Transport Impact Assessment

271-275 Pearcedale Road, Cranbourne South

April 2026

Prepared for: Christian Education Ministries

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Acknowledgment of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on.
We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years.
We pay our respects to First Nations Elders, past and present.

Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork - **Sacred River Dreaming**.

The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

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1 Introduction

1.1 Background

Urbis was engaged by Christian Education Ministries (CEM) to prepare a Transport Impact Assessment (TIA) for a proposed school development at 271–275 Pearcedale Road, Cranbourne South.

An existing permit allows for the construction of school buildings with a capacity of up to 125 students, with the school expected to open in 2026.

This application seeks approval to further develop the school to accommodate up to 1,500 students. A master plan has been prepared for the expansion and is proposed to be delivered in five stages. Approval is sought for the overall master plan, as well as the construction and operation of Stage 1.

This TIA assesses the transport and traffic impacts associated with the Stage 1 development, with consideration of the full master plan. The assessment considers vehicle trip generation and distribution, access arrangements, car parking demand and provision, bicycle parking provision, the design of parking and service areas, and the layout of internal circulation roadways.

1.2 Referenced Material

The following documents were referred to during the preparation of this report:

- Casey Planning Scheme
- Traffic Surveys conducted by Data Audit Systems including:
  - Turning movement counts at the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout on Tuesday, 18 November 2025,
  - Tube counts adjacent to 271-275 Pearcedale Road, Cranbourne South between Monday, 10 November and Sunday, 16 November 2025, inclusive.
- Stage 1 - Site Layout Plan, prepared by CEM, dated 09/04/2026
- Master Plan - Site Layout Plan, prepared by CEM, dated 09/04/2026
- Australian Standard 2890.1:2004 *Off-street car parking*
- Australian Standard AS2890.6-2009 Off-street car parking for people with disabilities
- Historical DTP annual average daily traffic (AADT) data along Cranbourne-Frankston Road and Pearcedale Road
- Casey Fields South (Employment) and Devon Meadows PSP – Strategic Transport Modelling Assessment Report, prepared by Jacobs in 2024
- 860 Ballarto Road, Botanic Ridge Transport Impact Assessment, prepared by One Mile Grid (2017), undertaken in support of Casey Planning Scheme Amendment C225, which included the rezoning of land at 860 Ballarto Road, Botanic Ridge from Farming Zone 2 to General Residential Zone.
- Brompton Lodge PSP – Traffic and Transport Assessment, prepared by Cardno in 2015

2 Existing Conditions

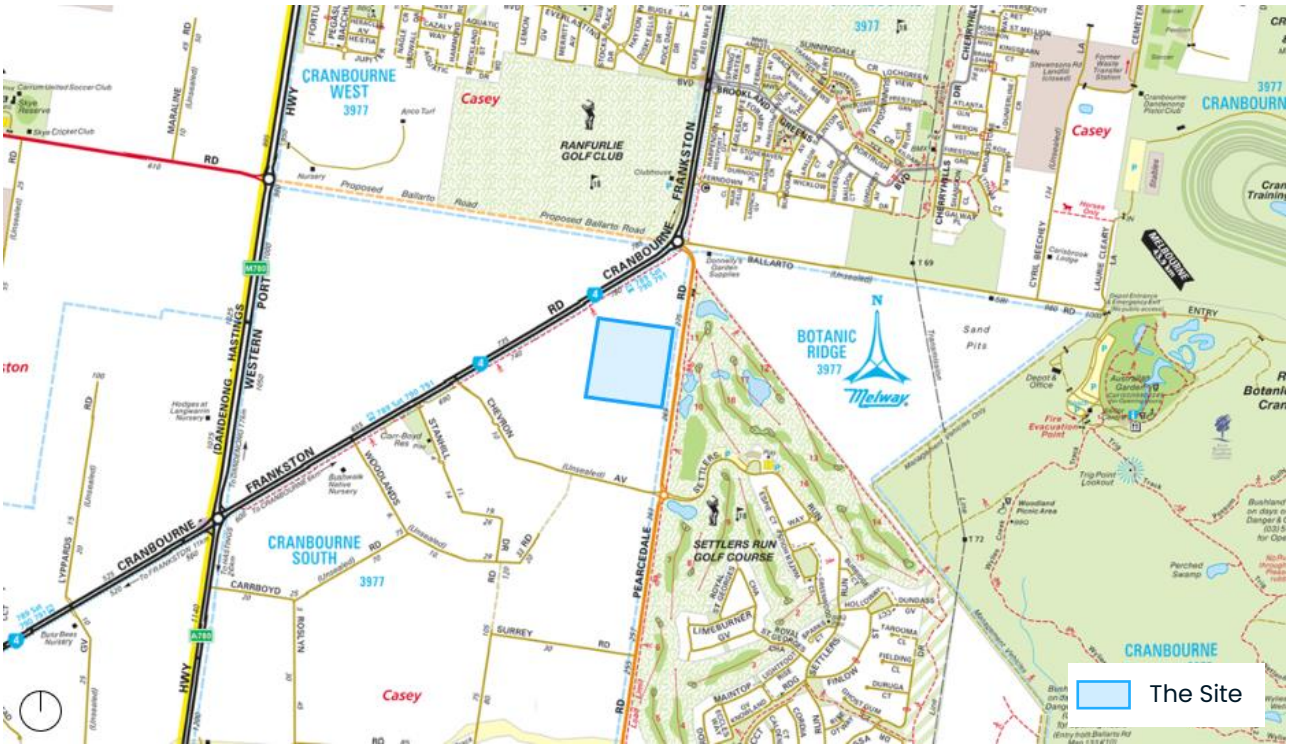
2.1 Site Location

The proposed school is located at 271-275 Pearcedale Road, Cranbourne South (the site), and is situated approximately 42 kilometres south-east of Melbourne's CBD.

The site is rectangular in shape, fronting Pearcedale Road to the east and is located approximately 500 metres south of Frankston-Cranbourne Road / Ballarto Road / Pearcedale Road roundabout.

The location of the site with regards to the surrounding road network is shown in **Figure 1**.

Figure 1 Site Location and Surrounds



Source: Melways (modified by Urbis)

The site is located on land that was previously used for agricultural purposes. The site is bordered by neighbouring land parcels to the north, south and west. To the immediate east of the site is a golf course.

An aerial image of the site and surrounding road network is provided in **Figure 2.**

Figure 2 Aerial imagery of the site and surrounding road network

Source: Nearmap Imagery (modified by Urbis)

2.2 Surrounding Land Uses

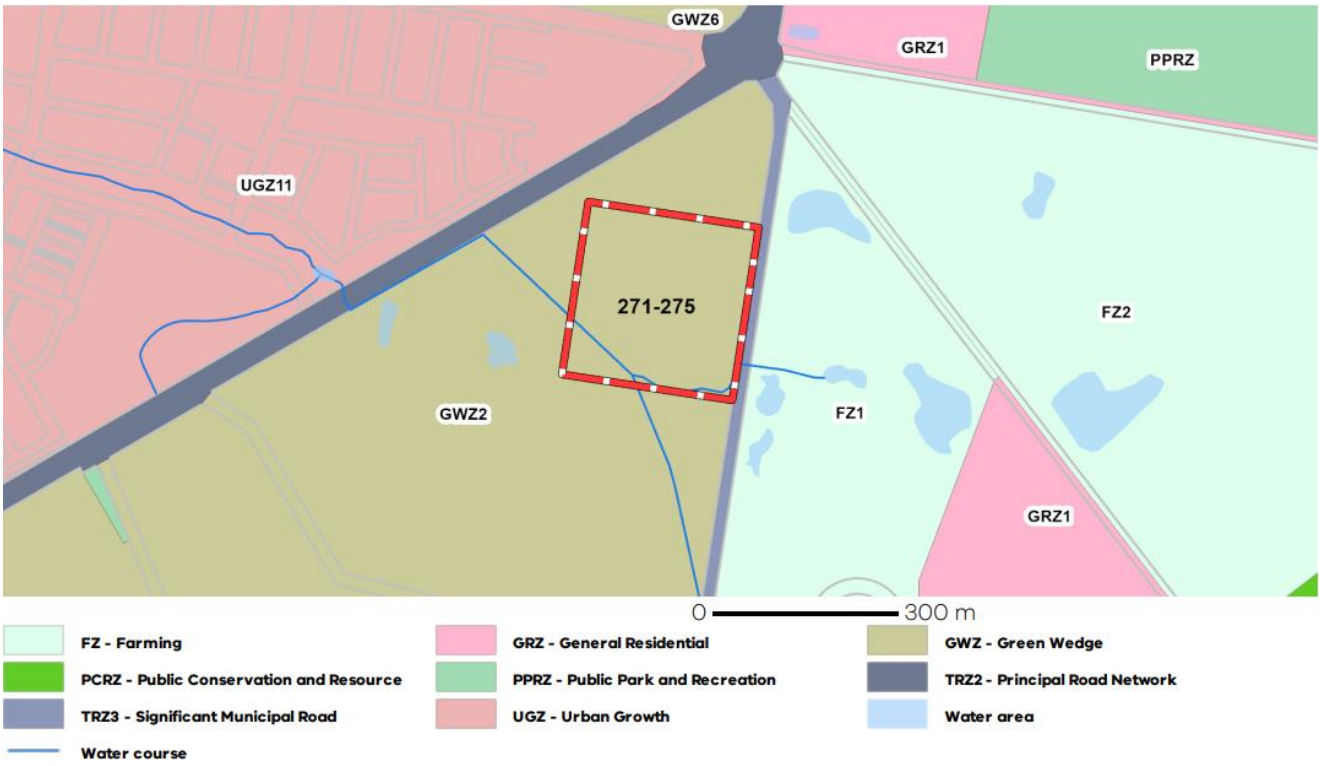
The site is located within the Green Wedge Zone and is subject to the following overlays:

- Bushfire Management Overlay (BMO),
- Environmental Significance Overlay (ESO) and,
- Land Subject to Inundation Overlay (LSIO).

The land to the immediate north and south of the site is also part of a Green Wedge Zone. To the east of the site is a mix of Farming Zone and General Residential Zone which includes the suburb of Botanic Ridge. To the west of Frankston-Cranbourne Road is an Urban Growth Zone which includes the Brompton Lodge Precinct.

The land use zones for the site and vicinity are presented in **Figure 3**.

Figure 3 Land use zoning in the vicinity of the site



Source: Vicplan.com

2.3 Sustainable Transport

2.3.1 Public Transport

The site is located within Category 1 in the Car Parking Requirement (CPR) Map released by the Department of Transport and Planning (DTP) in December 2025 and incorporated into the Casey Planning Scheme. The site is described by the DTP as an area that has low public transport access.

The location of the site relative to the CPR map categories is shown in **Figure 4**.

Figure 4 The site with respect to the CPR categories

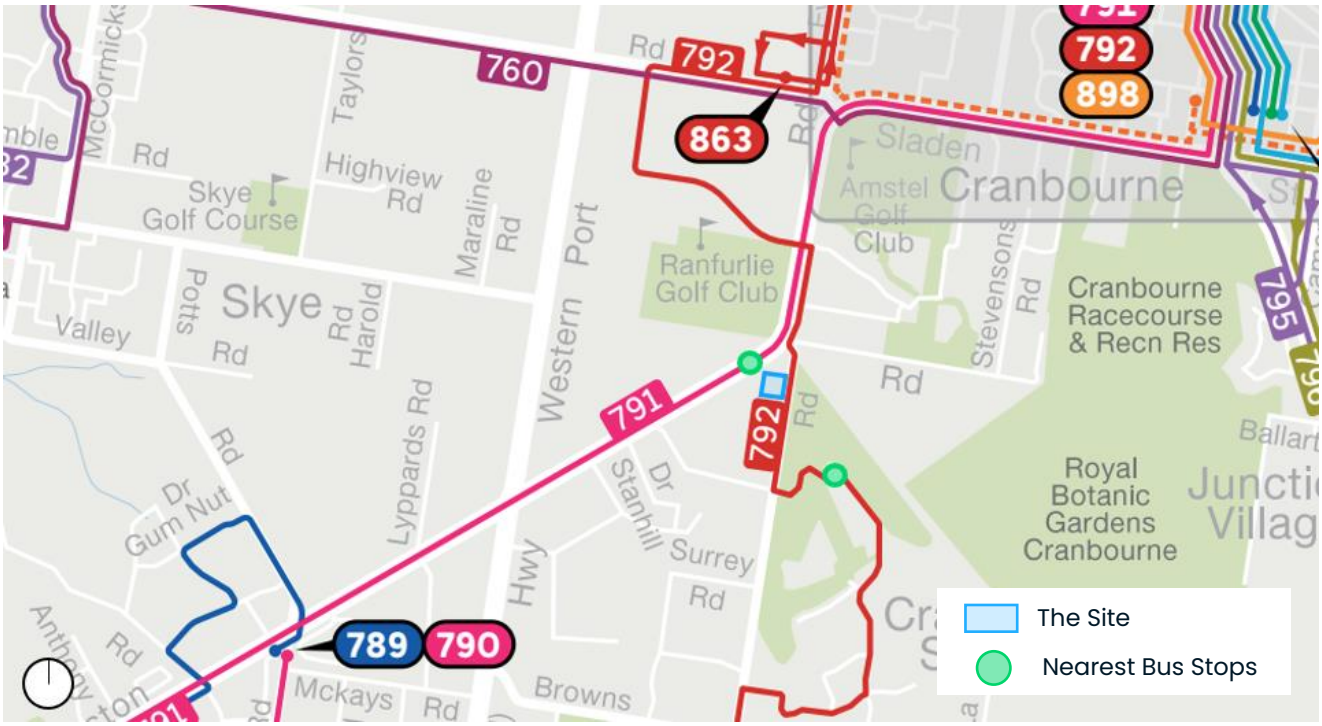
Source: Vicplan.com (modified by Urbis)

Public transport to the site is accessible via bus services. These bus services in proximity of the site are summarised in **Table 1** and illustrated in **Figure 5.**

Table 1 Summary of public transport services

Route Number	Route Description	Nearest Stop	Distance (Walking Time)	Typical Frequency
791	Frankston Station – Cranbourne Station	Pearcedale Road/Cranbourne-Frankston Road	500 m (8 mins)	15 mins
792	Cranbourne Station – Pearcedale	Settlers Run Golf & Country Club/Settlers Run	1 km (13 mins)	45 mins

Figure 5 Public transport services in proximity to the site



Source: PTV (modified by Urbis)

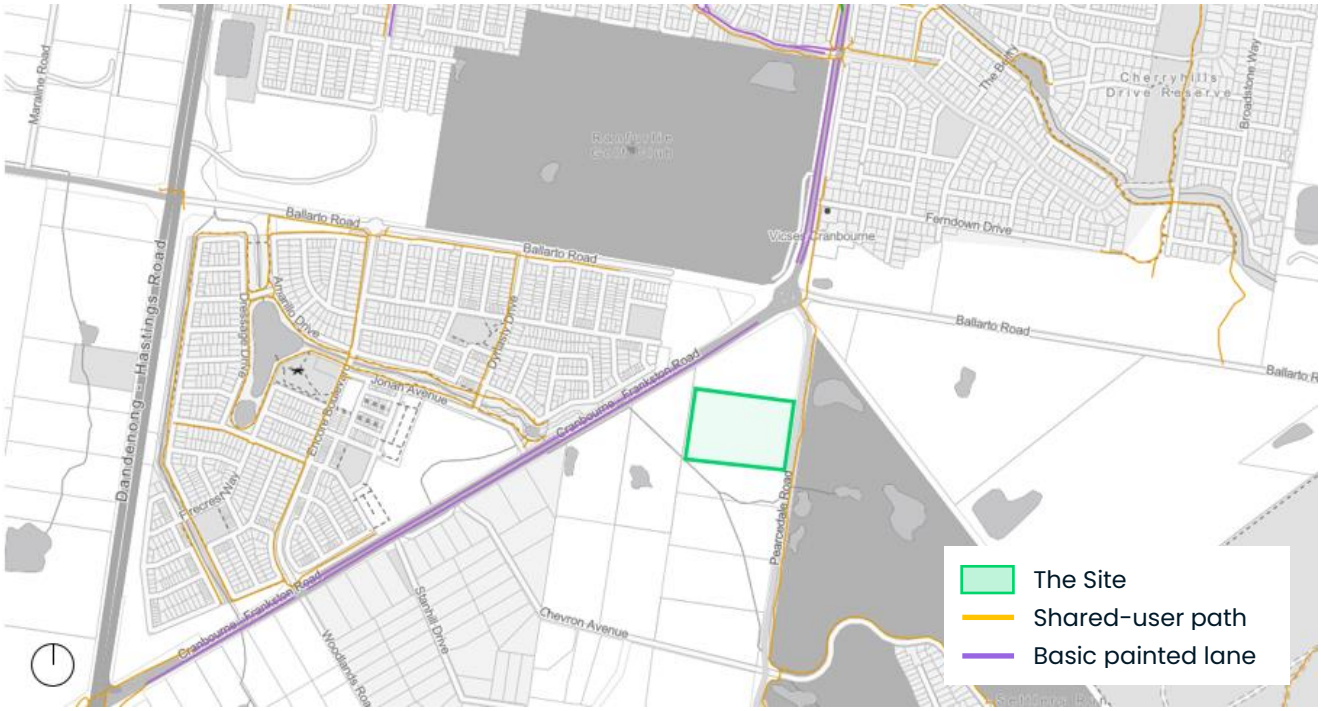
2.3.2 Bicycle Network

An off-road shared-use path runs north-south along the eastern side of Pearcedale Road adjacent to the site. The shared use path connects through to the Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout and Cranbourne West to the north and Botanic Ridge to the east and south.

Across the wider bicycle network, there are painted bicycle lanes along Cranbourne-Frankston Road and shared use paths within the Brompton Lodge Precinct.

The bicycle infrastructure in the vicinity of the subject site is presented in **Figure 6.**

Figure 6 Bicycle infrastructure near the site



Source: Transport Victoria (modified by Urbis)

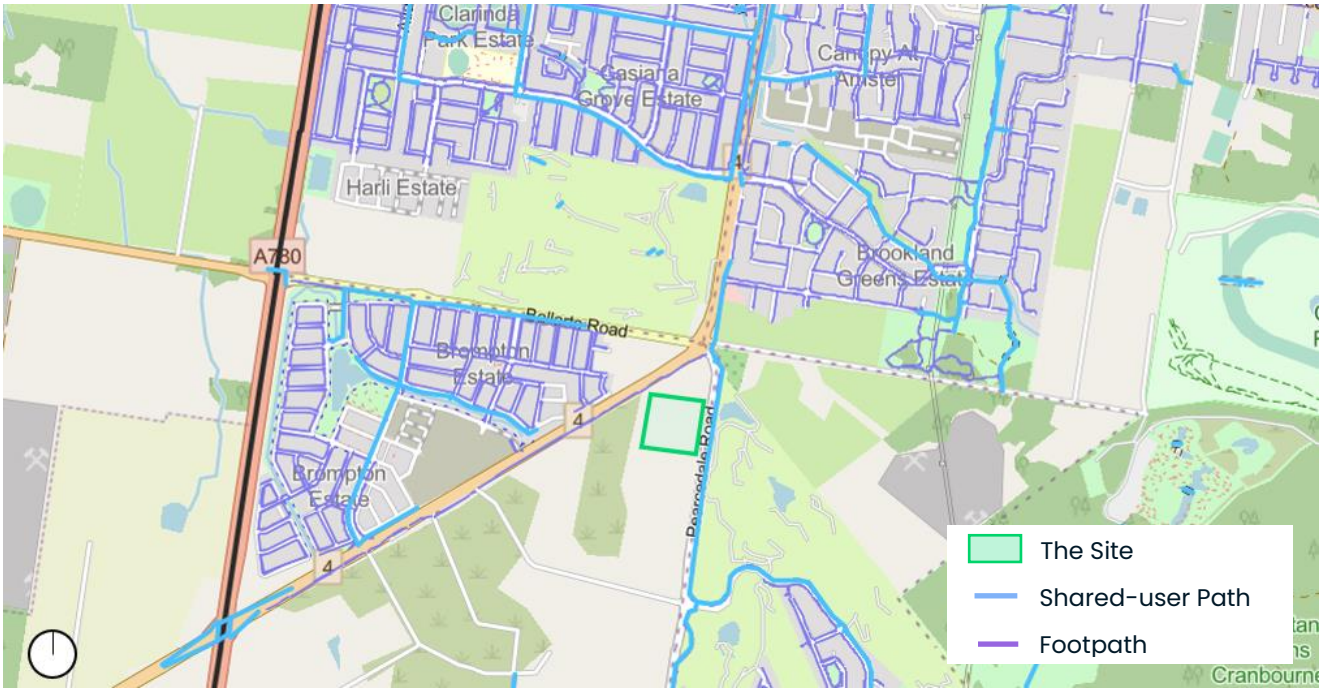
2.3.3 Pedestrian Infrastructure

Pedestrian infrastructure adjacent to the site comprises a shared path provided on the eastern side of the road in the form of a shared use path. As part of the site's existing permit, a pedestrian refuge is currently being constructed on Pearcedale Road to provide a connection between the existing shared use path and the site.

The wider street network proximate to the site generally have pedestrian infrastructure such as sealed footpaths and kerb ramps at intersections.

Details of the pedestrian infrastructure in proximity to the site is provided in **Figure 7**.

Figure 7 Pedestrian infrastructure near the site



Source: City of Casey (modified by Urbis)

2.4 Road Network

2.4.1 Pearcedale Road

Pearcedale Road fronts the site to the east and is classified as a major road managed by the City of Casey and is zoned Transport Zone 3 (TRZ3) under the Casey Planning Scheme. The road typically operates in a north-south alignment, providing a connection between Cranbourne-Frankston Road, Ballarto Road, Browns Road and the suburb of Pearcedale and Botanic Ridge. Pearcedale Road features a carriageway width of approximately 9 metres near the site, accommodating one traffic lane in each direction.

Images of Pearcedale Road near the site are shown in **Figure 8** and **Figure 9**.

Figure 8 Pearcedale Road near the site (facing north)

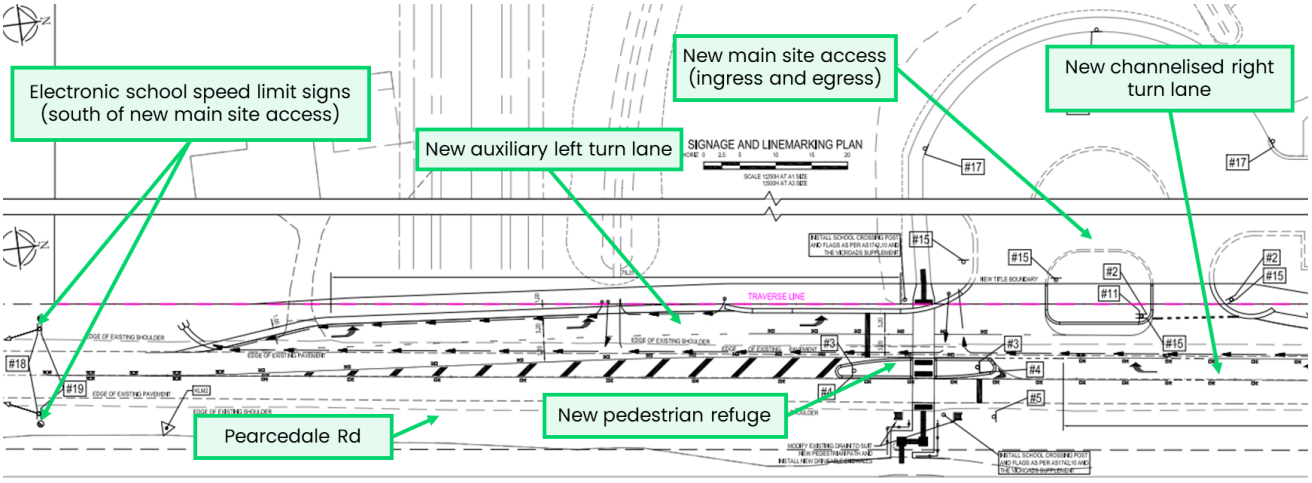
Source: CEM (December 2025)

Figure 9 Pearcedale Road near the site (facing south)

Source: CEM (December 2025)

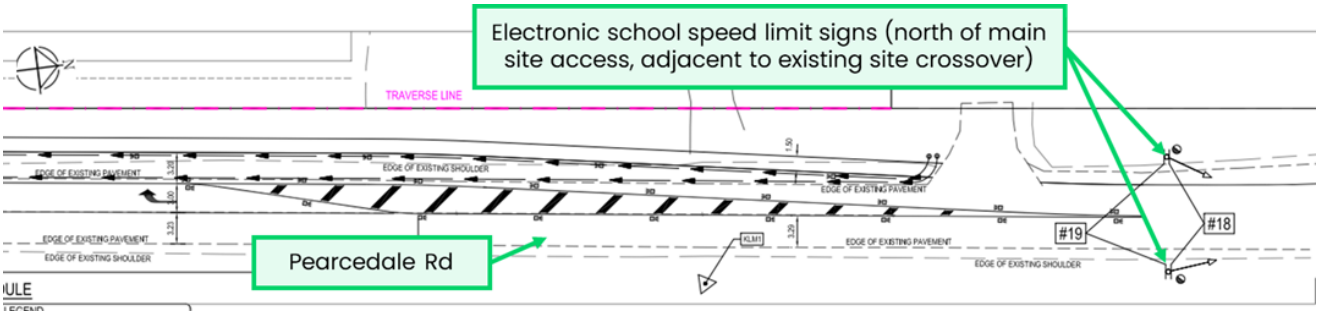
Pearcedale Road, adjacent to the site is currently undergoing road upgrades as part of the site's existing permit to develop school buildings with a capacity of 125 students. The approved construction plan at the site access along Pearcedale Road is shown in **Figure 10** and **Figure 11**. While the current posted speed limit on Pearcedale Road is 80km/h, electronic school speed limit signs (ESSLS) will be installed as part of the existing permit, resulting in a reduced posted speed limit of 40km/h during school times, between 8:00am-9:30am and 2:30pm-4:00pm.

Figure 10 Approved Engineering Construction Plan at the new main site access along Pearcedale Road



Source: CEM, 2020 (modified by Urbis)

Figure 11 Approved Engineering Construction Plan along Pearcedale Road, north of the new main site access



Source: CEM, 2020 (modified by Urbis)

Figure 12 and **Figure 13** are recent site photos of the current works at the subject site as part of the existing permit.

Figure 12 New main site access to/from Pearcedale Road (facing towards the northeast)

Source: CEM (December 2025)

Figure 13 New main site entry from Pearcedale Road (facing towards the east)

Source: CEM (December 2025)

2.4.2 Cranbourne-Frankston Road

Cranbourne-Frankston Road is located approximately 500 metres north of the site at the roundabout junction to Pearcedale Road and Ballarto Road. It is classified as a primary state arterial road managed by the DTP and is zoned Transport Zone 2 (TRZ2) under the Casey Planning Scheme. The road typically operates in a north-east to south-west alignment, providing a key connection between Frankston and Cranbourne. The road features a dual carriageway accommodating two lanes of traffic in each direction. Each carriageway features a width of approximately 6.9 metres. Cranbourne-Frankston Road has a posted speed limit of 80 km/hr.

Figure 14 and **Figure 15** show images of Cranbourne-Frankston Road approximately 150 metres southwest of the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout.

Figure 14 Cranbourne-Frankston Road near the site (facing north)

Source: Google Street View (August 2025)

Figure 15 Cranbourne-Frankston Road near the site (facing south)

Source: Google Street View (August 2025)

2.4.3 Ballarto Road

Ballarto Road is located approximately 520 metres north of the site and forms part of the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout. It is classified as a local traffic street managed by the City of Casey. The road typically operates in an east-west alignment, providing a connection between the Peninsula Link Freeway and Clyde. The road features a carriageway width of approximately 7.5 metres, accommodating one lane of traffic in each direction. It features a posted speed limit of 60 km/h.

Images of Ballarto Road, approximately 150 metres east of the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout is provided in **Figure 16** and **Figure 17**.

Figure 16 Ballarto Road near the site (facing east)

Source: Google Street View (August 2025)

Figure 17 Ballarto Road near the site (facing west)

Source: Google Street View (August 2025)

2.5 Traffic Conditions

To understand the existing traffic volumes in the vicinity of the site, Urbis commissioned traffic surveys at the following locations:

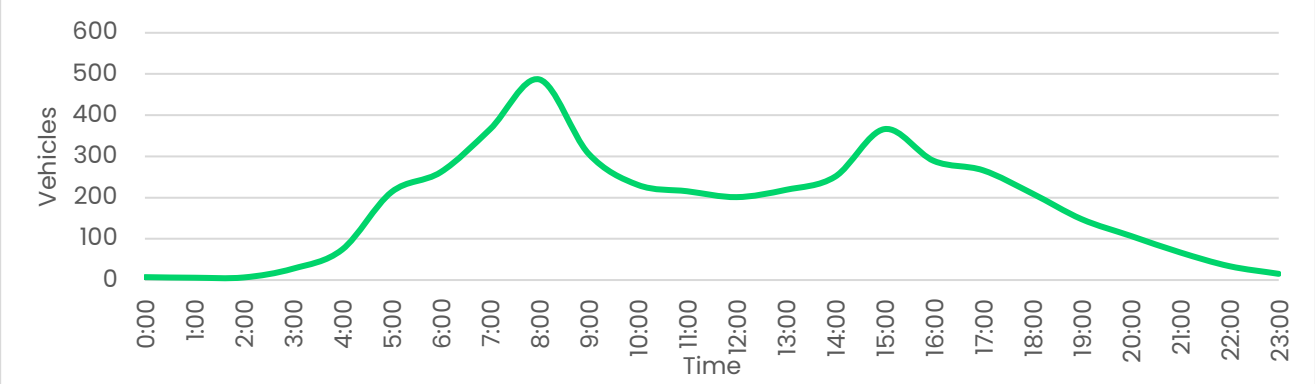
- Tube counts adjacent to 271-275 Pearcedale Road for a seven-day recording period between Monday, 10 November and Sunday, 16 November 2025, inclusive.
- Turning movement counts at the Cranbourne Road / Ballarto Road / Pearcedale Road roundabout on Tuesday, 18 November 2025 and,

These traffic surveys were conducted prior to major construction activities along Pearcedale Road adjacent to the proposed school development site and is considered representative of typical traffic conditions.

Based on the traffic surveys, the typical AM peak period for both Pearcedale Road and the roundabout was identified as 7:30 am to 8:30 am, while the PM peak period was identified as 3:00 pm to 4:00 pm.

Figure 18 illustrates the daily traffic profile for Pearcedale Road at the mid-block location adjacent to the site, based on a five-day average.

Figure 18 Pearcedale Road mid-block traffic volume adjacent to site (5-day average)

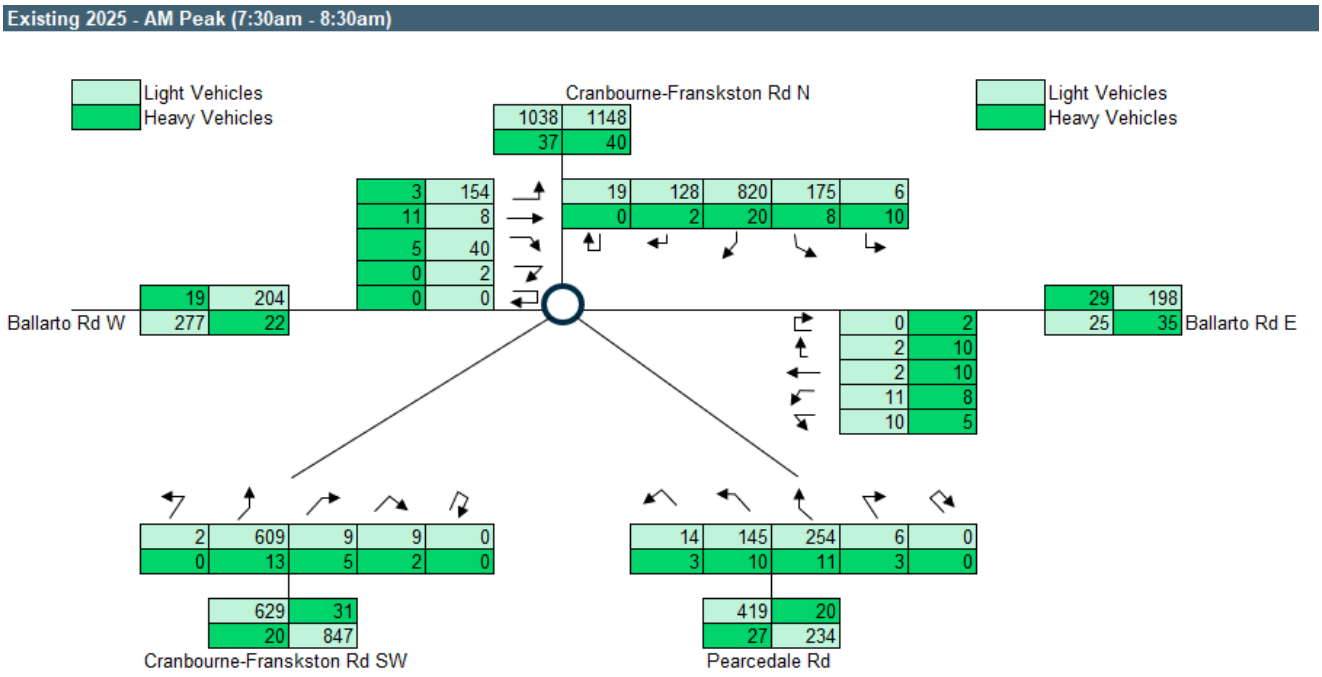


Source: Data Audit Systems (modified by Urbis)

During the AM peak hour, Pearcedale Road experienced mid-block traffic volumes of up to 835 vehicles, increasing to up to 923 vehicles during the PM peak hour. The five-day average daily traffic volume on Pearcedale Road was recorded at up to 9,210 vehicles, with approximately 9 per cent of vehicles classified as heavy vehicles.

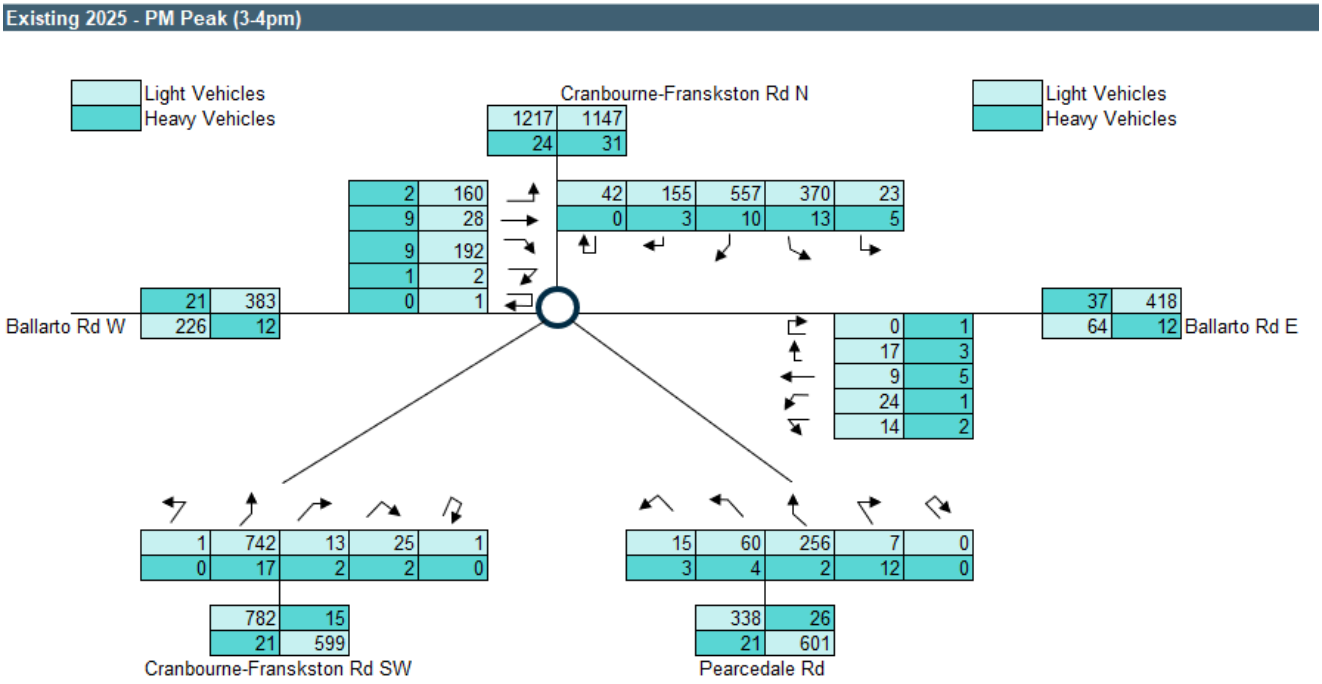
The turning movement counts for the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout during the AM and PM peak hours are shown in **Figure 19** and **Figure 20**.

Figure 19 AM peak hour turning movement counts Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout



Source: Data Audit Systems (modified by Urbis)

Figure 20 PM peak hour turning movement counts Cranbourne-Frankston Rd / Ballarto Rd / Pearcedale Rd



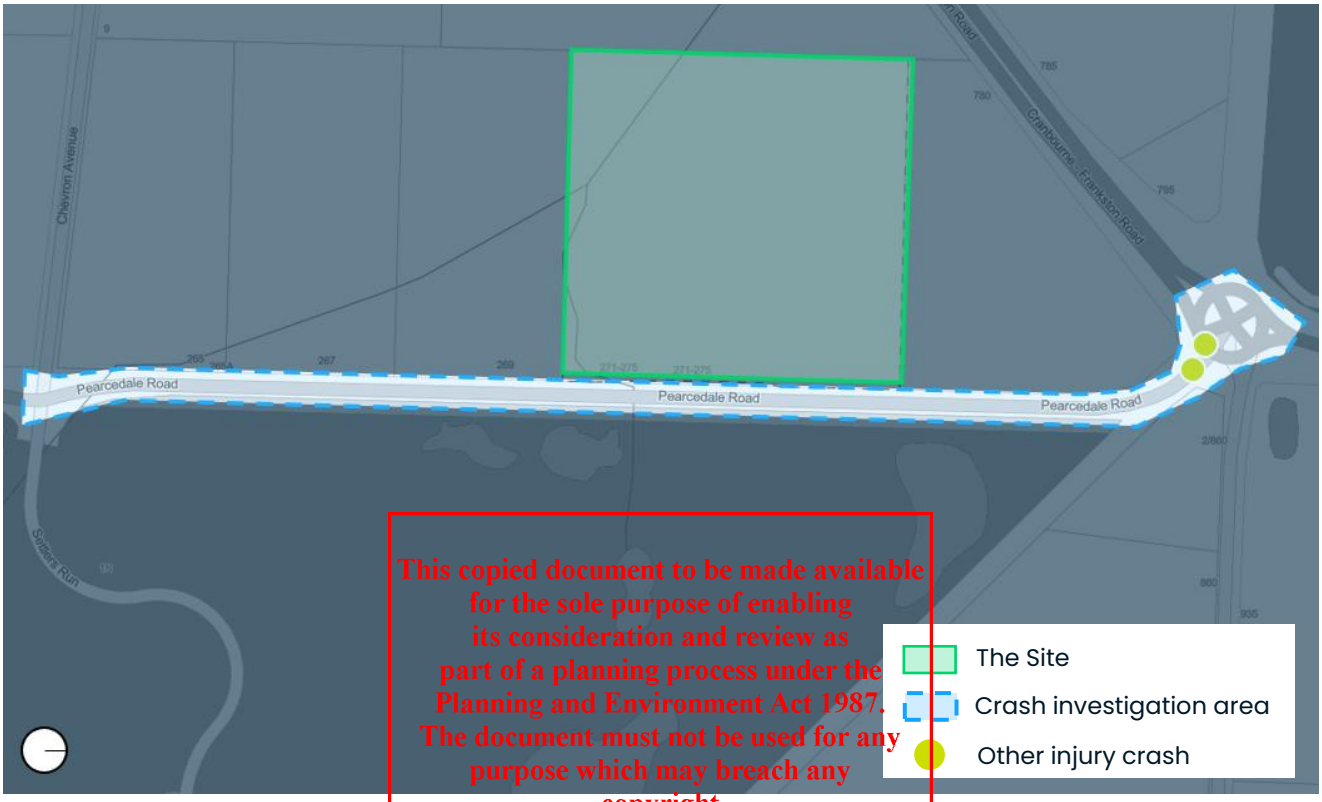
Source: Data Audit Systems (modified by Urbis)

2.6 Casualty Crash History

A review of the casualty crash history has been conducted along Pearcedale Road between Cranbourne-Frankston Road and Settlers Run. Crash statistics for the most recently available five-year period between January 2020 and January 2025 have been extracted from Transport Victoria's Data Portal.

The crashes recorded within the investigation area are presented in **Figure 21**.

Figure 21 Casualty crash history near the site



Source: Transport Victoria (modified by Urbis)

A total of two crashes were recorded within the crash investigation area along Pearcedale Road, including:

- One "other injury" crash at the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout involving an out-of-control motorcycle on the carriageway with no collision and no object struck, and
- One "other injury" crash along Pearcedale Road approaching the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout involving rear end collision with a vehicle in the same lane.

Of the two "other type" crashes that occurred in the investigation area, the following information was extracted:

- Both crashes occurred during clear atmospheric conditions with dry road surface conditions.
- Both crashes occurred outside of typical school peak hours
- The "other type" crash along Pearcedale Road approaching the Cranbourne-Frankston Road / Ballarto Pearcedale Road roundabout involved one "old driver", classified as 70 or above years of age.

Notably, no crashes involving pedestrians were recorded within the crash investigation area across the study period. Further, no crashes involving heavy vehicles were recorded.

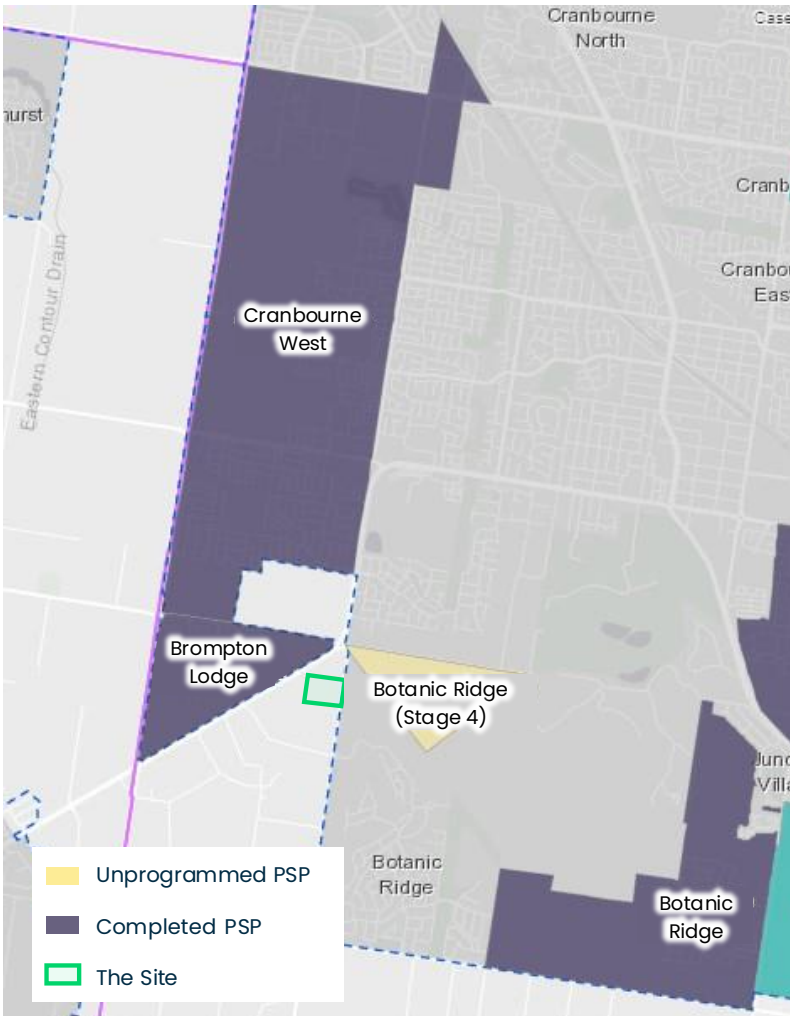
With reference to the above, no specific crash trends were identified that might be exacerbated by the proposed development.

2.7 Strategic Context

2.7.1 Adjacent Precinct Structure Plans

The site is adjacent to a few Precinct Structure Plan (PSP) areas that may influence the site. **Figure 22** and **Table 2** summarises the key PSPs located near the site.

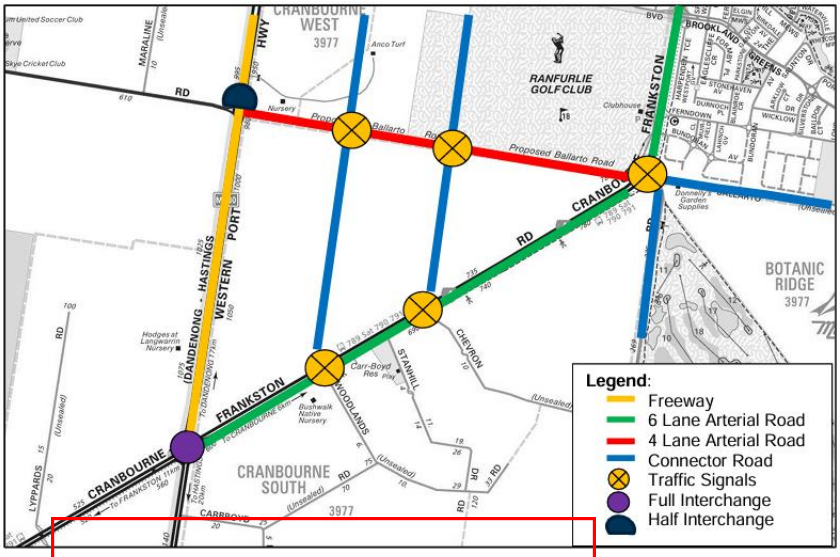
Figure 22 Key PSP areas adjacent to the site



Source: Victorian Planning Authority 2026 (modified by Urbis)

Table 2 Key PSPs adjacent to the site

Precinct Structure Plan	Description
Brompton Lodge	This PSP was gazetted in August 2016. The PSP area is located west of the site and bounded by Cranbourne-Franskton Road, Ballarto Road and the Western Port Highway. The PSP area is envisioned to be a mixed-use neighbourhood including residential uses and a local town centre. While the PSP does not include the site, the PSP road network connects to the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout, which is a key gateway into Pearcedale Road and to the site. Key proposed upgrades in the PSP area that may influence the site include: ▪ Cranbourne-Frankston Road as 6 lane arterial road ▪ Ballarto Road as a 4-lane arterial road

Precinct Structure Plan	Description
	As part of the development of the Brompton Lodge PSP, a Traffic and Transport Assessment was undertaken by Cardno in 2015. The assessment recommended that the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout be upgraded to a signalised intersection to support ultimate traffic growth associated with the Brompton Lodge PSP by 2046. ***Figure 23 - Brompton PSP Ultimate Road Network***  Source: Brompton Lodge PSP – Traffic and Transport Assessment (Cardno, 2015)
Botanic Ridge	This PSP was gazetted in 2013 and later updated in 2016 under Amendment C197 to the Casey Planning Scheme. The PSP area is located east of the site and is bounded by Botanic Drive, South Gippsland Highway, Craig Road and Browns Road. The area is envisioned to support development of residential areas supported by community facilities and town centre. It is noted that Botanic Ridge (Stage 4) PSP area is separate to the Botanic Ridge PSP which is currently unprogrammed.
Cranbourne West	This PSP was gazetted in 2010 and updated in 2012 under Amendment C159 to the Casey Planning Scheme. It is located north of the site and was envisioned to support development of large residential and employment areas within the PSP area.

2.7.2 Existing Permit

In September 2025, an amendment to the existing permit to use and develop an education centre was approved by the City of Casey to allow the proposed school development to be constructed in stages.

