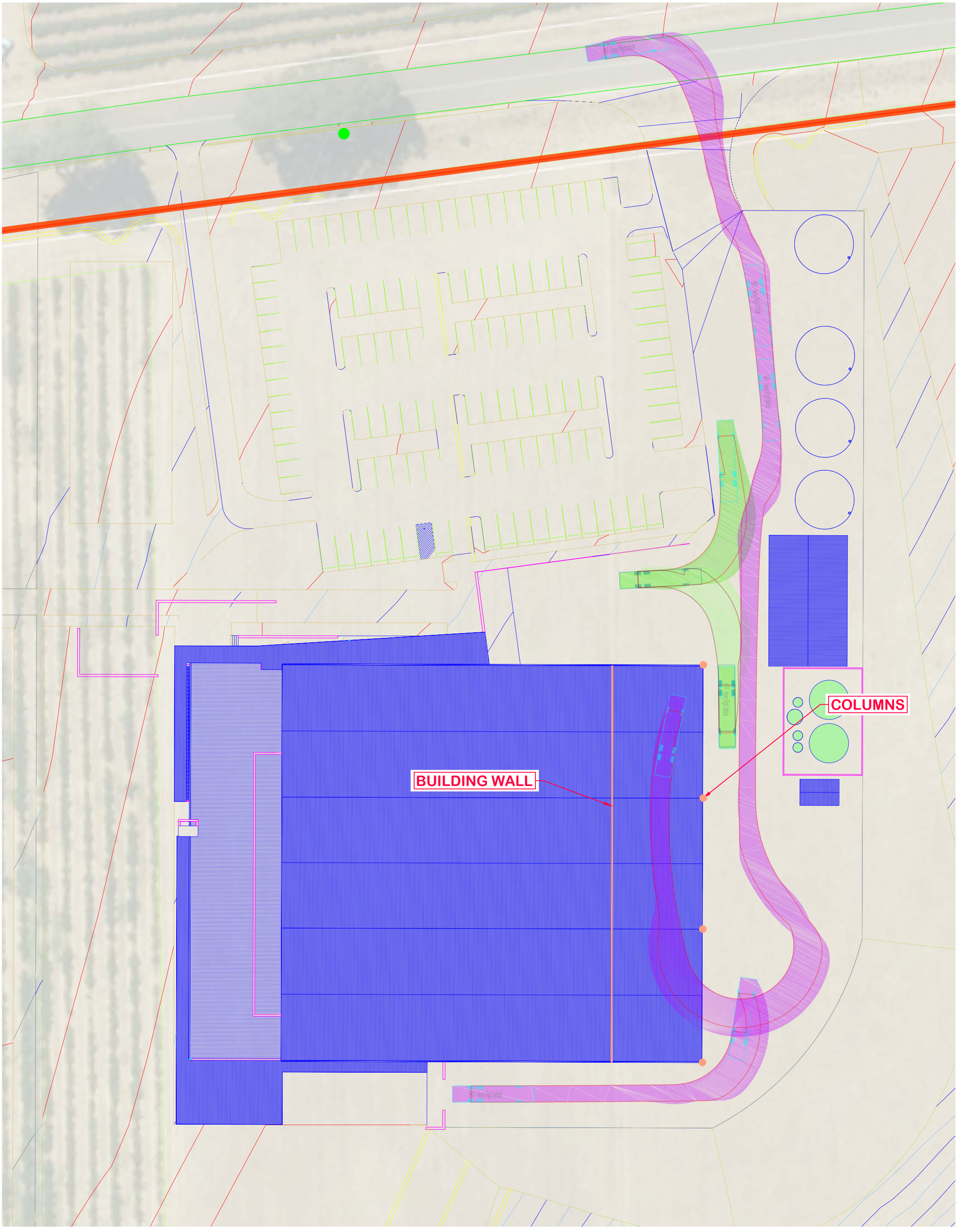
1:500
@ A3

PROPOSED WINERY

LOT 102 HOFFNUNGSTHAL RD, WILLIAMSTOWN
TURN PATH - 19 M SEMI-TRAILER

PROJECT # 24590 SHEET # 01_SH05



CIRQA™

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DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	SIGHT DISTANCE	JJB	BNW