As part of the amended permit conditions, before the use and/or development start/s, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The key transport related permit conditions that will need to be considered include:

- A waste collection area with access from the main vehicle entrance of the development
- The bus parking bays with a length of 15 to 20 metres
- A disabled car space to comply with AS/NZS 2890.6-2009

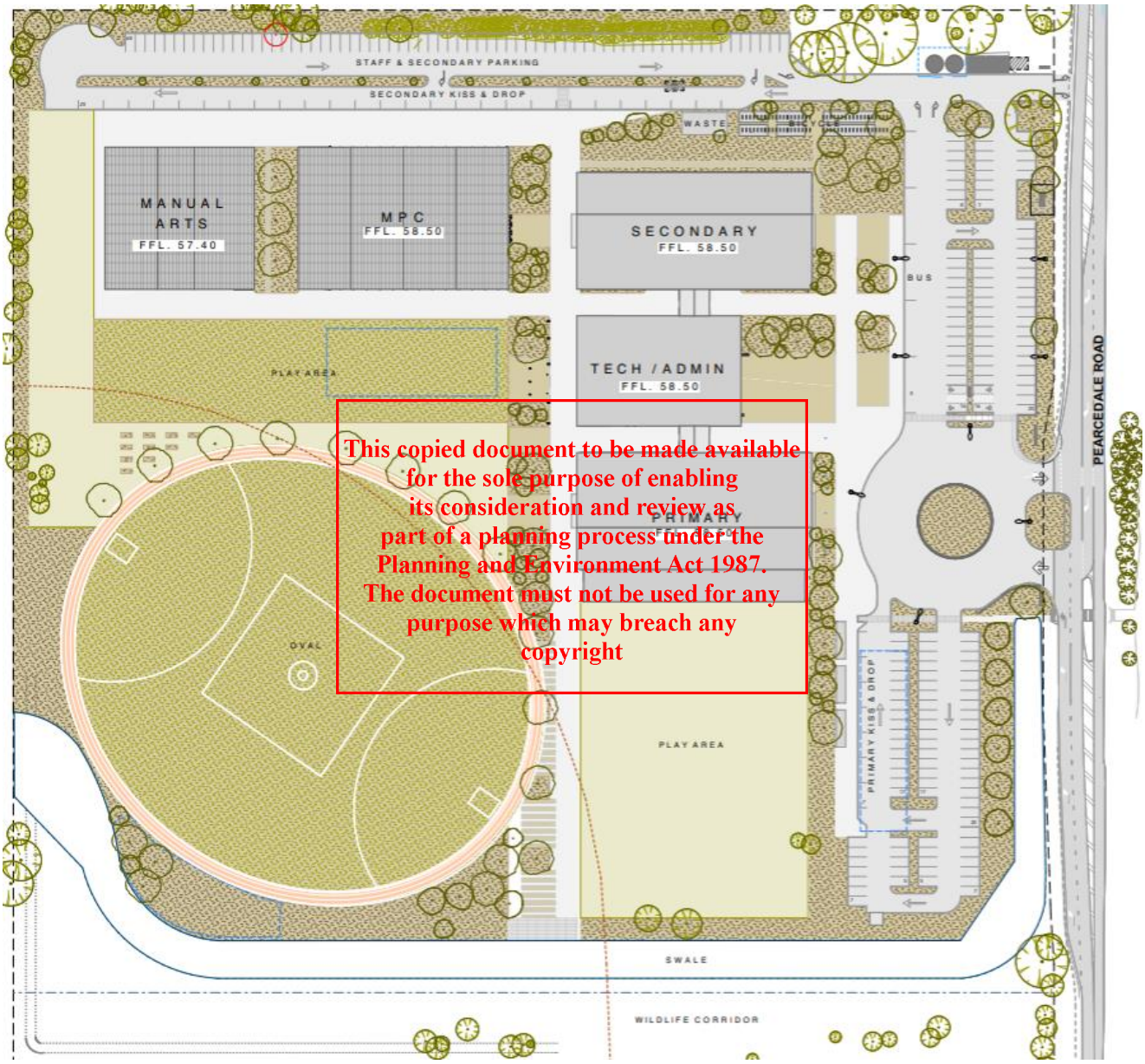
- The dimensions of all car spaces and access aisles to comply with the requirements of Clause 52.06 of the Casey Planning Scheme;
- Truck swept paths for buses, delivery trucks and waste collection services of the development;
- Loading and unloading area for deliveries;
- A pedestrian path that connects to the existing external footpath network;
- The channelised right turn lane in Pearcedale Road to access the proposed school entry;
- An auxiliary left turn lane in Pearcedale Road to access the proposed school entry;
- A pedestrian refuge in front of the proposed school in Pearcedale Road
- The provision of a no right hand turn sign near the exit of the site

3 The Proposal

3.1 Development Overview

The proposed school development at 271-275 Pearcedale Road, Cranbourne South comprises of a primary school and secondary school, and associated facilities designed to support a capacity up to 1,500 students as shown in the master plan in **Figure 24**.

Figure 24 Proposed school master plan development



Source: CEM (Master plan, dated 09/04/2026)

As discussed in **Section 2.7.2**, the master plan has been prepared to further develop the school site and is proposed to be delivered in five stages. Approval is being sought for the overall master plan, as well as the construction and operation of the Stage 1 development.

3.1.1 School and Staff Working Hours

Urbis has been advised by CEM that the typical school hours for both the primary and secondary schools within the proposed development will be between 8:15 am and 3:00 pm.

The key staff roles and associated working hours required to support the primary and secondary schools on the site are summarised in **Table 3**.

Table 3 Staff type and typical working hours

Staff type	Typical working hours
Full time employees	8am - 4pm
Leadership	7:45am - 5pm
Learning Assistant	8:30am - 4pm
Admin *(includes Receptionist, Counsellor, Chaplain, Grounds Person, Canteen Staff)*	8am - 4pm
Bus Drivers	7am - 4pm

3.1.2 Access Arrangements

The proposed access arrangements to, from and within the school development master plan include:

- A primary vehicle access point (referred to as the 'southern access point') on Pearcedale Road, which provides separated entry and exit movements to and from the site. Exiting movements at this access point will be left-turn only. This access point will serve as the main vehicle entry to the site for all vehicles, including buses, service vehicles, waste collection vehicles and private vehicles.
- An exit-only access point (referred to as the 'northern access point') to Pearcedale Road, providing for separated left- and right-turn exit movements from the site
- An internal roadway network providing access to on-site car parking areas, pick-up and drop-off areas, and bus bays.
- Primary school pick-up and drop-off will occur within a dedicated area located in the south-eastern corner of the site, while secondary school pick-up and drop-off will be accommodated along the northern boundary of the site
- Pedestrian footpaths will be provided throughout the site to support safe internal movements
- Long term bus parking will be provided informally along the western site boundary adjacent to the secondary school pickup and drop off area.

3.1.3 Parking

A total of 254 car parking spaces will be provided for the ultimate master plan including:

- 93 spaces in the north car park including 25 secondary school pickup/drop-off spaces
- 76 spaces in the east car park adjacent to the bus bays (including four accessible spaces)
- 85 spaces in the south car park including seven primary school pick-up/drop-off spaces.

Dedicated waste collection will occur opposite the waste refuse location in the eastern portion of the secondary school pick-up and drop-off area. This will take place outside of school pick-up and drop-off times when the bays are unoccupied.

3.2 Staging Plan

The master plan proposal will be delivered over five stages, with the expected number of students and staff per stage summarised in **Table 4** and **Table 5**.

Table 4 Student numbers by stage

Stage	Opening Year	Max. student capacity	Primary school students*	Secondary school students*
1	2028	875	438	437
2	2029	875	438	437
3	2031	875	438	437
4	2035	1250	625	625
5	2036	1500	755	745

*For Stages 1 – 4, it has been assumed that 50% of the maximum student capacity is allocated to primary school students and the remaining 50% allocated to secondary school students.

Table 5 Staff numbers by stage

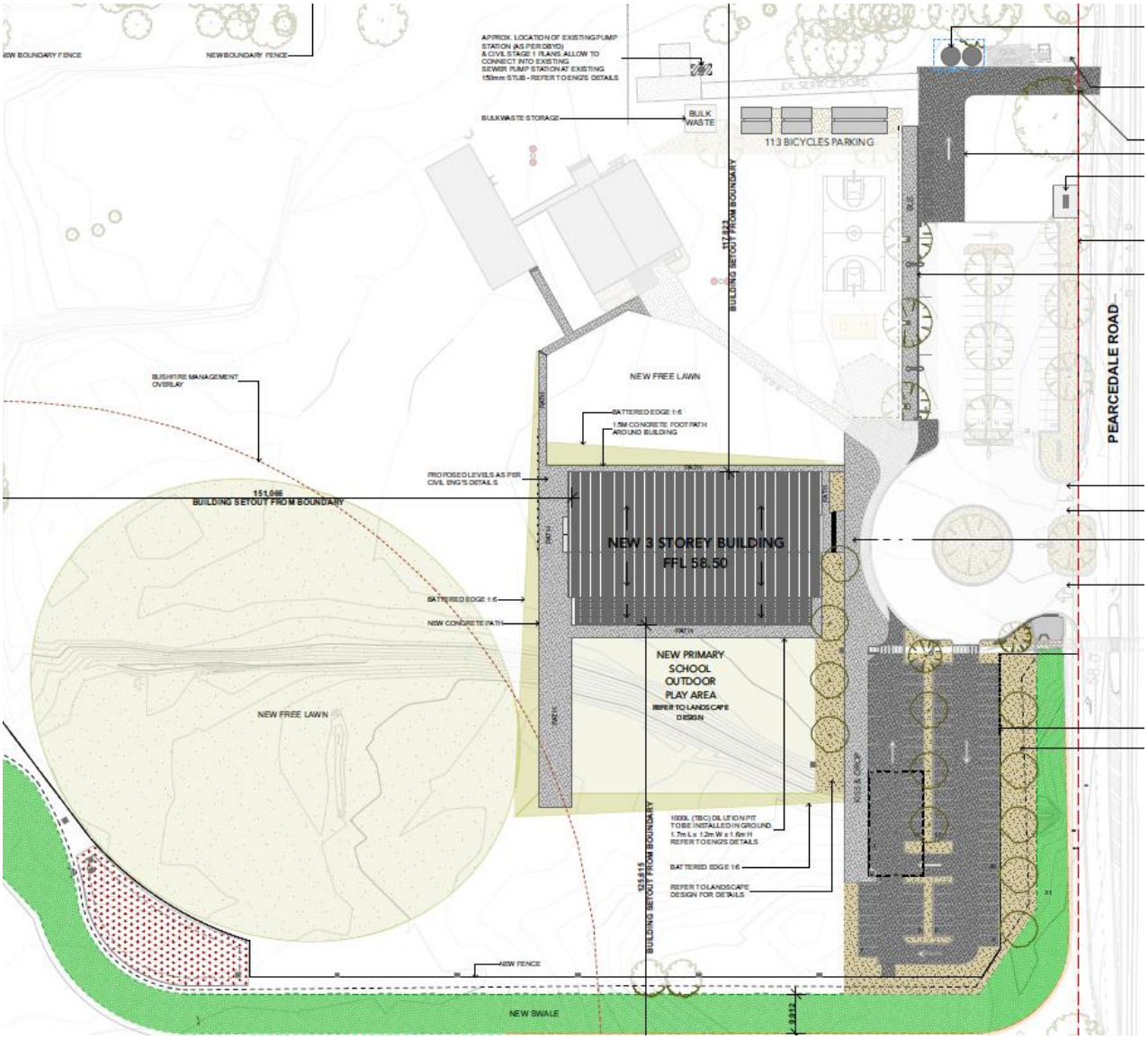
Stage	Opening Year	Full time staff		Leadership & Learning Assistants		Admin /Other	Total number of staff
		Primary school	Secondary school	Primary school	Secondary school		
1	2028	12	10	5	4	12	**14**
2	2029	16	12	6	7	12	**43**
3	2031	27	20	9	9	12	**53**
4	2035	35	35	15	14	17	**77**
5	2036	35	41	16	15	20	**116**

3.2.1 Stage 1

The Stage 1 development shown in **Figure 25** will introduce:

- A new purpose-built primary school building with associated facilities, including an outdoor playground.
- A new open space.
- The southern car park, providing 85 spaces including seven pick-up/drop-off spaces.
- Upgrades to the eastern car park to include five bus bays. As a result, the number of car parking spaces in the eastern car park will be reduced to 52 spaces.
- 113 bicycle parking spaces located near the eastern car park.
- A new northern site exit point supporting both left- and right-turn movements.
- An extension of the internal circulation roadway, providing a connection to the new northern site exit point.

Figure 25 Stage 1 Site Layout Plan



Source: CEM Site Plan, dated 09/04/2026

3.2.2 Stages 2 to 5

Detailed design for Stages 2 to 5 of the master plan is proposed to be approved through future planning applications in due course. While a detailed assessment of these stages will need to be provided on a stage-by-stage basis following endorsement of the overall master plan proposal, this TIA report includes a high-level assessment of the ultimate master plan (Stage 5) to confirm the functionality and operation from a transport perspective.

4 Car Parking Demand Assessment

4.1 Car Parking Requirements

The statutory car parking requirements for various land uses are set out in Clause 52.06 of the Casey Planning Scheme. The purpose of Clause 52.06, amongst other things, is:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

The number of car parking spaces required for the proposed use is set out in Table 1 of Clause 52.06-5.

As discussed in **Section 2.3.1**, the site is located within a Category 1 area in the CPR maps released by the DTP in December 2025 and incorporated into the Casey Planning Scheme. The Category 1 minimum parking rate set out in Table 1 of Clause 52.06-5 applicable to the proposed school development are set out in **Table 6**.

Table 6 Minimum car parking requirements by use

Use	Minimum car parking requirement
Primary School	1 space to each employee
Secondary School	1 space to each employee

4.2 Adequacy of Proposed Car Parking Provision

Based on the expected staff outlined in **Section 3.2** (**Table 5**) and the minimum car parking requirements set out in **Table 6, Table 7** summarises the statutory car parking requirements and the proposed car parking provision for each stage of the development.

Table 7 Minimum Car Parking Requirement and Proposed Parking Provision by Stage

Stage	Total number of staff		Statutory Car Parking Requirement	Car Parking Provision*
	Primary School	Secondary School*		
Stage 1	17	26	43	137
Stage 2	22	31	53	137
Stage 3	36	41	77	254
Stage 4	50	66	116	254
Stage 5	51	76	127	254

Note:
**Admin staff have been conservatively included as part of the secondary school staff total. Car parking provision includes pick-up/drop-off spaces*

The proposed car parking provision for each stage of the master plan exceeds the statutory requirement for the site and is therefore considered satisfactory.

4.3 Accessible Car Parking Requirements

In addition to the statutory car parking requirements outlined in Clause 52.06 of the Casey Planning Scheme, the National Construction Code (NCC) outlines the requirements for the provision of car parking spaces for people with disabilities (DDA car parking spaces).

The proposed school development is classified under the NCC Class 9b requirement which requires at least *'1 accessible space for every 100 car parking spaces or part thereof'*.

Table 8 summarises the DDA car parking requirement and the proposed spaces for each stage of the development.

Table 8 Car Parking Requirements for People with Disabilities

Stage	Car Parking Provision	DDA Car Parking Requirement	DDA Car Parking Provision
Stage 1	137	2	4
Stage 2	137	2	4
Stage 3	254	3	4
Stage 4	254	3	4
Stage 5	254	3	4

The above mentioned DDA car parking provision for each stage exceeds the NCC requirement for the site and is therefore considered acceptable.

5 Access and Car Parking Layout

5.1 Design Standard Assessment – Clause 52.06-9

The proposed access arrangements and car parking layout have been designed in accordance with the objectives and design requirements of Clause 52.06-9 of the Casey Planning Scheme, AS/NZS 2890.6:2009 and with the relevant sections of AS/NZS 2890.1:2004.

An assessment against the relevant design standards of Clause 52.06-9 of the Planning Scheme is provided below.

5.1.1 Design Standard 1 – Accessways

Design Standard 1 of Clause 52.06-9 relates to the design of accessways. The requirements of Design Standard 1 are assessed against the Stage 1 and masterplan proposal in **Table 9**.

Table 9 Design Standard 1 – Accessways

Design Standard Requirement	Proposed Design Assessment
Must be 3m wide	**Satisfied** All internal accessways have been designed with a minimum trafficable width more than 3.0 metres.
Have an internal radius of at least 4 metres at changes of direction or intersections or be at least 4.2 metres wide.	**Satisfied** All internal accessway intersections are more than 4.2 metres in width.
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre	**Not applicable yet satisfied** The proposed development does not feature public car parks and the design requirement is therefore not applicable. Notwithstanding, vehicles parked in the end of aisle spaces can exit the car park in a forward direction with a single manoeuvre. Further details of this assessment are provided in **Appendix C**.
Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.	**Not applicable yet satisfied** The proposed vehicle accessways are away from overhead obstructions, therefore not applicable.
If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	**Satisfied** All vehicles can enter/exit the site in a forward direction.
Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.	**Satisfied** Vehicle access has been designed to accommodate simultaneous two-way movements.

Design Standard Requirement	Proposed Design Assessment
Have a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	**Satisfied** A corner splay is provided at both site access locations to Pearcedale Road.
If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.	**Not applicable** The accessway does not directly connect to a Transport Zone 2 or Transport Zone 3 road and is therefore deemed as not being applicable.
If entry to the car space is from a road, the width of the accessway may include the road.	**Not applicable** Car parking spaces are accessed via internal access aisles and an internal circulation roadway.

5.1.2 Design Standard 2 – Car Parking Spaces

Design Standard 2 of Clause 52.06-9 relates to the design of car parking spaces. The requirements of Design Standard 2 are assessed against the Stage 1 and master plan proposal in **Table 10**.

Table 10 Design Standard 2 – Car Parking Spaces

Design Standard Requirement	Proposed Design Assessment
Car parking spaces and accessways must have the minimum dimensions as outlined Table 2 of the Design Standard 2 of Clause 52.06-9.	**Satisfied** The proposed car parking spaces are 4.9 metres in length and 2.6 metres wide. A minimum aisle width of 6.4 metres is provided throughout the site, which meets the design standard requirements.
A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1, other than: A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1. A structure, which may project into the space if it is at least 2.1 metres above the space.	**Satisfied** All car parking spaces are clear of any encroachments within the area marked as 'clearance required' on Diagram 1 of Design Standard 2.
Car spaces in garages or carports must be at least 6 metres long and 3.5 metres wide for a	**Not applicable** No garages are proposed.

Design Standard Requirement	Proposed Design Assessment
single space and 5.5 metres wide for a double space measured inside the garage or carport.	
Where parking spaces are provided in tandem (one space behind the other) an additional 500 mm in length must be provided between each space.	**Not applicable** No tandem spaces are proposed.
Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	**Not applicable** No dwellings are provided as part of the proposal.
Disabled car parking spaces must be designed in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 500mm.	**Satisfied** The accessible space and adjacent shared zone have been provided in accordance with AS/NZS 2890.6:2009, with a minimum car space width of 2.6 metres, a minimum shared area width of 2.5 metres, a minimum length of 5.4 metres, 500mm of which is provided within the accessway, accessed via a minimum aisle width of 6.4 metres.

5.1.3 Design Standard 3 – Gradients

Design Standard 3 of Clause 52.06-9 relates to the design of the gradients. The requirements of Design Standard 3 are assessed against the Stage 1 and master plan proposal in **Table 11.**

Table 11 Design Standard 3 – Gradients

Design Standard Requirement	Proposed Design Assessment
Accessway grades must not be steeper than 1:10 (10%) within 5 meters of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.	**Generally Satisfied** Accessway grades are flatter than 1:10 (10%) within 5 meters of the frontage at Pearcedale Road.
Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.	**Not Applicable** No ramps are provided within the proposed site.
Where the difference in grade between two sections of ramp or floor is greater than 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to per cent vehicles scraping or bottoming.	**Not Applicable** No ramps are provided within the proposed site.

5.2 Swept Path Assessment

A swept path assessment using the 'Autodesk Vehicle Tracking' software was conducted to confirm and demonstrate the safe manoeuvre of vehicles to, from and within the site. The swept path assessment has been provided within **Appendix C** of this report and includes:

- Ingress and egress at the site access locations to Pearcedale Road for the largest vehicle expected on site (12.5-metre-long school buses)
- Bus bay access for the largest vehicle expected to use these bays (12.5-metre-long school buses)
- B85 design vehicle (85th percentile car) ingress and egress of critical car parking spaces within the site
- Manoeuvring of two opposing B99 design vehicles (99.8th percentile car) within the internal circulation roadway
- Manoeuvring of buses up to 12.5 metres long within the internal circulation roadway
- Manoeuvring of service vehicles up to 8.8 metres long (including fire truck) within the internal circulation roadway
- Manoeuvring of school buses up to 8.8 metres long to/from the informal long term bus parking area

6 Traffic Assessment

6.1 School Traffic Characteristics

Traffic generated by the proposed school is anticipated to be concentrated within approximately 20 to 30 minutes around school drop-off and pick-up times. Whilst congestion is anticipated on the road frontages during these times, traffic is anticipated to dissipate quickly after the commencement of school and after pick-up.

As typical of other existing schools, residents of the surrounding area will be aware of school peak periods and may plan their trips accordingly to avoid the busy peak period by travelling outside of the half hour peak drop-off and pick-up periods or use sustainable transport modes.

6.2 Green Travel Plan Travel Survey

A school travel survey was undertaken of students and staff currently enrolled at, or working at, the nearby Australian Christian College in Skye.

The Skye campus is located approximately 5 kilometres from the proposed development and operates in a comparable suburban context. On this basis, travel behaviour observed at the Skye campus is considered broadly representative of the expected travel behaviour of students and staff at the proposed school.

The school travel survey results have been used to inform an understanding of existing travel behaviour and to estimate traffic generation associated with the proposed school development across all stages, as outlined in the following sections.

The survey results are detailed in the Green Travel Plan (GTP) prepared for the proposed school development and provided in **Appendix B**. The GTP identifies strategies and targets to encourage staff, students and parents/guardians to use non-car modes of travel for journeys to and from the school. This behavioural change can deliver positive and tangible benefits for both the school and the surrounding community.

As the existing school in Skye is being relocated to the new site at 271–275 Pearcedale Road, Cranbourne South, there is an opportunity to influence travel behaviour early through the adoption of the GTP.

6.3 Traffic Generation

6.3.1 Students

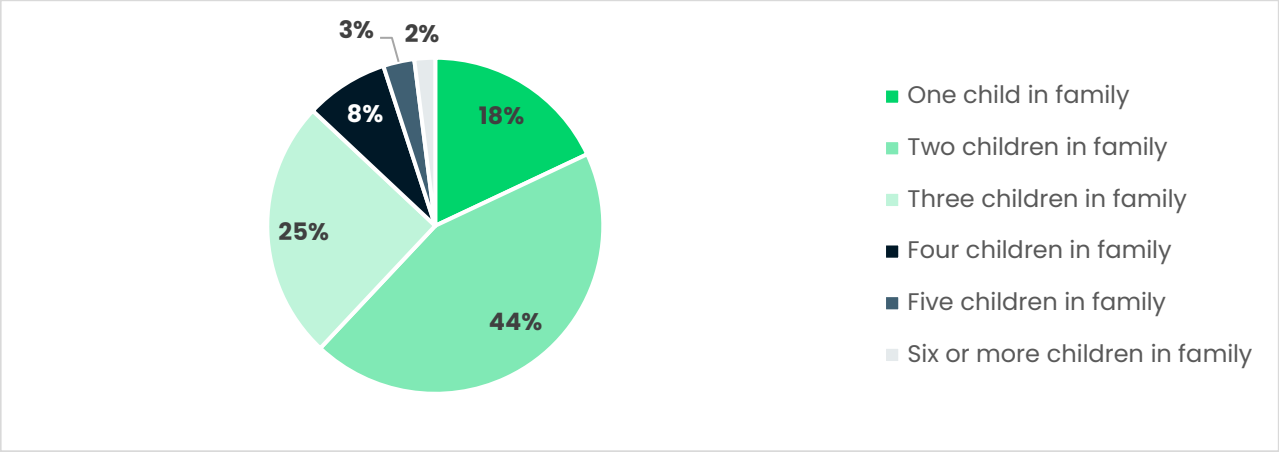
Based on the GTP travel survey results, it has been conservatively estimated that during the AM peak period, 89 per cent of students will be dropped off by parents or guardians using private vehicles, typically on the way to work or similar activities.

During the PM peak period, some students are expected to attend after-school sport, after-school care or other activities, as their parents or guardians may still be working or unable to collect students at the end of the school day. As a result, the private vehicle mode share during the PM peak is estimated to be 85 per cent.

To account for private vehicle trips that may include more than one student, such as siblings travelling together, the Australian Bureau of Statistics (ABS) Census 2021 data was used to understand the proportion of households with more than one child.

Figure 26 summarises household composition within the proposed school catchment. It is estimated that approximately 82 per cent of students attending the school are likely to travel in the same vehicle as a sibling.

Figure 26 Household composition within the school catchment



Source: ABS Census 2021 (modified by Urbis)

Based on the GTP travel survey results, it is estimated that 11 per cent of students travel by non-car modes during the AM peak and 15 per cent during the PM peak. Non-car travel mode will continue to be supported through the provision of five on-site bus parking bays, allowing the school to operate private bus services to and from the site each day as well as other initiatives set out in the GTP attached in **Appendix B**.

6.3.2 Staff

Using the GTP staff travel survey results, it is anticipated that all staff will travel to and from the proposed school by private vehicle. Based on the staff working hours outlined in **Section 3.1.1**, it is estimated that 50 per cent of full-time teachers, learning assistants and administrative staff will arrive during the AM peak hour, noting that some staff may arrive earlier to avoid the school related AM peak period.

It is anticipated that no staff departures will occur during the PM peak hour, as staff working hours fall outside this period.

6.3.3 Summary

Based on above, a summary of the overall peak hour traffic generation for the proposed development by stage is presented in **Table 12**.

Note that traffic generation in the PM peak hour for Stages 1 to 3 remains unchanged, as student capacity does not vary between these stages and staff departures are not expected to occur during the PM peak hour due to staff working hours falling outside this period. The same applies to AM peak exit movements, as no staff departures are expected to occur during the AM peak hour.

Table 12 Overall Traffic Generation

Stage	AM Peak Hour (7:30am – 8:30 am)		PM Peak Hour (3pm – 4pm)	
	In	Out	In	Out
Stage 1	241	181	165	218
Stage 2	245	181	165	218
Stage 3	257	181	165	218
Stage 4	370	258	236	312
Stage 5	439	310	249	330

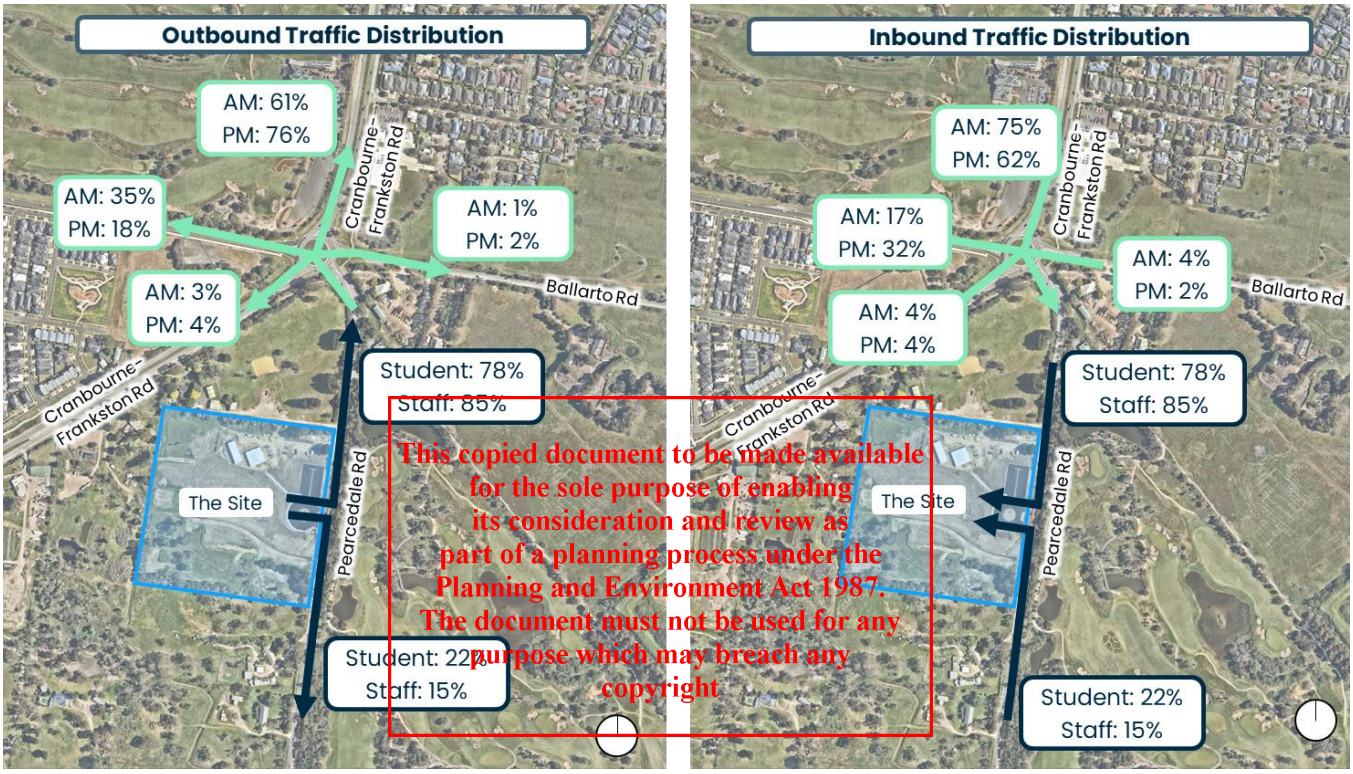
6.4 Traffic Distribution

The distribution of site-generated traffic to and from the proposed school was derived from the residential locations of students and staff identified in the GTP travel survey. The survey indicates that 78 per cent of student and 85 per cent of staff reside to the north of the site.

Traffic distribution at the Cranbourne–Frankston Road / Ballarto Road / Pearcedale Road roundabout was based on the turning movement proportions observed in the roundabout turning movement counts discussed in **Section 2.5**.

Figure 27 presents the likely distribution of site generated traffic in the AM and PM peaks.

Figure 27 Network distribution routes



6.5 Future Base Case Traffic

Future base case (background) traffic volumes have been derived through a review of the following data sources:

- Historical DTP annual average daily traffic (AADT) data along Cranbourne-Frankston Road and Pearcedale Road
- Casey Fields South (Employment) and Devon Meadows PSP – Strategic Transport Modelling Assessment Report, prepared by Jacobs in 2024
- 860 Ballarto Road, Botanic Ridge Transport Impact Assessment, prepared by One Mile Grid (2017), undertaken in support of Casey Planning Scheme Amendment C225, which included the rezoning of land at 860 Ballarto Road, Botanic Ridge from Farming Zone 2 to General Residential Zone.
- Brompton Lodge PSP – Traffic and Transport Assessment, prepared by Cardno in 2015

These data sources were used to estimate background traffic growth, taking into account potential changes to the surrounding road network resulting from planned future development within the Brompton Lodge, Casey Fields South (Employment) and Devon Meadows PSP areas, as well as development at 860 Ballarto Road located near the site.

As discussed in **Section 2.7.1**, it is important to note that the Brompton Lodge PSP – Traffic and Transport Assessment, prepared by Cardno in 2015, recommended that the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout be upgraded to a signalised intersection to support traffic growth associated with the Brompton Lodge PSP.

Based on the traffic analysis presented in the referenced reports and a review of historic AADT data, annual traffic growth along Pearcedale Road and Cranbourne-Frankston Road was estimated to range between approximately 0.5 per cent and 1.82 per cent.

To adopt a conservative assessment approach, the upper growth rate of 1.82 per cent per annum has been applied to existing traffic volumes on Pearcedale Road and at the Cranbourne-Frankston Road / Ballarto Road / Pearcedale Road roundabout. This growth rate has been used to establish future base case traffic volumes for Stage 1 (2028) and the ultimate master plan development (Stage 5 - 2036).

6.6 Traffic Impact

SIDRA intersection modelling was undertaken to understand the capacity of Pearcedale Road and the Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout to support the proposed development of Stage 1 (2028) with consideration of the ultimate master plan development in Stage 5 (2036).

SIDRA Intersection 10 is a modelling software package that calculates intersection performance. The parameters used to assess intersection performance are summarised below.

- **Degree of Saturation (D.O.S)** is a ratio of arrival (or demand) flow to capacity. Degrees of saturation above 1.0 represent oversaturated conditions and degrees of saturation below 1.0 represent undersaturated conditions. DTP's transport modelling guidelines (Nov 2025) specify D.O.S utilisation targets for unsignalised and sign-controlled intersections including:
  - **Desirable D.O.S:** 0.80
  - **Maximum D.O.S:** 0.85
- **95th percentile queue length** (95%ile queue) is the value below which 95 percent of all observed cycle queue lengths fall, or 5 percent of all observed queue lengths exceed
- **Average Delay** is the average time, in seconds, that vehicles can be expected to wait at an intersection

The network traffic volume flow diagrams and detailed SIDRA outputs for the key stages of the master plan development are attached in **Appendix D** and **Appendix E** of this report, respectively.

6.6.1 Existing Intersection Performance

The SIDRA modelling results for the existing conditions at Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout during the AM and PM peak hours are summarised in **Table 13**. SIDRA modelling was not undertaken for existing conditions along Pearcedale Road, as the proposed school access is not yet open.

Table 13 Existing conditions SIDRA modelling results – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Pearcedale Road	South East	0.43	26	19	0.28	15	15

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Ballarto Road	East	0.14	6	11	0.14	5	8
Cranbourne-Frankston Road	North	0.67	43	11	0.62	38	11
Ballarto Road	West	0.16	6	7	0.29	13	10
Cranbourne-Frankston Road	South West	0.58	28	8	0.68	39	8
Overall		**0.67**	**43 m**	**11 secs**	**0.68**	**39 m**	**11 secs**

The roundabout is currently operating with a degree of saturation of 0.67 in the AM peak and 0.68 in the PM peak, with overall average delays of up to 11 seconds in both peak periods. Some queuing occurs on the northern approach along Cranbourne–Frankston Road during both peak periods, with queues of up to approximately 43 metres in the AM peak for right turn movements towards Ballarto Road (westbound) and Cranbourne-Frankston Road (southwest bound).

Overall, the roundabout is operating below its practical capacity.

6.6.2 Stage 1 (2028) Performance

6.6.2.1 Stage 1 (2028) - Pearcedale Road School Accesses

The SIDRA modelling results of Stage 1 post development traffic conditions during the AM and PM peak hours are presented in **Table 14** and **Table 15** for the proposed Pearcedale Road school accesses.

Table 14 Stage 1 Post-Development 2028 SIDRA Modelling Results – Pearcedale Road Northern School Access Point (Exit Only)

Approach	Movement	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Pearcedale Road South	Through	0.33	0	0	0.27	0	0
Pearcedale Road North	Through	0.31	0	0	0.41	0	1

Approach	Movement	AM Peak			PM Peak		
		D.O.S	**95th %le Queue (m)**	**Avg Delay (sec)**	**D.O.S**	**95th %le Queue (m)**	**Avg Delay (sec)**
School Access (Exit Only) East	Left	0.09	2	6	0.09	3	5
	Right	0.14	3	13	0.20	5	17
Overall		**0.33**	**3 m**	**1 sec**	**0.41**	**5 m**	**1 sec**

Table 15 Stage 1 Post-Development 2028 SIDRA Modelling Results – Pearcedale Road Southern School Access Point (Primary Access Point)

Approach	Movement	AM Peak			PM Peak		
		D.O.S	**95th %le Queue (m)**	**Avg Delay (secs)**	**D.O.S**	**95th %le Queue (m)**	**Avg Delay (secs)**
Pearcedale Road South	Left	0.03	0	7	0.02	0	7
	Through	0.03	0	1	0.22	0	0
Pearcedale Road North	Through	0.23	0	0	0.37	0	0
	Right	0.28	9	12	0.15	5	10
School Access East	Left	0.11	3	5	0.11	3	4
Overall		**0.29**	**9 m**	**3 secs**	**0.37**	**5 m**	**2 secs**

Based on Pearcedale Road modelling results for Stage 1 presented in the tables above, both school accesses operate well below the practical capacity of the intersections with D.O.S of up to 0.41 at the northern access point in the PM peak. There is expected to be minimal average delay and queuing in both peaks.

Based on the above, the increase in traffic volumes associated with the Stage 1 development is not expected to adversely affect the operational performance of Pearcedale Road.

6.6.2.2 Stage 1 (2028) - Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

The SIDRA modelling results for future base traffic volumes in 2028 during the AM and PM peak hours are presented in **Table 16** for the Cranbourne–Frankston Road / Ballarto Road / Pearcedale Road roundabout. The 2028 Future Base Traffic scenario represents background traffic growth without Stage 1 of the proposed school development and assumes the school approved under the existing permit (for up to 125 students) has been constructed and is operational in 2028.

Table 16 Future Base Traffic 2028 SIDRA modelling results – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Pearcedale Road	South East	0.53	39	25	0.34	19	16
Ballarto Road	East	0.17	9	12	0.16	5	9
Cranbourne-Frankston Road	North	0.71	49	11	0.67	47	12
Ballarto Road	West	0.17	7	8	0.33	15	10
Cranbourne-Frankston Road	South West	0.64	34	8	0.74	48	9
Overall		**0.71**	**49 m**	**13 secs**	**0.74**	**48 m**	**11 secs**

The Future Base Traffic 2028 SIDRA modelling results above indicate that the roundabout is expected to operate within its practical capacity in both the AM and PM peaks with overall D.O.S of 0.71 and 0.74 respectively.

The SIDRA modelling results of Stage 1 post development traffic conditions during the AM and PM peak hours are presented **Table 17** for Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout.

Table 17 Stage 1 Post-Development 2028 SIDRA modelling results – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Pearcedale Road	South East	0.68	61	32	0.47	29	17

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Ballarto Road	East	0.19	8	12	0.17	6	9
Cranbourne-Frankston Road	North	0.73	52	11	0.70	53	12
Ballarto Road	West	0.18	7	8	0.40	20	11
Cranbourne-Frankston Road	South West	0.68	39	9	0.81	60	11
Overall		**0.73**	**61 m**	**14 secs**	**0.81**	**60 m**	**12 secs**

The Stage 1 traffic conditions at the roundabout indicates an overall D.O.S of 0.73 in the AM peak and 0.81 in the PM peak. The AM peak D.O.S is below the 'desirable' target specified by the DTP, while the PM peak D.O.S is marginally above the 'desirable' target but remains below the maximum acceptable threshold.

The critical movement contributing to the PM peak D.O.S of 0.81 is the south-west approach on Cranbourne–Frankston Road, with left-turn movements towards Ballarto Road (westbound) and Cranbourne–Frankston Road (northbound). These movements experience queue lengths of up to 60 metres with a minor average delay of approximately 12 seconds.

Compared with the 2028 Future Base Traffic SIDRA results, the Stage 1 scenario shows only minor increases in overall D.O.S, delays and queue lengths. The roundabout continues to operate within acceptable performance thresholds in both peak periods. As a result, the Stage 1 development is not expected to materially affect the operation of the Cranbourne–Frankston Road / Ballarto Road / Pearcedale Road roundabout in 2028, and no intersection upgrades are required.

6.6.3 Stage 5 (2036) Performance

A 10-year traffic growth scenario for the 2036 design year was tested in SIDRA to understand how the Pearcedale Road school accesses and Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout is likely to perform with consideration of background traffic growth and the ultimate school master plan development (Stage 5).

The following sections summarise the outcome of the SIDRA results for Stage 5. It is assumed that 25 per cent of students will take travel to/from the school by sustainable modes by Stage 5 supported by the sustainable transport initiatives outlined in the GTP attached in **Appendix B** of this report.

6.6.3.1 Stage 5 (2036) - Pearcedale Road School Accesses

The SIDRA modelling results of Stage 5 post development traffic conditions during the AM and PM peak hours are presented in **Table 18** and **Table 19** for the proposed Pearcedale Road school accesses.

Table 18 Stage 5 Post-Development 2036 SIDRA Modelling Results – Pearcedale Road Northern School Access Point (Exit Only)

Approach	Movement	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Pearcedale Road South	Through	0.39	0	0	0.32	0	0
Pearcedale Road North	Through	0.42	0	1	0.49	0	1
School Access (Exit Only) East	Left	0.18	5	7	0.16	4	6
	Right	0.44	10	30	0.52	12	35
Overall		**0.43**	**8 m**	**2 secs**	**0.52**	**12 m**	**2.1 secs**

Table 19 Stage 5 Post-Development 2036 SIDRA Modelling Results – Pearcedale Road Southern School Access Point (Primary Access Point)

Approach	Movement	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (secs)	D.O.S	95th %le Queue (m)	Avg Delay (secs)
Pearcedale Road South	Left	0.05	0	7	0.03	0	7
	Through	0.33	0	1	0.25	0	1
Pearcedale Road North	Through	0.27	0	0	0.43	0	0
	Right	0.60	28	16	0.26	8	10
School Access East	Left	0.20	5	6	0.17	4	4
Overall		**0.60**	**28 m**	**4 secs**	**0.43**	**8 m**	**2 secs**

Based on Pearcedale Road modelling results for Stage 5 presented in the tables above, both school accesses operate well below the practical capacity of the intersections with D.O.S of up to 0.60 at the southern access point in the PM peak. There is expected to be minimal average delay and queuing in both peaks.

Based on the above, the increase in traffic volumes associated with the Stage 5 development is not expected to adversely affect the operational performance of Pearcedale Road.

6.6.3.2 Stage 5 (2036) - Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

The SIDRA modelling results for the 2036 future base traffic during the AM and PM peak hours are presented in **Table 20** for the Cranbourne–Frankston Road / Ballarto Road / Pearcedale Road roundabout.

Table 20 2036 (Stage 5) Future Base Case SIDRA modelling results – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

		AM Peak			PM Peak		
Road	**Approach**	**D.O.S**	**95th %le Queue (m)**	**Avg Delay (sec)**	**D.O.S**	**95th %le Queue (m)**	**Avg Delay (sec)**
Pearcedale Road	South East	0.89	130	83	0.50	35	21
Ballarto Road	East	0.24	11	14	0.22	8	10
Cranbourne-Frankston Road	North	0.82	76	11	0.80	79	14
Ballarto Road	West	0.22	9	8	0.45	25	13
Cranbourne-Frankston Road	South West	0.77	51	10	0.90	92	14
Overall		**0.89**	**130 m**	**24 secs**	**0.90**	**92 m**	**14 secs**

Table 20 indicates that the roundabout will be operating at a D.O.S greater than the desirable maximum of 0.85 stipulated in DTP's transport modelling guidelines (Nov 2025), indicating that it will require upgrading to signals with background traffic growth alone. In the AM peak, the critical movements occur on the Pearcedale Road approach and the Cranbourne–Frankston Road south-west approach, where the D.O.S exceeds 0.85.

Notwithstanding the intersection requiring signalisation due to the background traffic growth alone, **Table 21** outlines the anticipated roundabout operation under Stage 5 post development traffic conditions.

Table 21 Stage 5 Post-Development 2036 SIDRA modelling results – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

		AM Peak			PM Peak		
Road	**Approach**	**D.O.S**	**95th %le Queue (m)**	**Avg Delay (sec)**	**D.O.S**	**95th %le Queue (m)**	**Avg Delay (sec)**
Pearcedale Road	South East	1.35	655	373	0.80	83	36

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Ballarto Road	East	0.32	15	16	0.26	9	10
Cranbourne-Frankston Road	North	0.86	102	12	0.85	102	16
Ballarto Road	West	0.24	9	9	0.57	35	16
Cranbourne-Frankston Road	South West	0.78	53	10	1.03	289	53
Overall		**1.35**	**655 m**	**89 secs**	**1.03**	**289 m**	**29 secs**

Table 21 indicates that the roundabout will again operate at a D.O.S greater than the desirable maximum of 0.85 under post-development conditions. Given the roundabout's expected poor performance under the 2036 Future Base Traffic scenario, the upgrade to a signalised intersection would be triggered by background growth alone, even without the proposed school development. This is consistent with previous work undertaken by Cardno for the Brompton Lodge PSP – Traffic and Transport Assessment (2015), which recommended upgrading the roundabout to signalised control to manage future traffic growth, irrespective of the proposed school development.

Through iterative SIDRA modelling, it is anticipated that the roundabout can support the proposed school development up to Stage 3 (2031).

The SIDRA modelling results of Stage 3 post development traffic conditions during the AM and PM peak hours are presented **Table 22** for Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout.

Table 22 Stage 3 (2031) post development SIDRA modelling results – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road roundabout

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Pearcedale Road	South East	0.80	93	49	0.51	35	19
Ballarto Road	East	0.22	10	13	0.20	7	9
Cranbourne-Frankston Road	North	0.77	61	11	0.74	63	13

Road	Approach	AM Peak			PM Peak		
		D.O.S	95th %le Queue (m)	Avg Delay (sec)	D.O.S	95th %le Queue (m)	Avg Delay (sec)
Ballarto Road	West	0.20	8	8	0.43	23	12
Cranbourne-Frankston Road	South West	0.73	46	10	0.86	75	12
Overall		**0.80**	**93**	**18**	**0.86**	**75**	**14**

Based on the Stage 3 modelling results, the overall D.O.S in the AM peak meets the DTP desirable performance target.

In the PM peak, the overall D.O.S is marginally above the DTP maximum target (D.O.S of 0.86). The critical movement is the south-west approach on Cranbourne–Frankston Road for left-turn movements towards Ballarto Road (westbound) and Cranbourne–Frankston Road (northbound). Notwithstanding this, the associated operational impacts are limited, with average delays of up to approximately 12 seconds and queue lengths of around 75 metres, which do not extend to the adjacent intersection.

On this basis, traffic impacts associated with the proposed development up to Stage 3 are considered to be localised and operationally manageable, noting that broader capacity constraints at the roundabout are primarily influenced by background traffic growth and will need to be addressed regardless of the proposed development.

6.6.4 Modelling Summary

Overall, the proposed school development is not expected to result in any significant adverse impact on the safety or operation of Pearcedale Road at the proposed school access locations.

The Cranbourne–Frankston Road / Ballarto Road / Pearcedale Road roundabout is forecast to experience capacity constraints under future base case conditions by 2035 (Stage 4), even in the absence of the proposed school development. These findings are generally consistent with previous work undertaken by Cardno for the Brompton Lodge PSP – Traffic and Transport Assessment (2015), which recommended that the roundabout be upgraded to a signalised intersection by the relevant road authority to manage future traffic growth, regardless of the proposed school development.

Through iterative SIDRA modelling, it is anticipated that the roundabout can support the proposed school development up to Stage 3 (2031).

As development progresses toward Stage 4, a more detailed assessment of the roundabout should be undertaken, including consideration of the relevant road authorities upgrading the intersection as part of broader network planning to support the wider road network and manage future traffic growth.

7 Bicycle Parking Assessment

7.1 Bicycle Facilities Requirements – Clause 52.34-5

Bicycle parking requirements for new use developments are set out under Clause 52.34-5 of the Casey Planning Scheme. The number of bicycle parking spaces required for the specified uses is listed under Table 1 of Clause 52.34-5.

The bicycle parking requirements for the proposed school development are outlined in **Table 23**.

Table 23 Statutory Bicycle Parking Requirements

Land Use	User Type	Statutory Bicycle Parking Rate
Primary School	Employee	1 to each 20 employees
	Student	1 to each 5 pupils over year 4
Secondary School	Employee	1 to each 20 employees
	Student	1 to each 5 pupils

Based on the above statutory bicycle parking rates, **Table 24** summarises the minimum number of bicycle parking spaces required per stage. These bicycle parking numbers assume that 50 per cent of the maximum student capacity for each stage is allocated to primary school students and the remaining 50 per cent to secondary school students. It is also assumed that 25 per cent of primary school use will be made up of Year 5 and 6 students based on the GTP travel survey results discussed in **Section 6.2**.

Table 24 Minimum required bicycle parking by stage

Stage	Primary school bike parking		Secondary school bike parking		Total bike parking required
	Staff	Student	Staff	Student	
Stage 1	1	22	2	88	**113**
Stage 2	2	22	2	88	**114**
Stage 3	2	22	3	88	**115**
Stage 4	3	32	4	125	**164**
Stage 5	3	38	4	149	**194**

7.2 End of Trip Facilities Requirements – Clause 52.34-5

Requirements for the end of trip facilities (showers and changerooms) for developments providing employee bicycle parking spaces are set out within Table 2 and Table 3 of Clause 52.34-5 of the Casey Planning Scheme and include:

- **Showers** – If 5 or more employee bicycle parking spaces are required, 1 shower for the first 5 employee bicycle spaces, plus 1 to each 10 employee bicycle spaces thereafter
- **Changerooms** – 1 change room or direct access to a communal change room to each shower. The change room may be a combined shower and change room.

Table 25 summarises the end of trip requirements to support the minimum bicycle parking requirements listed in **Table 24** in the previous section.

Table 25 End of trip facility requirements by stage

Stage	Total staff bike parking required	No. of showers required	No. of change rooms/communal change room
Stage 1	3	0	0
Stage 2	4	0	0
Stage 3	5	0	0
Stage 4	7	1	1
Stage 5	7	1	1

7.3 Bicycle Parking Provision

7.3.1 Bicycle Parking Spaces

A total of 113 bicycle spaces will be provided in Stage 1, located near the eastern car park and the school's main entrance, which satisfies the minimum statutory requirements for Stage 1.

A detailed assessment of bicycle parking for the remaining stages of the masterplan will be undertaken on a stage-by-stage basis.

7.3.2 End of Trip Facilities

Showers and change room are not required until Stage 4 of the proposed development and therefore not provided in Stage 1, meeting the statutory requirement for that stage.

A detailed assessment of showers and change rooms for Stage 4 and 5 of the masterplan will be undertaken on a stage-by-stage basis.

8 Loading & Waste Collection

For Stage 1, loading and unloading activities, as well as waste collection associated with the proposed school development, will be undertaken using the proposed bus bays adjacent to the school entrance.

From Stage 3, once the secondary school pick-up and drop-off area is constructed, waste collection will occur along the eastern portion of the secondary school pick-up and drop-off area, opposite the waste refuse area.

It is anticipated that loading, unloading and waste collection will occur outside of school pick-up and drop-off periods, when the bays are not in use.

The largest loading and waste collection vehicles are expected to be medium rigid vehicles up to 8.8 metres in length. These vehicles will enter the site via the main access and exit in a forward direction via the northern site access.