C24590_02F.DWG 27/8/2025 5:27 PM

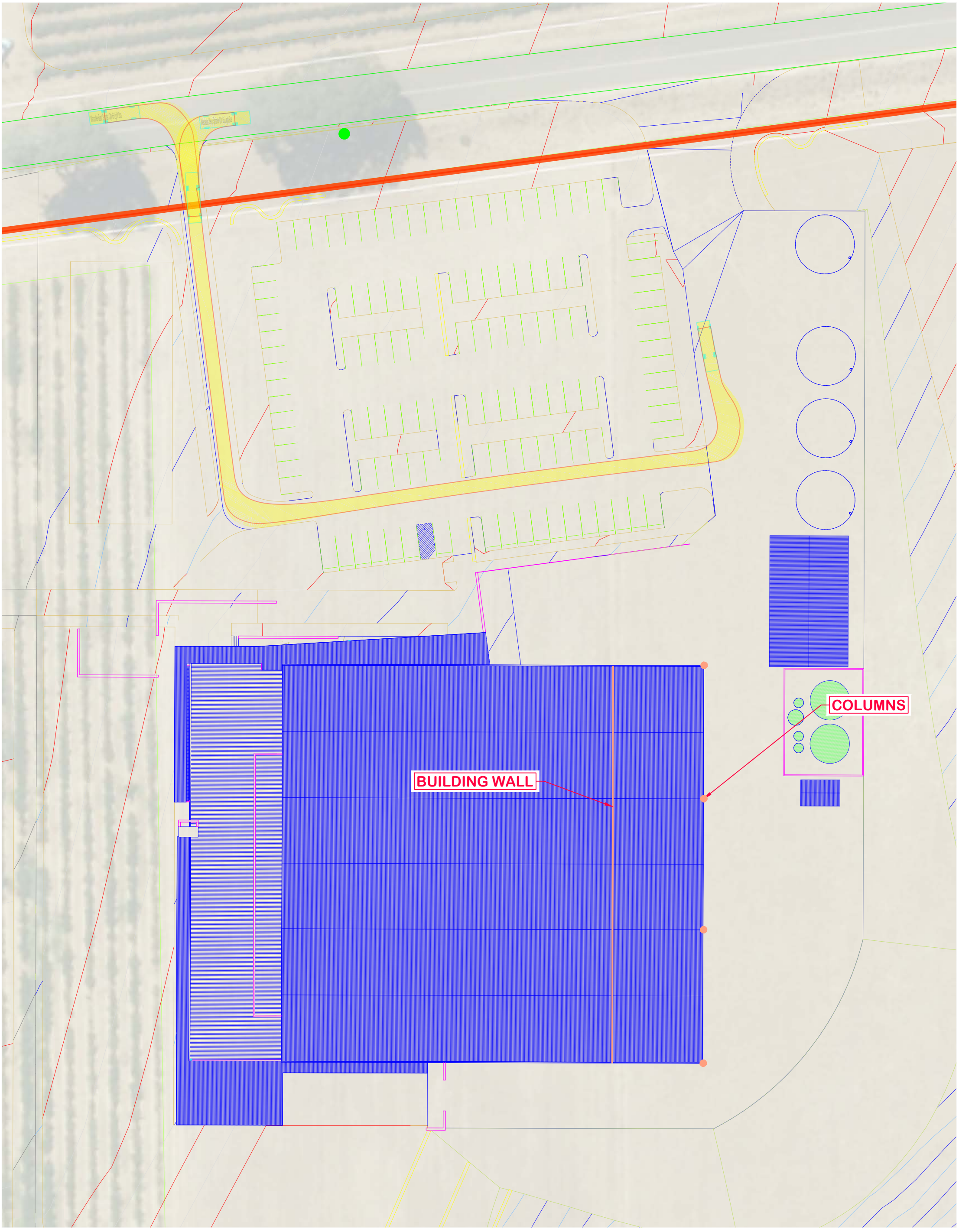
N

1:500 @ A3

PROPOSED WINERY

LOT 102 HOFFNUNGSTHAL RD, WILLIAMSTOWN
TURN PATH - 12.5 M HEAVY RIGID VEHICLE

PROJECT # 24590 SHEET # 01_SH06



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DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	SIGHT DISTANCE	JJB	BNW