A swept path assessment of a medium rigid vehicle up to 8.8 metres in length has been undertaken to confirm access to and from the secondary school pick-up and drop-off area for Stage 3 and beyond. This swept path assessment is provided in **Appendix C**.

As the bus bays are designed to accommodate buses up to 12.5 metres in length, including the internal accessway for site egress, a separate swept path assessment for an 8.8-metre medium rigid vehicle is not considered necessary.

This arrangement allows all servicing activities to occur within the site in a controlled manner, without reversing movements onto the public road network, and is considered acceptable from a transport engineering perspective.

9 Conclusions

The proposed development is located at 271–275 Pearcedale Road, Cranbourne South, and relates to the expansion of an existing permit for the use and staged development of an education centre. The existing permit allows for school buildings accommodating up to 125 students, with the school expected to commence operation in 2026. This application seeks approval for a long-term master plan to expand the school to accommodate up to 1,500 students, to be delivered in five stages, along with approval for the construction and operation of Stage 1.

This Transport Impact Assessment has been prepared to assess the transport and traffic implications of the proposed Stage 1 development, considering the ultimate master plan. The assessment considers vehicular access arrangements, internal circulation, car parking provision and layout, traffic generation and impacts on the surrounding road network, bicycle parking provision, and loading and waste collection arrangements.

Car Parking Provision

The master plan provides a total of 254 on-site car parking spaces, distributed across three car parking areas located to support both primary and secondary school operations. Car parking will be delivered progressively in line with each stage of development. The proposed provision exceeds the statutory car parking requirements for the site and is considered sufficient to accommodate anticipated staff parking demand across all stages of the school's development.

Vehicular Access and Car Parking Layout

Vehicular access to the site will be provided via a primary access point on Pearcedale Road with separated entry and exit movements, including left-turn-only exit arrangements, and a secondary exit-only access further north. The internal road network provides clear and efficient access to car parking areas, pick-up and drop-off zones and bus bays. Pedestrian footpaths are provided throughout the site, supporting safe internal movement and minimising conflict between vehicles and pedestrians.

Traffic Generation and Impact

The proposed Stage 1 development, and the broader master plan, is not expected to result in any significant adverse impact on the safety or operation of Pearcedale Road at the proposed access points. The Cranbourne–Frankston Road / Ballarto Road / Pearcedale Road roundabout is forecast to operate at or near practical capacity under future traffic conditions by Stage 3, and to experience capacity constraints by Stage 4 under future base case conditions. These constraints are anticipated to arise due to background traffic growth rather than the proposed school development alone. As development progresses beyond Stage 3, a more detailed assessment of the roundabout should be undertaken, including consideration of the relevant road authorities upgrade the intersection as part of broader network planning to support the wider road network and manage future traffic growth.

Bicycle Parking Provision and Layout

A total of 113 bicycle spaces will be provided in Stage 1, located near the eastern car park and the school's main entrance, which satisfies the minimum statutory requirements. A detailed assessment of bicycle parking for the remaining stages of the masterplan will be undertaken on a stage-by-stage basis.

Showers and change rooms are not required for Stage 1 and will be assessed for Stages 4 and 5 on a stage-by-stage basis, in accordance with statutory requirements.

Loading and Waste Collection Arrangements

Loading, unloading and waste collection activities will be undertaken within the site using the bus bays located along the secondary school building frontage in Stage 1 as well as within the secondary school pick-up/drop-off area in Stage 3 and beyond. These activities are expected to occur outside of school pick-up and drop-off periods. Servicing vehicles will enter and exit the site in a forward direction using the designated access points. For Stage 1, the bus bays are designed to accommodate larger vehicles. This proposed arrangement allows all servicing and waste collection activities to occur in a controlled manner within the

site, without reversing movements onto the public road network, and is considered acceptable from a transport engineering perspective.

Disclaimer

This report is dated 15 April 2026 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Christian Education Ministries **(Instructing Party)** for the purpose of a Transport Impact Assessment **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

Appendix A – Site Layout Plans

PRIMARY STUDENTS	755
SECONDARY STUDENTS	745
STUDENT NUMBER	1,500

CEM | CHRISTIAN EDUCATION MINISTRIES

ACC Casey

Legend

(a)	ABOVE
AW	AWNING
AL	ALUMINIUM CLADDING
AB	ALUMINIUM BATTENS
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FCL01	FIBRE CEMENT SHEETING
FG	FIXED GLASS
LVR	LOUVRED GLASS
MRS	METAL ROOF SHEETING
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
	DRAFT ISSUE	03.03.26
	FINAL DA ISSUE	08.04.26

N

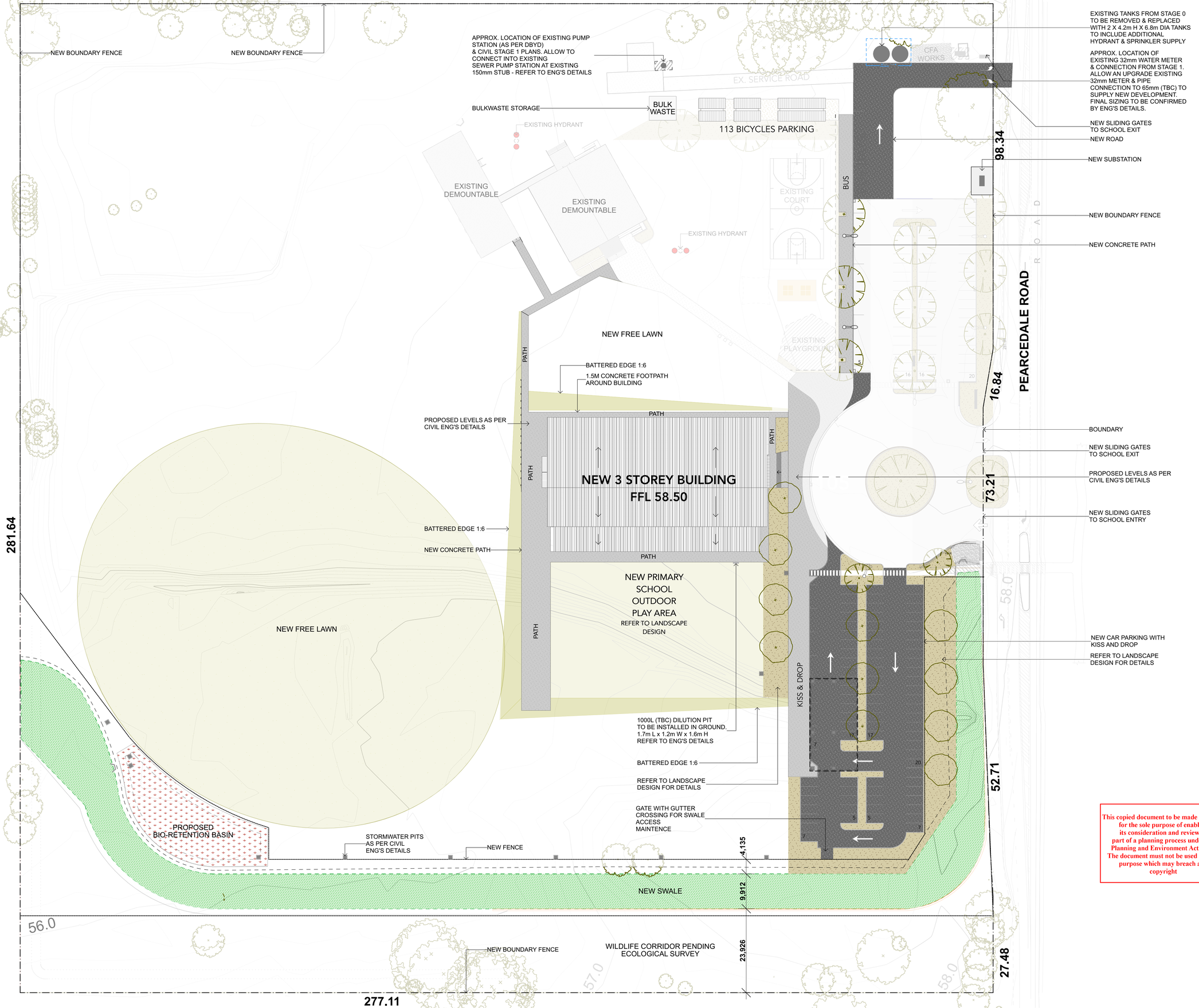
Site	271-275 Pearcedale Road, Cranbourne South, VIC 3977
Project No.	18130-02-2401
Scale	@ A1- 1:500
Project Status	DEVELOPMENT APPLICATION
Drawn I Checked	## DRAWN BY I ## CHECKED
Plot Date	09.04.2026

Drawing Title

Cover Page and Site Plan
Masterplan

DA002

Drawing No.



CEM | CHRISTIAN EDUCATION MINISTRIES

ACC Casey

LEGEND

NEW TREE - REFER TO LANDSCAPE PLANS

EXISTING TREE TO BE RETAINED

ISSUE FOR COORDINATION

Rev	Description	Date
	DRAFT ISSUE	03.03.26
	FINAL DA ISSUE	08.04.26

N

Site	271-275 Pearcedale Road, Cranbourne South, VIC 3977
Project No.	18130-02-2401
Scale	@ A1- 1:500
Project Status	DEVELOPMENT APPLICATION
Drawn I Checked	## DRAWN BY I ## CHECKED
Plot Date	09.04.2026

Drawing Title

Cover Page and Site Plan

Stage 1 Proposed Site Plan

DA008

Drawing No.

Appendix B – Green Travel Plan

Green Travel Plan

271-275 Pearcedale Road, Cranbourne South

April 2026
Prepared for: Christian Education Ministries

Urbis staff responsible for this report were:

Director	Manesha Ravji
Associate Director	Katie Harker
Senior Consultant	Kim Diep
Consultant	Jonno Tims
Project Code	P0063738
Report Number	FINAL

Acknowledgment of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on.
We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years.
We pay our respects to First Nations Elders, past and present.

Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork - **Sacred River Dreaming**.

The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

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Contents

Figures

Tables

Introduction and Background

1.1 Overview

This Green Travel Plan (GTP) has been prepared by Urbis for the Christian Education Ministries (the client) in relation to the development of a school at 271-275 Pearcedale Road, Cranbourne South (the site). It is understood that the school currently operates at a different site in Skye and is experiencing significant growth. As a result, CEM is now beginning the preparation of their application to the Department of Transport and Planning (DTP) for the masterplan on the site, with student numbers projected to reach up to 1,500 by 2036.

1.2 Purpose

The purpose of this GTP is to identify strategies and targets that encourage staff, students, and parents/guardians to use non-car methods of travel for their journeys to and from the school. This behavioural change can bring positive and tangible benefits to both the school and its local community. As the existing school in Skye is being relocated to the new site at 271–275 Pearcedale Road, Cranbourne South, there is an opportunity to influence travel behaviour early through the adoption of the GTP.

1.3 The Proposal

Urbis understands that Christian Education Ministries (CEM) is planning a school development at 271–275 Pearcedale Road, Cranbourne South, with capacity to grow to 1,500 students. This will accommodate the relocation of the existing Skye school and anticipated future student demand. The site currently has limited public transport, meaning most students and staff are likely to travel by car, creating high demand for parking and pick-up/drop-off zones and increasing traffic around the school.

A GTP has been prepared to encourage a shift towards walking, cycling, and other sustainable modes. This will help to reduce traffic to/from the school during pick-up and drop-off periods, improve safety for pedestrians and cyclists, and encourage physical activity and green travel behaviours among students and staff. By adopting these initiatives and recommendations, the GTP will help to support the school's growth while fostering a safer, healthier, and more sustainable travel culture for the school and local community.

1.4 Importance of Green Travel Planning

Behavioural changes that occur through the GTP's strategies and targets can have the following wider benefits for the school:

- **Reduction in parking demand:** There is an anticipated high demand to pick-up drop-off zones and parking spaces as many students and staff are likely to travel to and from school in private vehicles Reducing parking demand is a key part of this GTP in response to the proposed school development. To achieve this, this GTP includes a range of initiatives and measure which promote and encourage the uptake of sustainable travel.
- **Reduction in traffic:** School travel plans are intended to reduce traffic around schools by creating a shift toward other modes such as walking, cycling and public transport. In the context of the school, this reduction in congestion will likely result in enhanced road safety outcomes for all users and further encourage the uptake of walking and cycling, particularly amongst younger students.
- **Improved street amenity and safety:** Reducing school traffic and parking demand will improve safety for students walking and cycling to school. Many students and staff cite traffic safety concerns as

reasons for their unwillingness to walk and cycle to school[1]. A school culture that emphasises non-car access will create an overall safety benefit for the school.

- **Increase in physical activity:** Creating a safe and more attractive walking and cycling environment around the school increases the incidental daily physical activity in school students. The Australian Government's Department of Health, Disability and Ageing recommends that children and young people should aim for at least 60 minutes of moderates to vigorous physical activity per day[2]. In Australia, only 12 per cent of children and two per cent of adolescents meet these physical activity guidelines[3].
- **Benefits to the school and local community:** Green Travel Planning is beneficial to the school and its local community. These communities often experience the effects of additional parking and traffic demands which can change over time as the school grows and expands. This GTP seeks to lessen any negative impact that school travel has on its surrounding community and in doing so it aims to increase the sustainability of school operations.

[1] RACV (2018) 'Why our children don't walk to school anymore'

[2] AIHW (2021) 'Guidelines for healthy growth and development for school children and young people (5 to 17 years)

[3] AIHW (2024) 'Australia's physical activity and sedentary behaviour guidelines'

2 Existing Conditions

2.1 The Site

The site is located at 271-275 Pearcedale Road, Cranbourne South and currently has planning approval for the construction of school buildings with a capacity of 125 students. This is set to increase significantly in relation to the proposed masterplan for the site, with student numbers projected to reach up to 1,500 by 2036.

The site is situated in the southern portion of Melbourne's Metropolitan Region, approximately 42 kilometres from the CBD and is part of the City of Casey.

The site fronts Pearcedale Road and is located approximately 500 metres south of Cranbourne-Frankston Road.

An aerial view of the site and its surrounds is provided in **Figure 1**.

Figure 1 Aerial view of the site

Source: Nearmap Imagery (December 2025) (modified by Urbis)

2.2 Travel Survey

A school travel survey was undertaken of students and staff currently enrolled at, or working at, the nearby Australian Christian College in Skye, expected to be relocated to the site once open.

The Skye campus is located approximately 5 kilometres from the proposed development and operates in a comparable suburban context with similar active and public transport accessibility levels. On this basis, travel behaviour observed at the Skye campus is considered broadly representative of the expected travel behaviour of students and staff at the proposed school site.

The travel survey included the following groups:

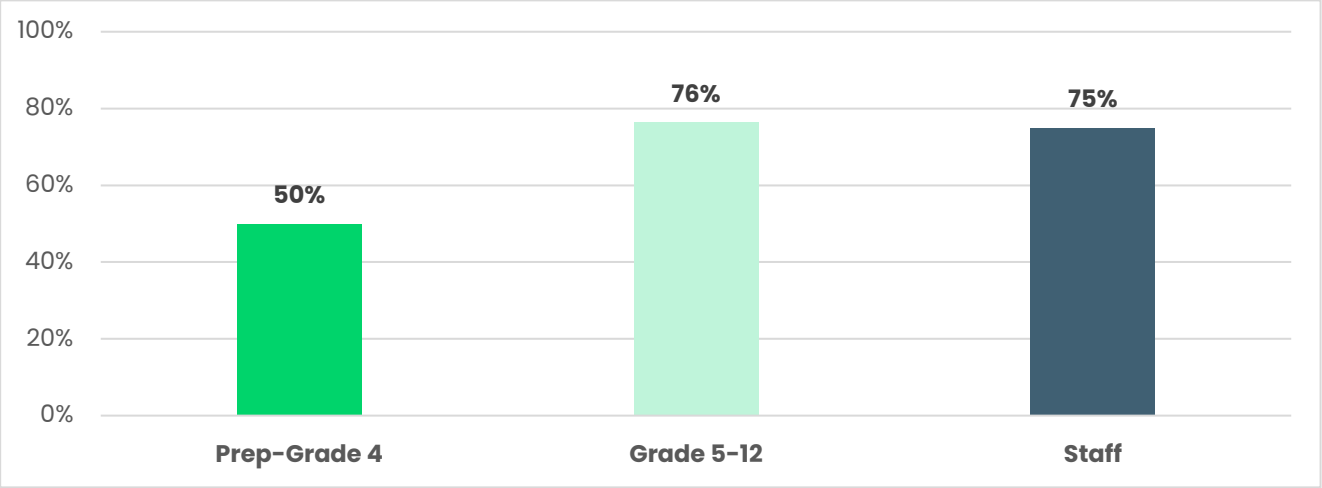
- Preparatory to Year 4 students
- Year 5 to Year 12 Students
- Staff members

The corresponding data from the travel survey seeks to assess the school's baseline conditions, which are essential to understand in framing future works and upgrades to the school's new campus.

This GTP seeks to understand the existing trends in travel behaviour and identify where there is scope to increase student and staff participation in walking, cycling and public transport use to the new school campus.

The completion rates for the travel survey are shown in **Figure 2.**

Figure 2 Travel survey completion rates



Source: Travel Survey Results provided by CEM (November 2025)

The completion rates presented above are based solely on fully completed survey responses. Partially completed surveys, where key travel behaviour questions were left unanswered, have been categorised as incomplete and marked as 'not applicable' (n/a). These n/a responses have been excluded from the analysis so that the results accurately reflect the travel patterns of respondents who provided complete information. This approach helps to avoid skewing the data and provides a more reliable baseline for understanding current travel behaviour across the school community.

2.2.1 Home Locations – Students

Most of the student cohort reside within the Frankston City Council and City of Casey Local Government Area (LGA). Between both Prep to Year 4 and Year 5 to Year 12 cohorts, the most common home locations are Carrum Downs, Cranbourne and Frankston.

Table 1 and **Table 2** detail the top five most common home locations for these two cohorts.

Table 1 Prep to Year 4 most common home locations

Suburb	Percentage
Carrum Downs	19%
Frankston	19%
Cranbourne	11%
Cranbourne East	9%

Suburb	Percentage
Langwarrin	5%

Source: Travel Survey Results provided by CEM (November 2025)

Table 2 Year 5 to Year 12 most common home locations

Suburb	Percentage
Carrum Downs	15%
Cranbourne	15%
Frankston	12%
Narre Warren	9%
Cranbourne West	9%

Source: Travel Survey Results provided by CEM (November 2025)

With several students residing in similar home locations close to the proposed school, there is an opportunity for mode shift. This could involve an uptake in public transport for school journeys greater than 1.2 kilometres and/or an uptake in carpooling between shared home suburbs.

These green travel initiatives are expanded upon in **Section 4.**

2.2.2 Home Locations – Staff

Similar to the student cohort, most staff members recorded living in both the Frankston City Council and the City of Casey LGA. Langwarrin was the most common home location, situated approximately 6.3 kilometres southwest of the proposed school.

Table 3 details the top five most common home locations for staff members.

Table 3 Staff members' most common home locations

Suburb	Percentage
Langwarrin	14%
Cranbourne West	14%
Cranbourne South	7%
Keysborough	7%
Glenn Waverly	7%

Source: Travel Survey Results provided by CEM (November 2025)

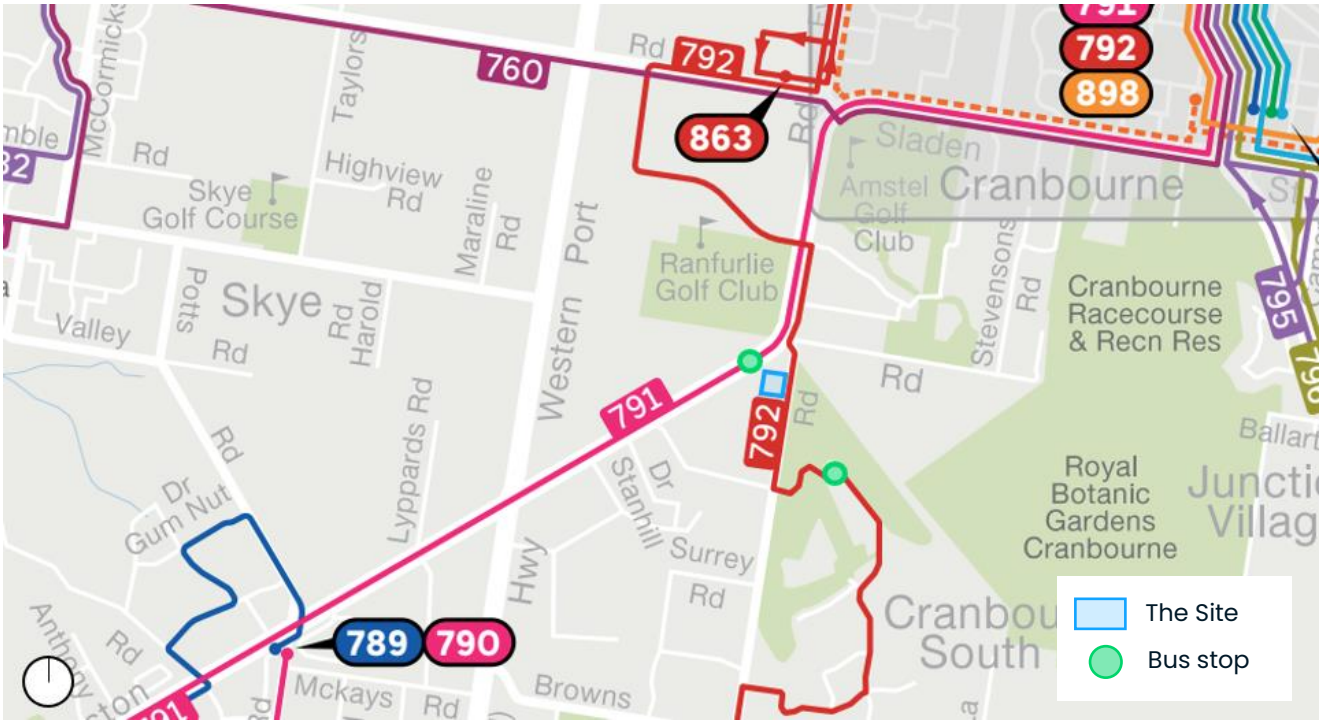
2.3 Sustainable Transport

2.3.1 Public Transport

The site is primarily serviced by two bus routes. The 792 (Cranbourne Station to Pearcedale) and the 791 (Cranbourne Station to Frankston Station). The nearest bus stop is located along Cranbourne-Frankston Road, approximately 500 metres from the proposed school. It is important to note that whilst the 792 bus route passes in front of the school, the nearest bus stop that services this route is 1 kilometre to the south.

Figure 3 details the availability of public transport near the site.

Figure 3 Public transport routes near the site



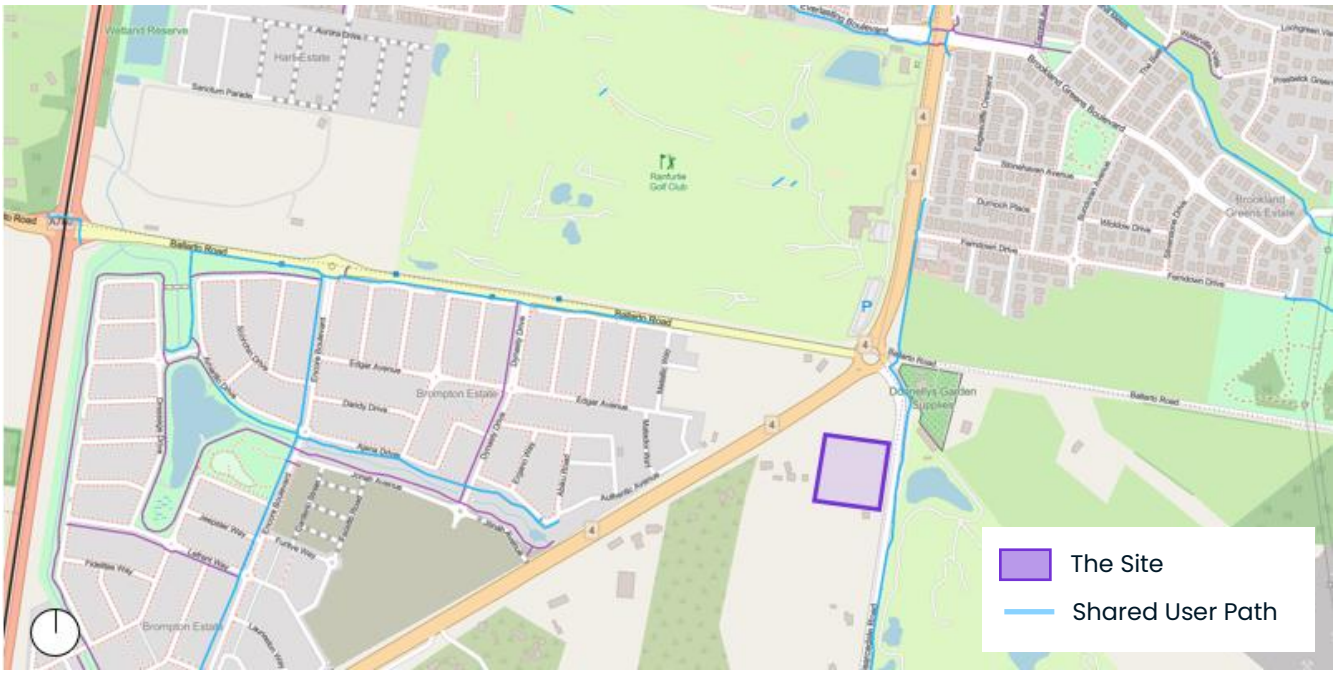
Source: PTV (modified by Urbis)

2.3.2 Bicycle and Pedestrian Network

The proposed school currently features limited infrastructure for cycling and walking to and from the site. A shared user path is available on the eastern side of Pearcedale Road, connecting to Cranbourne-Frankston Road and toward Cranbourne West. Ballarto Road also features a shared user path, however this ends at the Western Highway and does not provide a continuous link to the suburbs of Skye and Carrum Downs.

A map of the active transport connections near the site is provided in **Figure 4**.

Figure 4 Active transport connections near the site

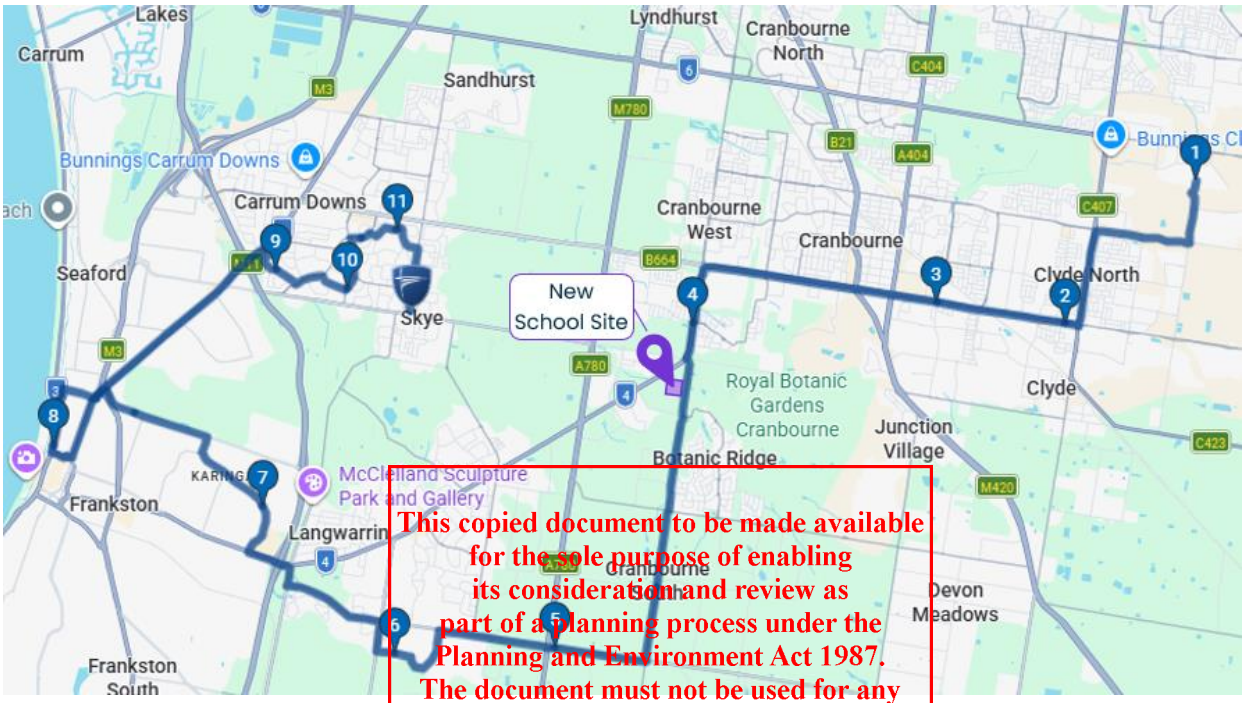


Source: City of Casey (modified by Urbis)

2.4 Existing and Proposed Bus Services

A private school bus service currently operates from the existing school campus and will be transitioned to the proposed site once the new campus is operational. The service currently supports students travelling from key residential areas, including Frankston, Langwarrin, Cranbourne West and Clyde North. An indicative representation of the existing school bus route is provided in **Figure 5**. It is noted that school bus routes are inherently flexible and may be adjusted over time in response to changes in student demand and enrolment patterns.

Figure 5 Existing school site indicative bus route map



Source: ACC (2025)

To support the planned growth of the school and provide a viable alternative to private vehicle travel, additional school bus services are proposed as part of both Stage 1 of the development, as well all further stages as part of the masterplan.

The number and routing of school bus services will be reviewed annually and refined as required, with the intention of servicing approximately 15 to 25 per cent of the student population over time. This approach allows bus provision to respond to demand while supporting the school's broader Green Travel Plan objectives.

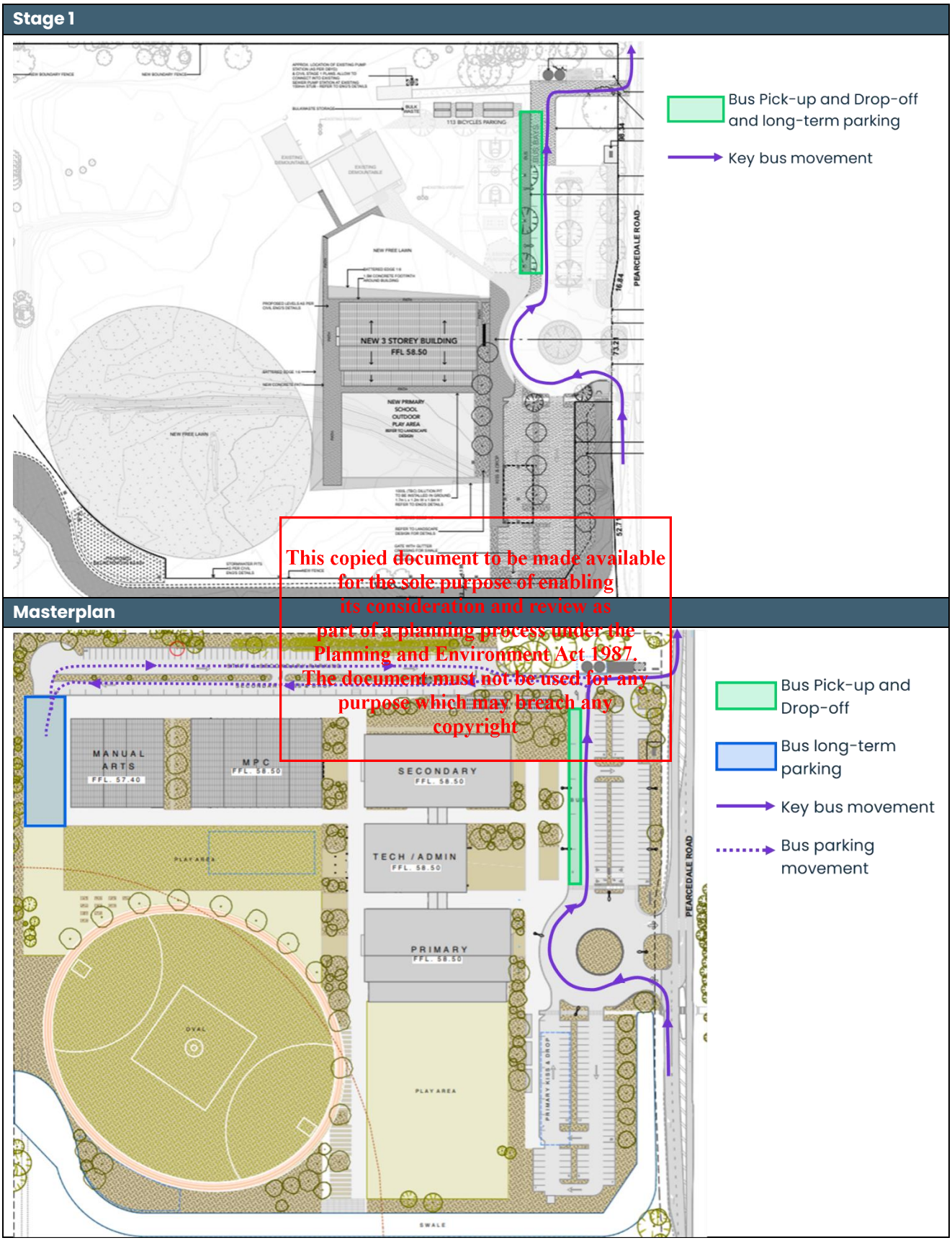
In parallel, there is potential to work with relevant transport authorities to improve public bus access to the site as the surrounding area develops, including service refinements and upgrades to nearby stops on existing routes that connect Frankston, Cranbourne and Pearcedale.

The site has been designed to accommodate up to eight (8) school buses, comprising a mix of vehicle sizes ranging from 11-seater to 57-seater buses. Dedicated bus pick-up and drop-off locations are provided on the eastern side of the site, adjacent to the main school campus entrance.

During Stage 1, five (5) bus spaces will be provided adjacent to the main school entrance, accommodating full-size 57-seater vehicles as the site progresses. When not in operation, buses may be stored within designated on-site bus parking areas, within available car parking spaces, or within overflow parking areas located in the north-western portion of the site.

An indicative bus network plan is shown in **Figure 6**, illustrating the proposed bus pick-up and drop-off locations, internal circulation, and long-term parking arrangements for Stage 1 and subsequent stages of the masterplan.

Figure 6 Indicative bus network map Stage 1 and Masterplan



Source: CEM Site Plan, dated 09/04/2026. Modified by Urbis.

3 Travel Behaviour

The travel survey, conducted to gain insights into the travel behaviour of the school community, has been split into the following cohorts:

- Prep to Year 4,
- Year 5 to Year 12 and,
- Staff members.

With travel choice often being based on a school child's age, this cohort split was important to not just differentiate between age, but to uncover any trends or barriers that may be influencing the adoption of healthy travel.

It is understood that current school operations are being undertaken at a site that is located separately to the proposed school at 271-275 Pearcedale Road, Cranbourne South.

Despite this, the location of these two sites is relatively close, with travel behaviours being largely comparable. It is also understood that CEM are mindful of the potential traffic impact at the site during peak drop-off and pick-up times, particularly as the school expands its operations.

Understanding these travel behaviours is essential so CEM can support safe and efficient school travel, reduce traffic impacts, respond to the school's varied needs, and encourages students, staff and visitors to use more sustainable transport.

3.1 Student Travel Behaviour

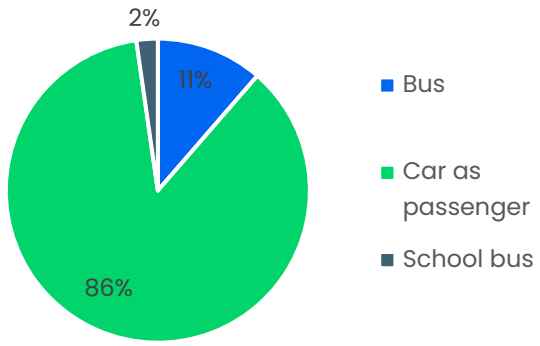
The most common form of travel for students in Prep to Year 4 is via car as a passenger. As shown in **Figure 7** and **Figure 8**, 86 per cent of this cohort are driven to school with 11 per cent travelling via public bus and 2 per cent via the school bus. In the afternoons, the rate of trips via car increases, with 91 per cent of students in Prep to Year 4 being driven home. This indicates that parents and guardians are more likely to allow their child to catch the bus to school, with a preference for picking them up via car in the afternoon.

For Year 5 to Year 12 students, this trend is reversed, with a higher prevalence of bus trips in the afternoon period compared to the morning. Despite this, the cohort still recorded a high rate of car-based trips with 91 per cent of students travelling to school via car, and 79 per cent also travelling home via car.

The travel behaviour survey was conducted with a relatively small number of existing students. As a result, the percentages shown in the following figures should be interpreted with caution, as minor changes in responses can lead to large percentage variations. The surveyed cohort spans Prep to Year 4, and responses were self-recorded by students; the young age of respondents may therefore have contributed to some reporting inaccuracies.

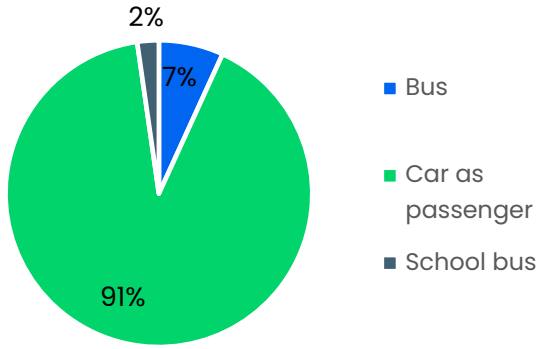
Details of this travel behaviour for the cohort is shown in **Figure 9** and **Figure 10**.

Figure 7 Prep to Year 4 travel behaviour to school



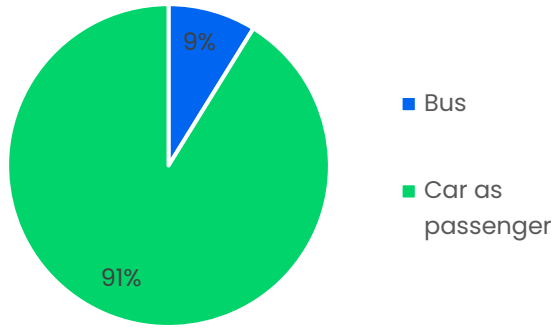
Source: Travel Survey Results provided by CEM (November 2025)

Figure 8 Prep to Year 4 travel behaviour from school



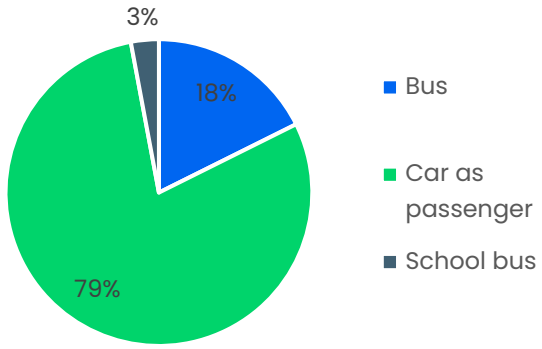
Source: Travel Survey Results provided by CEM (November 2025)

Figure 9 Year 5 to Year 12 travel behaviour to school



Source: Travel Survey Results provided by CEM (November 2025)

Figure 10 Year 5 to Year 12 travel behaviour from school



Source: Travel Survey Results provided by CEM (November 2025)

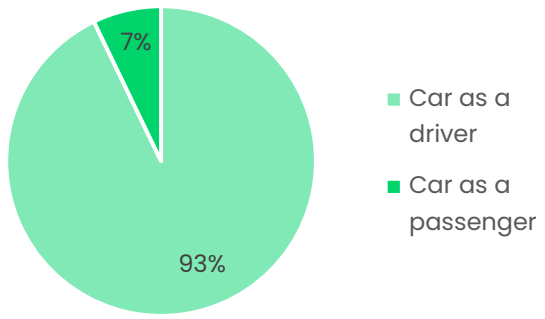
3.2 Staff Travel Behaviour

Understanding the existing travel behaviour of staff is essential in successfully managing parking demand and its impact on the school and local community. Unlike the student cohort who are largely dropped off at school, staff members who drive are likely to park their car on site.

Staff members recorded driving to school as the most common form of travel. No staff members caught public transport or travelled by active transport to or from school. These travel behaviours were similar in the afternoon periods, where 92 per cent of teachers drove home from school as and the remaining 8 per cent travelled as a passenger in a car.

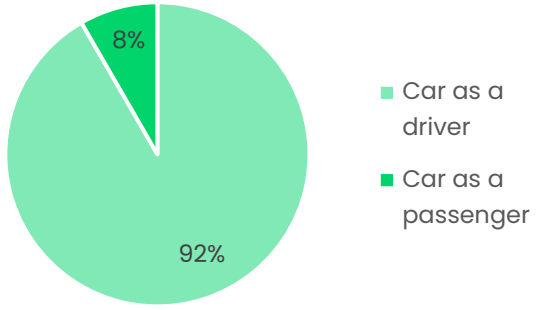
Figure 11 and **Figure 12** highlights the travel behaviour of staff in more detail.

Figure 11 Staff travel behaviour to school



Source: Travel Survey Results provided by CEM (November 2025)

Figure 12 Staff travel behaviour from school



Source: Travel Survey Results provided by CEM (November 2025)

3.3 Opportunities for School Travel

To identify relevant and appropriate opportunities for healthy travel at the proposed school, which encourage a mode shift, key themes relating to travel behaviour from the student and staff cohort were analysed. These were based on a series of questions that sought to understand why current travel modes were used, the appetite for future carpooling arrangements, and whether any transport improvements were necessary to foster a shift in existing travel modes.

3.3.1 Student Cohort

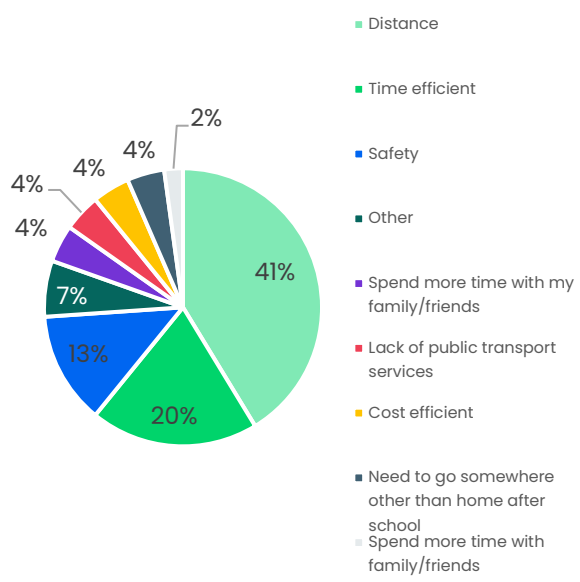
The Prep to Year 4 cohort was asked what specific factors influenced their choice of transport mode when travelling to school. Key themes that emerged from this included:

- A low frequency of school bus times,
- Limited bus stop and infrastructure near the school and the surrounding area,
- A preference for parent drop-offs on their way to work,
- The perceived safety of car travel.

Similar to the Prep to Year 4 cohort, students in Year 5 to Year 12 were asked why they chose their current travel mode to commute to and from school, to help frame opportunities for future travel behaviour.

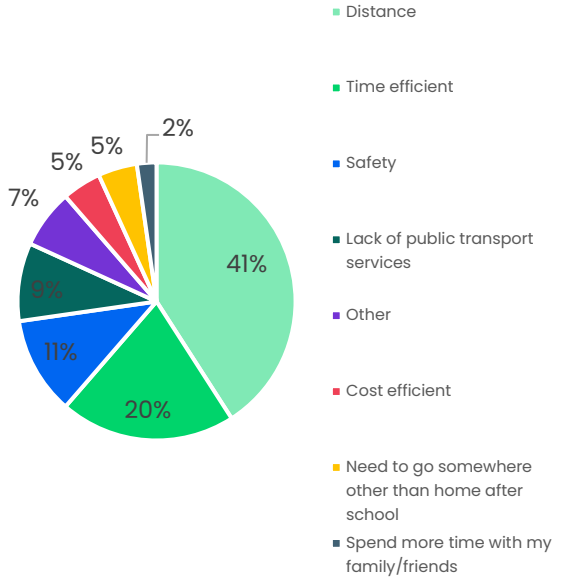
As shown in **Figure 13** and **Figure 14**, 'distance' was the primary factor influencing travel choice both to and from school, accounting for an average of 40 per cent of all responses. Following this was 'time efficiency', which accounted for 20 per cent of Year 5 to Year 12 responses. 'Safety' and a 'lack of public transport services' were also common responses.

Figure 13 Reason for choosing this mode to school



Source: Travel Survey Results provided by CEM (November 2025)

Figure 14 Reason for choosing this mode from school



Source: Travel Survey Results provided by CEM (November 2025)

Whilst public and active transport are often the ideal forms of travel in reducing the reliance on private vehicles and parking demand, their uptake depends heavily on the availability of infrastructure and frequency of services. The school's suburban context and location in the southern fringe of Melbourne's metropolitan area mean that presently, access to these public and active travel options may not be as accessible as those at other schools located in inner-city suburbs. To address this, the travel survey explored the potential appetite for carpooling. Whilst this is a more sustainable option than single vehicle use, it also helps to reduce the demand on pick up and drop off activities, with vehicles carrying more than just one child or family.

The results for students in Year 5 to 12 are presented in **Figure 15**, and highlight that a significant 81 per cent of the cohort would be open to carpooling with other students, if possible.

Figure 15 Appetite for carpooling among students in Year 5 to Year 12

Source: Travel Survey Results provided by CEM (November 2025)

Opportunities

With consideration of the existing travel behaviour and location of the proposed school, the following opportunities have been developed to encourage more sustainable travel behaviour for students:

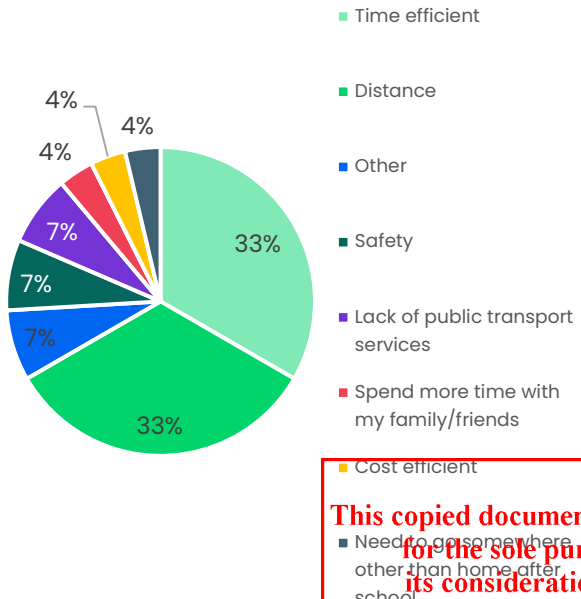
- The creation of a registration list that specifies the desired start and end destinations for students and families who are eager to commute via carpool. This would make it easier and more efficient for parents and guardians to pick up other students in similar home locations and catchments.
- Increasing the frequency of school bus operating times and aligning the routes with key catchment areas of student home locations.

- Working with the responsible authority to improve access to public bus services, including routes that serve key catchment areas and the provision of appropriate bus stop infrastructure close to the school.

3.3.2 Staff Cohort

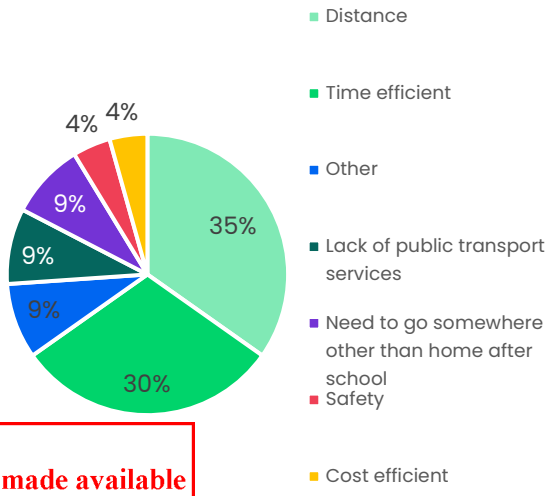
Similar to the student cohort, staff members were also asked to explain their reasons for their current travel behaviour. **Figure 16** and **Figure 17** detail that 'distance' was a primary factor influencing travel choice, followed by 'time efficiency', 'lack of public transport services', and 'safety'.

Figure 16 Staff reason for choosing this mode to school



Source: Travel Survey Results provided by CEM (November 2025)

Figure 17 Staff reason for choosing this mode from school



Source: Travel Survey Results provided by CEM (November 2025)

Staff members also responded positively to future carpooling arrangements, with **Figure 18** showing that 46 per cent recorded that they would be open to carpooling, if possible. As most staff members currently drive to school, this arrangement could significantly lessen the impact of car parking demand at the proposed school site, and help to reduce the number of cars on site during peak drop off and pick up periods.

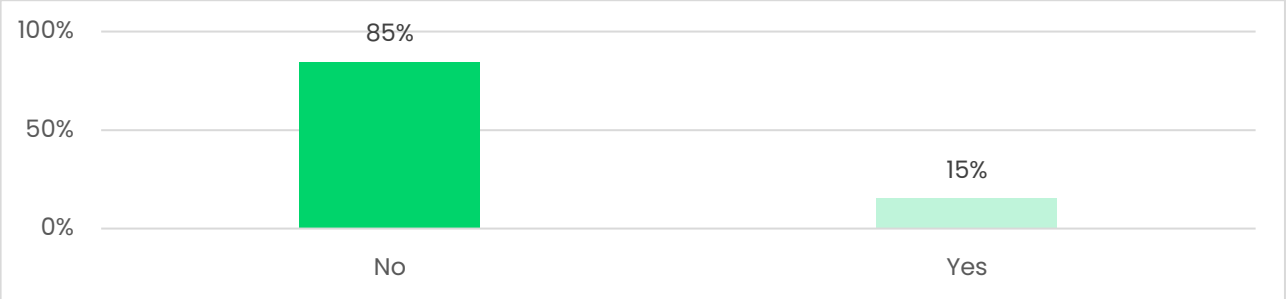
Figure 18 Appetite for carpooling amongst staff

Source: Travel Survey Results provided by CEM (November 2025)

To gain a deeper understanding of public transport use for staff members, the travel survey also explored the appetite for future public transport use as an alternative means of travel.

As shown in **Figure 19**, 15 per cent of staff were open to using public transport in the future. Whilst this figure is relatively low, it showcases the need to explore why public transport use is underutilised, and what would need to change to increase is appeal.

Figure 19 Appetite for future public transport use amongst staff



Source: Travel Survey Results provided by CEM (November 2025)

Opportunities

With reference to the results shown above for staff members, the following opportunities have been developed to encourage more sustainable travel behaviour for students:

- Formalise a carpooling initiative for staff which is supported by an online register to connect those who are interested with similar travel routes.
- Work with local council and the Department of Transport and Planning (DTP) to explore public transport timetable adjustments or new services that align with school start and finish times.
- Explore flexible start and finish times for staff and students, to spread out peak traffic demand and reduce congestion at the school gates.
- Explore opportunities to provide end-of-trip facilities, such as staff showers and change rooms, prior to Stage 4 of the development. This would be earlier than the minimum statutory requirements outlined in the TIA Report and would help encourage cycling uptake.

4 Travel Behaviour Initiatives

The following initiatives have been identified based on the analysis of available travel options, travel behaviour and travel issues. They are separated into three levels, with the intention to begin with encouraging information initiatives and subsequently progress to intervening and penalising initiatives, if necessary.

Key

 **Increase Walking**

 **Reduce Car Use**

 Increase Carpooling

 **Increase Cycling**

 **Increase Bus Use**

Level 1 Engaging / Informing (short-term)

Initiative	Mode Improvement	Undertaken By		
		School	Council	Police
Produce a School Travel Plan (STP) or similar guide to inform students, staff and parents/guardians of their travel options to the school, including refreshers on the benefits of walking and cycling and access to the free public transport options available for students.	 	✓		
Ensure the STP provides information about active transport options (e.g. key crossing locations and cycling on footpath options) and public transport options (e.g. timetables and student pass or child Myki options)	  	✓		
Ensure the STP provides information on carpooling initiatives and parking management options.		✓		
Update the school website to ensure the SRTS is accessible to staff. Distribute accordingly to parents/guardians including via the school newsletter.		✓		
Use the STP as part of the school enrollment pack to set expectations regarding school travel, particularly as the new proposed school expands its operations and capacity.		✓		
Participate in activities that promote active travel such *as National Ride2School Day* and *Walk to School* Day in March and May, respectively.	 	✓		
Measure behaviour, record data and inform students at the start of each year about the school's trends in travel modes.		✓		

Level 2 Intervening (short-term)

Initiative	Mode improvement	Undertaken by		
		School	Council	Police
Establish a 'Traffic and Road Safety' subcommittee that acts to manage and review any initiatives and road safety measures that are implemented by the school, including working with Council to: • To develop and implement ways to increase safety along surrounding roads and footpaths. • Identify priority walking and cycling infrastructure for the school, particularly concerning the catchment areas of staff and students. • Identify existing sections of footpaths/shared paths with substandard quality, and work with Council for improvements.		✓	✓	
Work with Council to undertake 'Safe Routes to School' assessment to further understand the transport network issues and opportunities.		✓	✓	
Provide incentives to staff who use sustainable transport modes including subsidised public transport fares, rebates for bicycle, e-bike or other micromobility purchases, and/or reservation of a portion of on-site car parking for carpooling vehicles.		✓		
Provide end of trip facilities, such as showers and change rooms to support cycling uptake (in line with demand and statutory requirements).		✓		
Organise carpooling initiatives for staff and parents, using online platforms or groups which help families connect and arrange carpooling with others that live nearby.		✓		
Provide an incentive (financial or otherwise) for staff who are not allocated a car parking space.		✓		
Identify areas that are currently not serviced, underutilised, or have inefficiencies within the public bus network. Implement additional school bus route services to bridge these gaps through optimising services and enhancing coverage. This			✓	✓

Initiative	Mode improvement	Undertaken by		
		School	Council	Police
could also include aligning the school bus to bell times and co-curricular activities to ensure that the students' needs are met.				
Provide bike safety and maintenance workshops and road safety education for students through incorporation into the school curriculum. This could include the school inviting transport professionals to present as guest speakers.		✓		
Implement green travel challenges and tournaments that encourage green travel uptake. This can include a pedometer walking challenge between students, between staff, or students vs. teachers (per capita) that runs for the length of the school term.	 	✓		

Level 3 Penalising (medium to long-term)

Initiative	Mode Improvement	Undertaken by		
		School	Council	Police
Issue alerts to the school community via social media and newsletters on appropriate locations for private vehicle school drop-off and pick-up locations.			✓	✓
Work with Council and Police to periodically (every few weeks/months) monitor and regulate parking and Pick-Up/Drop-Off (PUDO) behaviour. Their regular presence will help establish a standard of conduct.			✓	✓

5 Travel Behaviour Targets

This section outlines the achievable travel behaviour targets for both staff and students at the school. The targets have been informed by traffic distribution assessments, case study analysis, and a detailed review of proposed initiatives and available sustainable transport infrastructure.

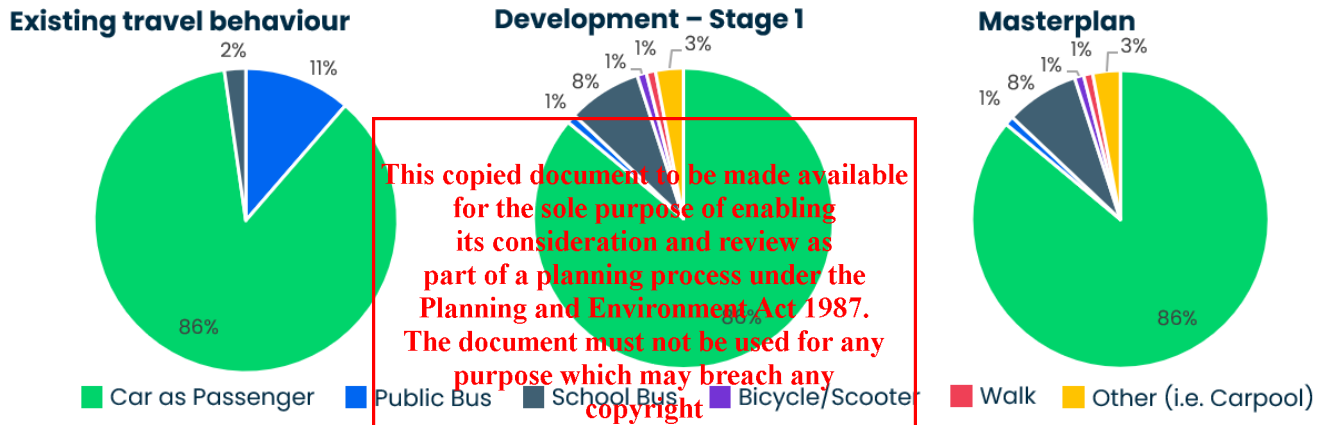
5.1 Student Travel Behaviour Targets

The primary objective of this GTP is to support a progressive shift in travel behaviour as the development evolves, with private vehicle use decreasing over time and greater uptake of alternative and more sustainable transport modes.

Mode share targets have been established for Stage 1 of the school development and broader masterplan. These targets are presented by year group (Prep to Year 4 and Year 5 to Year 12) and by travel period, distinguishing between typical AM arrivals and typical PM departures.

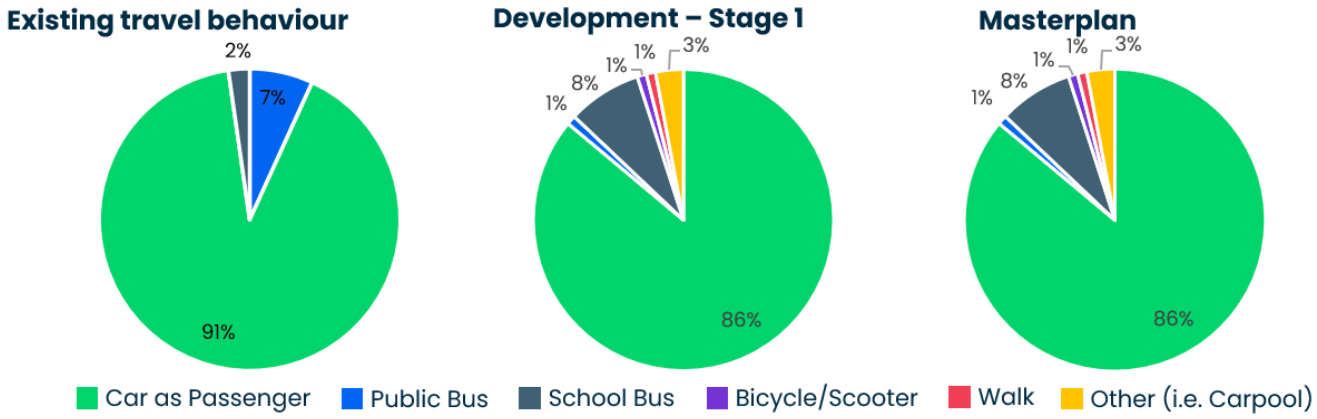
The current and future mode share targets for Prep to Year 4 across Stage 1 and the overall masterplan are shown in **Figure 20** and **Figure 21**.

Figure 20 Prep to Year 4 Travel to School (AM arrivals)



Source: Travel Survey Results provided by CEM (November 2025)

Figure 21 Prep to Year 4 Travel from School (PM departures)



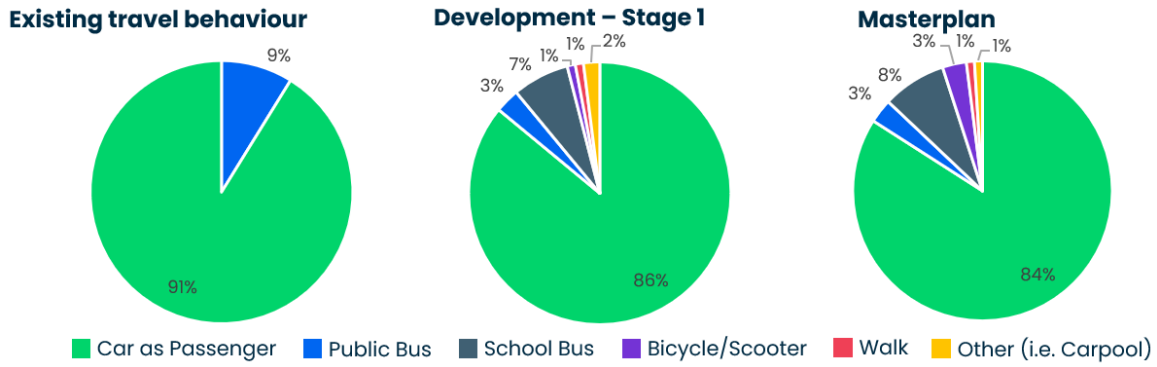
Source: Travel Survey Results provided by CEM (November 2025)

Given the site's location and the age and level of independence of students in Prep to Year 4, it is reasonable to expect that a high proportion of trips to and from the school will continue to be made by private vehicle. Rather than seeking to reduce private vehicle use for this cohort, the focus is on distributing trips across more sustainable modes where feasible, such as walking, bicycle or scooter use, and carpooling.

During Stage 1 of the development, only limited upgrades to the surrounding transport network are anticipated, including improvements to public bus services and walking and cycling infrastructure. In this context, carpooling presents a practical and achievable opportunity to reduce the number of vehicles accessing the site, supporting more efficient pick-up and drop-off operations while remaining appropriate for younger students.

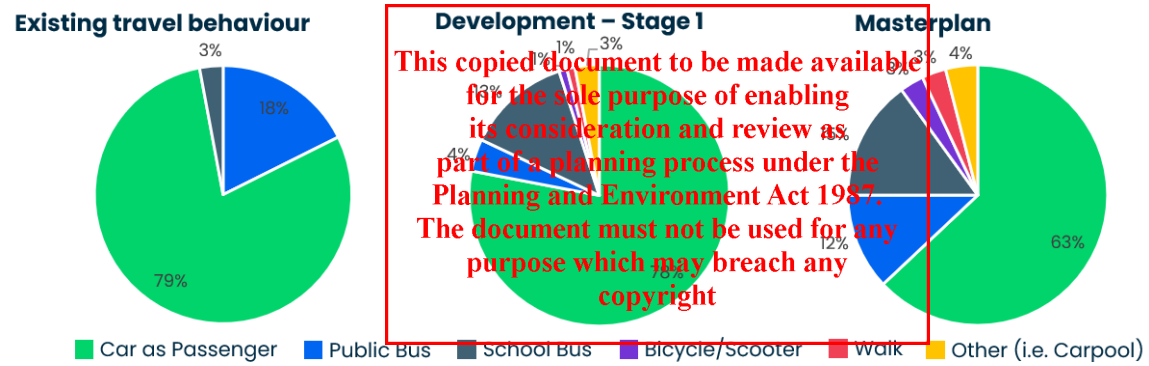
The current and future mode share targets for Year 5 to 12 across Stage 1 and the overall masterplan are shown in **Figure 22** and **Figure 23**.

Figure 22 Year 5 to Year 12 Travel to School



Source: Travel Survey Results provided by CEM (November 2025)

Figure 23 Year 5 to Year 12 Travel from School



Source: Travel Survey Results provided by CEM (November 2025)

Students in Years 5 to 12 have greater opportunity to transition to more sustainable transport modes and reduce reliance on private vehicles.

During the AM peak, when students are travelling to school, continued private vehicle use is considered appropriate given the timing of trips, their alignment with parent or guardian work travel, and the ability to stagger drop-off activity across the school start period.

In this context, a modest seven per cent reduction in private vehicle trips is targeted in the AM peak. Bus use, including both public and school-operated services, is expected to remain broadly consistent, with increases instead occurring in active transport and carpooling.

Higher uptake of sustainable transport modes is encouraged in the PM peak, enabling students in Years 5 to 12 to travel home via nearby public bus services, school buses, carpooling and active travel. As the school and surrounding area continue to develop, the greatest gains in sustainable mode share are expected to be achieved through improvements to bus services and walking and cycling networks. Ongoing residential development in the vicinity may also reduce travel distances to the school over time. Travel associated with after-school activities could be accommodated through a combination of school or public bus services and carpooling arrangements.

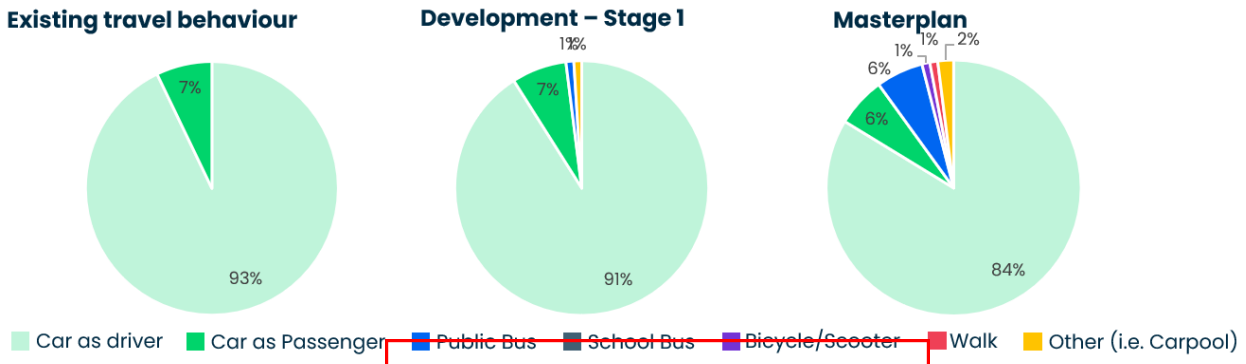
During the PM peak, a reduction in private vehicle trips of three per cent is encouraged during Stage 1 of the development, increasing to a target reduction of 16 per cent as part of the full masterplan.

5.2 Staff Travel Behaviour Targets

The proposal provides sufficient on-site parking to accommodate the current reliance on private vehicles by staff travelling to and from the school. At the same time, it is recognised that ongoing encouragement of sustainable transport modes is beneficial in reducing pressure on the wider road network. Travel behaviour initiatives that support a gradual reduction in private vehicle use will also create opportunities for existing car parking areas to be repurposed to support future school upgrades or alternative uses.

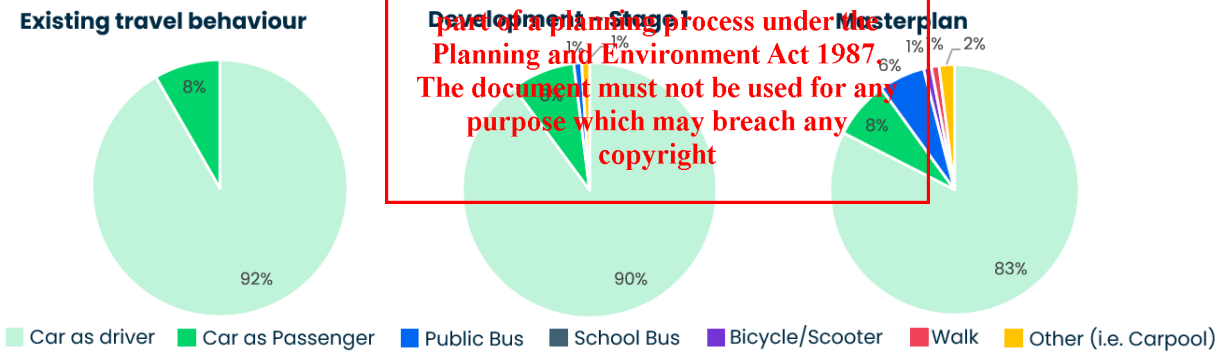
The current and future mode share targets for Stage 1 of the school development and the broader masterplan are shown in **Figure 24** and **Figure 25**. While staff mode share targets are presented for both the AM and PM peaks, staff travel is expected to largely occur outside typical school peak periods due to earlier start times, later finishes, and staggered schedules.

Figure 24 Staff Travel to School



Source: Travel Survey Results provided by CEM (November 2025)

Figure 25 Staff Travel from School



Source: Travel Survey Results provided by CEM (November 2025)

Staff travel behaviour is expected to remain generally consistent during Stage 1 of the development, with modest reductions of two per cent targeted for both travel to and from the school. Bus use and carpooling represent practical options to support reduced car dependency, particularly given that a proportion of staff live in Langwarrin and Cranbourne West, which are serviced by the 791 (Frankston Station to Cranbourne Station) bus route and present opportunities for carpool arrangements. Under the full site masterplan, a targeted reduction of nine per cent in private vehicle use is recommended, supported by increased uptake of bus services and active transport.

5.3 Summary

The targeted mode share outcomes outlined above are considered achievable for both students and staff, having regard to the site context, proposed staging, and anticipated transport network improvements. The recommended provision of eight (8) school buses will play a key role in reducing private vehicle trips, particularly for students in Years 5 to 12.

There is further opportunity to work with relevant authorities to enhance public bus accessibility to the site over time, including more direct services and potential upgrades to stops associated with the 791 (Frankston Station to Cranbourne Station) and 792 (Cranbourne Station to Pearcedale) routes.

The residential distribution of staff and students presents ongoing opportunities to promote carpooling for both arrival and departure trips. In addition, continued residential development in the surrounding area is expected to support improved walking and cycling connectivity, enabling increased uptake of active transport modes for both students and staff over the life of the masterplan.

6 Monitoring and Reporting

The GTP should be treated as a live document, one that is monitored for its effectiveness and updated as required to deliver on the identified aims, objectives and mode share targets. The GTP is expected to reflect changes in trave mode splits and the promotion of actions that are bringing about positive changes to the way that staff and students travel.

To support this ongoing review process, the following monitoring and reporting measures are recommended:

- Undertaking annual travel surveys to maintain an up-to-date understanding of staff and student travel behaviour.
- Tracking travel trends over time, including changes in behaviour as students progress through year levels (for example, as students transition from Prep to upper Years).
- Using survey findings to inform, refine and prioritise travel initiatives, focusing on measures that are delivering measurable reductions in private vehicle use.
- Communicating outcomes and key findings to the school community to support continued engagement and participation in sustainable travel initiatives.

Through regular monitoring, reporting and refinement, the GTP will provide a clear framework for managing travel demand, responding to changes in the surrounding transport network, and supporting the long-term delivery of sustainable travel outcomes for the school.

A designated staff member should be appointed as the GTP coordinator, with responsibility for the ongoing implementation, monitoring and review of the plan. The coordinator's responsibilities should include:

- Reviewing travel mode splits annually for the first ten (10) years or up to Stage 5 (full masterplan development), and biannually thereafter, through staff and student surveys.
- Setting or adjusting GTP targets where required.
- Reviewing the effectiveness of Action Plan measures and making adjustments as necessary to maintain progress towards the GTP mode share targets.
- Allocating responsibilities for the ongoing management of initiatives recommended in the GTP.
- Promoting initiatives and coordinating the release of relevant information

The coordinator should also be responsible for preparing annual reports that summarise mode shift trends and outline actions undertaken to support the achievement of the GTP objectives.

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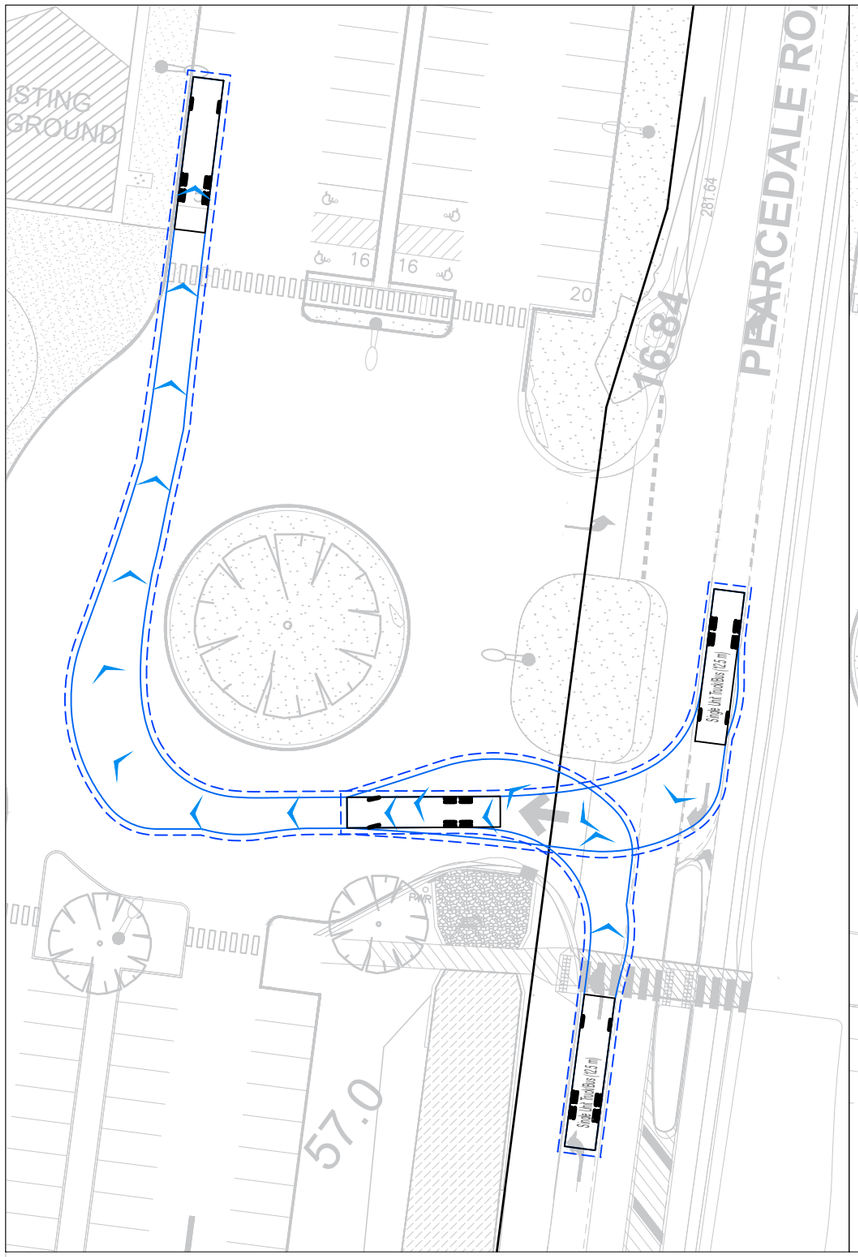
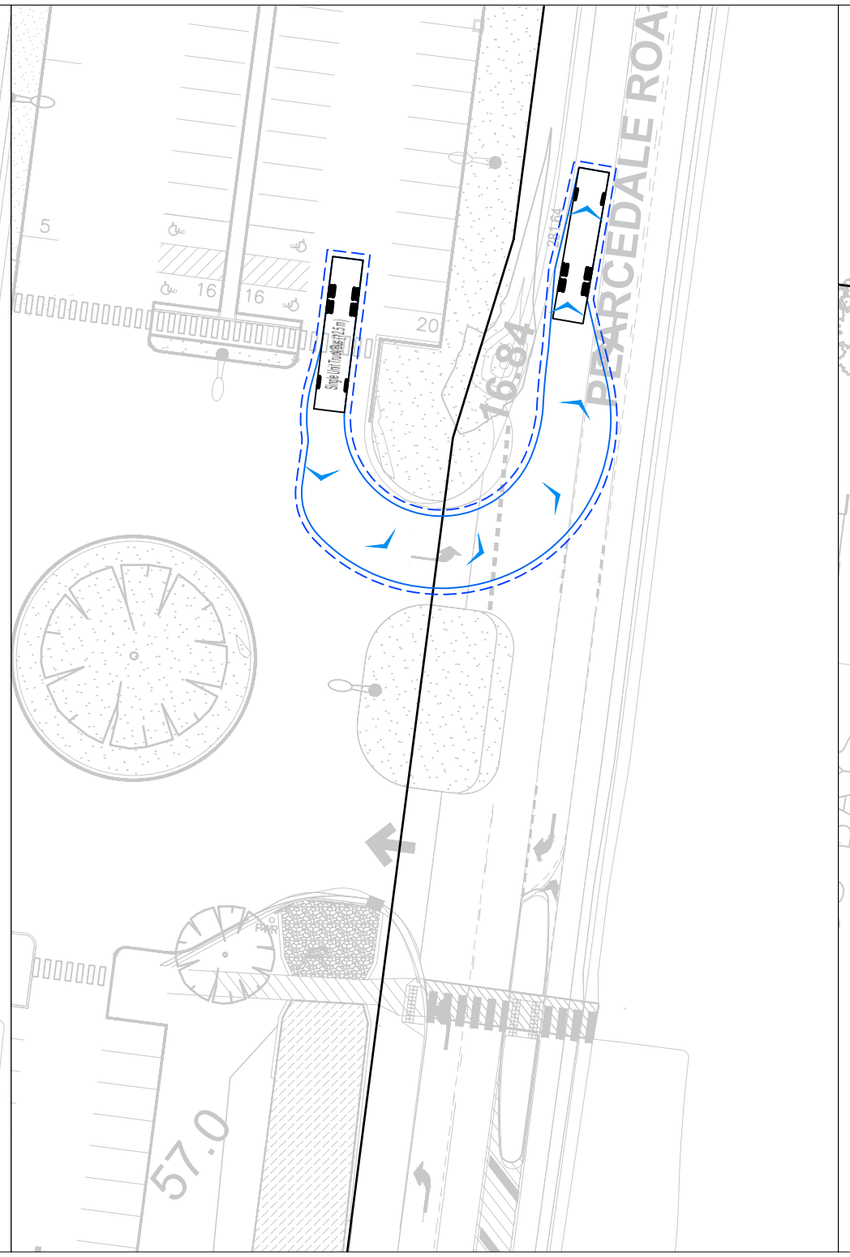
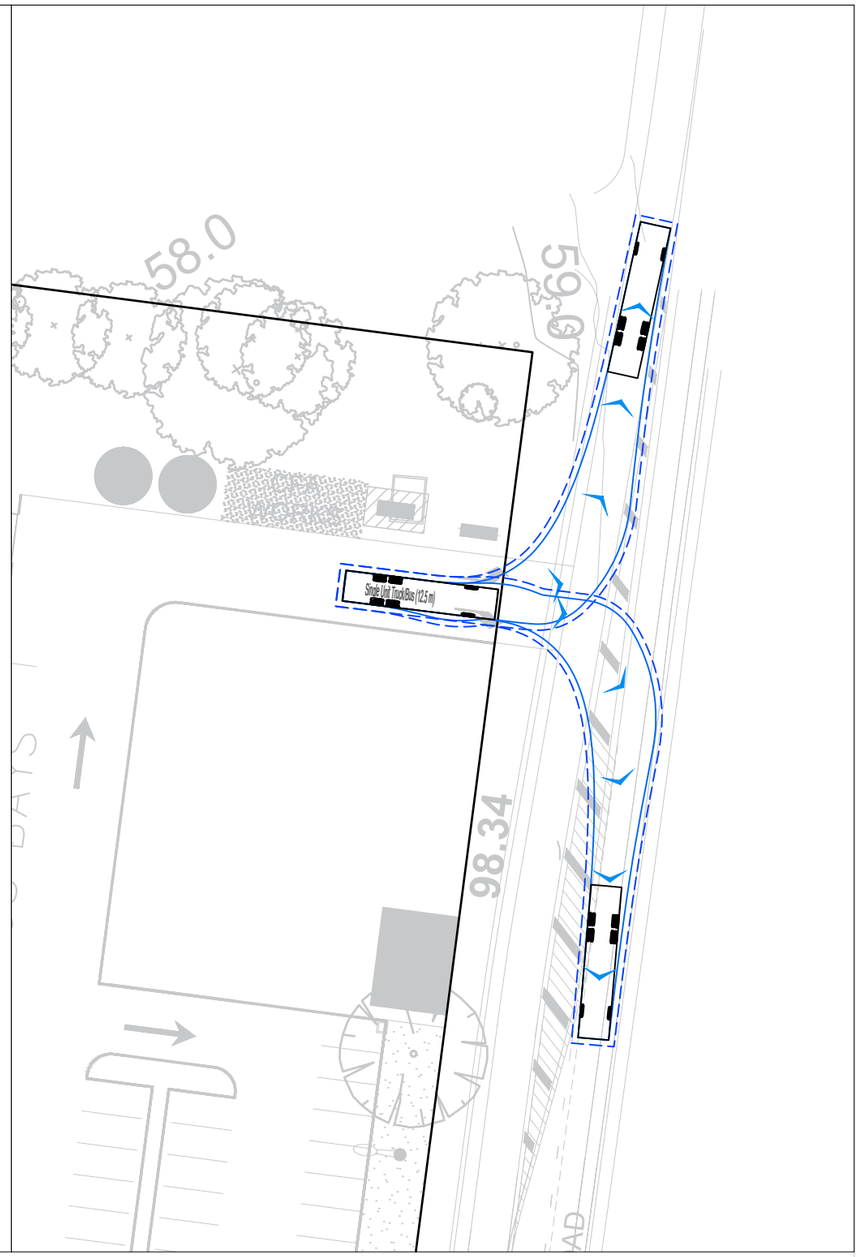
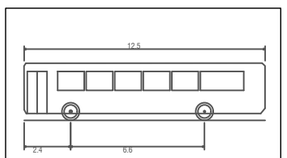
Appendix C – Swept Path Assessment









Single Unit Truck/Bus (12.5m)	
Overall Length	12.5m
Overall Width	2.500m
Overall Body Height	3.200m
Min Body Ground Clearance	0.190m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

STAGE 1
12.5m BUS SITE ACCESS

PRELIMINARY ADVICE ONLY
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URBIS

271-275 Pearcedale Road, Cranbourne South
Swept Path Assessment

Olderfleet, Level 10, 477 Collins Street | Melbourne VIC 3000 AUSTRALIA | +61 3 8663 4888 | URBIS Pty Ltd | ABN 50 105 256 228

ARCHITECTURAL DRAWING REF
DWG NAME: (2D) DA Stage 1 - Site Plan.dwg
DATE: 09/04/2026

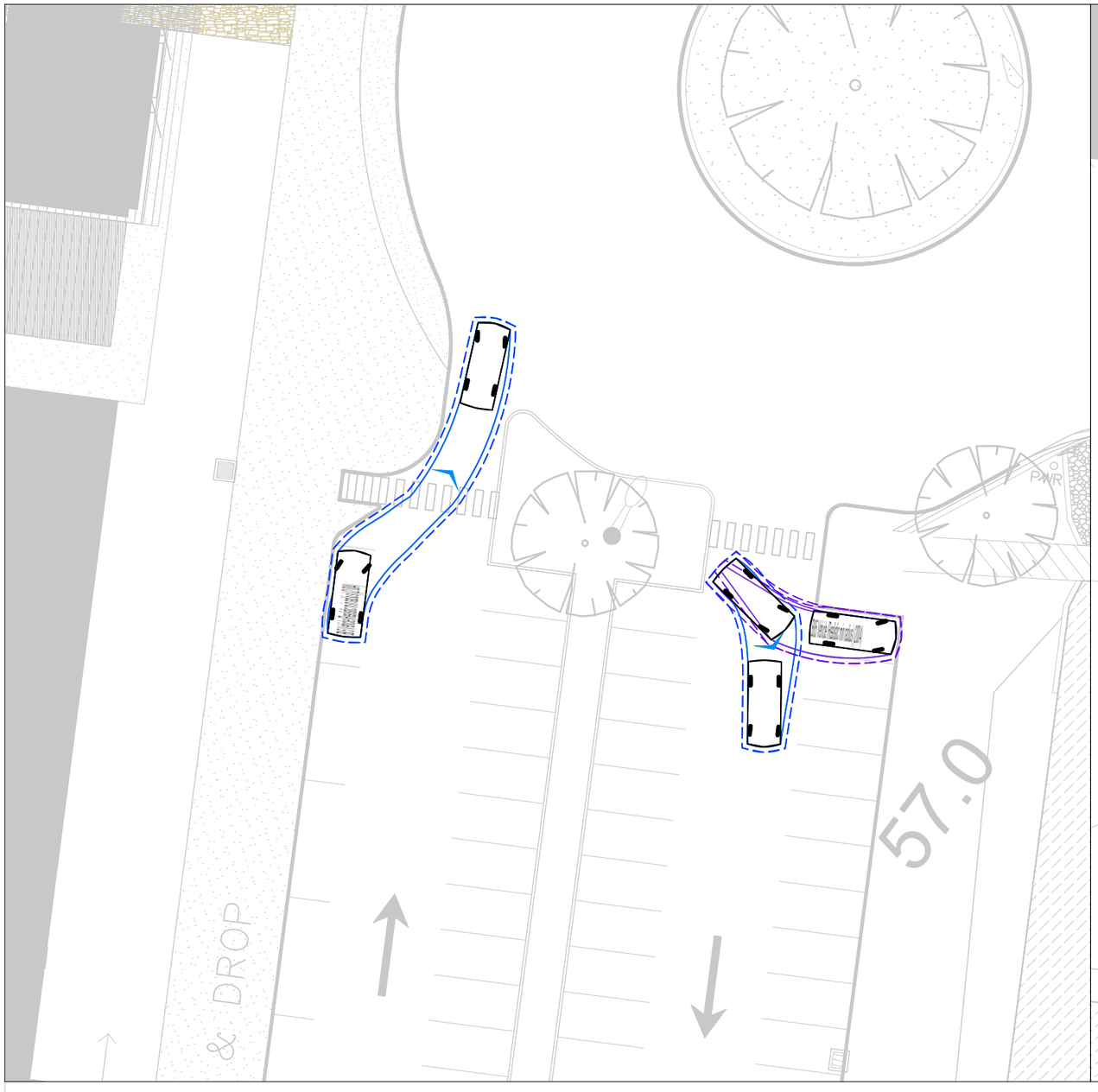
NEARMAP IMAGE
DATE: N/A

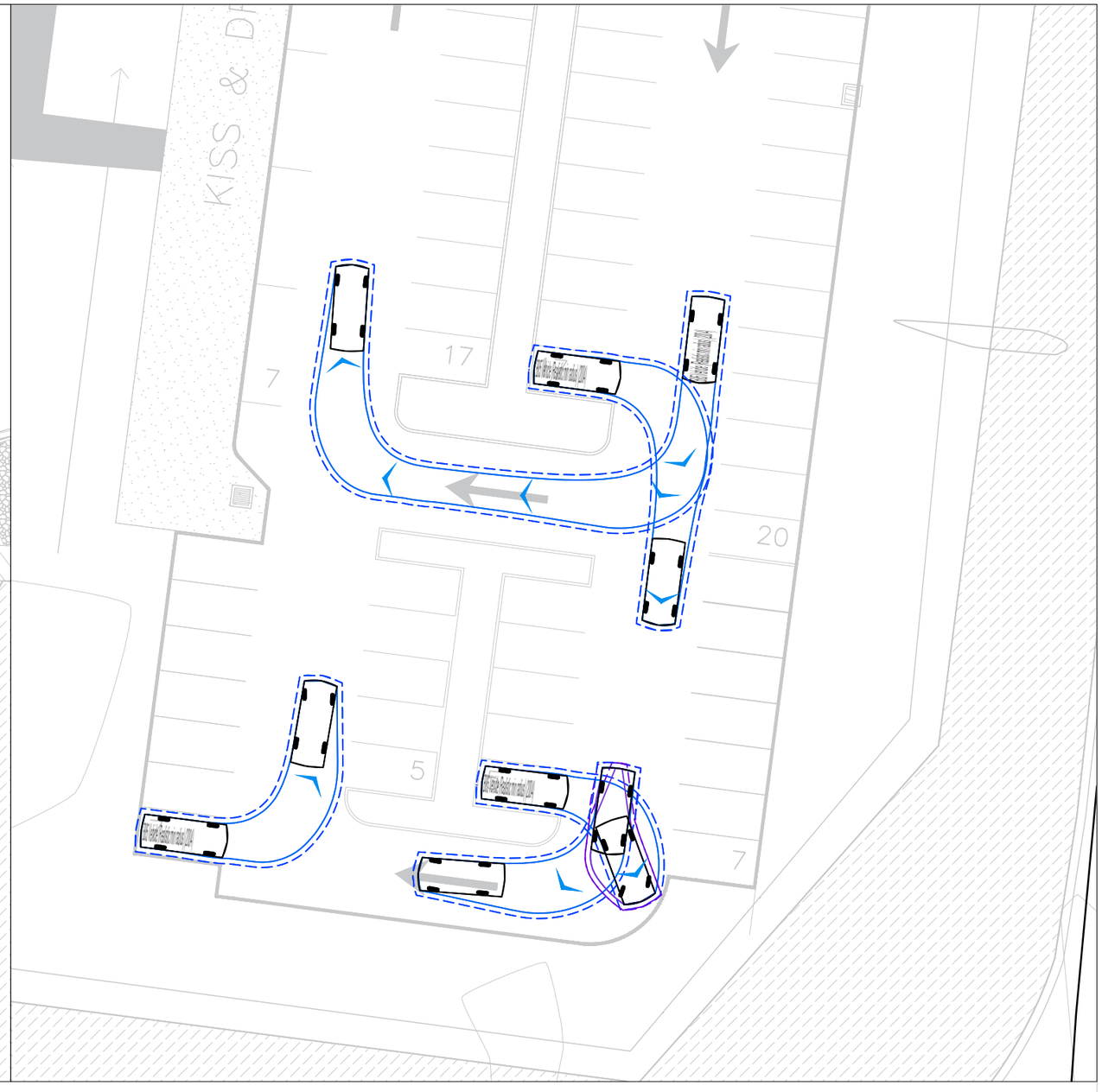
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/2026

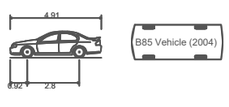
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:500 @ A3
0 5 10m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 01 OF 05
REVISION A







B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

LEGEND

- 300 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

STAGE 1
B85 CRITICAL CAR SPACE ACCESS (SOUTHERN CAR PARK)

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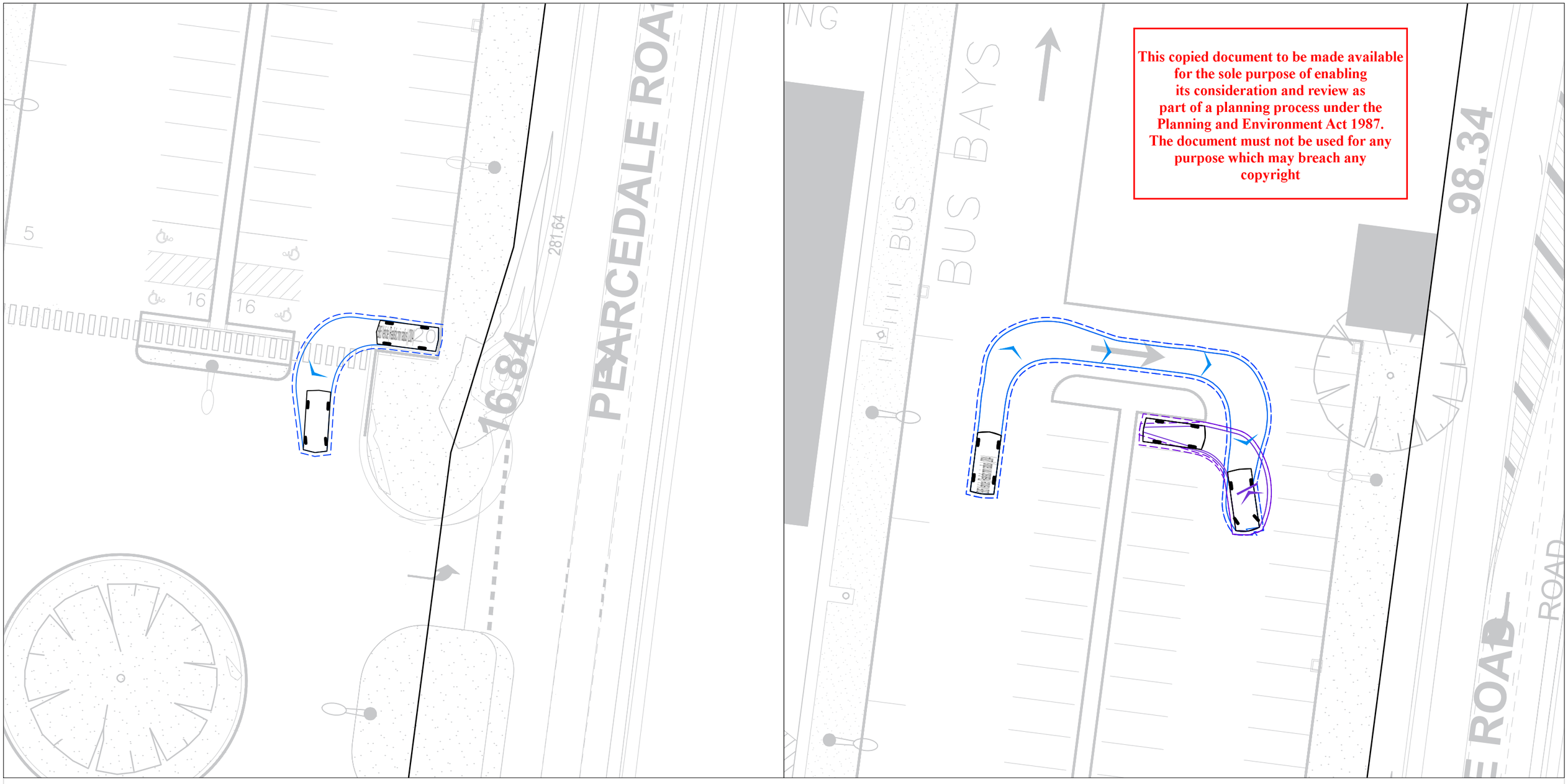
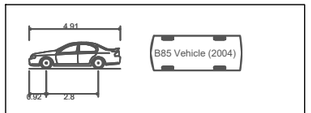
A	Swept Path Assessment	JT	KD	15/04/2026

CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:300 @ A3
0 1 2 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 02 OF 05
REVISION A





B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

LEGEND

- 300 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

STAGE 1
B85 CRITICAL CAR SPACE ACCESS (EASTERN CAR PARK)

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A	Swept Path Assessment	JT	KD	15/04/2026

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0 1 2 5m

PROJECT NO. P0063738
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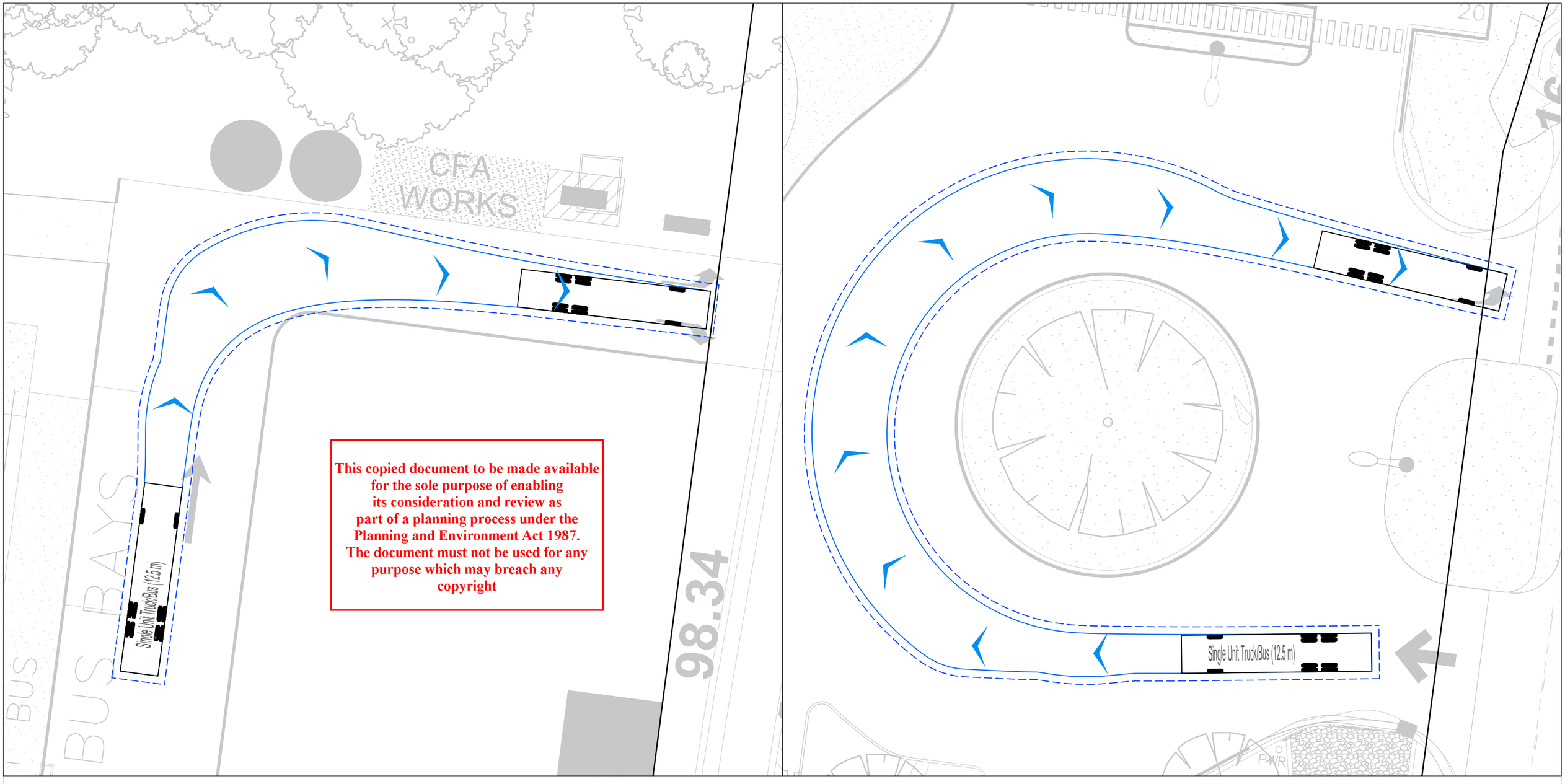
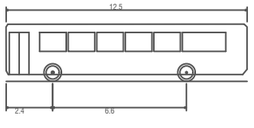
SHEET NO. 03 OF 05
REVISION A





Single Unit Truck/Bus (12.5m)	
Overall Length	12.5m
Overall Width	2.500m
Overall Body Height	3.200m
Min Body Ground Clearance	0.190m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