C24590_02F.DWG 27/8/2025 5:27 PM

N
1:500
@ A3

PROPOSED WINERY

LOT 102 HOFFNUNGSTHAL RD, WILLIAMSTOWN
TURN PATH - SMALL BUS

PROJECT # 24590 SHEET # 01_SH07

CIRQA™

ABN: 17 606 952 309 | PO Box 144, Glenside SA 5065 | E: info@cirqa.com.au

DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	TURN PATHS	JJB	BNW

C24590_02F.DWG 27/8/2025 5:26 PM

N

1:1,000 @ A3

PROPOSED HOTEL

LOT 102 HOFFNUNGSTHAL ROAD, WILLIAMSTOWN

TURN PATH ASSESSMENT - 12.5 M HEAVY RIGID VEHICLE

PROJECT # 24590 SHEET # 01_SH01

CIRQA™

ABN: 17 606 952 309 | PO Box 144, Glenside SA 5065 | E: info@cirqa.com.au

DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	TURN PATHS	JJB	BNW

C24590_02F.DWG 27/8/2025 5:26 PM

N

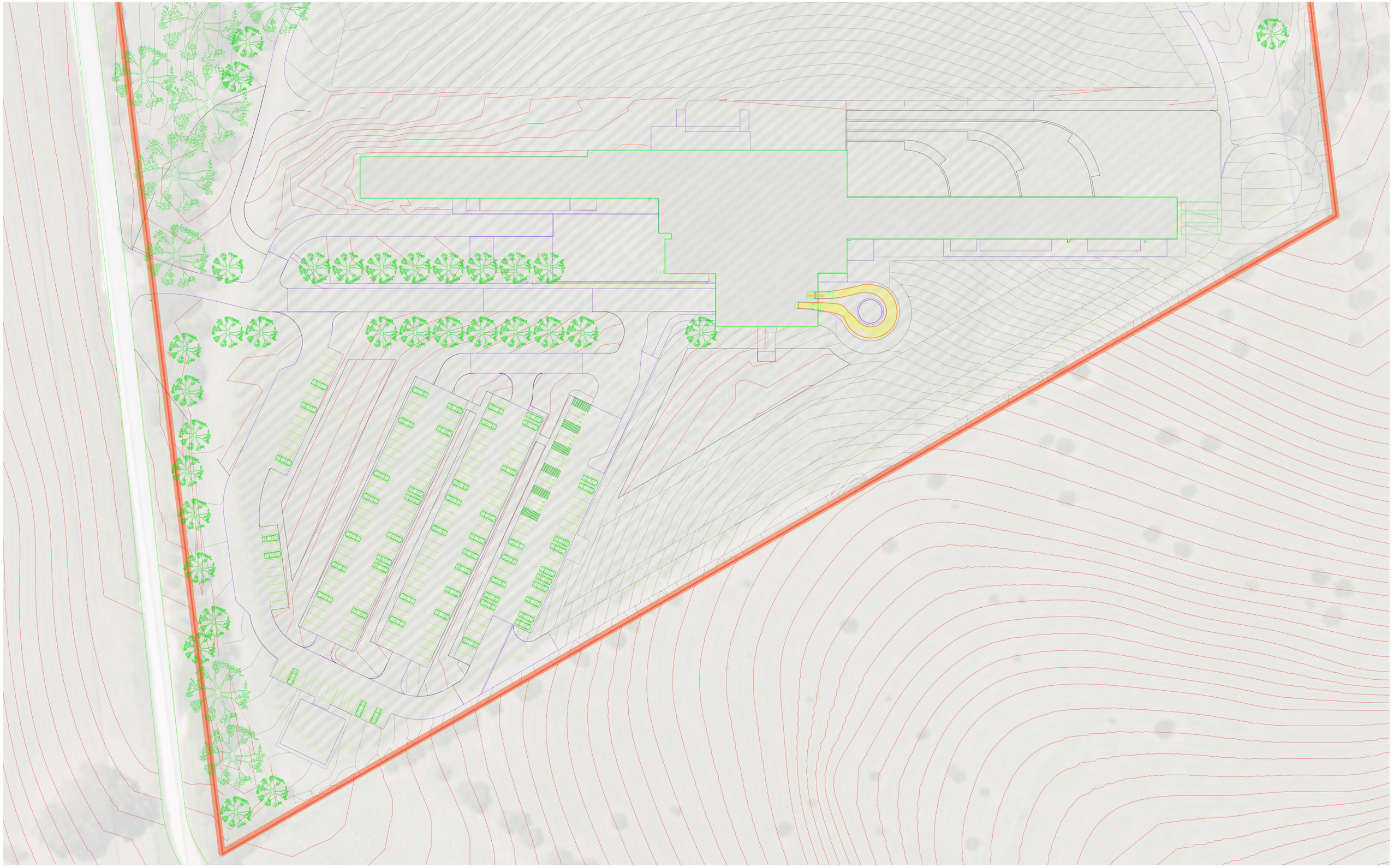
1:1,000 @ A3

PROPOSED HOTEL

LOT 102 HOFFNUNGSTHAL ROAD, WILLIAMSTOWN

TURN PATH ASSESSMENT - 11 M RIGID VEHICLE

PROJECT # 24590 SHEET # 01_SH02



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DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
C	26/06/2025	DESIGN REVIEW	JJB	BNW
E	05/08/2025	DESIGN COMMENTS	JJB	BNW
F	27/08/2025	TURN PATHS	JJB	BNW