STAGE 1
12.5m BUS INTERNAL CIRCULATION

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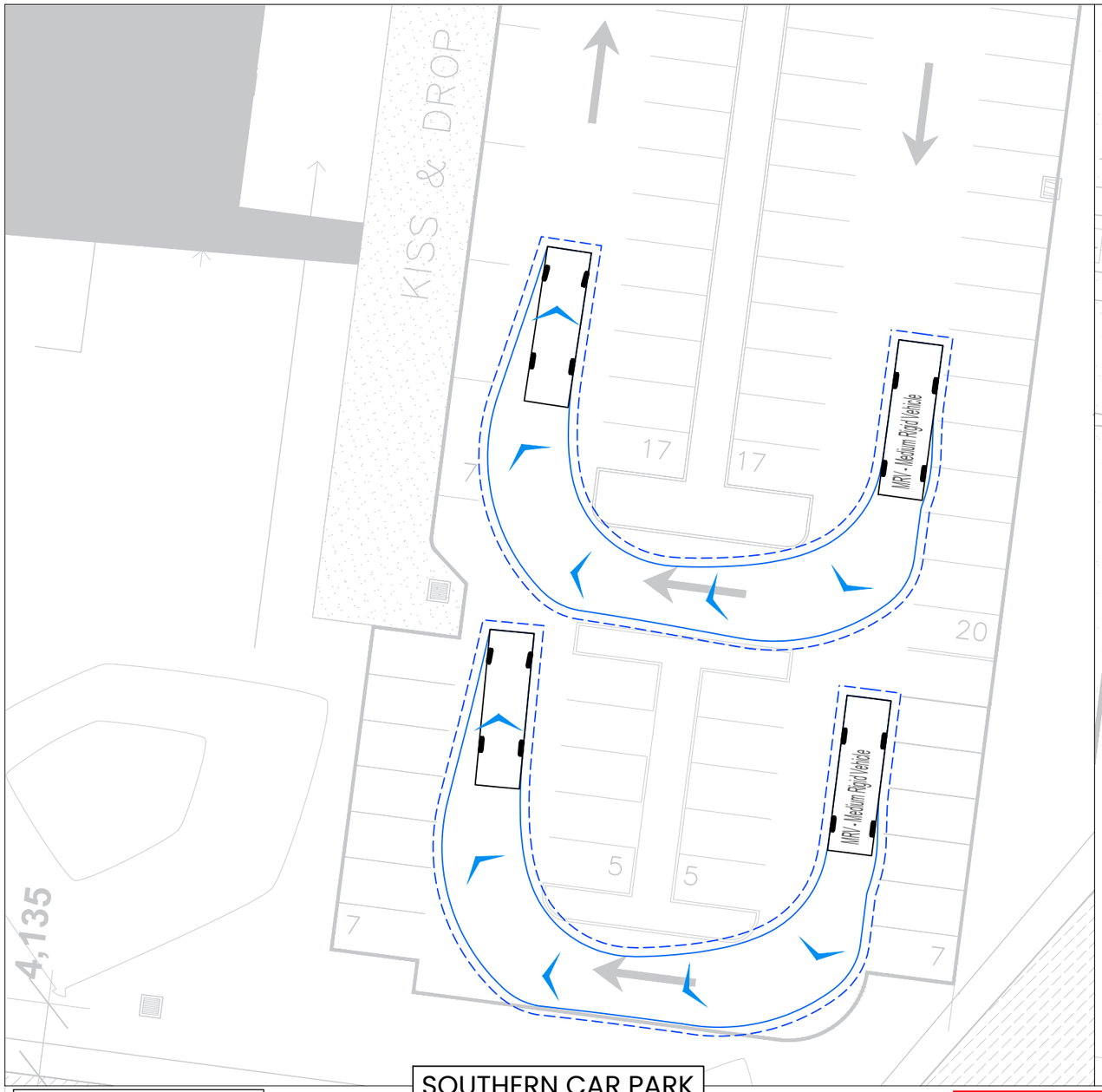
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/2026

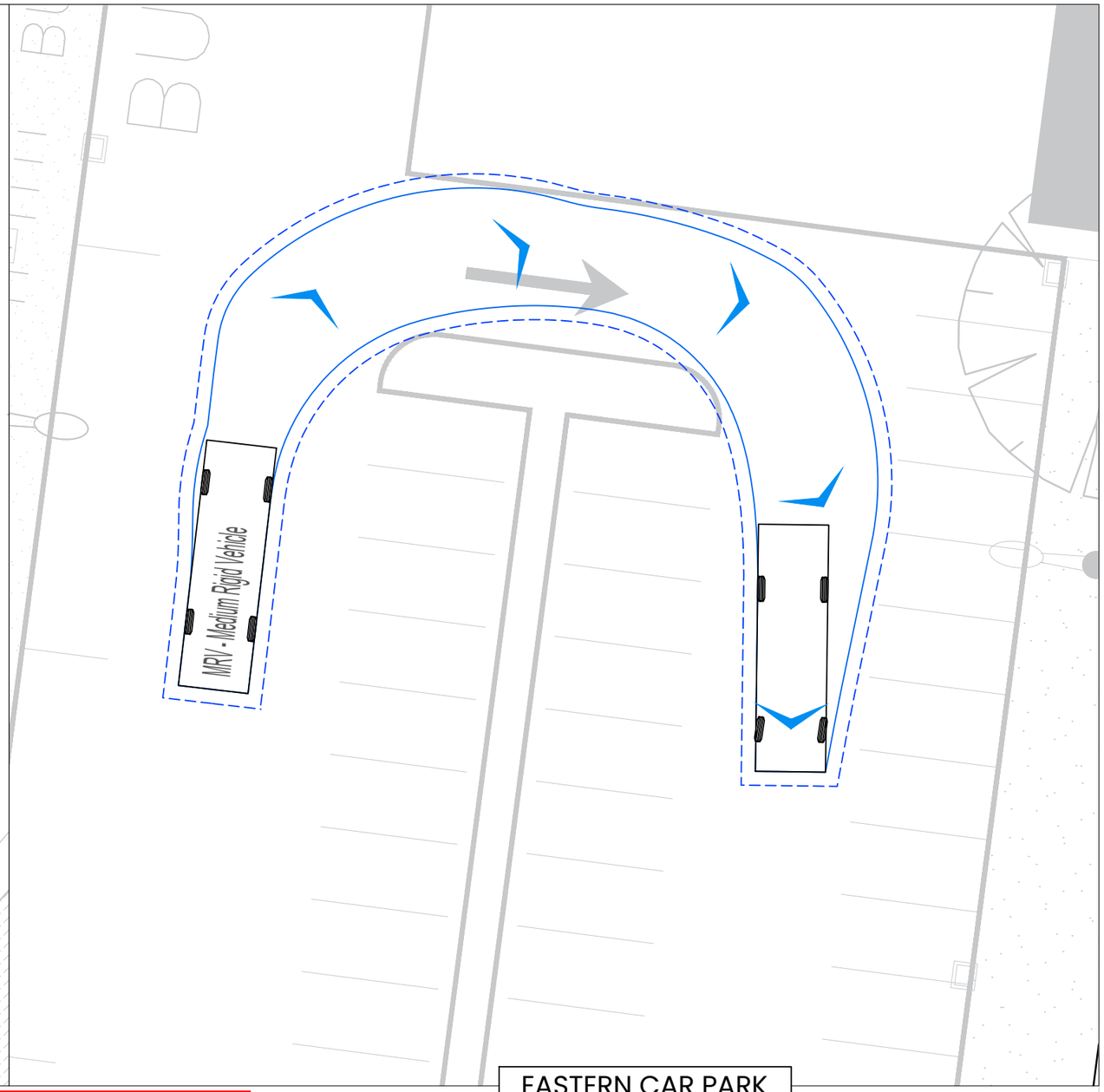
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:250 @ A3
0 1 2 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 04 OF 05
REVISION A

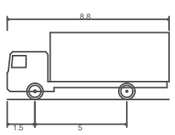


SOUTHERN CAR PARK



EASTERN CAR PARK

MRV - Medium Rigid Vehicle



MRV - Medium Rigid Vehicle	
Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

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STAGE 1
8.8m MRV SITE CIRCULATION

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) DA Stage 1 - Site Plan.dwg
DATE: 09/04/2026

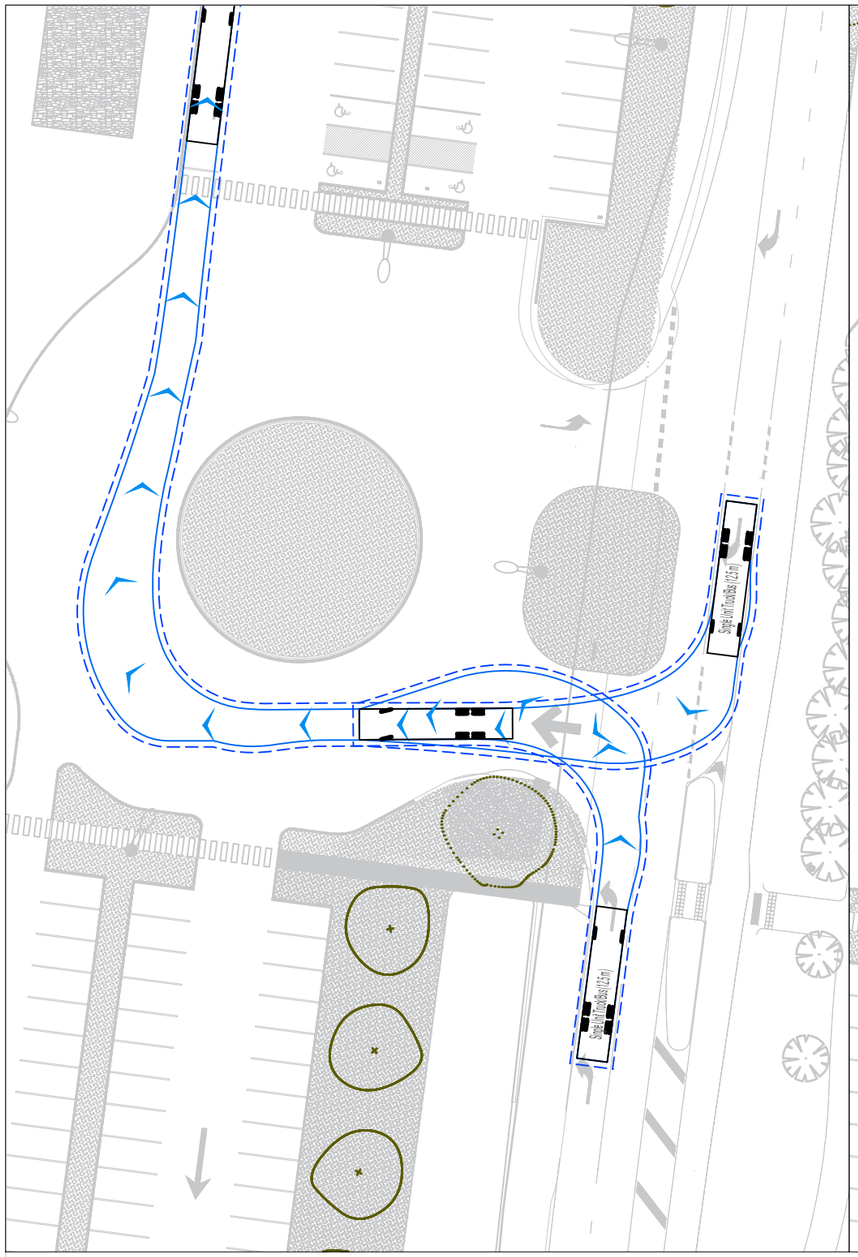
NEARMAP IMAGE
DATE: N/A

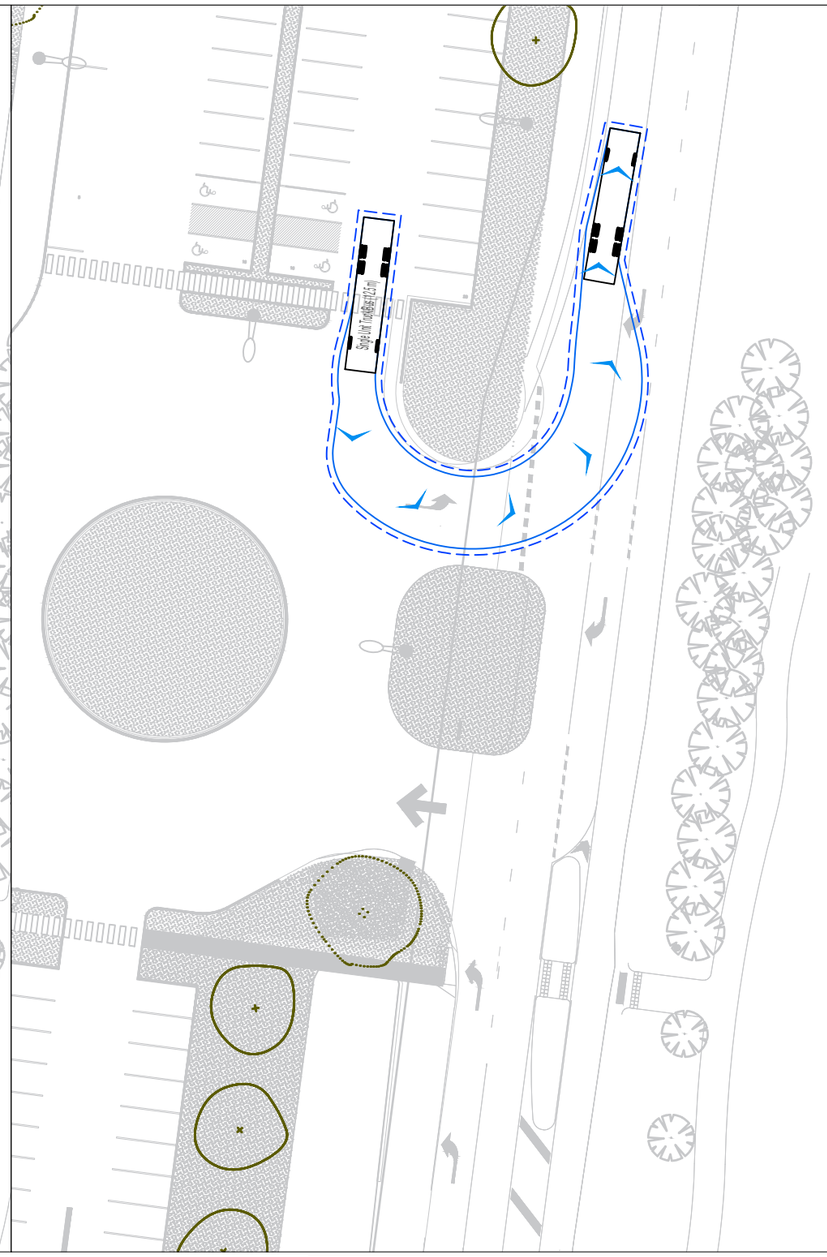
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/2026

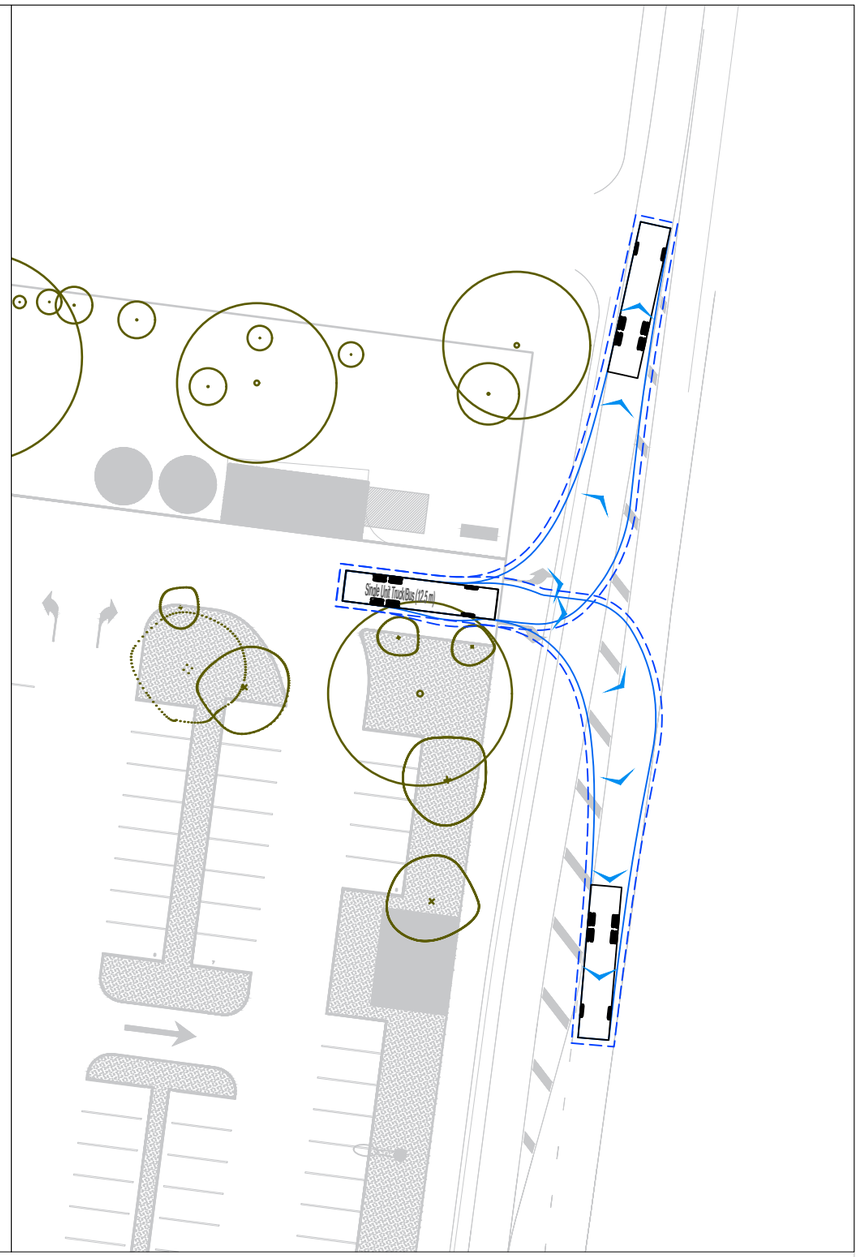
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

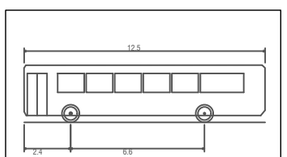
1:300 @ A3
0 1 2 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 05 OF 05
REVISION A









Single Unit Truck/Bus (12.5m)	
Overall Length	12.5m
Overall Width	2.500m
Overall Body Height	3.200m
Min Body Ground Clearance	0.190m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

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MASTER PLAN
12.5m BUS SITE ACCESS

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Swept Path Assessment

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

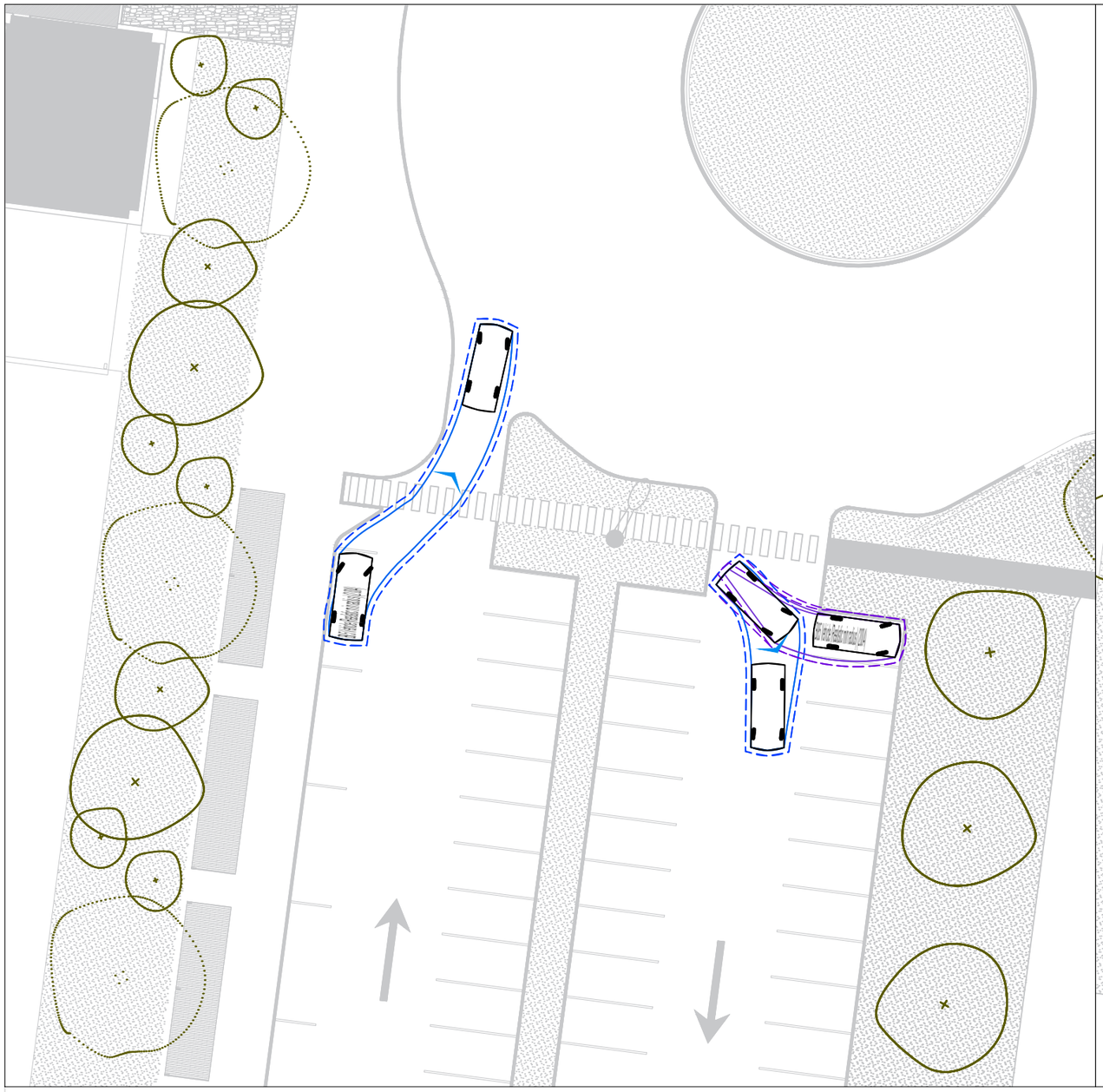
NEARMAP IMAGE
DATE: N/A

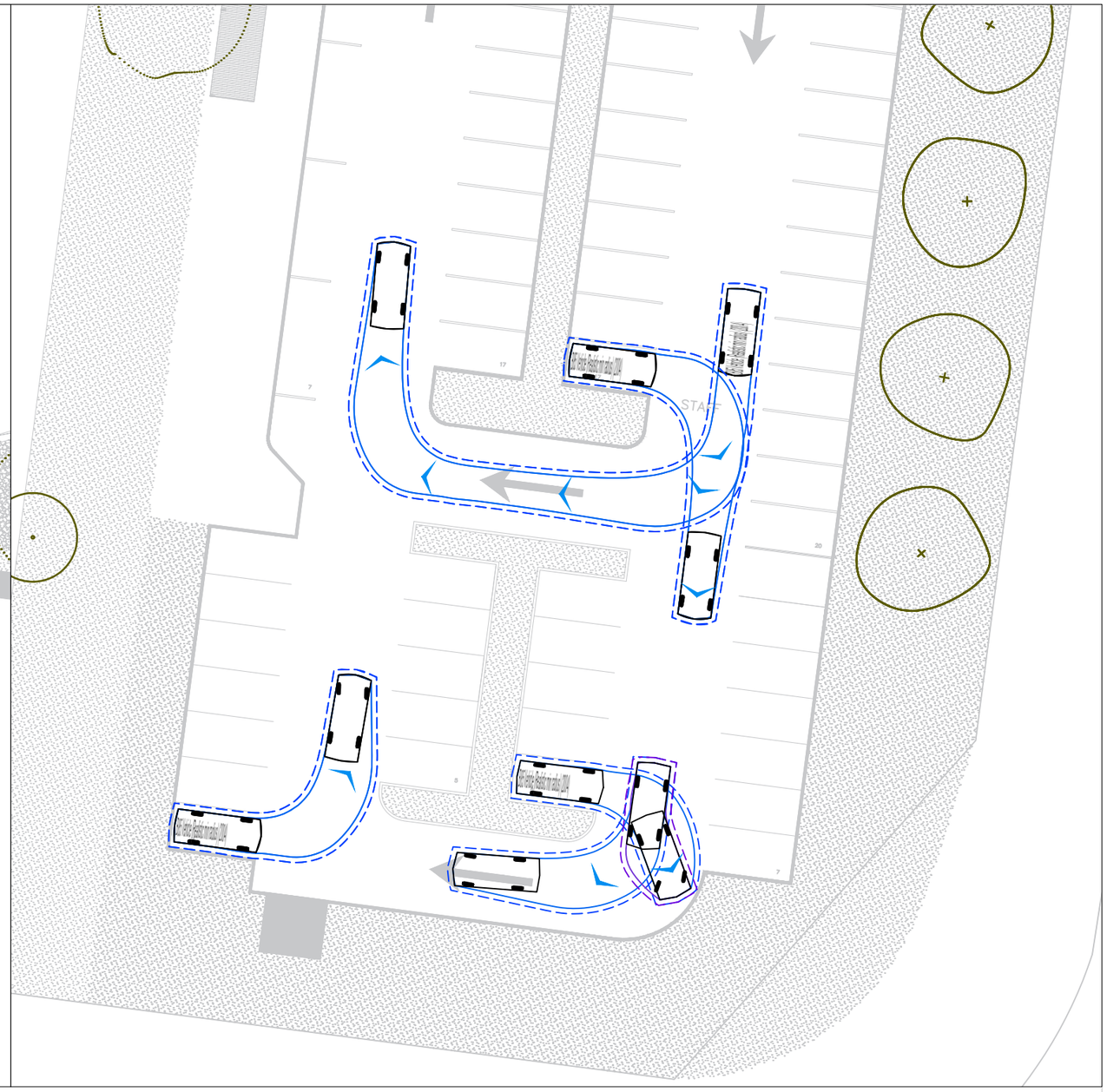
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

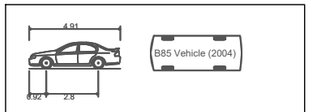
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:500 @ A3
0 5 10m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 01 OF 09
REVISION A







B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

LEGEND

- 300 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
B85 CRITICAL CAR SPACE ACCESS (SOUTHERN CAR PARK)

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Swept Path Assessment

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

NEARMAP IMAGE
DATE: N/A

REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:300 @ A3
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PROJECT NO. P0063738
DATE 15/04/26
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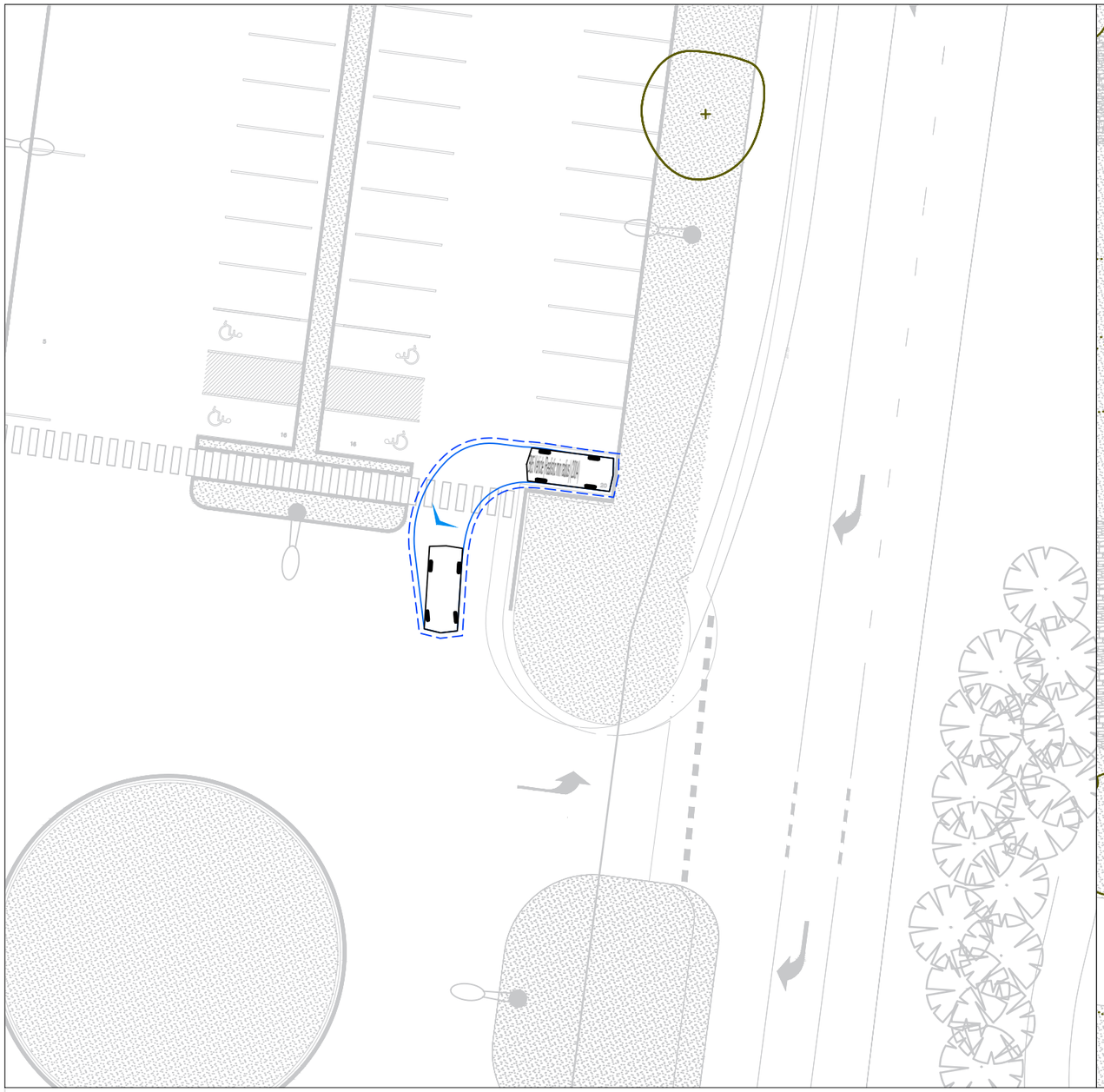

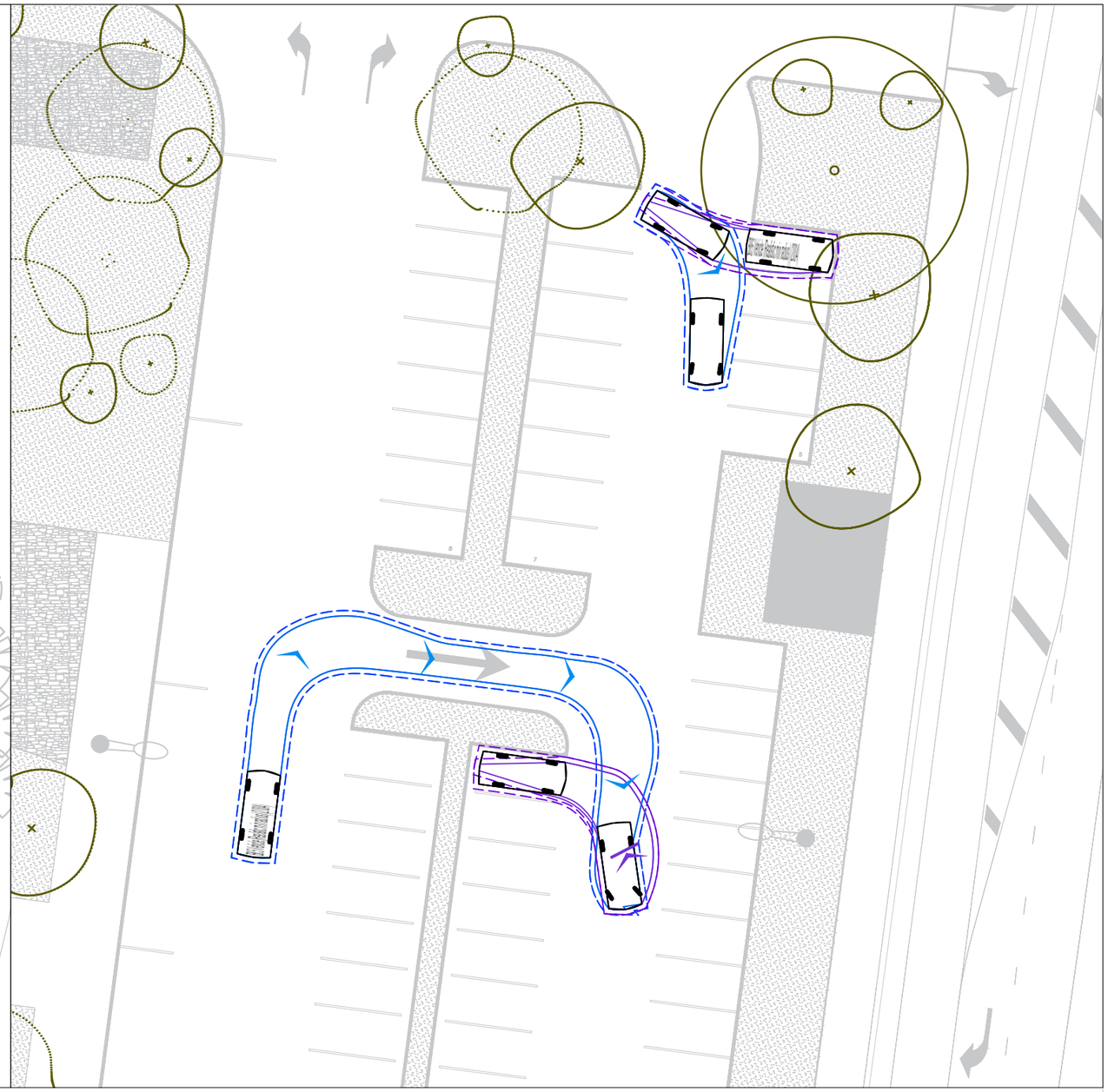

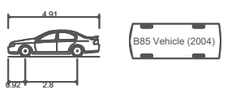

B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

LEGEND

- 300 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
B85 CRITICAL CAR SPACE ACCESS (EASTERN CAR PARK)

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1:300 @ A3
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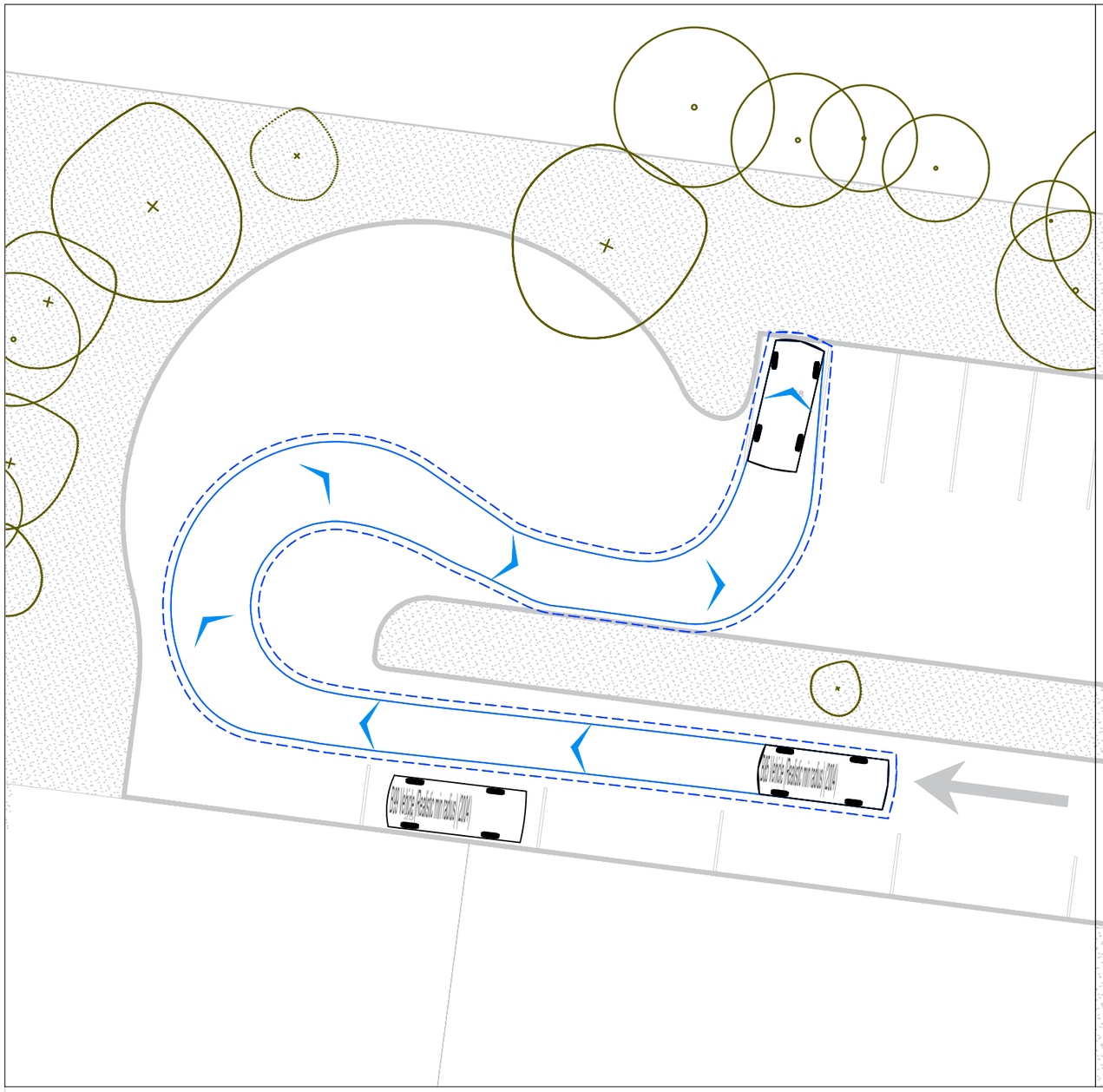

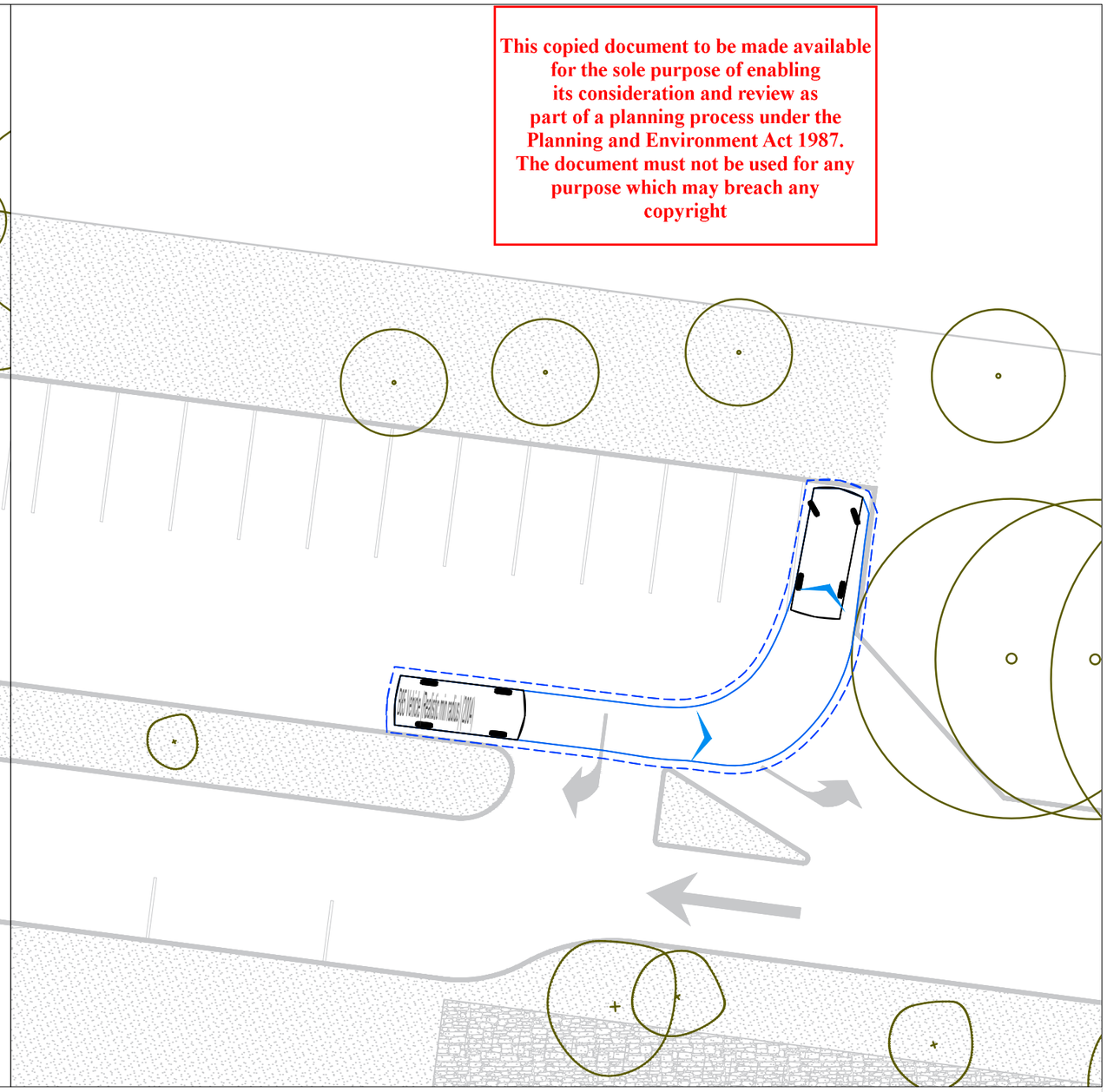

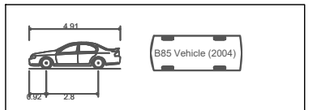

B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

LEGEND

- 300 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
B85 CRITICAL CAR SPACE ACCESS (NORTHERN CAR PARK)

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A	Swept Path Assessment	JT	KD	15/04/26

CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:200 @ A3
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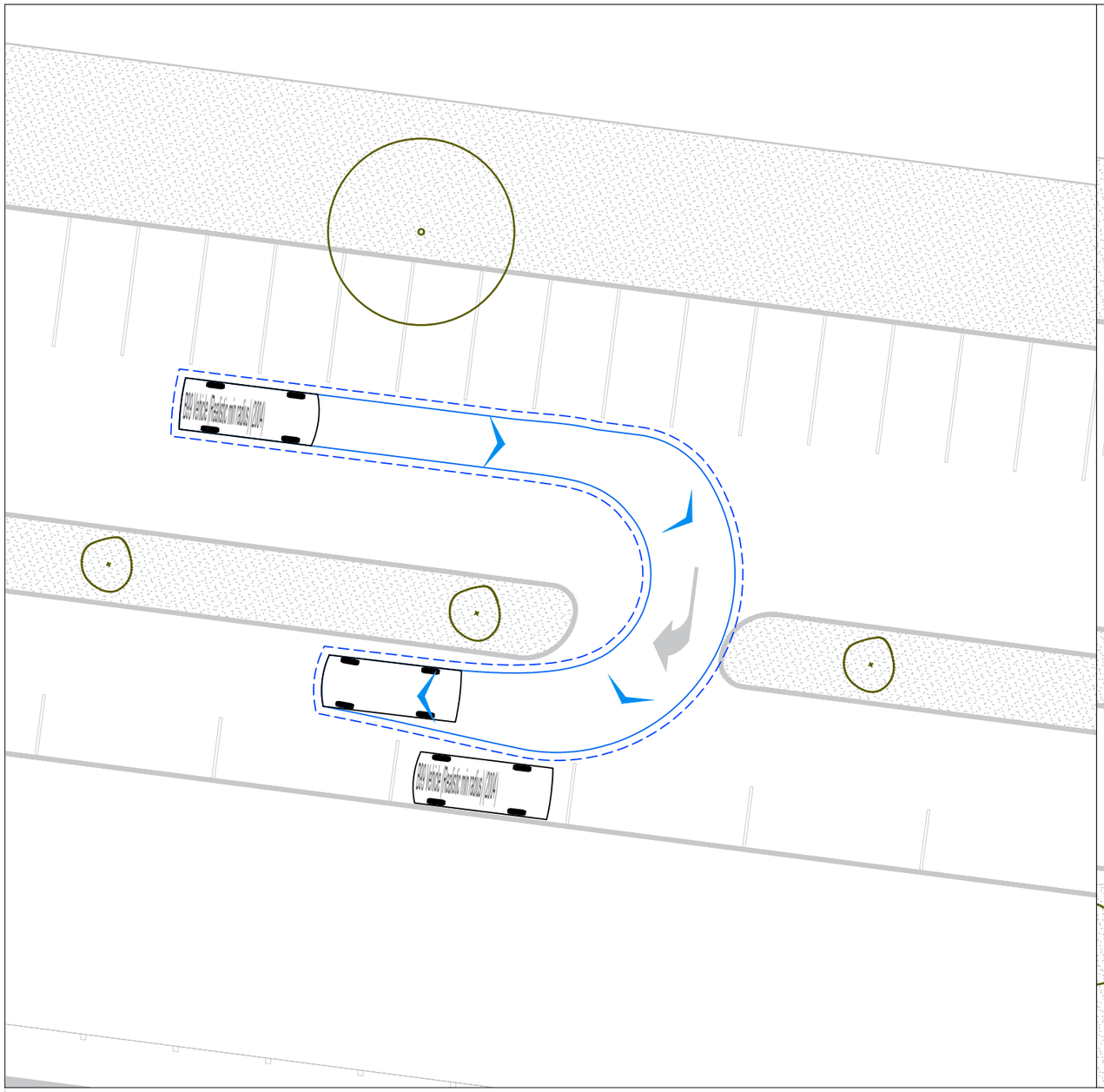

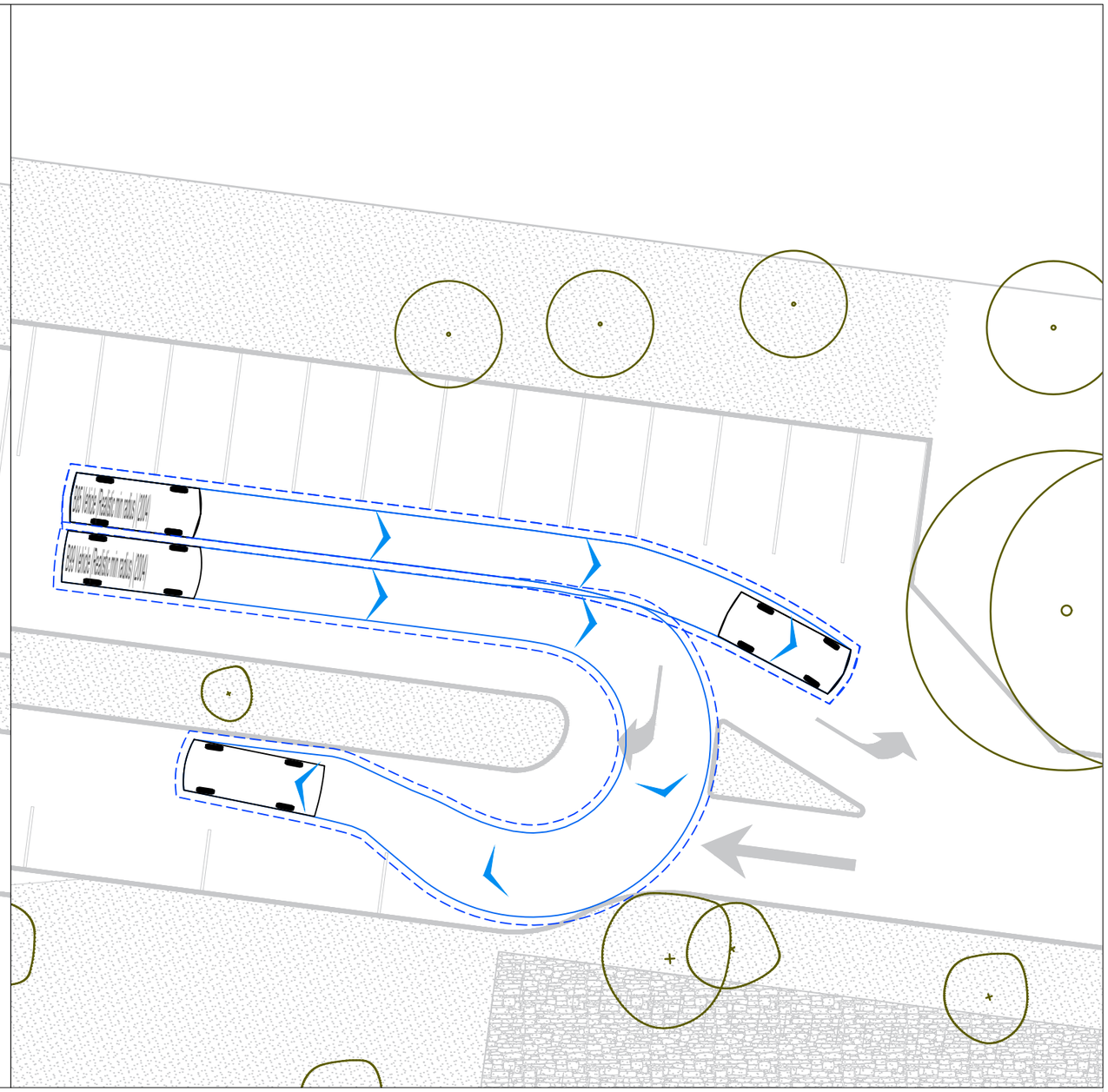

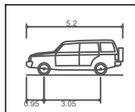

B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

LEGEND

- 300 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
B99 CAR PARK CIRCULATION (NORTHERN CAR PARK)

PRELIMINARY ADVICE ONLY
NOT FOR CONSTRUCTION

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URBIS

271-275 Pearcedale Road, Cranbourne South
Swept Path Assessment

Olderfleet, Level 10, 477 Collins Street | Melbourne VIC 3000 AUSTRALIA | +61 3 8663 4888 | URBIS Pty Ltd | ABN 50 105 256 228

ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

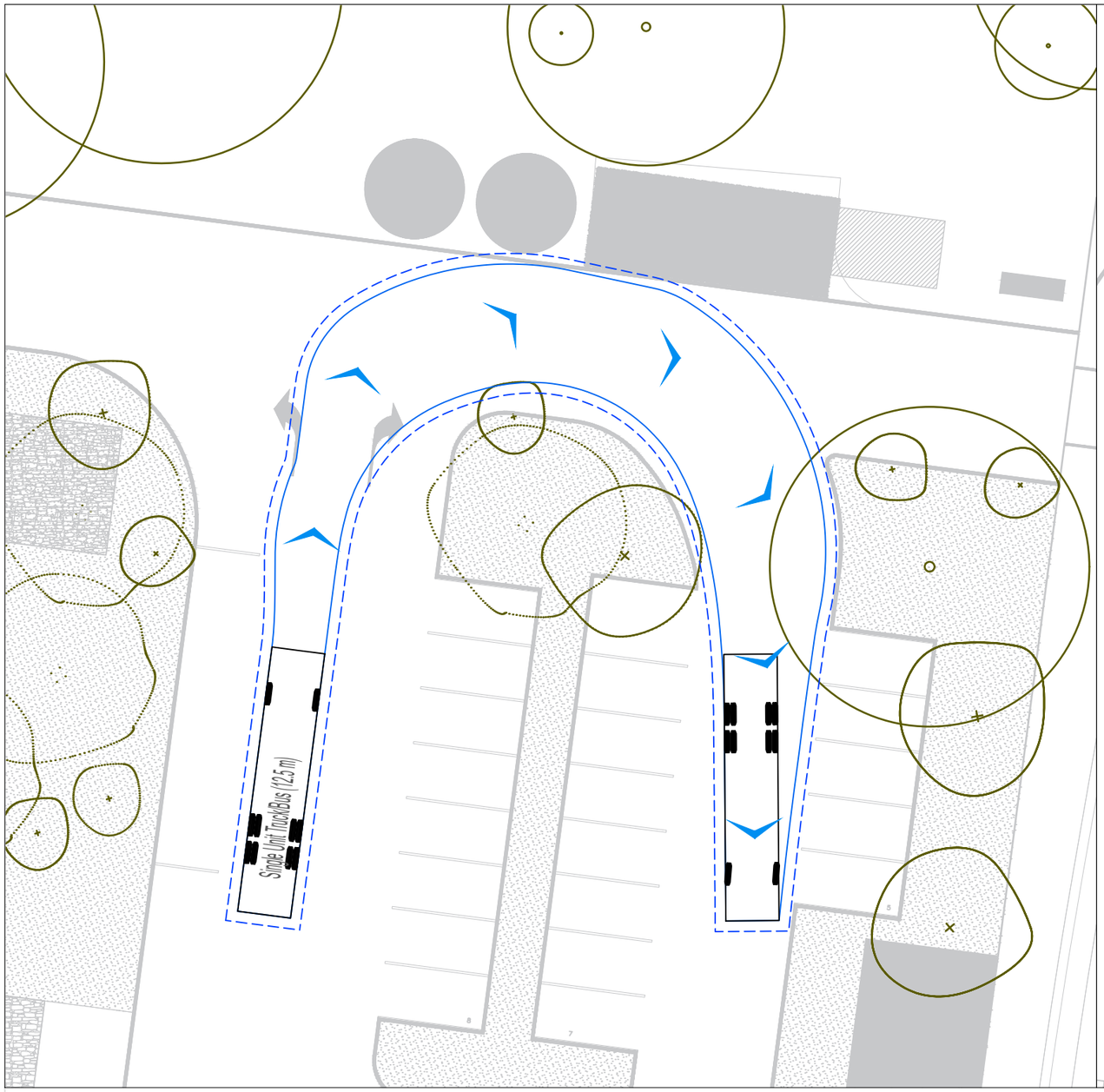
NEARMAP IMAGE
DATE: N/A

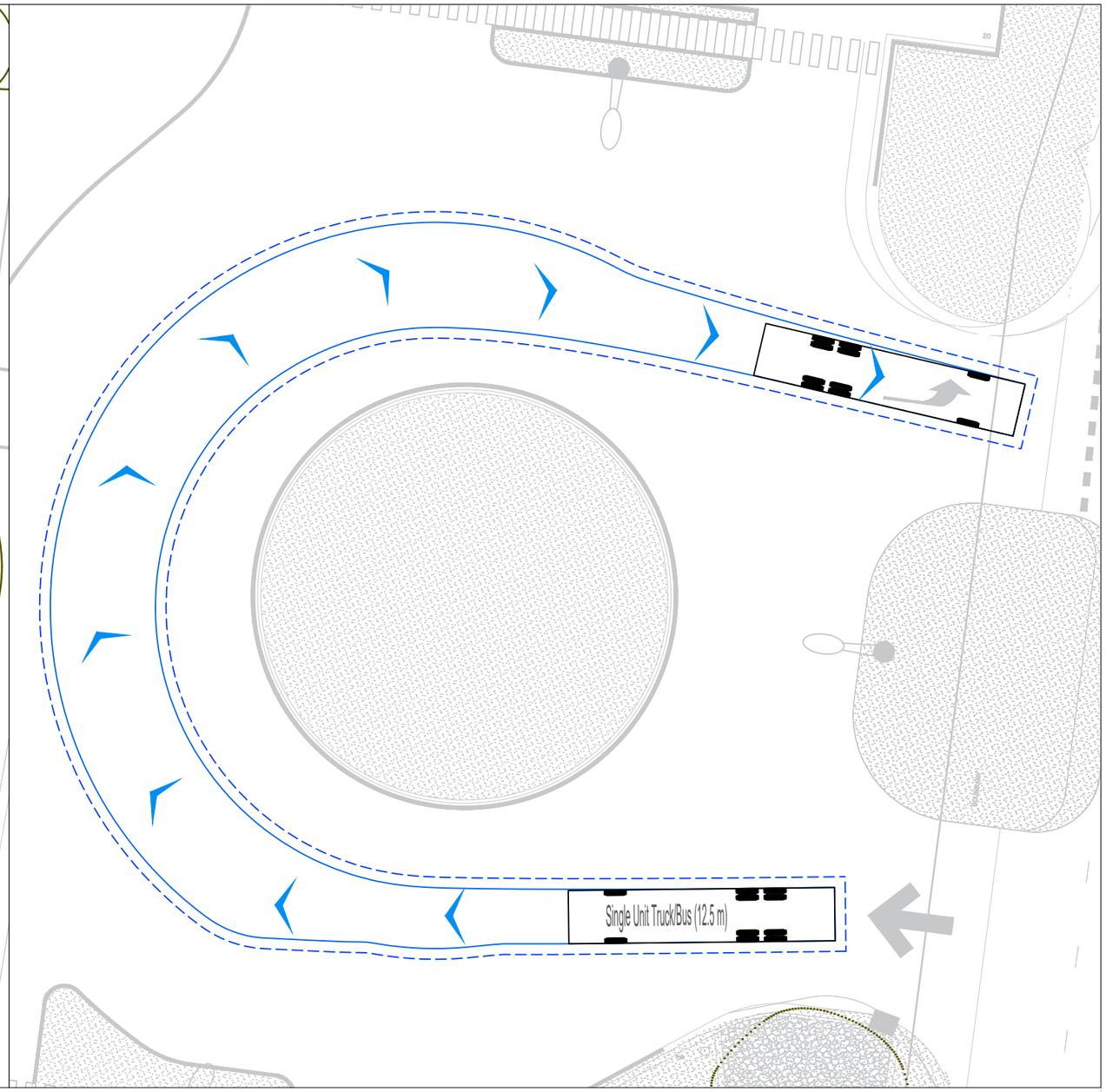
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

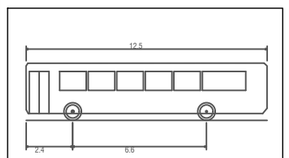
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:200 @ A3
0 1 2 3 4 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 05 OF 09
REVISION A







Single Unit Truck/Bus (12.5m)	
Overall Length	12.5m
Overall Width	2.500m
Overall Body Height	3.200m
Min Body Ground Clearance	0.190m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
12.5m BUS INTERNAL CIRCULATION (EASTERN CAR PARK)

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

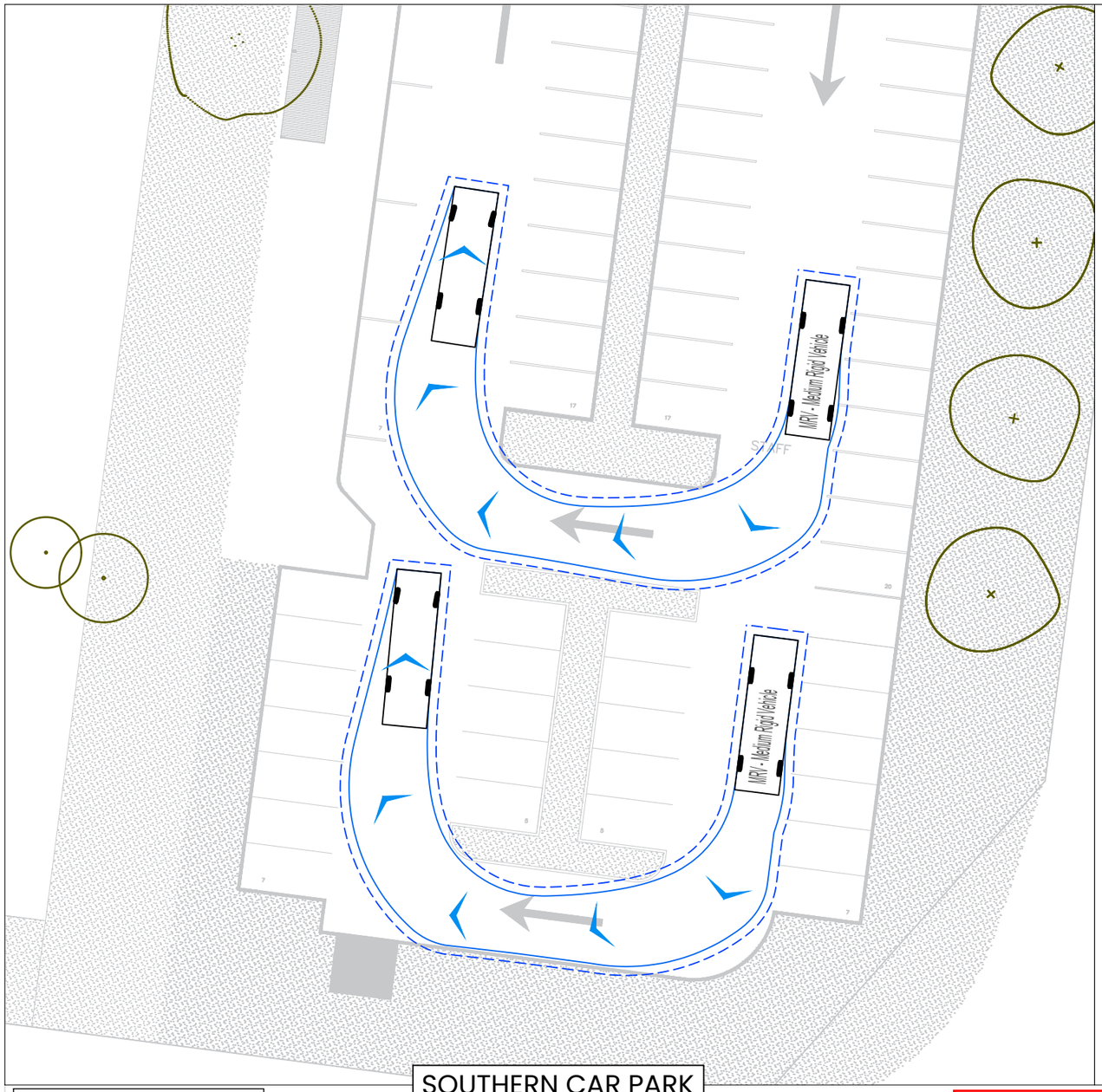
NEARMAP IMAGE
DATE: N/A

REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

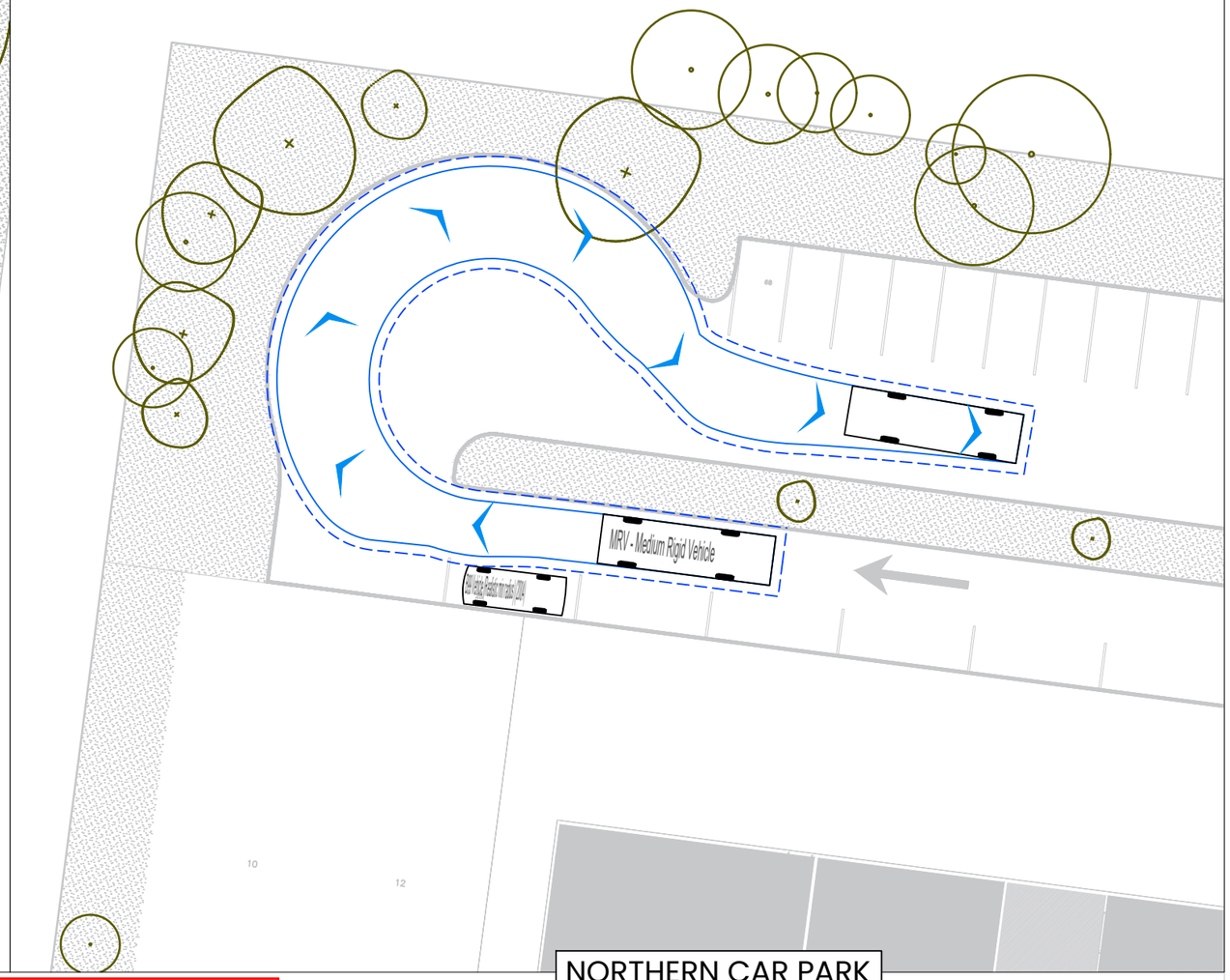
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

1:250 @ A3
0 1 2 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 06 OF 09
REVISION A

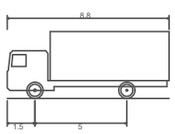


SOUTHERN CAR PARK



NORTHERN CAR PARK

MRV - Medium Rigid Vehicle



MRV - Medium Rigid Vehicle	
Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
8.8m MRV SITE CIRCULATION

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

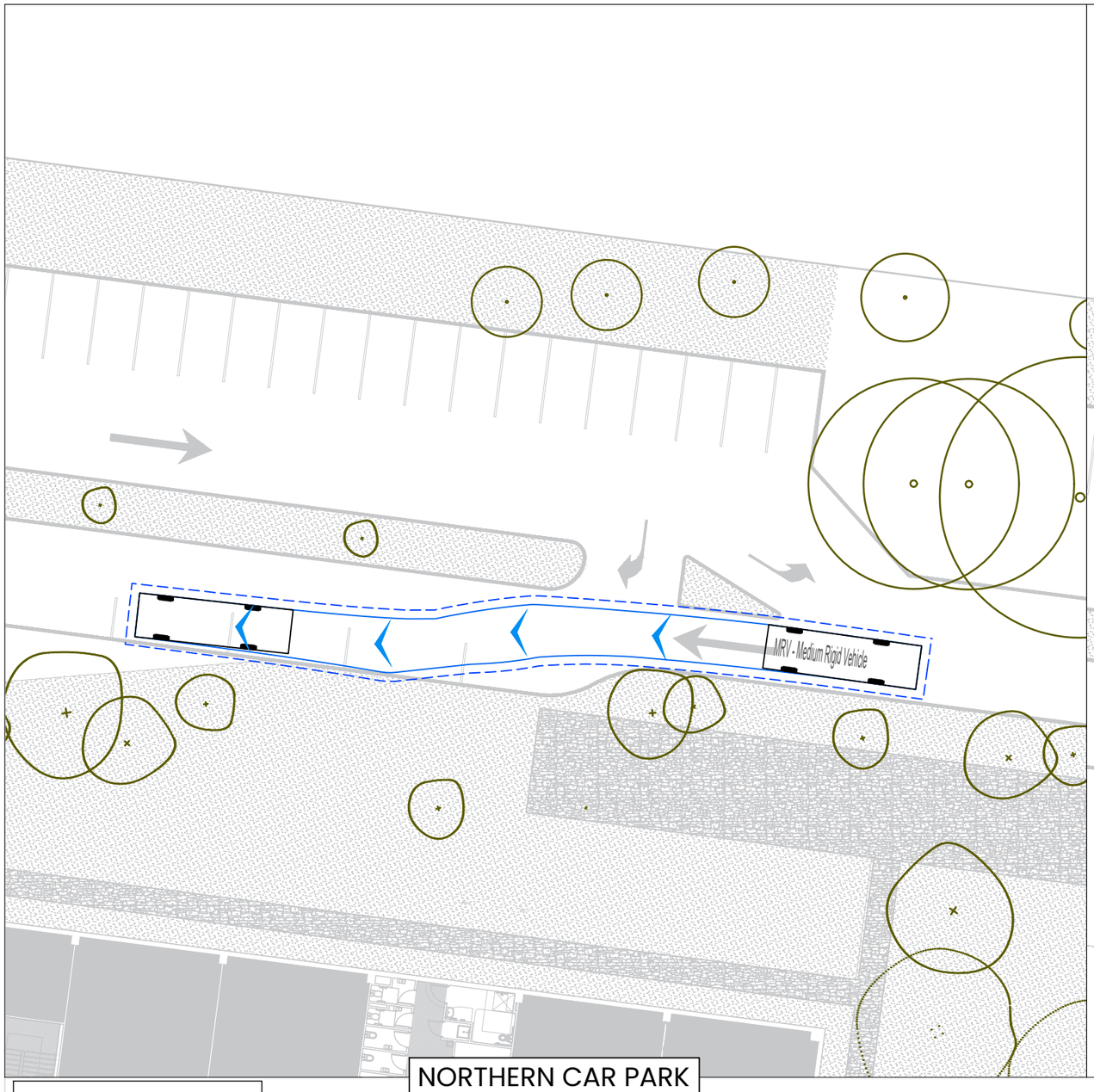
NEARMAP IMAGE
DATE: N/A

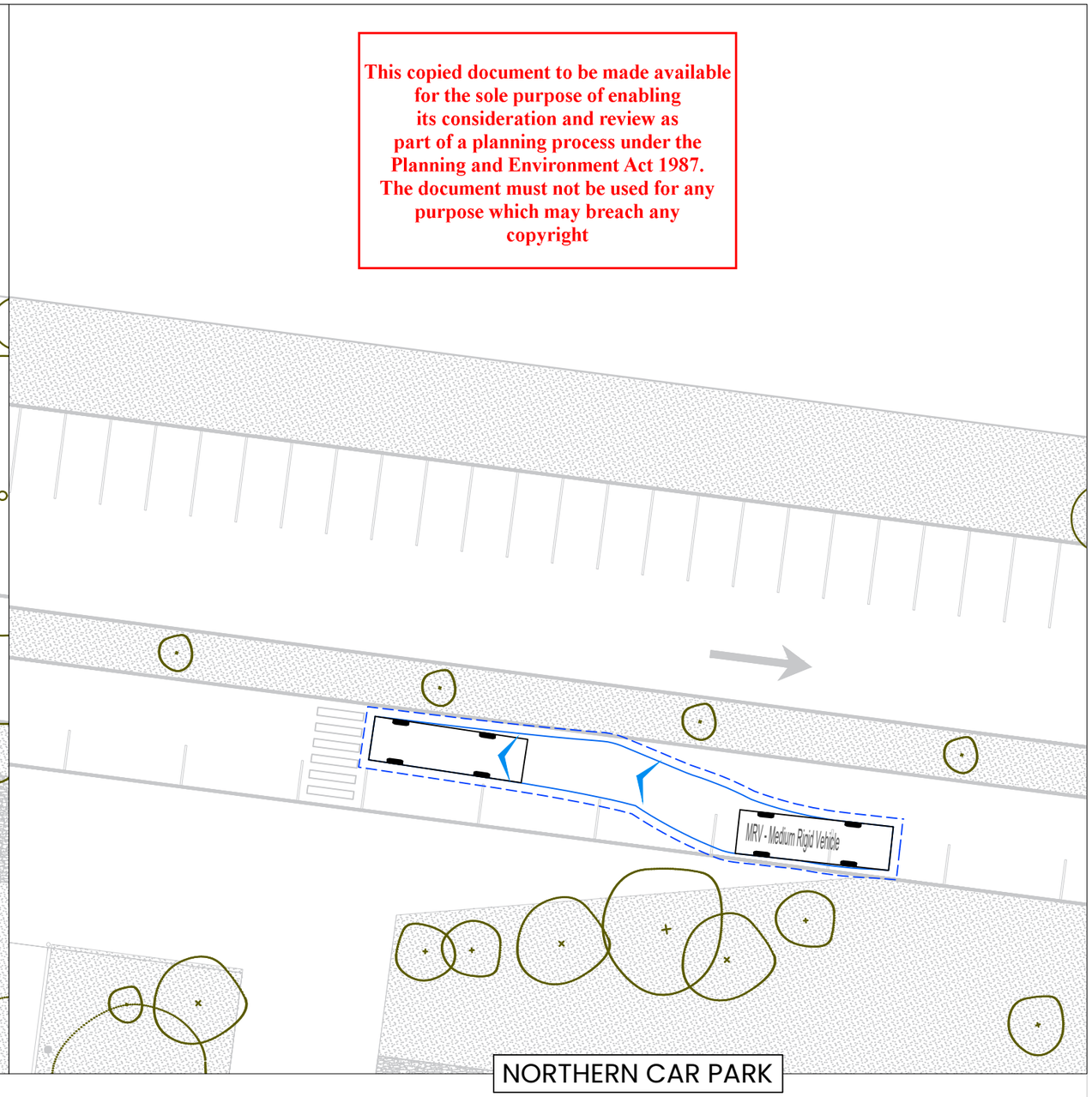
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

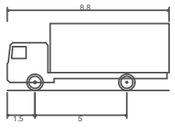
1:300 @ A3
0 1 2 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 07 OF 09
REVISION A





MRV - Medium Rigid Vehicle



MRV - Medium Rigid Vehicle	
Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
8.8m MRV WASTE VEHICLE ACCESS

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

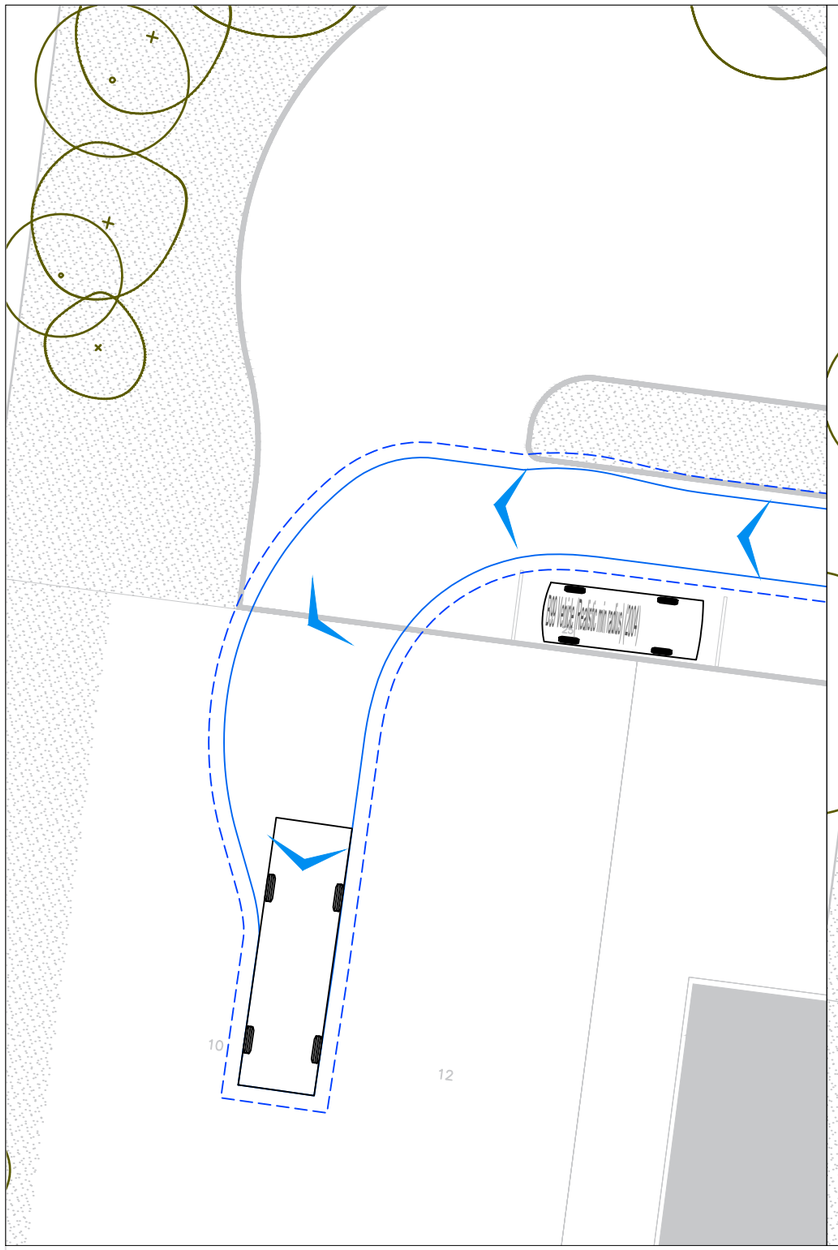
NEARMAP IMAGE
DATE: N/A

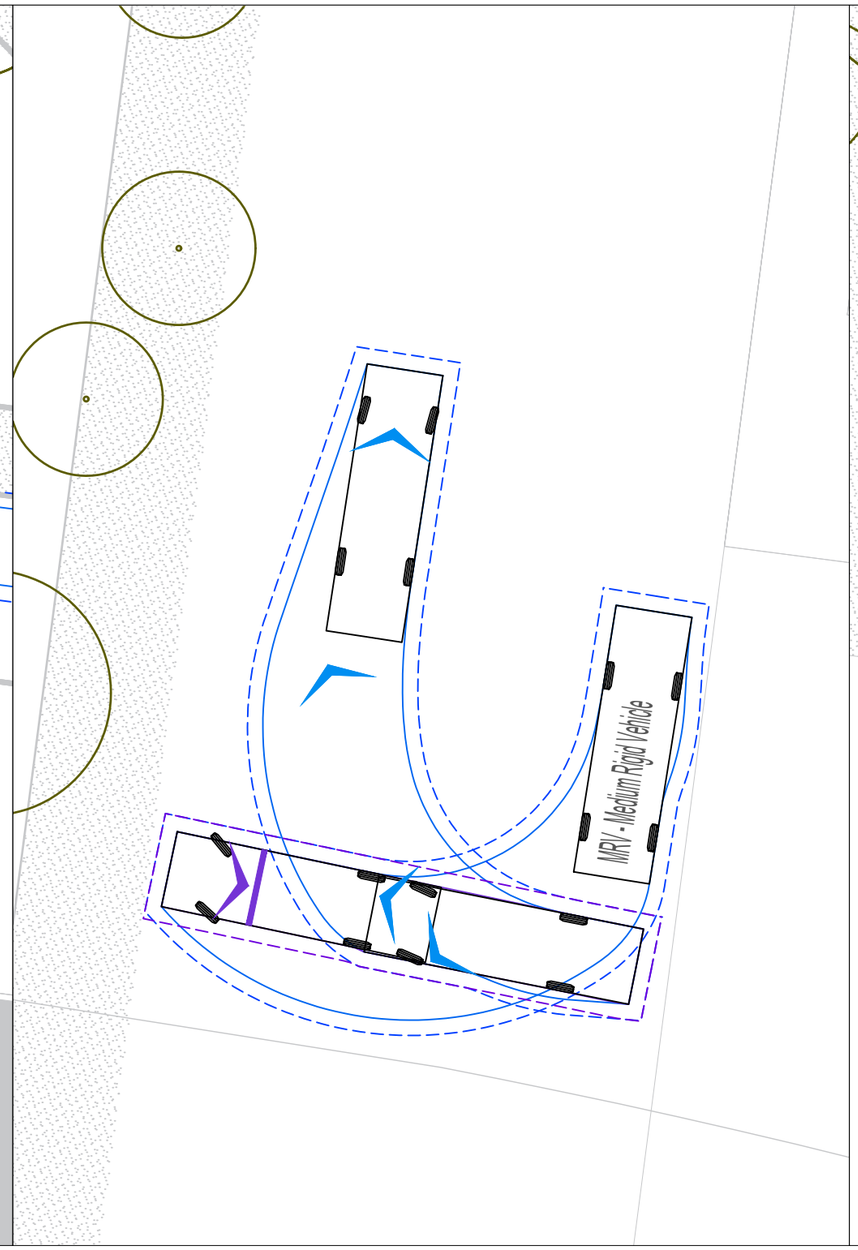
REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

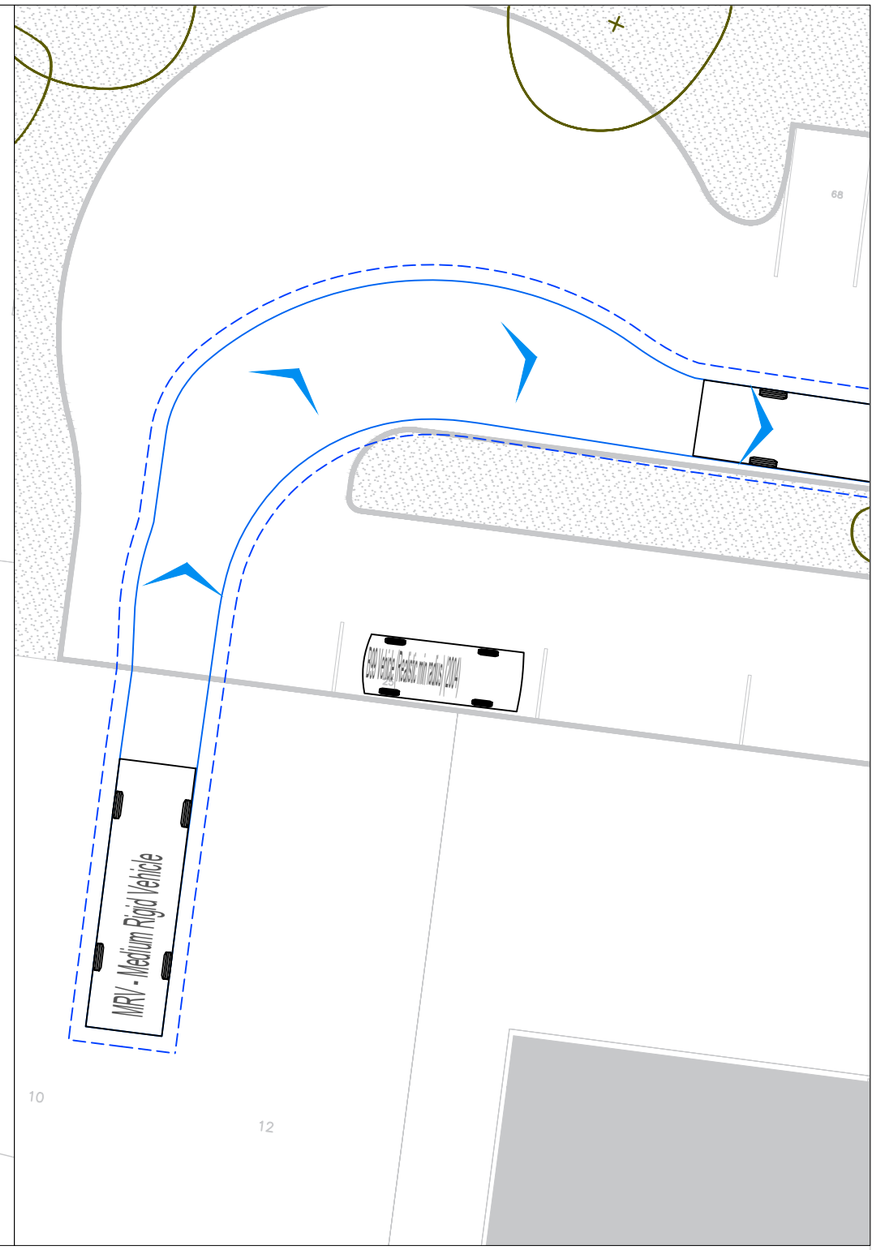
CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

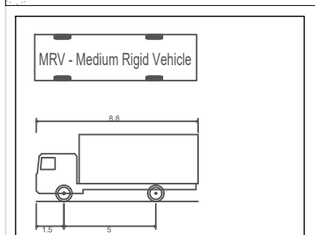
1:300 @ A3
0 1 2 5m

PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 08 OF 09
REVISION A









MRV - Medium Rigid Vehicle	
Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

LEGEND

- 500 mm BODY CLEARANCE
- VEHICLE BODY - FORWARD
- VEHICLE BODY - REVERSE

SPEED = 5 km/h

MASTER PLAN
8.8m MRV LONG TERM BUS PARKING AREA CIRCULATION

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ARCHITECTURAL DRAWING REF
DWG NAME: (2D) MASTERPLAN - Internals.dwg
DATE: 09/04/2026

NEARMAP IMAGE
DATE: N/A

REV	DESCRIPTION	DWN	CHK	DATE
A	Swept Path Assessment	JT	KD	15/04/26

CLIENT
Christian Education Ministries
Suite 304, 200 The Central Coast Hwy
Erina NSW, 2250 Australia

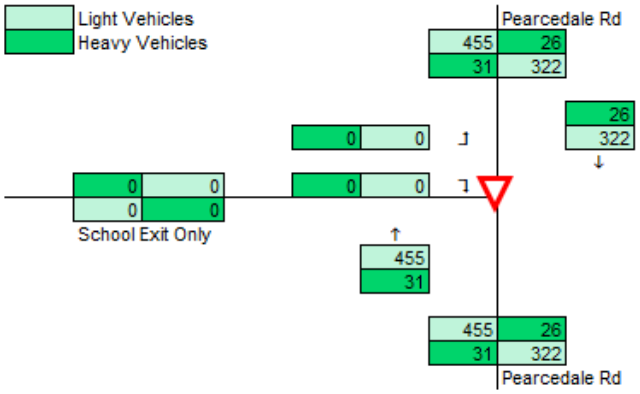
1:300 @ A3
0 1 2 5m

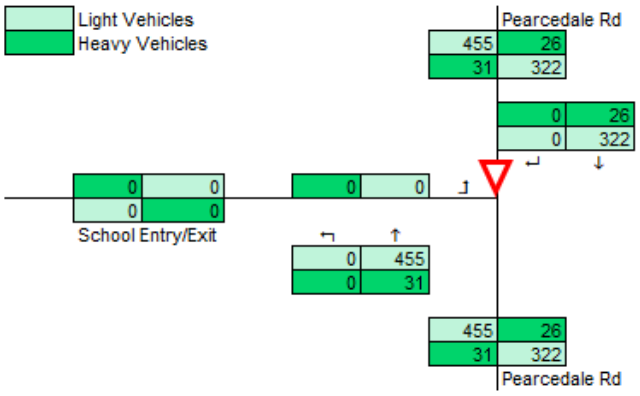
PROJECT NO. P0063738
DATE 15/04/26
SHEET NO. 09 OF 09
REVISION A

Appendix D – Network Flow Diagrams

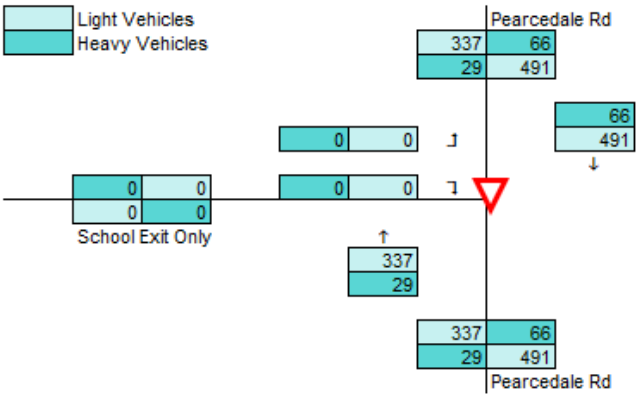
Existing Conditions – Pearcedale Road

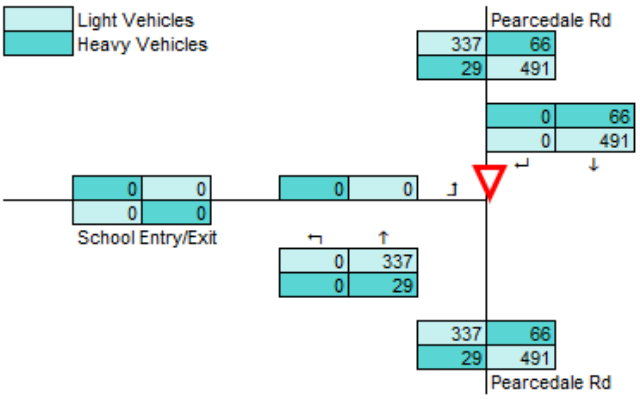
Existing 2025 - AM Peak (7:30am - 8:30am)





Existing 2025 - PM Peak (3-4pm)

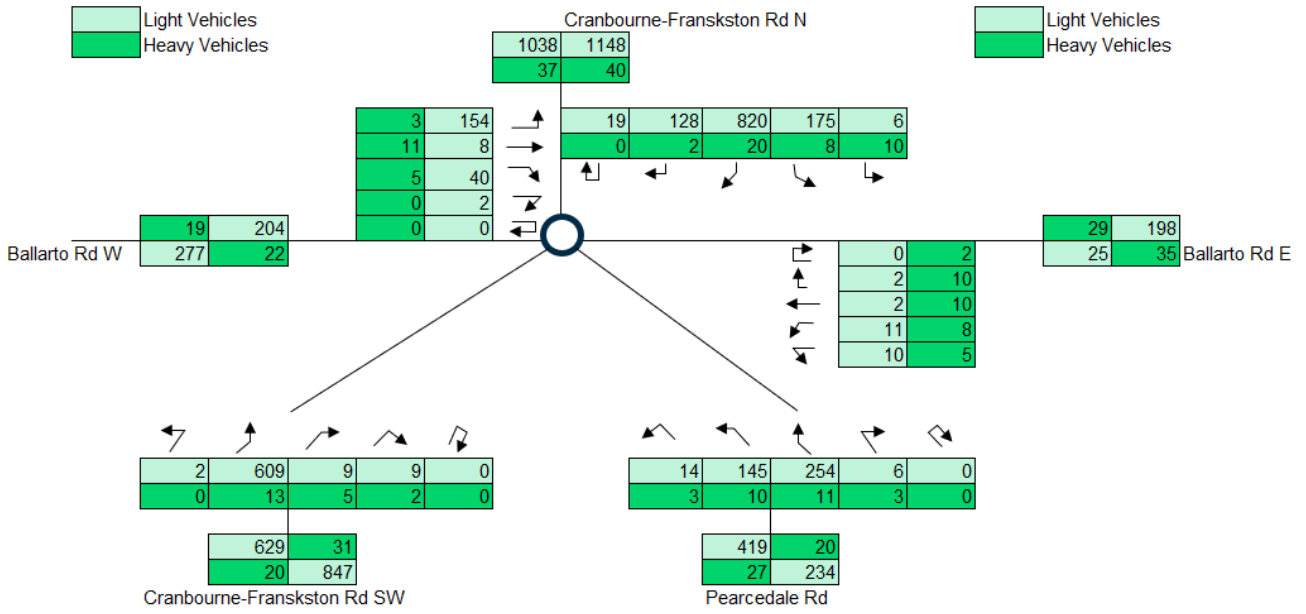




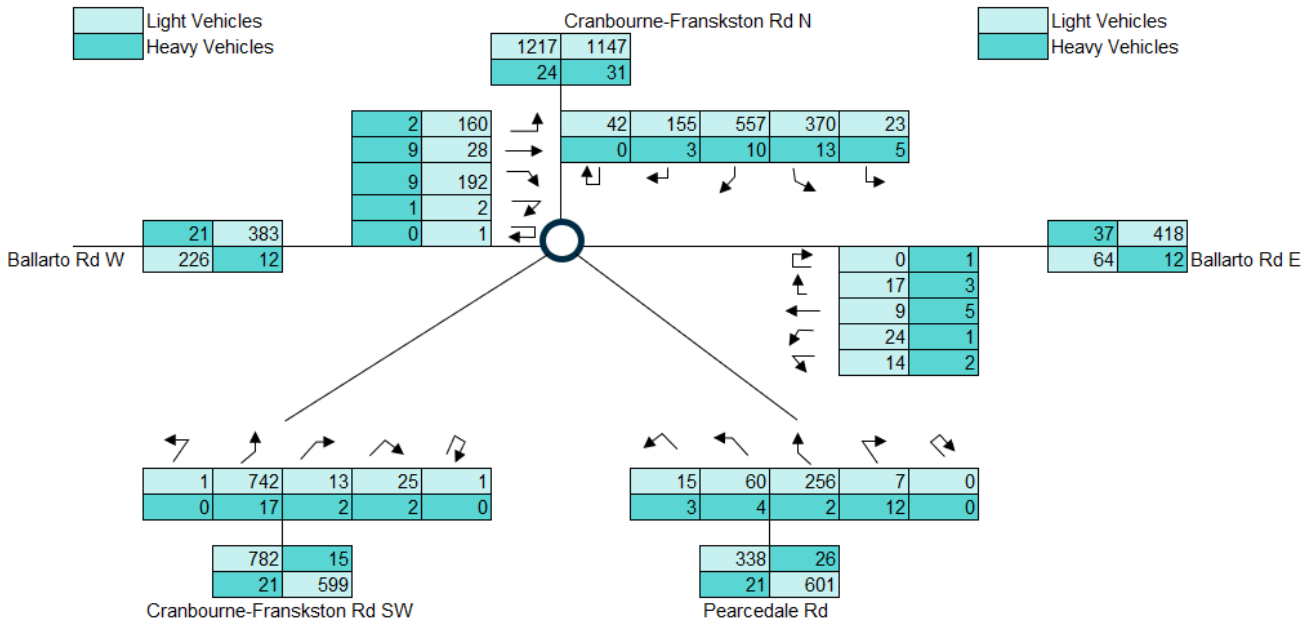
Existing Conditions – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

Existing Volumes

Existing 2025 - AM Peak (7:30am - 8:30am)

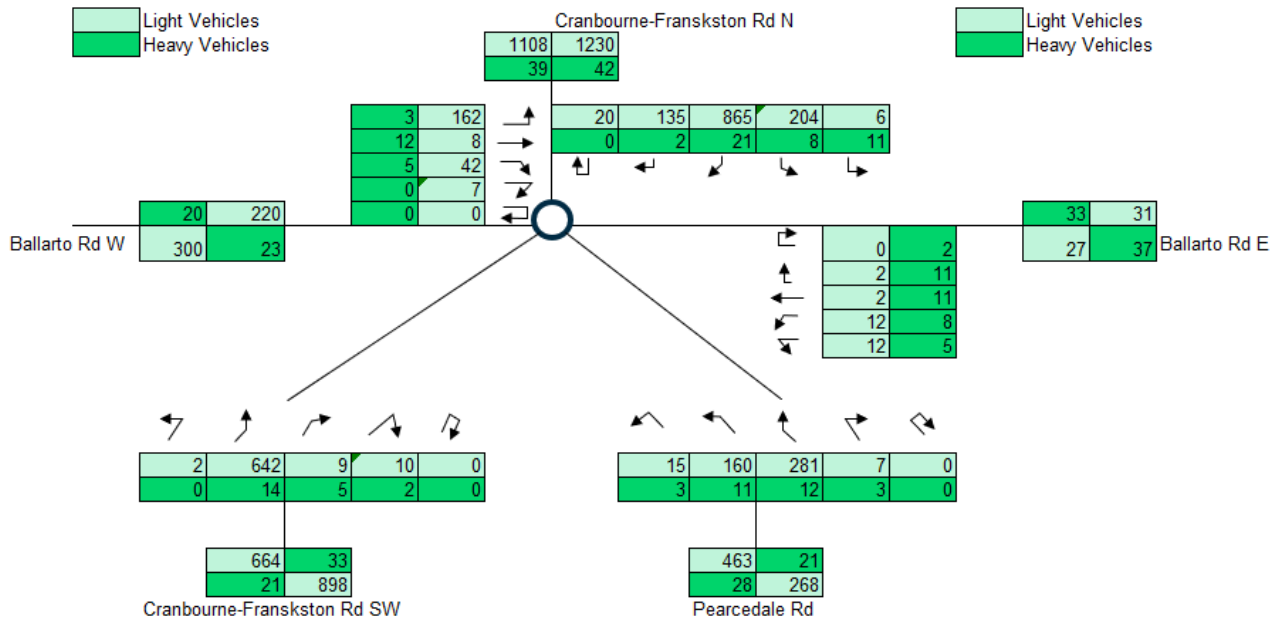


Existing 2025 - PM Peak (3-4pm)

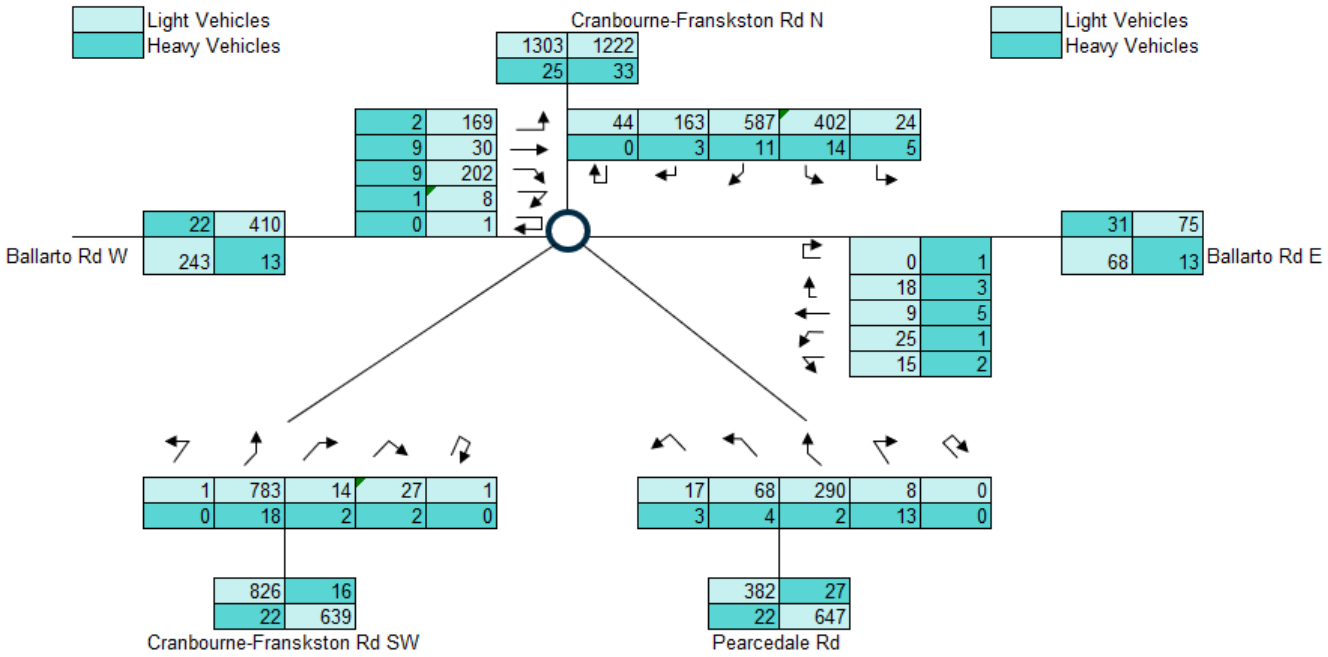


Stage 1 Future Base – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

Future Base - AM Peak (7:30am - 8:30am)