C24590_02F.DWG 27/8/2025 5:26 PM

N

1:1,000 @ A3

PROPOSED HOTEL

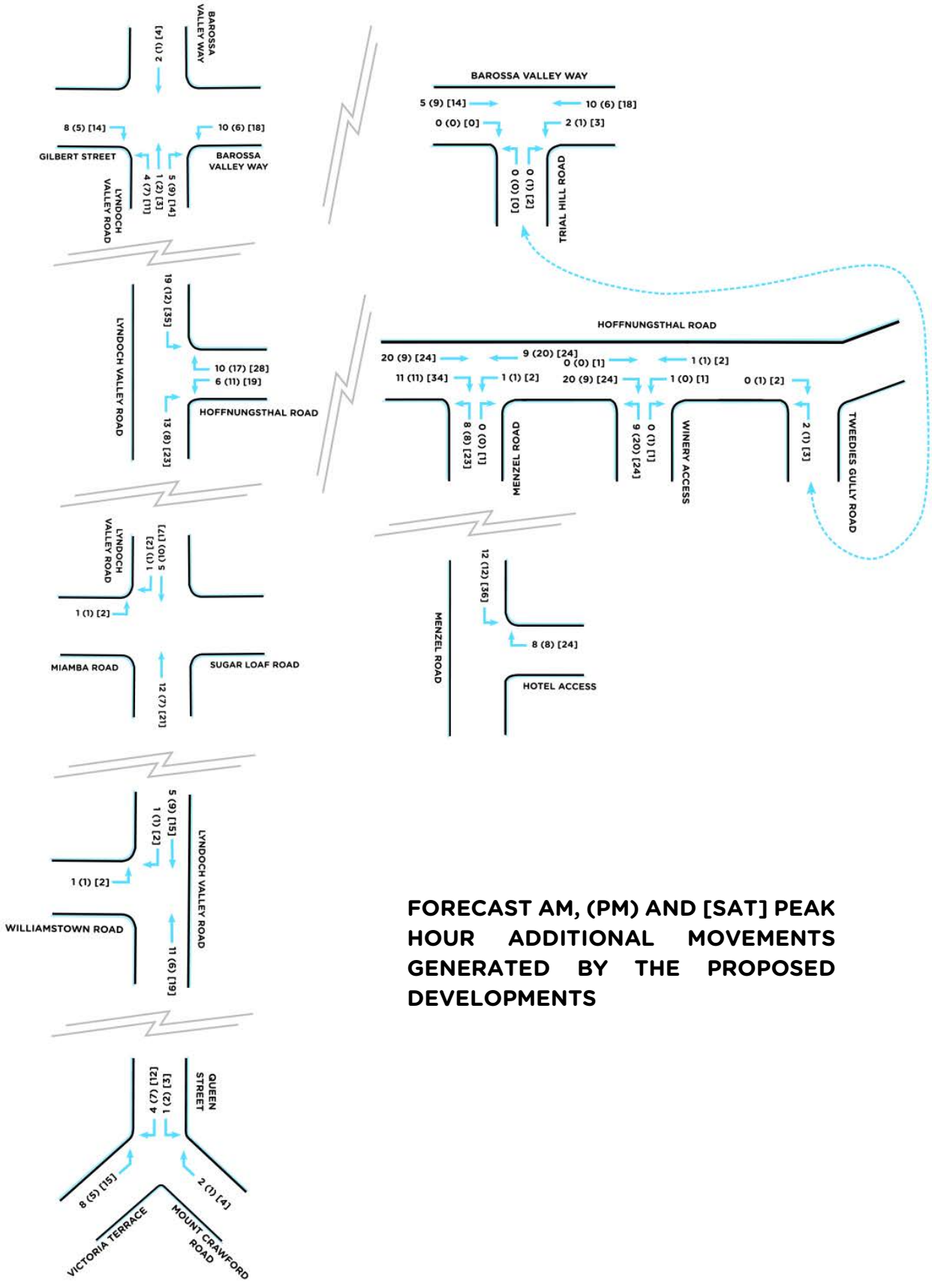
LOT 102 HOFFNUNGSTHAL ROAD, WILLIAMSTOWN

TURN PATH ASSESSMENT - SMALL BUS

PROJECT # 24590 SHEET # 01_SH03

APPENDIX D

FORECAST TRAFFIC DISTRIBUTION



FORECAST AM, (PM) AND [SAT] PEAK HOUR ADDITIONAL MOVEMENTS GENERATED BY THE PROPOSED DEVELOPMENTS