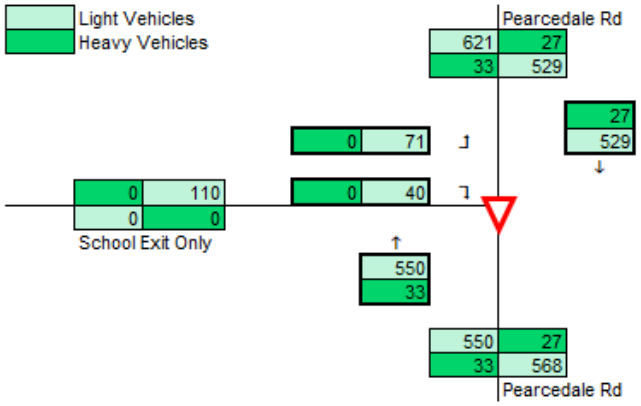


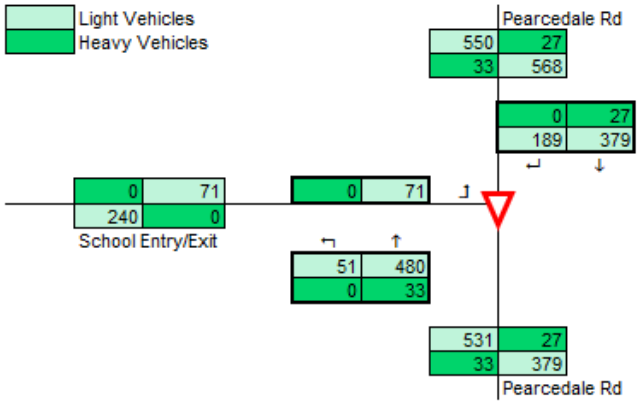
Future Base - PM Peak (3-4pm)



Stage 1 Development – Pearcedale Road

AM Peak (7:30am - 8:30am)





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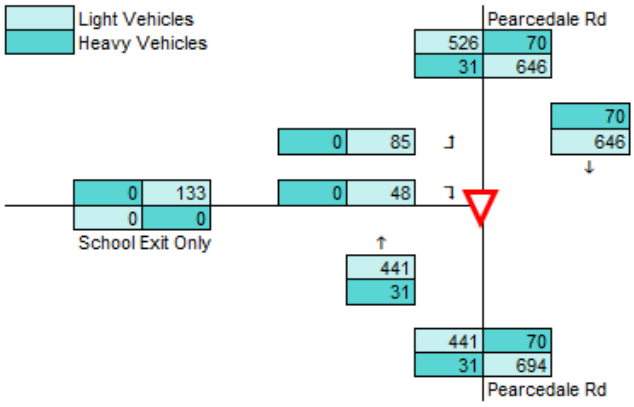
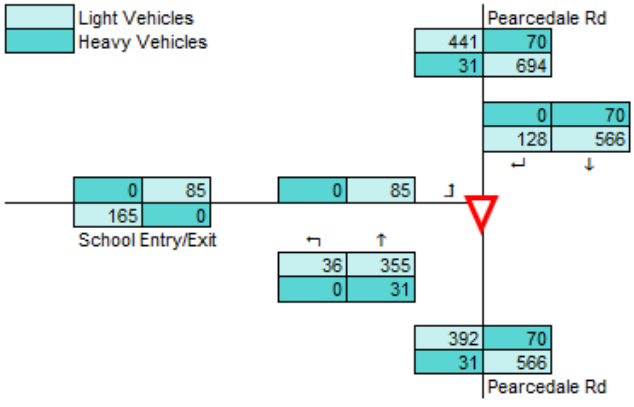
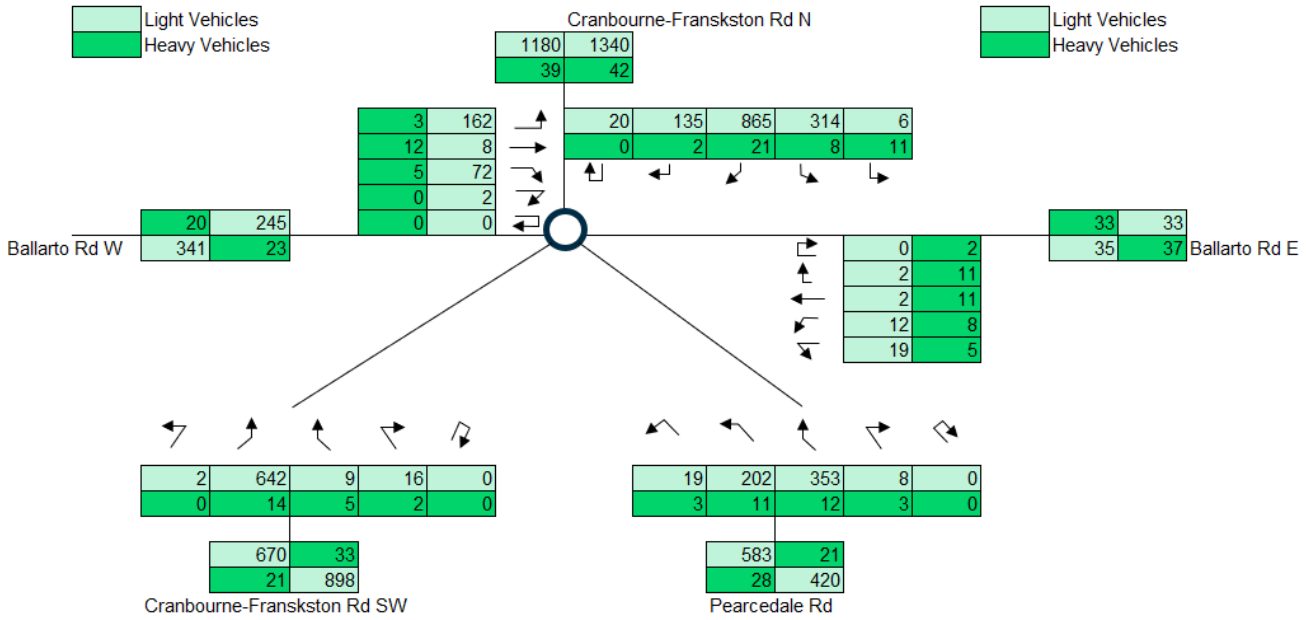


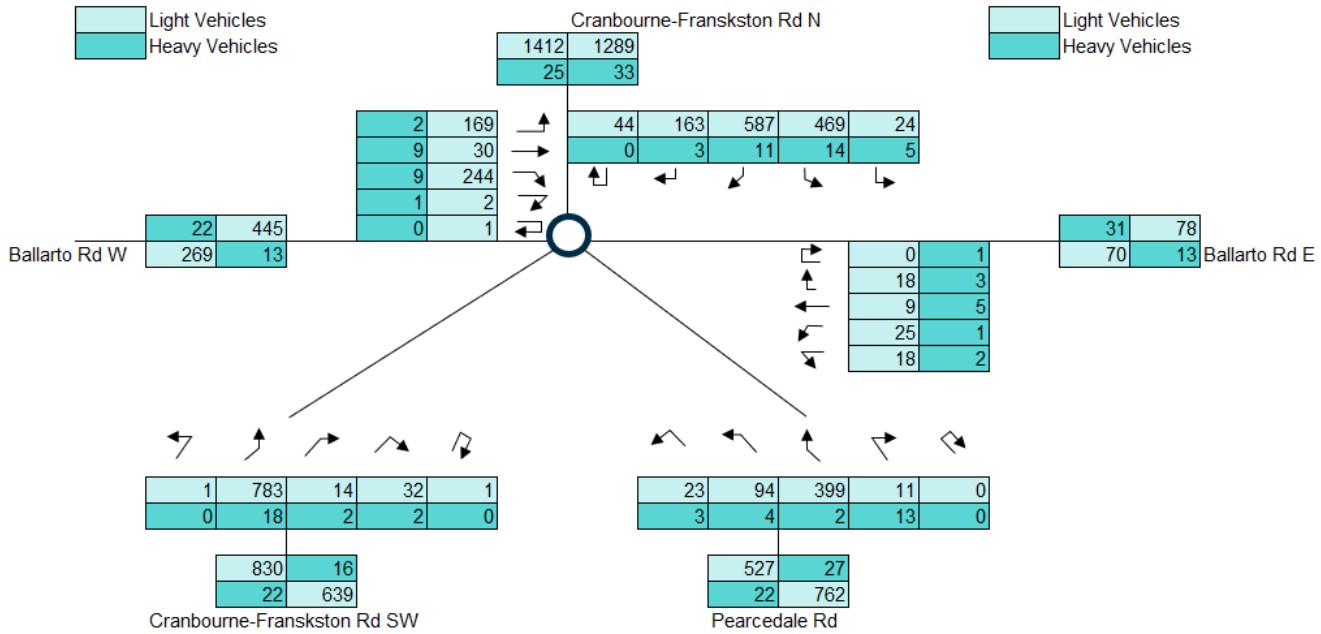


Stage 1 Development – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

AM Peak (7:30am - 8:30am)

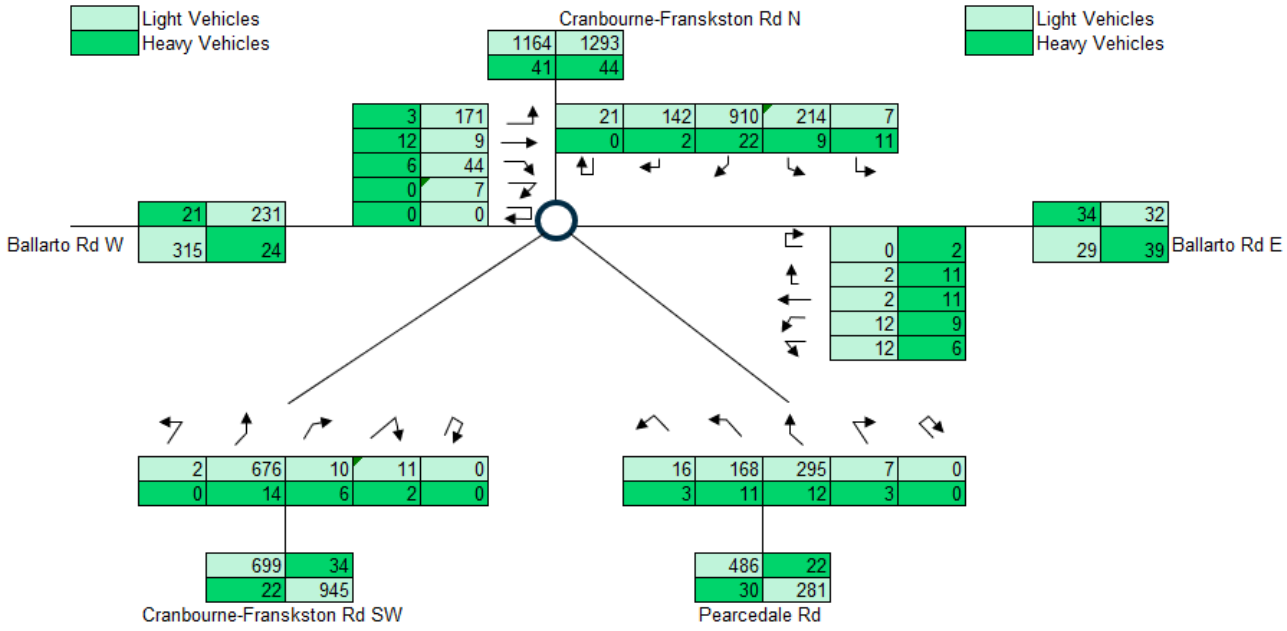


PM Peak (3-4pm)

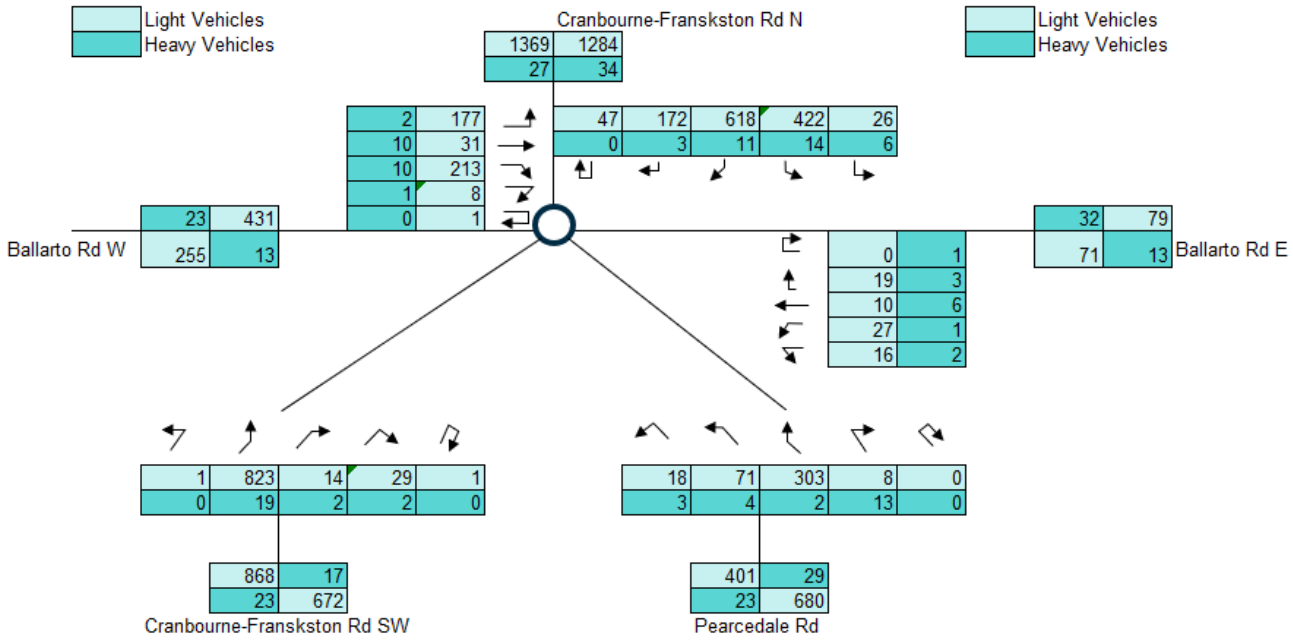


Stage 3 Future Base – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

Future Base - AM Peak (7:30am - 8:30am)

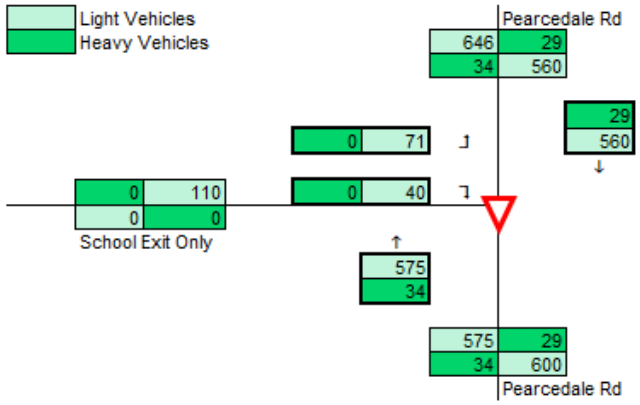


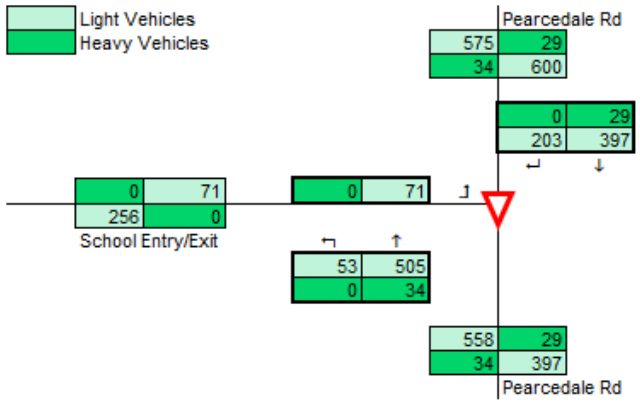
Future Base - PM Peak (3-4pm)



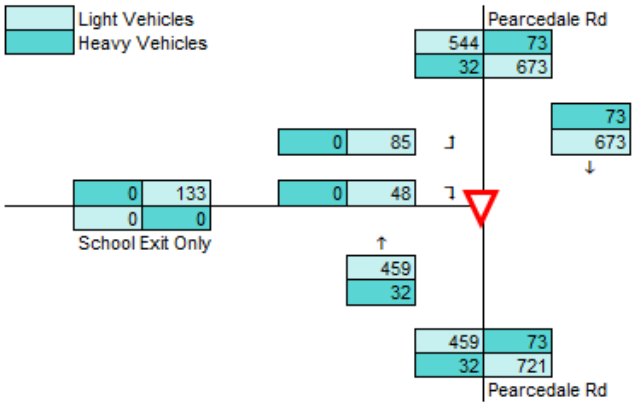
Stage 3 Development – Pearcedale Road

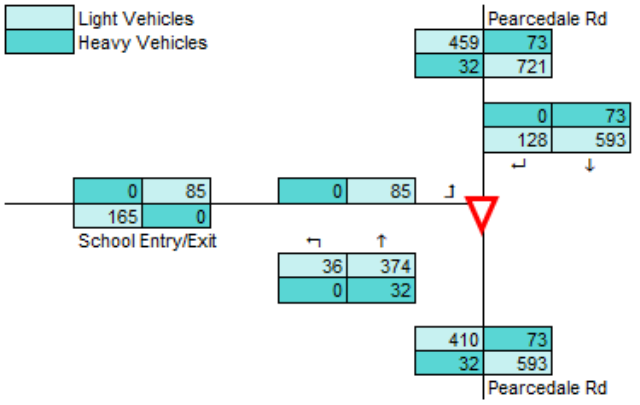
AM Peak (7:30am - 8:30am)





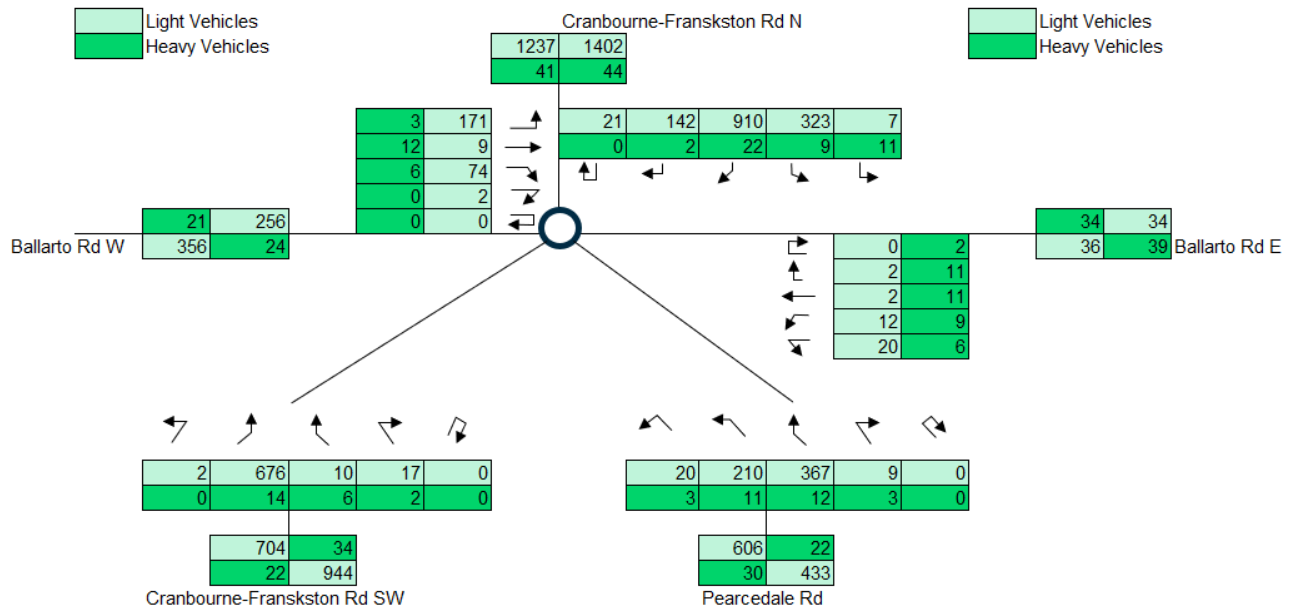
PM Peak (3-4pm)



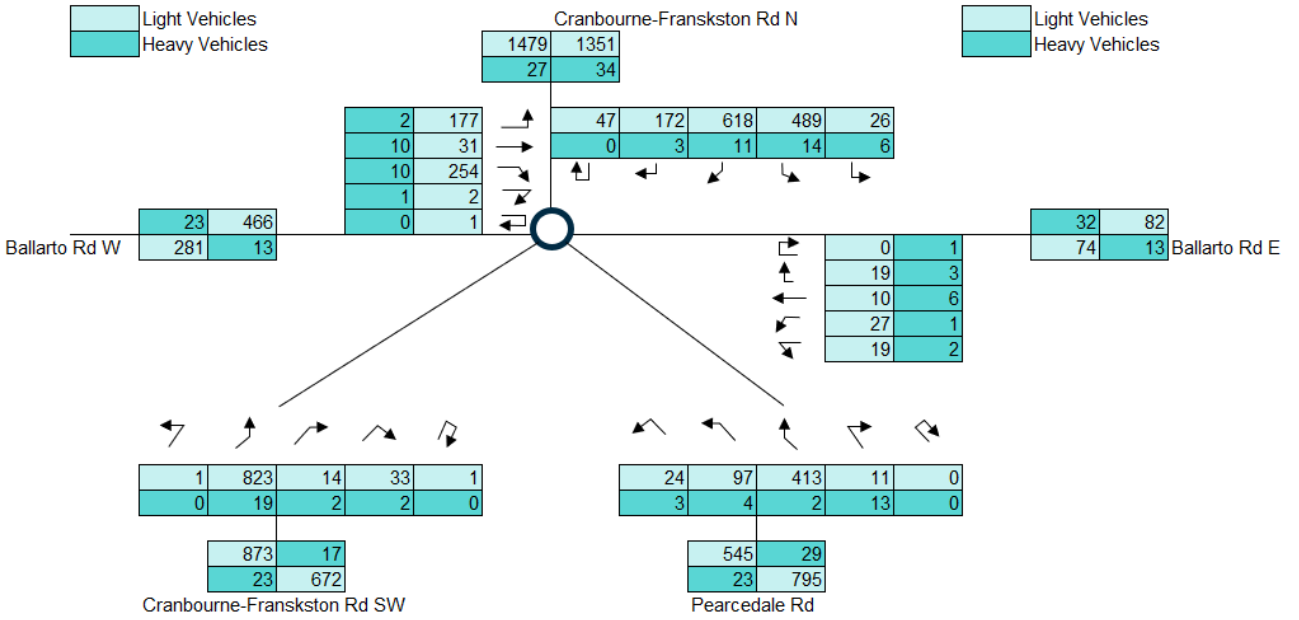


Stage 3 Development – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

AM Peak (7:30am - 8:30am)

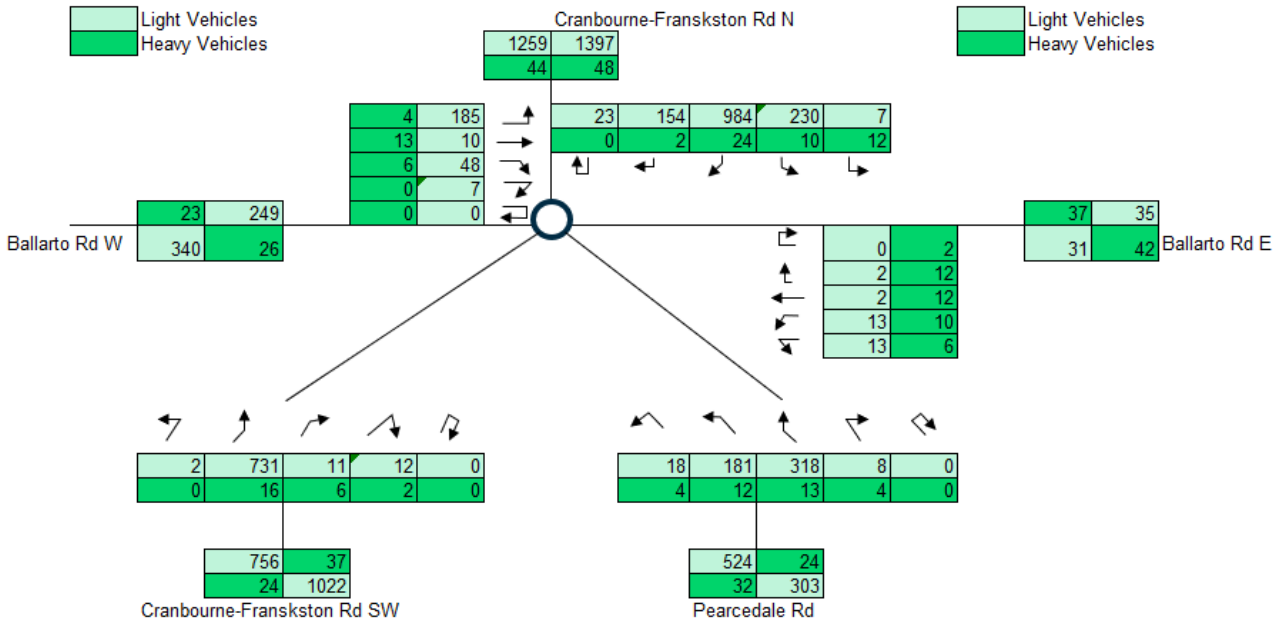


PM Peak (3-4pm)

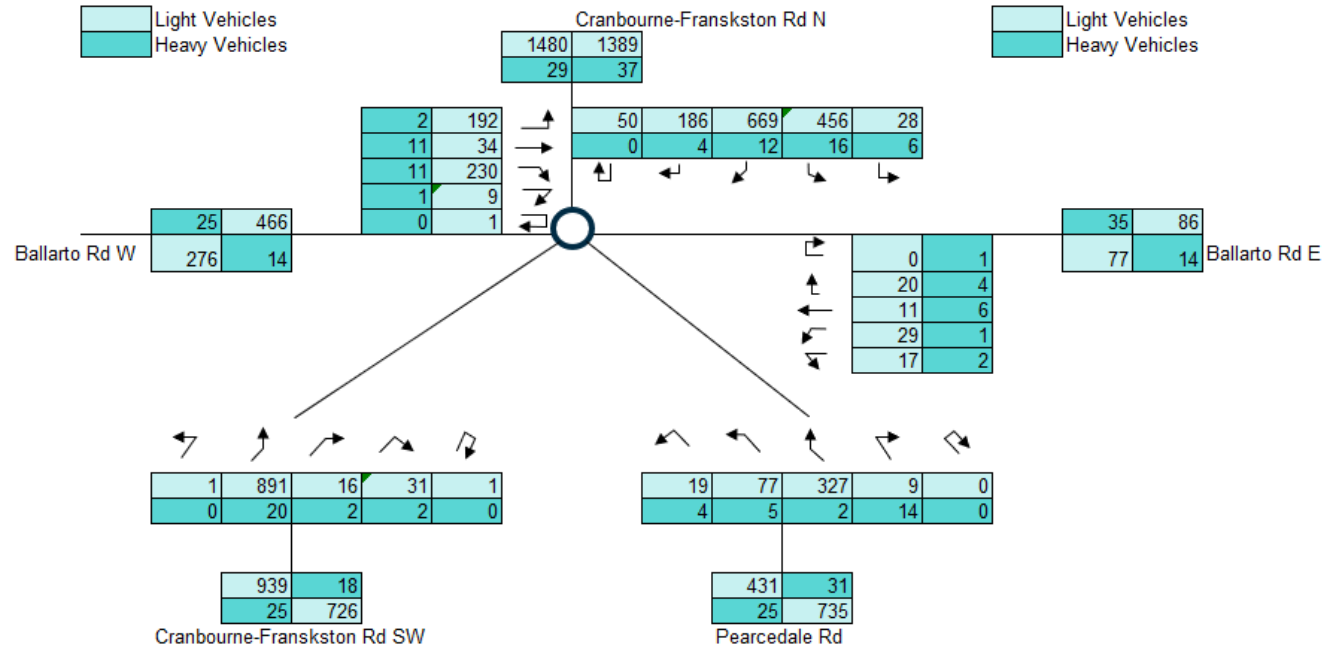


Stage 5 Future Base – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

Future Base - AM Peak (7:30am - 8:30am)

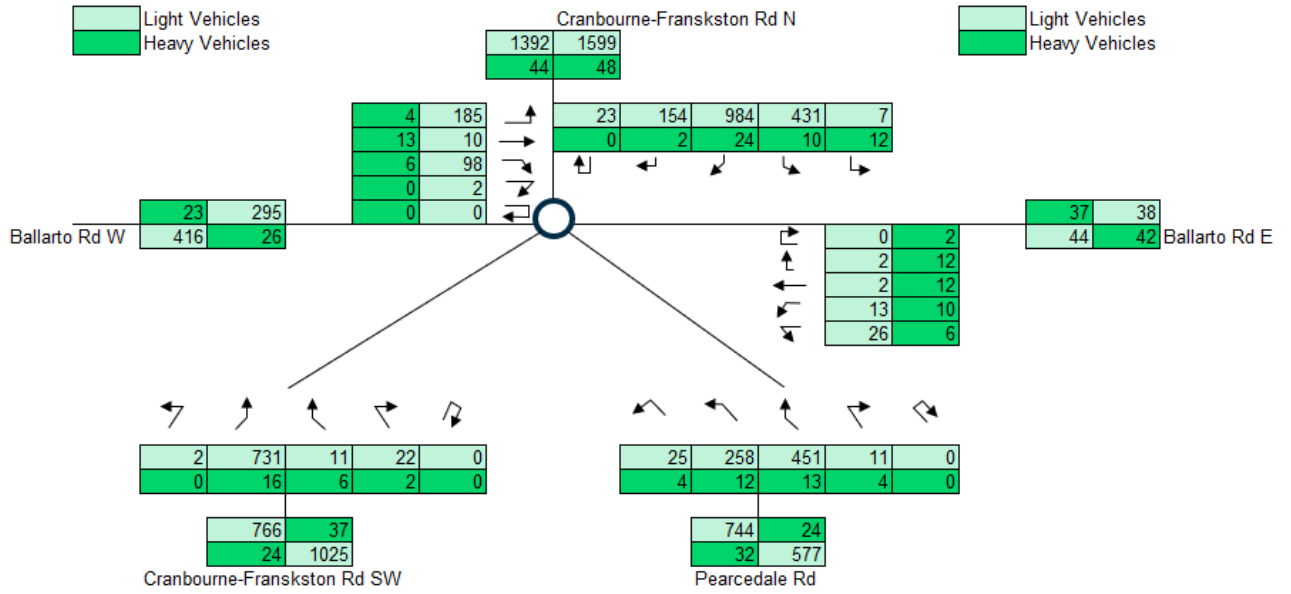


Future Base - PM Peak (3-4pm)

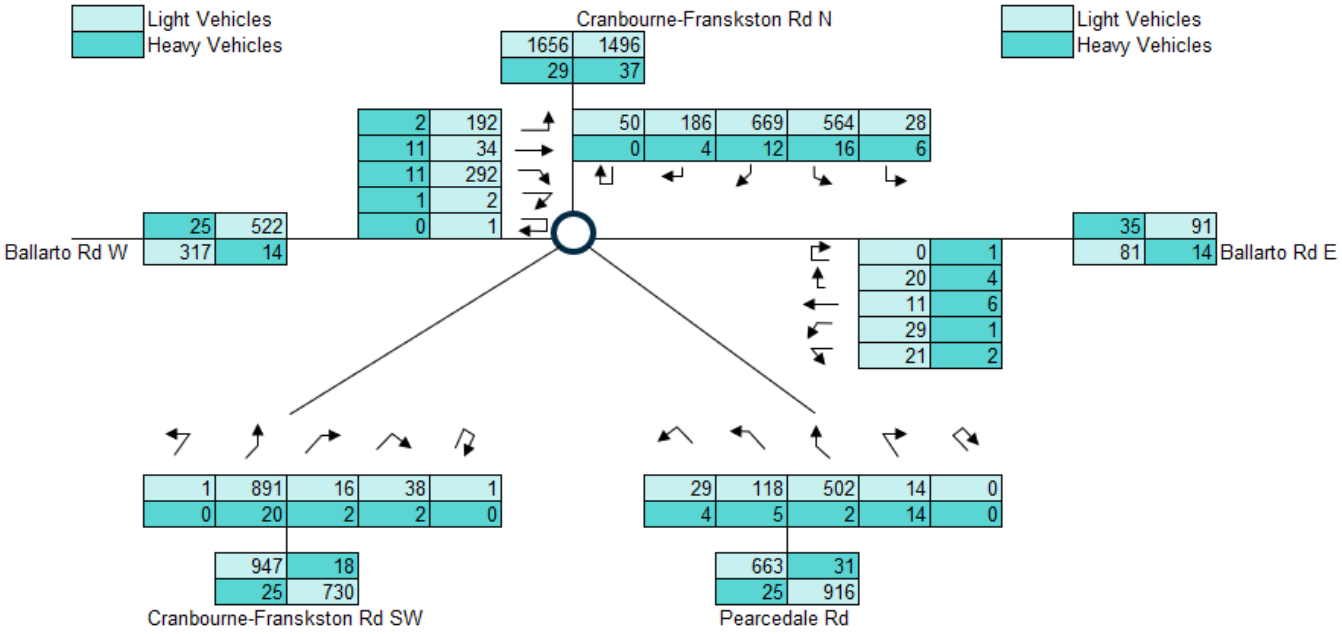


Stage 5 Development – Cranbourne-Frankston Road/Ballarto Road/Pearcedale Road Roundabout

AM Peak (7:30am - 8:30am)



PM Peak (3-4pm)



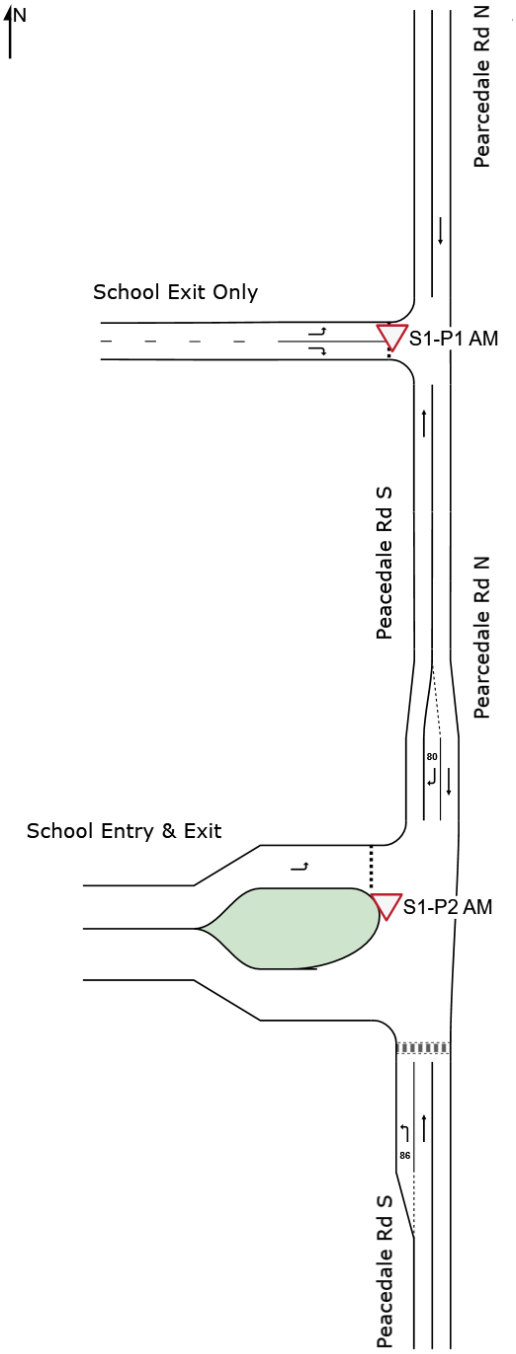
Appendix E – SIDRA Outputs

NETWORK LAYOUT

Network: [1] Stage 1 2028 AM Peak (7:30-8:30am) (School Access - Stage 1)

Stage 1 2028 AM Peak (7:30-8:30am)
Network Category: (None)

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



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽S1-P1 AM	NA	Stage 1 2028 AM Peak (7:30-8:30am) - Exit Only
▽S1-P2 AM	NA	Stage 1 2028 AM Peak (7:30-8:30am) - Primary Access

MOVEMENT SUMMARY

Site: [S1-P1 AM] Stage 1 2028 AM Peak (7:30-8:30am) - Exit Only (Pearcedale Rd Access - Stage 1)

Network: [1] Stage 1 2028 AM Peak (7:30-8:30am) (School Access - Stage 1)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 2028 AM Peak (7:30-8:30am) - Exit Only
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
2	T1	All MCs	614	5.7	614	5.7	0.326	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			614	5.7	614	5.7	0.326	0.0	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Pearcedale Rd N															
8	T1	All MCs	585	4.9	585	4.9	0.310	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			585	4.9	585	4.9	0.310	0.0	NA	0.0	0.0	0.00	0.00	0.00	79.8
West: School Exit Only															
10	L2	All MCs	75	0.0	75	0.0	0.089	5.7	LOS A	0.3	2.3	0.54	0.70	0.54	43.1
12	R2	All MCs	42	0.0	42	0.0	0.136	13.4	LOS B	0.4	2.9	0.79	0.90	0.79	8.9
Approach			117	0.0	117	0.0	0.136	8.5	LOS A	0.4	2.9	0.63	0.77	0.63	33.7
All Vehicles			1316	4.8	1316	4.8	0.326	0.8	NA	0.4	2.9	0.06	0.07	0.06	73.9

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

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Thursday, 5 February 2026 2:15:49 PM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S1-P2 AM] Stage 1 2028 AM Peak (7:30-8:30am) - Primary Access (Pearcedale Rd Access - Stage 1)

Network: [1] Stage 1 2028 AM Peak (7:30-8:30am) (School Access - Stage 1)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 2028 AM Peak (7:30-8:30am) - Primary Access
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
1	L2	All MCs	54	0.0	54	0.0	0.029	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	61.0
2	T1	All MCs	540	6.4	540	6.4	0.289	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			594	5.9	594	5.9	0.289	0.7	NA	0.0	0.0	0.00	0.06	0.00	77.7
North: Pearcedale Rd N															
8	T1	All MCs	427	6.7	427	6.7	0.229	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
9	R2	All MCs	199	0.0	199	0.0	0.276	11.1	LOS B	1.2	8.5	0.60	0.83	0.66	31.4
Approach			626	4.5	626	4.5	0.276	3.5	NA	1.2	8.5	0.19	0.26	0.21	69.1
West: School Entry & Exit															
10	L2	All MCs	75	0.0	75	0.0	0.105	4.9	LOS A	0.4	2.5	0.52	0.68	0.52	12.0
Approach			75	0.0	75	0.0	0.105	4.9	LOS A	0.4	2.5	0.52	0.68	0.52	12.0
All Vehicles			1295	4.9	1295	4.9	0.289	2.3	NA	1.2	8.5	0.12	0.19	0.13	72.2

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

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MOVEMENT SUMMARY

Site: [S1-P1 PM] Stage 1 2028 PM Peak (3-4pm) - Exit Only (Pearcedale Rd Access - Stage 1)

Network: [2] Stage 1 2028 PM Peak (3-4pm) (School Access - Stage 1)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 2028 PM Peak (3-4pm) - Exit Only
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
2	T1	All MCs	497	6.6	497	6.6	0.266	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			497	6.6	497	6.6	0.266	0.0	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Pearcedale Rd N															
8	T1	All MCs	754	9.8	754	9.8	0.411	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.6
Approach			754	9.8	754	9.8	0.411	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.6
West: School Exit Only															
10	L2	All MCs	89	0.0	89	0.0	0.091	4.9	LOS A	0.3	2.4	0.49	0.64	0.49	44.5
12	R2	All MCs	51	0.0	51	0.0	0.198	16.6	LOS C	0.6	4.2	0.83	0.94	0.88	7.6
Approach			140	0.0	140	0.0	0.198	9.1	LOS A	0.6	4.2	0.61	0.75	0.63	32.8
All Vehicles			1391	7.6	1391	7.6	0.411	1.0	NA	0.6	4.2	0.06	0.08	0.06	72.5

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

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MOVEMENT SUMMARY

Site: [S1-P2 PM] Stage 1 2028 PM Peak (3-4pm) - Primary Access (Pearcedale Rd Access - Stage 1)

Network: [2] Stage 1 2028 PM Peak (3-4pm) (School Access - Stage 1)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 2028 PM Peak (3-4pm) - Primary Access
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
1	L2	All MCs	38	0.0	38	0.0	0.021	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	61.0
2	T1	All MCs	406	8.0	406	8.0	0.219	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			444	7.3	444	7.3	0.219	0.6	NA	0.0	0.0	0.00	0.05	0.00	77.8
North: Pearcedale Rd N															
8	T1	All MCs	669	11.0	669	11.0	0.368	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
9	R2	All MCs	135	0.0	135	0.0	0.153	9.3	LOS A	0.6	4.3	0.50	0.72	0.50	34.6
Approach			804	9.2	804	9.2	0.368	1.6	NA	0.6	4.3	0.08	0.12	0.08	75.2
West: School Entry & Exit															
10	L2	All MCs	89	0.0	89	0.0	0.105	3.8	LOS A	0.4	2.6	0.45	0.61	0.45	14.1
Approach			89	0.0	89	0.0	0.105	3.8	LOS A	0.4	2.6	0.45	0.61	0.45	14.1
All Vehicles			1338	7.9	1338	7.9	0.368	1.4	NA	0.6	4.3	0.08	0.13	0.08	75.1

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

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MOVEMENT SUMMARY

Site: [S5-P1 AM] Stage 5 2036 AM Peak (7:30-8:30am) - Exit Only (Pearcedale Rd Access - Stage 5)

Network: [1 (3)] Stage 5 2036 AM Peak (7:30-8:30am) (School Access - Stage 5)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 2036 AM Peak (7:30-8:30am) - Exit Only
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
2	T1	All MCs	741	5.3	741	5.3	0.393	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
Approach			741	5.3	741	5.3	0.393	0.0	NA	0.0	0.0	0.00	0.00	0.00	79.7
North: Pearcedale Rd N															
8	T1	All MCs	804	4.1	804	4.1	0.423	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.6
Approach			804	4.1	804	4.1	0.423	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.6
West: School Exit Only															
10	L2	All MCs	127	0.0	127	0.0	0.184	7.0	LOS A	0.7	4.7	0.62	0.79	0.62	41.0
12	R2	All MCs	72	0.0	72	0.0	0.442	30.2	LOS D	1.4	10.0	0.93	1.04	1.17	4.5
Approach			199	0.0	199	0.0	0.442	15.4	LOS C	1.4	10.0	0.73	0.88	0.82	25.9
All Vehicles			1744	4.1	1744	4.1	0.442	1.8	NA	1.4	10.0	0.08	0.10	0.09	68.7

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

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MOVEMENT SUMMARY

Site: [S5-P2 AM] Stage 5 2036 AM Peak (7:30-8:30am) - Primary Access (Pearcedale Rd Access - Stage 5)

Network: [1 (3)] Stage 5 2036 AM Peak (7:30-8:30am) (School Access - Stage 5)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 2036 AM Peak (7:30-8:30am) - Primary Access
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
1	L2	All MCs	96	0.0	96	0.0	0.052	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	61.0
2	T1	All MCs	614	6.3	614	6.3	0.328	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			709	5.5	709	5.5	0.328	1.0	NA	0.0	0.0	0.00	0.09	0.00	76.6
North: Pearcedale Rd N															
8	T1	All MCs	512	6.4	512	6.4	0.273	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
9	R2	All MCs	365	0.0	365	0.0	0.599	15.9	LOS C	4.0	27.9	0.77	1.05	1.35	25.2
Approach			877	3.7	877	3.7	0.599	6.6	NA	4.0	27.9	0.32	0.44	0.56	60.5
West: School Entry & Exit															
10	L2	All MCs	127	0.0	127	0.0	0.200	5.9	LOS A	0.7	5.0	0.58	0.75	0.58	10.5
Approach			127	0.0	127	0.0	0.200	5.9	LOS A	0.7	5.0	0.58	0.75	0.58	10.5
All Vehicles			1714	4.2	1714	4.2	0.599	4.2	NA	4.0	27.9	0.21	0.32	0.33	66.2

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

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Thursday, 5 February 2026 2:15:57 PM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S5-P1 PM] Stage 5 2036 PM Peak (3-4pm) - Exit Only (Pearcedale Rd Access - Stage 5)

Network: [2 (3)] Stage 5 2036 PM Peak (3-4pm) (School Access - Stage 5)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 2036 PM Peak (3-4pm) - Exit Only
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
2	T1	All MCs	598	6.2	598	6.2	0.319	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			598	6.2	598	6.2	0.319	0.0	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Pearcedale Rd N															
8	T1	All MCs	907	9.2	907	9.2	0.493	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.5
Approach			907	9.2	907	9.2	0.493	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.5
West: School Exit Only															
10	L2	All MCs	136	0.0	136	0.0	0.158	5.8	LOS A	0.6	4.2	0.55	0.72	0.55	43.1
12	R2	All MCs	77	0.0	77	0.0	0.516	34.7	LOS D	1.7	11.9	0.94	1.07	1.25	4.0
Approach			213	0.0	213	0.0	0.516	16.2	LOS C	1.7	11.9	0.69	0.85	0.81	25.2
All Vehicles			1718	7.0	1718	7.0	0.516	2.1	NA	1.7	11.9	0.09	0.10	0.10	67.2

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

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Thursday, 5 February 2026 2:15:46 PM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S5-P2 PM] Stage 5 2036 PM Peak (3-4pm) - Primary Access (Pearcedale Rd Access - Stage 5)

Network: [2 (3)] Stage 5 2036 PM Peak (3-4pm) (School Access - Stage 5)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 2036 PM Peak (3-4pm) - Primary Access
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Peacedale Rd S															
1	L2	All MCs	58	0.0	58	0.0	0.031	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	61.0
2	T1	All MCs	462	8.0	462	8.0	0.249	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			520	7.1	520	7.1	0.249	0.8	NA	0.0	0.0	0.00	0.07	0.00	77.2
North: Pearcedale Rd N															
8	T1	All MCs	780	10.7	780	10.7	0.428	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.6
9	R2	All MCs	204	0.0	204	0.0	0.256	10.2	LOS B	1.1	7.6	0.57	0.78	0.58	32.9
Approach			984	8.4	984	8.4	0.428	2.1	NA	1.1	7.6	0.12	0.16	0.12	73.4
West: School Entry & Exit															
10	L2	All MCs	136	0.0	136	0.0	0.171	4.4	LOS A	0.6	4.4	0.50	0.66	0.50	12.8
Approach			136	0.0	136	0.0	0.171	4.4	LOS A	0.6	4.4	0.50	0.66	0.50	12.8
All Vehicles			1640	7.3	1640	7.3	0.428	1.9	NA	1.1	7.6	0.11	0.17	0.11	73.4

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

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Thursday, 5 February 2026 2:15:46 PM
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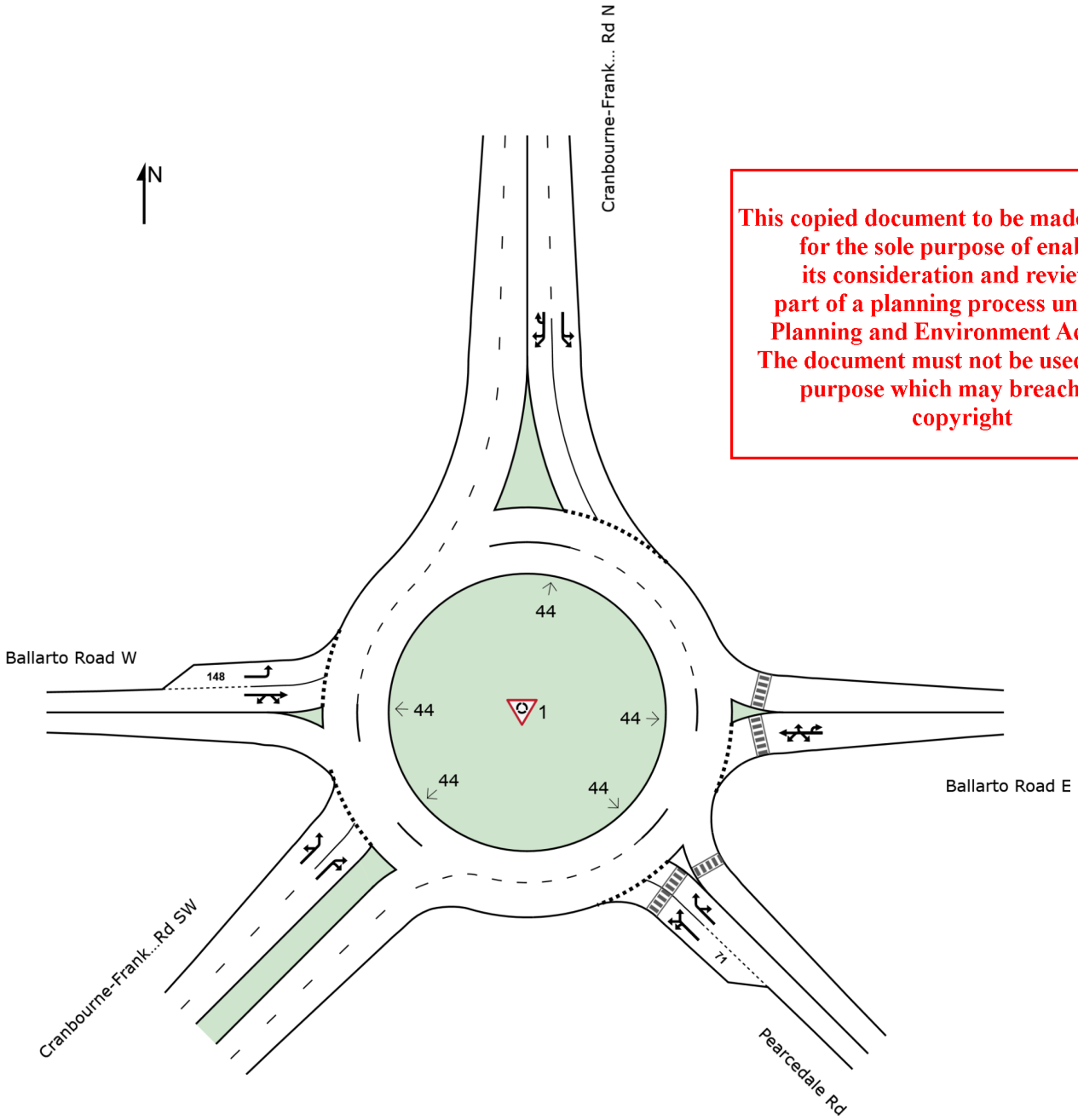
SITE LAYOUT

Site: [1] Existing 2025 AM Peak (7:30-8:30am) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Existing 2025 AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Existing 2025

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



MOVEMENT SUMMARY

Site: [1] Existing 2025 AM Peak (7:30-8:30am) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Existing 2025 AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Existing 2025

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	18	17.6	18	17.6	0.425	15.3	LOS B	3.5	25.8	0.96	0.83	1.06	60.5
21a	L1	All MCs	163	6.5	163	6.5	0.425	14.4	LOS B	3.5	25.8	0.96	0.83	1.06	59.2
23a	R1	All MCs	279	4.2	279	4.2	0.425	22.0	LOS C	3.5	25.8	0.94	0.87	1.07	59.8
23b	R3	All MCs	9	33.3	9	33.3	0.425	27.8	LOS C	3.1	23.0	0.93	0.88	1.07	56.6
Approach			469	6.1	469	6.1	0.425	19.2	LOS B	3.5	25.8	0.95	0.85	1.06	59.5
East: Ballarto Road E															
4b	L3	All MCs	16	33.3	16	33.3	0.143	8.9	LOS A	0.6	6.0	0.69	0.79	0.69	59.5
4a	L1	All MCs	20	42.1	20	42.1	0.143	9.2	LOS A	0.6	6.0	0.69	0.79	0.69	54.5
5	T1	All MCs	13	83.3	13	83.3	0.143	10.0	LOS B	0.6	6.0	0.69	0.79	0.69	55.3
6	R2	All MCs	13	83.3	13	83.3	0.143	17.3	LOS B	0.6	6.0	0.69	0.79	0.69	49.2
6u	U	All MCs	2	100.0	2	100.0	0.143	20.6	LOS C	0.6	6.0	0.69	0.79	0.69	55.7
Approach			63	58.3	63	58.3	0.143	11.0	LOS B	0.6	6.0	0.69	0.79	0.69	54.8
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	17	62.5	17	62.5	0.218	7.0	LOS A	1.0	7.5	0.29	0.46	0.29	57.6
7a	L1	All MCs	193	4.4	193	4.4	0.218	5.5	LOS A	1.0	7.5	0.29	0.46	0.29	69.5
9a	R1	All MCs	884	2.4	884	2.4	0.667	11.7	LOS B	6.0	42.7	0.43	0.61	0.43	56.1
9	R2	All MCs	137	1.5	137	1.5	0.667	13.3	LOS B	6.0	42.7	0.43	0.61	0.43	50.0
9u	U	All MCs	20	0.0	20	0.0	0.667	16.5	LOS B	6.0	42.7	0.43	0.61	0.43	57.1
Approach			1251	3.4	1251	3.4	0.667	10.9	LOS B	6.0	42.7	0.41	0.58	0.41	57.6
West: Ballarto Road W															
10	L2	All MCs	171	1.9	171	1.9	0.163	5.3	LOS A	0.9	6.1	0.66	0.65	0.66	60.0
11	T1	All MCs	20	57.9	20	57.9	0.109	7.5	LOS A	0.5	3.9	0.65	0.76	0.65	55.1
12a	R1	All MCs	47	11.1	47	11.1	0.109	11.6	LOS B	0.5	3.9	0.65	0.76	0.65	59.4
12b	R3	All MCs	2	0.0	2	0.0	0.109	13.8	LOS B	0.5	3.9	0.65	0.76	0.65	55.9
Approach			240	8.3	240	8.3	0.163	6.8	LOS A	0.9	6.1	0.66	0.68	0.66	59.1
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	2	0.0	2	0.0	0.582	7.4	LOS A	3.9	28.0	0.68	0.67	0.77	59.4
30a	L1	All MCs	655	2.1	655	2.1	0.582	7.2	LOS A	3.9	28.0	0.68	0.67	0.77	66.7
32a	R1	All MCs	15	35.7	15	35.7	0.043	14.1	LOS B	0.1	1.3	0.51	0.76	0.51	57.1
32	R2	All MCs	12	18.2	12	18.2	0.043	15.1	LOS B	0.1	1.3	0.51	0.76	0.51	63.4
Approach			683	3.1	683	3.1	0.582	7.5	LOS A	3.9	28.0	0.67	0.67	0.76	66.2
All Vehicles			2706	5.5	2706	5.5	0.667	11.1	LOS B	6.0	42.7	0.60	0.67	0.64	60.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Wednesday, 15 April 2026 9:21:18 AM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [2] Existing 2025 PM Peak (3-4pm) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Existing 2025 PM Peak (3-4pm)
Site Category: (None)
Roundabout
Site Scenario: 1 | Existing 2025

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	19	16.7	19	16.7	0.280	10.2	LOS B	2.0	14.5	0.85	0.75	0.85	62.6
21a	L1	All MCs	67	6.2	67	6.2	0.280	9.5	LOS A	2.0	14.5	0.85	0.75	0.85	61.1
23a	R1	All MCs	272	0.8	272	0.8	0.280	15.9	LOS B	2.0	14.5	0.84	0.77	0.84	64.1
23b	R3	All MCs	20	63.2	20	63.2	0.280	22.6	LOS C	1.8	13.3	0.83	0.80	0.83	58.2
Approach			378	5.8	378	5.8	0.280	14.8	LOS B	2.0	14.5	0.84	0.77	0.84	63.0
East: Ballarto Road E															
4b	L3	All MCs	17	12.5	17	12.5	0.141	6.9	LOS A	0.6	4.5	0.68	0.76	0.68	60.8
4a	L1	All MCs	26	4.0	26	4.0	0.141	6.7	LOS A	0.6	4.5	0.68	0.76	0.68	59.0
5	T1	All MCs	15	35.7	15	35.7	0.141	7.1	LOS A	0.6	4.5	0.68	0.76	0.68	56.1
6	R2	All MCs	21	15.0	21	15.0	0.141	13.3	LOS B	0.6	4.5	0.68	0.76	0.68	57.0
6u	U	All MCs	1	100.0	1	100.0	0.141	19.4	LOS B	0.6	4.5	0.68	0.76	0.68	56.1
Approach			80	15.8	80	15.8	0.141	8.4	LOS A	0.6	4.5	0.68	0.76	0.68	58.3
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	29	17.9	29	17.9	0.428	7.4	LOS A	2.6	18.8	0.57	0.58	0.57	57.2
7a	L1	All MCs	403	3.4	403	3.4	0.428	6.6	LOS A	2.6	18.8	0.57	0.58	0.57	67.7
9a	R1	All MCs	597	1.8	597	1.8	0.621	13.0	LOS B	5.4	38.2	0.66	0.69	0.69	54.6
9	R2	All MCs	166	1.9	166	1.9	0.621	14.6	LOS B	5.4	38.2	0.66	0.69	0.69	48.7
9u	U	All MCs	44	0.0	44	0.0	0.621	17.8	LOS B	5.4	38.2	0.66	0.69	0.69	55.5
Approach			1240	2.6	1240	2.6	0.621	11.2	LOS B	5.4	38.2	0.63	0.65	0.65	58.3
West: Ballarto Road W															
10	L2	All MCs	171	1.2	171	1.2	0.255	7.5	LOS A	1.3	9.4	0.76	0.76	0.76	59.3
11	T1	All MCs	39	24.3	39	24.3	0.289	6.6	LOS A	1.7	12.7	0.78	0.77	0.78	55.2
12a	R1	All MCs	212	4.5	212	4.5	0.289	11.7	LOS B	1.7	12.7	0.78	0.77	0.78	59.7
12b	R3	All MCs	3	33.3	3	33.3	0.289	15.3	LOS B	1.7	12.7	0.78	0.77	0.78	49.4
12u	U	All MCs	1	0.0	1	0.0	0.289	15.5	LOS B	1.7	12.7	0.78	0.77	0.78	50.9
Approach			425	5.2	425	5.2	0.289	9.6	LOS A	1.7	12.7	0.77	0.76	0.77	58.8
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	1	0.0	1	0.0	0.682	8.1	LOS A	5.4	38.7	0.71	0.76	0.86	59.2
30a	L1	All MCs	799	2.2	799	2.2	0.682	7.9	LOS A	5.4	38.7	0.71	0.76	0.86	66.5
32a	R1	All MCs	16	13.3	16	13.3	0.063	13.3	LOS B	0.2	1.6	0.47	0.76	0.47	57.3
32	R2	All MCs	28	7.4	28	7.4	0.063	14.7	LOS B	0.2	1.6	0.47	0.76	0.47	64.0
32u	U	All MCs	1	0.0	1	0.0	0.063	13.9	LOS B	0.2	1.6	0.47	0.76	0.47	55.6
Approach			845	2.6	845	2.6	0.682	8.2	LOS A	5.4	38.7	0.70	0.76	0.84	66.0

All Vehicles	2968	3.8	2968	3.8	0.682	10.5	LOS B	5.4	38.7	0.70	0.72	0.74	61.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: [S1B AM] Stage 1 Future Base AM Peak (7:30-8:30am)

(Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 Future Base AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 1 AM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	19	16.7	19	16.7	0.530	20.7	LOS C	5.2	38.6	1.00	0.94	1.31	57.4
21a	L1	All MCs	180	6.4	180	6.4	0.530	19.8	LOS B	5.2	38.6	1.00	0.94	1.31	56.1
23a	R1	All MCs	308	4.1	308	4.1	0.530	27.6	LOS C	5.2	38.6	0.99	0.95	1.32	56.6
23b	R3	All MCs	11	30.0	11	30.0	0.530	33.6	LOS C	4.5	33.3	0.98	0.96	1.33	54.8
Approach			518	5.9	518	5.9	0.530	24.8	LOS C	5.2	38.6	0.99	0.95	1.32	56.4
East: Ballarto Road E															
4b	L3	All MCs	18	29.4	18	29.4	0.169	9.4	LOS A	0.7	7.2	0.72	0.82	0.72	59.4
4a	L1	All MCs	21	40.0	21	40.0	0.169	8.9	LOS A	0.7	7.2	0.72	0.82	0.72	54.5
5	T1	All MCs	14	84.6	14	84.6	0.169	11.0	LOS B	0.7	7.2	0.72	0.82	0.72	55.1
6	R2	All MCs	14	84.6	14	84.6	0.169	18.3	LOS B	0.7	7.2	0.72	0.82	0.72	48.9
6u	U	All MCs	2	100.0	2	100.0	0.169	21.6	LOS C	0.7	7.2	0.72	0.82	0.72	55.5
Approach			68	56.9	68	56.9	0.169	11.7	LOS B	0.7	7.2	0.72	0.82	0.72	54.7
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	18	64.7	18	64.7	0.251	7.2	LOS A	1.2	8.9	0.32	0.47	0.32	57.5
7a	L1	All MCs	223	3.8	223	3.8	0.251	5.6	LOS A	1.2	8.9	0.32	0.47	0.32	69.4
9a	R1	All MCs	933	2.4	933	2.4	0.710	11.8	LOS B	6.9	49.4	0.49	0.61	0.49	55.8
9	R2	All MCs	144	1.5	144	1.5	0.710	13.4	LOS B	6.9	49.4	0.49	0.61	0.49	49.7
9u	U	All MCs	21	0.0	21	0.0	0.710	16.6	LOS B	6.9	49.4	0.49	0.61	0.49	56.8
Approach			1339	3.3	1339	3.3	0.710	11.0	LOS B	6.9	49.4	0.46	0.59	0.46	57.5
West: Ballarto Road W															
10	L2	All MCs	174	1.8	174	1.8	0.174	5.5	LOS A	0.9	6.7	0.69	0.68	0.69	59.9
11	T1	All MCs	21	60.0	21	60.0	0.126	7.9	LOS A	0.6	4.7	0.68	0.78	0.68	54.9
12a	R1	All MCs	49	10.6	49	10.6	0.126	11.9	LOS B	0.6	4.7	0.68	0.78	0.68	59.1
12b	R3	All MCs	7	0.0	7	0.0	0.126	14.0	LOS B	0.6	4.7	0.68	0.78	0.68	55.6
Approach			252	8.4	252	8.4	0.174	7.2	LOS A	0.9	6.7	0.69	0.71	0.69	58.8
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	2	0.0	2	0.0	0.637	7.9	LOS A	4.8	33.9	0.74	0.74	0.88	59.1
30a	L1	All MCs	691	2.1	691	2.1	0.637	7.7	LOS A	4.8	33.9	0.74	0.74	0.88	66.4
32a	R1	All MCs	15	35.7	15	35.7	0.046	14.2	LOS B	0.2	1.4	0.53	0.78	0.53	57.0
32	R2	All MCs	13	16.7	13	16.7	0.046	15.1	LOS B	0.2	1.4	0.53	0.78	0.53	63.4
Approach			720	3.1	720	3.1	0.637	8.0	LOS A	4.8	33.9	0.73	0.74	0.86	65.9
All Vehicles			2897	5.4	2897	5.4	0.710	12.4	LOS B	6.9	49.4	0.65	0.70	0.74	59.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Wednesday, 15 April 2026 9:21:18 AM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S1B PM] Stage 1 Future Base PM Peak (3-4pm)

(Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 Future Base PM Peak (3-4pm)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 1 Base PM

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	21	15.0	21	15.0	0.339	10.9	LOS B	2.6	18.6	0.90	0.77	0.90	62.5
21a	L1	All MCs	75	5.6	75	5.6	0.339	10.2	LOS B	2.6	18.6	0.90	0.77	0.90	60.7
23a	R1	All MCs	304	0.7	304	0.7	0.339	16.7	LOS B	2.6	18.6	0.89	0.79	0.89	63.6
23b	R3	All MCs	22	61.9	22	61.9	0.339	23.6	LOS C	2.3	16.8	0.88	0.81	0.88	58.0
Approach			422	5.5	422	5.5	0.339	15.6	LOS B	2.6	18.6	0.89	0.79	0.89	62.6
East: Ballarto Road E															
4b	L3	All MCs	18	11.8	18	11.8	0.157	7.2	LOS A	0.6	5.1	0.71	0.79	0.71	60.7
4a	L1	All MCs	27	3.8	27	3.8	0.157	6.8	LOS A	0.6	5.1	0.71	0.79	0.71	58.9
5	T1	All MCs	15	35.7	15	35.7	0.157	7.5	LOS A	0.6	5.1	0.71	0.79	0.71	56.0
6	R2	All MCs	22	14.3	22	14.3	0.157	13.7	LOS B	0.6	5.1	0.71	0.79	0.71	57.0
6u	U	All MCs	1	100.0	1	100.0	0.157	19.9	LOS B	0.6	5.1	0.71	0.79	0.71	56.0
Approach			83	15.2	83	15.2	0.157	8.7	LOS A	0.6	5.1	0.71	0.79	0.71	58.3
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	31	17.2	31	17.2	0.470	7.6	LOS A	3.0	21.7	0.61	0.60	0.61	57.1
7a	L1	All MCs	437	3.4	437	3.4	0.470	6.8	LOS A	3.0	21.7	0.61	0.60	0.61	67.5
9a	R1	All MCs	629	1.8	629	1.8	0.667	13.6	LOS B	6.6	46.7	0.72	0.72	0.79	53.9
9	R2	All MCs	175	1.8	175	1.8	0.667	15.3	LOS B	6.6	46.7	0.72	0.72	0.79	48.1
9u	U	All MCs	46	0.0	46	0.0	0.667	18.4	LOS B	6.6	46.7	0.72	0.72	0.79	54.8
Approach			1318	2.6	1318	2.6	0.667	11.6	LOS B	6.6	46.7	0.68	0.68	0.73	57.9
West: Ballarto Road W															
10	L2	All MCs	180	1.2	180	1.2	0.290	8.0	LOS A	1.6	11.1	0.79	0.79	0.79	58.9
11	T1	All MCs	41	23.1	41	23.1	0.329	7.1	LOS A	2.0	15.2	0.82	0.79	0.82	55.1
12a	R1	All MCs	222	4.3	222	4.3	0.329	12.2	LOS B	2.0	15.2	0.82	0.79	0.82	59.5
12b	R3	All MCs	9	11.1	9	11.1	0.329	15.0	LOS B	2.0	15.2	0.82	0.79	0.82	53.3
12u	U	All MCs	1	0.0	1	0.0	0.329	15.9	LOS B	2.0	15.2	0.82	0.79	0.82	50.7
Approach			454	4.9	454	4.9	0.329	10.1	LOS B	2.0	15.2	0.81	0.79	0.81	58.5
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	1	0.0	1	0.0	0.742	8.9	LOS A	6.7	47.9	0.78	0.84	1.00	57.6
30a	L1	All MCs	843	2.2	843	2.2	0.742	8.8	LOS A	6.7	47.9	0.78	0.84	1.00	64.6
32a	R1	All MCs	17	12.5	17	12.5	0.069	13.4	LOS B	0.2	1.8	0.50	0.77	0.50	57.3
32	R2	All MCs	31	6.9	31	6.9	0.069	14.8	LOS B	0.2	1.8	0.50	0.77	0.50	63.9
32u	U	All MCs	1	0.0	1	0.0	0.069	14.1	LOS B	0.2	1.8	0.50	0.77	0.50	55.5
Approach			893	2.6	893	2.6	0.742	9.1	LOS A	6.7	47.9	0.76	0.83	0.97	64.2

All Vehicles	3169	3.7	3169	3.7	0.742	11.1	LOS B	6.7	47.9	0.75	0.76	0.83	60.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: [S1 AM] Stage 1 AM Peak (7:30-8:30am) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 1 AM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	23	13.6	23	13.6	0.675	27.4	LOS C	8.4	61.1	1.00	1.08	1.62	54.3
21a	L1	All MCs	224	5.2	224	5.2	0.675	26.5	LOS C	8.4	61.1	1.00	1.08	1.62	52.6
23a	R1	All MCs	384	3.3	384	3.3	0.675	34.5	LOS C	8.4	61.1	1.00	1.08	1.62	53.3
23b	R3	All MCs	12	27.3	12	27.3	0.675	40.4	LOS D	7.1	51.3	1.00	1.08	1.62	52.8
Approach			643	4.7	643	4.7	0.675	31.6	LOS C	8.4	61.1	1.00	1.08	1.62	53.1
East: Ballarto Road E															
4b	L3	All MCs	22	23.8	22	23.8	0.190	9.5	LOS A	0.8	8.1	0.75	0.85	0.75	59.5
4a	L1	All MCs	21	40.0	21	40.0	0.190	9.3	LOS A	0.8	8.1	0.75	0.85	0.75	54.4
5	T1	All MCs	14	84.6	14	84.6	0.190	11.4	LOS B	0.8	8.1	0.75	0.85	0.75	55.0
6	R2	All MCs	14	84.6	14	84.6	0.190	18.8	LOS B	0.8	8.1	0.75	0.85	0.75	48.8
6u	U	All MCs	2	100.0	2	100.0	0.190	22.1	LOS C	0.8	8.1	0.75	0.85	0.75	55.5
Approach			73	53.6	73	53.6	0.190	11.9	LOS B	0.8	8.1	0.75	0.85	0.75	55.0
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	18	64.7	18	64.7	0.344	7.5	LOS A	1.8	13.5	0.38	0.48	0.38	57.3
7a	L1	All MCs	339	2.5	339	2.5	0.344	5.7	LOS A	1.8	13.5	0.38	0.48	0.38	69.0
9a	R1	All MCs	933	2.4	933	2.4	0.731	12.1	LOS B	7.3	52.1	0.57	0.63	0.57	55.4
9	R2	All MCs	144	1.5	144	1.5	0.731	13.7	LOS B	7.3	52.1	0.57	0.63	0.57	49.4
9u	U	All MCs	21	0.0	21	0.0	0.731	16.9	LOS B	7.3	52.1	0.57	0.63	0.57	56.4
Approach			1455	3.0	1455	3.0	0.731	10.8	LOS B	7.3	52.1	0.52	0.59	0.52	58.2
West: Ballarto Road W															
10	L2	All MCs	174	1.8	174	1.8	0.178	5.7	LOS A	1.0	6.9	0.71	0.69	0.71	59.8
11	T1	All MCs	21	60.0	21	60.0	0.167	8.3	LOS A	0.8	6.1	0.70	0.80	0.70	54.9
12a	R1	All MCs	81	6.5	81	6.5	0.167	11.9	LOS B	0.8	6.1	0.70	0.80	0.70	59.3
12b	R3	All MCs	2	0.0	2	0.0	0.167	14.3	LOS B	0.8	6.1	0.70	0.80	0.70	55.5
Approach			278	7.6	278	7.6	0.178	7.8	LOS A	1.0	6.9	0.71	0.73	0.71	59.0
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	2	0.0	2	0.0	0.684	8.7	LOS A	5.5	39.2	0.81	0.82	1.01	57.6
30a	L1	All MCs	691	2.1	691	2.1	0.684	8.5	LOS A	5.5	39.2	0.81	0.82	1.01	64.6
32a	R1	All MCs	15	35.7	15	35.7	0.059	14.6	LOS B	0.2	1.8	0.57	0.81	0.57	56.9
32	R2	All MCs	19	11.1	19	11.1	0.059	15.2	LOS B	0.2	1.8	0.57	0.81	0.57	63.5
Approach			726	3.0	726	3.0	0.684	8.8	LOS A	5.5	39.2	0.80	0.82	0.99	64.2
All Vehicles			3175	4.9	3175	4.9	0.731	14.3	LOS B	8.4	61.1	0.70	0.76	0.87	57.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Wednesday, 15 April 2026 9:21:19 AM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S1 PM] Stage 1 PM Peak (3-4pm) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 1 PM Peak (3-4pm)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 1 PM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	27	11.5	27	11.5	0.470	12.1	LOS B	4.1	29.4	0.96	0.82	1.06	62.3
21a	L1	All MCs	103	4.1	103	4.1	0.470	11.5	LOS B	4.1	29.4	0.96	0.82	1.06	59.8
23a	R1	All MCs	422	0.5	422	0.5	0.470	18.3	LOS B	4.1	29.4	0.94	0.84	1.06	62.6
23b	R3	All MCs	25	54.2	25	54.2	0.470	25.2	LOS C	3.7	26.9	0.93	0.87	1.07	57.4
Approach			578	4.0	578	4.0	0.470	17.1	LOS B	4.1	29.4	0.94	0.84	1.06	61.7
East: Ballarto Road E															
4b	L3	All MCs	21	10.0	21	10.0	0.173	7.2	LOS A	0.7	5.6	0.73	0.81	0.73	60.7
4a	L1	All MCs	27	3.8	27	3.8	0.173	6.4	LOS A	0.7	5.6	0.73	0.81	0.73	58.9
5	T1	All MCs	15	35.7	15	35.7	0.173	7.7	LOS A	0.7	5.6	0.73	0.81	0.73	56.0
6	R2	All MCs	22	14.3	22	14.3	0.173	13.8	LOS B	0.7	5.6	0.73	0.81	0.73	57.0
6u	U	All MCs	1	100.0	1	100.0	0.173	20.2	LOS C	0.7	5.6	0.73	0.81	0.73	56.0
Approach			86	14.6	86	14.6	0.173	8.8	LOS A	0.7	5.6	0.73	0.81	0.73	58.3
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	31	17.2	31	17.2	0.549	8.5	LOS A	4.2	30.1	0.69	0.65	0.74	56.7
7a	L1	All MCs	508	2.9	508	2.9	0.549	7.6	LOS A	4.2	30.1	0.69	0.65	0.74	66.5
9a	R1	All MCs	629	1.8	629	1.8	0.695	14.4	LOS B	7.5	53.2	0.78	0.76	0.90	53.3
9	R2	All MCs	175	1.8	175	1.8	0.695	16.1	LOS B	7.5	53.2	0.78	0.76	0.90	47.6
9u	U	All MCs	46	0.0	46	0.0	0.695	19.2	LOS B	7.5	53.2	0.78	0.76	0.90	54.1
Approach			1389	2.5	1389	2.5	0.695	12.2	LOS B	7.5	53.2	0.75	0.72	0.84	57.7
West: Ballarto Road W															
10	L2	All MCs	180	1.2	180	1.2	0.313	8.6	LOS A	1.7	12.1	0.82	0.81	0.82	58.4
11	T1	All MCs	41	23.1	41	23.1	0.397	8.2	LOS A	2.7	19.7	0.87	0.85	0.93	54.7
12a	R1	All MCs	266	3.6	266	3.6	0.397	13.1	LOS B	2.7	19.7	0.87	0.85	0.93	58.9
12b	R3	All MCs	3	33.3	3	33.3	0.397	16.9	LOS B	2.7	19.7	0.87	0.85	0.93	48.7
12u	U	All MCs	1	0.0	1	0.0	0.397	16.9	LOS B	2.7	19.7	0.87	0.85	0.93	50.1
Approach			492	4.5	492	4.5	0.397	11.1	LOS B	2.7	19.7	0.85	0.83	0.89	58.1
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	1	0.0	1	0.0	0.809	10.6	LOS B	8.4	60.1	0.88	0.96	1.25	56.2
30a	L1	All MCs	843	2.2	843	2.2	0.809	10.5	LOS B	8.4	60.1	0.88	0.96	1.25	62.8
32a	R1	All MCs	17	12.5	17	12.5	0.082	13.7	LOS B	0.3	2.3	0.56	0.80	0.56	57.2
32	R2	All MCs	36	5.9	36	5.9	0.082	15.1	LOS B	0.3	2.3	0.56	0.80	0.56	63.8
32u	U	All MCs	1	0.0	1	0.0	0.082	14.4	LOS B	0.3	2.3	0.56	0.80	0.56	55.3
Approach			898	2.6	898	2.6	0.809	10.7	LOS B	8.4	60.1	0.86	0.95	1.21	62.7

All Vehicles	3443	3.4	3443	3.4	0.809	12.4	LOS B	8.4	60.1	0.82	0.82	0.98	59.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: [S3 AM] Stage 3 AM Peak (7:30-8:30am) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 3 AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 3 AM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	24	13.0	24	13.0	0.799	44.1	LOS D	12.8	93.1	1.00	1.29	2.12	47.1
21a	L1	All MCs	233	5.0	233	5.0	0.799	43.3	LOS D	12.8	93.1	1.00	1.29	2.12	45.6
23a	R1	All MCs	399	3.2	399	3.2	0.799	51.7	LOS E	12.8	93.1	1.00	1.26	2.09	46.3
23b	R3	All MCs	13	25.0	13	25.0	0.799	57.8	LOS E	10.4	75.6	1.00	1.25	2.07	48.3
Approach			668	4.6	668	4.6	0.799	48.6	LOS D	12.8	93.1	1.00	1.27	2.10	46.1
East: Ballarto Road E															
4b	L3	All MCs	27	23.1	27	23.1	0.224	10.3	LOS B	1.0	9.8	0.78	0.87	0.78	59.2
4a	L1	All MCs	22	42.9	22	42.9	0.224	10.3	LOS B	1.0	9.8	0.78	0.87	0.78	53.8
5	T1	All MCs	14	84.6	14	84.6	0.224	12.4	LOS B	1.0	9.8	0.78	0.87	0.78	54.7
6	R2	All MCs	14	84.6	14	84.6	0.224	19.8	LOS B	1.0	9.8	0.78	0.87	0.78	48.6
6u	U	All MCs	2	100.0	2	100.0	0.224	23.2	LOS C	1.0	9.8	0.78	0.87	0.78	55.3
Approach			79	52.0	79	52.0	0.224	12.6	LOS B	1.0	9.8	0.78	0.87	0.78	54.9
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	19	61.1	19	61.1	0.361	7.5	LOS A	2.0	14.3	0.40	0.49	0.40	57.3
7a	L1	All MCs	349	2.7	349	2.7	0.361	5.8	LOS A	2.0	14.3	0.40	0.49	0.40	68.9
9a	R1	All MCs	981	2.4	981	2.4	0.774	12.3	LOS B	8.5	60.8	0.63	0.64	0.63	55.1
9	R2	All MCs	152	1.4	152	1.4	0.774	13.9	LOS B	8.5	60.8	0.63	0.64	0.63	49.1
9u	U	All MCs	22	0.0	22	0.0	0.774	17.0	LOS B	8.5	60.8	0.63	0.64	0.63	56.1
Approach			1523	3.0	1523	3.0	0.774	11.0	LOS B	8.5	60.8	0.57	0.60	0.57	57.8
West: Ballarto Road W															
10	L2	All MCs	183	1.7	183	1.7	0.195	5.9	LOS A	1.1	7.8	0.74	0.71	0.74	59.7
11	T1	All MCs	22	57.1	22	57.1	0.182	8.6	LOS A	0.8	6.8	0.72	0.81	0.72	54.8
12a	R1	All MCs	84	7.5	84	7.5	0.182	12.3	LOS B	0.8	6.8	0.72	0.81	0.72	59.1
12b	R3	All MCs	2	0.0	2	0.0	0.182	14.6	LOS B	0.8	6.8	0.72	0.81	0.72	55.3
Approach			292	7.6	292	7.6	0.195	8.0	LOS A	1.1	7.8	0.73	0.75	0.73	58.8
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	2	0.0	2	0.0	0.733	9.4	LOS A	6.4	45.6	0.85	0.90	1.10	57.1
30a	L1	All MCs	726	2.0	726	2.0	0.733	9.2	LOS A	6.4	45.6	0.85	0.90	1.10	64.0
32a	R1	All MCs	17	37.5	17	37.5	0.066	14.7	LOS B	0.2	2.0	0.59	0.81	0.59	56.9
32	R2	All MCs	20	10.5	20	10.5	0.066	15.3	LOS B	0.2	2.0	0.59	0.81	0.59	63.6
Approach			765	3.0	765	3.0	0.733	9.5	LOS A	6.4	45.6	0.83	0.89	1.08	63.6
All Vehicles			3327	4.9	3327	4.9	0.799	18.0	LOS B	12.8	93.1	0.74	0.82	1.02	55.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Wednesday, 15 April 2026 9:21:20 AM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S3 PM] Stage 3 PM Peak (3-4pm) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 3 PM Peak (3-4pm)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 3 PM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	27	11.5	27	11.5	0.513	14.0	LOS B	4.8	34.7	1.00	0.85	1.17	61.2
21a	L1	All MCs	102	4.1	102	4.1	0.513	13.3	LOS B	4.8	34.7	1.00	0.85	1.17	58.8
23a	R1	All MCs	421	0.5	421	0.5	0.513	20.2	LOS C	4.8	34.7	0.98	0.88	1.17	61.4
23b	R3	All MCs	25	54.2	25	54.2	0.513	27.4	LOS C	4.2	31.2	0.97	0.90	1.17	56.8
Approach			576	4.0	576	4.0	0.513	19.0	LOS B	4.8	34.7	0.98	0.87	1.17	60.6
East: Ballarto Road E															
4b	L3	All MCs	21	10.0	21	10.0	0.195	7.6	LOS A	0.8	6.6	0.75	0.83	0.75	60.6
4a	L1	All MCs	29	3.6	29	3.6	0.195	8.1	LOS A	0.8	6.6	0.75	0.83	0.75	58.8
5	T1	All MCs	17	37.5	17	37.5	0.195	8.1	LOS A	0.8	6.6	0.75	0.83	0.75	55.9
6	R2	All MCs	23	13.6	23	13.6	0.195	14.1	LOS B	0.8	6.6	0.75	0.83	0.75	56.9
6u	U	All MCs	1	100.0	1	100.0	0.195	20.7	LOS C	0.8	6.6	0.75	0.83	0.75	55.9
Approach			92	14.9	92	14.9	0.195	9.1	LOS A	0.8	6.6	0.75	0.83	0.75	58.2
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	34	18.8	34	18.8	0.574	8.9	LOS A	4.6	33.3	0.72	0.67	0.79	56.5
7a	L1	All MCs	521	2.8	521	2.8	0.574	8.0	LOS A	4.6	33.3	0.72	0.67	0.79	66.1
9a	R1	All MCs	662	1.7	662	1.7	0.738	15.2	LOS B	8.9	63.2	0.83	0.79	0.99	52.6
9	R2	All MCs	184	1.7	184	1.7	0.738	16.8	LOS B	8.9	63.2	0.83	0.79	0.99	47.0
9u	U	All MCs	49	0.0	49	0.0	0.738	19.9	LOS B	8.9	63.2	0.83	0.79	0.99	53.4
Approach			1451	2.5	1451	2.5	0.738	12.8	LOS B	8.9	63.2	0.79	0.75	0.91	57.0
West: Ballarto Road W															
10	L2	All MCs	188	1.1	188	1.1	0.349	9.5	LOS A	2.0	14.2	0.85	0.85	0.90	57.7
11	T1	All MCs	43	24.4	43	24.4	0.433	9.1	LOS A	3.1	23.0	0.90	0.88	1.02	54.4
12a	R1	All MCs	273	3.9	273	3.9	0.433	14.0	LOS B	3.1	23.0	0.90	0.88	1.02	58.4
12b	R3	All MCs	3	33.3	3	33.3	0.433	17.8	LOS B	3.1	23.0	0.90	0.88	1.02	48.3
12u	U	All MCs	1	0.0	1	0.0	0.433	17.8	LOS B	3.1	23.0	0.90	0.88	1.02	49.6
Approach			508	4.8	508	4.8	0.433	12.0	LOS B	3.1	23.0	0.88	0.87	0.97	57.6
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	1	0.0	1	0.0	0.863	12.4	LOS B	10.6	75.3	0.92	1.04	1.47	54.9
30a	L1	All MCs	886	2.3	886	2.3	0.863	12.2	LOS B	10.6	75.3	0.92	1.04	1.47	61.3
32a	R1	All MCs	17	12.5	17	12.5	0.083	13.8	LOS B	0.3	2.4	0.57	0.80	0.57	57.1
32	R2	All MCs	36	5.9	36	5.9	0.083	15.1	LOS B	0.3	2.4	0.57	0.80	0.57	63.7
32u	U	All MCs	1	0.0	1	0.0	0.083	14.4	LOS B	0.3	2.4	0.57	0.80	0.57	55.3
Approach			941	2.6	941	2.6	0.863	12.3	LOS B	10.6	75.3	0.90	1.03	1.41	61.3

All Vehicles	3567	3.4	3567	3.4	0.863	13.5	LOS B	10.6	75.3	0.86	0.86	1.09	58.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: [S5B AM] Stage 5 Future Base AM Peak (7:30-8:30am)

(Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 Future Base AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 5 Base AM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	23	18.2	23	18.2	0.889	79.0	LOS F	17.7	130.4	1.00	1.52	2.78	36.5
21a	L1	All MCs	203	6.2	203	6.2	0.889	77.8	LOS F	17.7	130.4	1.00	1.52	2.78	35.9
23a	R1	All MCs	348	3.9	348	3.9	0.889	86.6	LOS F	17.7	130.4	1.00	1.47	2.68	36.4
23b	R3	All MCs	13	33.3	13	33.3	0.889	94.2	LOS F	13.9	102.0	1.00	1.45	2.64	41.1
Approach			587	5.9	587	5.9	0.889	83.4	LOS F	17.7	130.4	1.00	1.49	2.72	36.4
East: Ballarto Road E															
4b	L3	All MCs	20	31.6	20	31.6	0.243	11.9	LOS B	1.1	11.4	0.81	0.88	0.81	58.4
4a	L1	All MCs	24	43.5	24	43.5	0.243	11.5	LOS B	1.1	11.4	0.81	0.88	0.81	53.2
5	T1	All MCs	15	85.7	15	85.7	0.243	13.8	LOS B	1.1	11.4	0.81	0.88	0.81	54.2
6	R2	All MCs	15	85.7	15	85.7	0.243	21.2	LOS C	1.1	11.4	0.81	0.88	0.81	48.1
6u	U	All MCs	2	100.0	2	100.0	0.243	24.6	LOS C	1.1	11.4	0.81	0.88	0.81	54.9
Approach			76	58.3	76	58.3	0.243	14.3	LOS B	1.1	11.4	0.81	0.88	0.81	53.8
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	20	63.2	20	63.2	0.290	7.5	LOS A	1.4	10.8	0.36	0.48	0.36	57.4
7a	L1	All MCs	253	4.2	253	4.2	0.290	5.8	LOS A	1.4	10.8	0.36	0.48	0.36	69.1
9a	R1	All MCs	1061	2.4	1061	2.4	0.820	12.3	LOS B	10.7	76.1	0.66	0.63	0.66	54.9
9	R2	All MCs	164	1.3	164	1.3	0.820	13.9	LOS B	10.7	76.1	0.66	0.63	0.66	49.0
9u	U	All MCs	24	0.0	24	0.0	0.820	17.1	LOS B	10.7	76.1	0.66	0.63	0.66	55.9
Approach			1522	3.3	1522	3.3	0.820	11.4	LOS B	10.7	76.1	0.61	0.60	0.61	56.8
West: Ballarto Road W															
10	L2	All MCs	199	2.1	199	2.1	0.224	6.2	LOS A	1.3	9.4	0.77	0.73	0.77	59.5
11	T1	All MCs	24	56.5	24	56.5	0.162	8.8	LOS A	0.8	6.4	0.74	0.82	0.74	54.7
12a	R1	All MCs	57	11.1	57	11.1	0.162	12.6	LOS B	0.8	6.4	0.74	0.82	0.74	58.7
12b	R3	All MCs	7	0.0	7	0.0	0.162	14.8	LOS B	0.8	6.4	0.74	0.82	0.74	55.1
Approach			287	8.4	287	8.4	0.224	7.9	LOS A	1.3	9.4	0.76	0.75	0.76	58.5
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	2	0.0	2	0.0	0.765	9.7	LOS A	7.2	51.2	0.85	0.91	1.14	56.9
30a	L1	All MCs	786	2.1	786	2.1	0.765	9.5	LOS A	7.2	51.2	0.85	0.91	1.14	63.7
32a	R1	All MCs	18	35.3	18	35.3	0.058	14.5	LOS B	0.2	1.8	0.56	0.80	0.56	57.0
32	R2	All MCs	15	14.3	15	14.3	0.058	15.3	LOS B	0.2	1.8	0.56	0.80	0.56	63.5
Approach			821	3.1	821	3.1	0.765	9.7	LOS A	7.2	51.2	0.84	0.90	1.12	63.3
All Vehicles			3294	5.4	3294	5.4	0.889	23.6	LOS C	17.7	130.4	0.75	0.86	1.13	51.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Wednesday, 15 April 2026 9:21:22 AM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S5B PM] Stage 5 Future Base PM Peak (3-4pm)

(Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 Future Base PM Peak (3-4pm)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 5 Base PM

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	24	17.4	24	17.4	0.504	16.0	LOS B	4.8	34.6	1.00	0.89	1.18	59.1
21a	L1	All MCs	85	6.2	85	6.2	0.504	15.2	LOS B	4.8	34.6	1.00	0.89	1.18	57.8
23a	R1	All MCs	344	0.6	344	0.6	0.504	22.2	LOS C	4.8	34.6	1.00	0.90	1.19	60.2
23b	R3	All MCs	24	60.9	24	60.9	0.504	30.2	LOS C	4.1	30.9	0.99	0.91	1.20	56.0
Approach			478	5.5	478	5.5	0.504	21.0	LOS C	4.8	34.6	1.00	0.90	1.19	59.3
East: Ballarto Road E															
4b	L3	All MCs	20	10.5	20	10.5	0.221	8.2	LOS A	1.0	7.8	0.78	0.86	0.78	60.4
4a	L1	All MCs	32	3.3	32	3.3	0.221	7.8	LOS A	1.0	7.8	0.78	0.86	0.78	58.6
5	T1	All MCs	18	35.3	18	35.3	0.221	8.7	LOS A	1.0	7.8	0.78	0.86	0.78	55.7
6	R2	All MCs	25	16.7	25	16.7	0.221	14.9	LOS B	1.0	7.8	0.78	0.86	0.78	56.4
6u	U	All MCs	1	100.0	1	100.0	0.221	21.5	LOS C	1.0	7.8	0.78	0.86	0.78	55.8
Approach			96	15.4	96	15.4	0.221	9.8	LOS A	1.0	7.8	0.78	0.86	0.78	57.9
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	36	17.6	36	17.6	0.562	8.8	LOS A	4.4	31.9	0.71	0.67	0.77	56.5
7a	L1	All MCs	496	3.4	496	3.4	0.562	7.9	LOS A	4.4	31.9	0.71	0.67	0.77	66.2
9a	R1	All MCs	717	1.8	717	1.8	0.795	16.1	LOS B	11.2	79.4	0.89	0.83	1.11	51.7
9	R2	All MCs	200	2.1	200	2.1	0.795	17.8	LOS B	11.2	79.4	0.89	0.83	1.11	46.2
9u	U	All MCs	53	0.0	53	0.0	0.795	20.9	LOS C	11.2	79.4	0.89	0.83	1.11	52.5
Approach			1501	2.7	1501	2.7	0.795	13.6	LOS B	11.2	79.4	0.82	0.77	0.99	56.0
West: Ballarto Road W															
10	L2	All MCs	204	1.0	204	1.0	0.403	10.7	LOS B	2.5	17.7	0.88	0.89	1.00	56.8
11	T1	All MCs	47	24.4	47	24.4	0.450	9.8	LOS A	3.4	25.1	0.93	0.89	1.06	54.2
12a	R1	All MCs	254	4.6	254	4.6	0.450	14.7	LOS B	3.4	25.1	0.93	0.89	1.06	58.0
12b	R3	All MCs	9	11.1	9	11.1	0.450	17.6	LOS B	3.4	25.1	0.93	0.89	1.06	51.7
12u	U	All MCs	1	0.0	1	0.0	0.450	18.5	LOS B	3.4	25.1	0.93	0.89	1.06	49.3
Approach			516	5.1	516	5.1	0.450	12.8	LOS B	3.4	25.1	0.91	0.89	1.04	56.9
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	1	0.0	1	0.0	0.896	13.7	LOS B	12.8	91.5	0.94	1.10	1.61	54.0
30a	L1	All MCs	959	2.2	959	2.2	0.896	13.5	LOS B	12.8	91.5	0.94	1.10	1.61	60.3
32a	R1	All MCs	19	11.1	19	11.1	0.082	13.6	LOS B	0.3	2.3	0.54	0.79	0.54	57.2
32	R2	All MCs	35	6.1	35	6.1	0.082	15.0	LOS B	0.3	2.3	0.54	0.79	0.54	63.9
32u	U	All MCs	1	0.0	1	0.0	0.082	14.3	LOS B	0.3	2.3	0.54	0.79	0.54	55.4
Approach			1015	2.5	1015	2.5	0.896	13.5	LOS B	12.8	91.5	0.92	1.08	1.55	60.3

All Vehicles	3605	3.7	3605	3.7	0.896	14.4	LOS B	12.8	91.5	0.88	0.90	1.18	58.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: [S5 AM] Stage 5 AM Peak (7:30-8:30am) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 AM Peak (7:30-8:30am)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 5 AM Peak

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	31	13.8	31	13.8	1.353	368.6	LOS F	90.1	654.9	1.00	3.29	8.43	14.5
21a	L1	All MCs	284	4.4	284	4.4	1.353	367.6	LOS F	90.1	654.9	1.00	3.29	8.43	14.2
23a	R1	All MCs	488	2.8	488	2.8	1.353	375.9	LOS F	90.1	654.9	1.00	3.03	7.92	15.2
23b	R3	All MCs	16	26.7	16	26.7	1.353	382.5	LOS F	68.8	497.4	1.00	2.91	7.70	21.3
Approach			819	4.2	819	4.2	1.353	372.8	LOS F	90.1	654.9	1.00	3.13	8.12	14.9
East: Ballarto Road E															
4b	L3	All MCs	34	18.8	34	18.8	0.322	12.9	LOS B	1.5	15.0	0.85	0.94	0.93	58.3
4a	L1	All MCs	24	43.5	24	43.5	0.322	13.4	LOS B	1.5	15.0	0.85	0.94	0.93	52.8
5	T1	All MCs	15	85.7	15	85.7	0.322	18.0	LOS B	1.5	15.0	0.85	0.94	0.93	53.7
6	R2	All MCs	15	85.7	15	85.7	0.322	23.3	LOS C	1.5	15.0	0.85	0.94	0.93	47.7
6u	U	All MCs	2	100.0	2	100.0	0.322	26.8	LOS C	1.5	15.0	0.85	0.94	0.93	54.5
Approach			89	49.4	89	49.4	0.322	15.6	LOS B	1.5	15.0	0.85	0.94	0.93	54.2
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	20	63.2	20	63.2	0.459	8.0	LOS A	2.8	20.6	0.47	0.52	0.47	57.0
7a	L1	All MCs	464	2.3	464	2.3	0.459	6.0	LOS A	2.8	20.6	0.47	0.52	0.47	68.4
9a	R1	All MCs	1061	2.4	1061	2.4	0.861	14.2	LOS B	14.3	102.1	0.81	0.72	0.90	53.0
9	R2	All MCs	164	1.3	164	1.3	0.861	15.8	LOS B	14.3	102.1	0.81	0.72	0.90	47.4
9u	U	All MCs	24	0.0	24	0.0	0.861	19.0	LOS B	14.3	102.1	0.81	0.72	0.90	54.0
Approach			1734	2.9	1734	2.9	0.861	12.2	LOS B	14.3	102.1	0.72	0.66	0.78	56.8
West: Ballarto Road W															
10	L2	All MCs	199	2.1	199	2.1	0.225	6.2	LOS A	1.3	9.4	0.77	0.73	0.77	59.5
11	T1	All MCs	24	56.5	24	56.5	0.239	9.1	LOS A	1.2	9.1	0.76	0.83	0.76	54.7
12a	R1	All MCs	109	5.8	109	5.8	0.239	12.7	LOS B	1.2	9.1	0.76	0.83	0.76	59.0
12b	R3	All MCs	2	0.0	2	0.0	0.239	15.0	LOS B	1.2	9.1	0.76	0.83	0.76	55.1
Approach			335	7.2	335	7.2	0.239	8.6	LOS A	1.3	9.4	0.77	0.77	0.77	58.7
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	2	0.0	2	0.0	0.778	10.0	LOS A	7.4	53.0	0.87	0.92	1.18	56.6
30a	L1	All MCs	786	2.1	786	2.1	0.778	9.8	LOS A	7.4	53.0	0.87	0.92	1.18	63.4
32a	R1	All MCs	18	35.3	18	35.3	0.074	14.6	LOS B	0.3	2.2	0.57	0.80	0.57	56.9
32	R2	All MCs	25	8.3	25	8.3	0.074	15.1	LOS B	0.3	2.2	0.57	0.80	0.57	63.7
Approach			832	3.0	832	3.0	0.778	10.1	LOS B	7.4	53.0	0.85	0.92	1.15	63.1
All Vehicles			3808	4.7	3808	4.7	1.353	89.0	LOS F	90.1	654.9	0.82	1.26	2.44	32.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Wednesday, 15 April 2026 9:21:23 AM
Project: C:\Users\kdiep\Urbis Ltd\P0063738 271-275 Pearcedale Road Pearcedale - Transport Adviosry - 07_Transport\01_Analysis\Traffic Analysis\SIDRA\P0063738 Pearcedale Road SIDRA 260107.sipx

MOVEMENT SUMMARY

Site: [S5 PM] Stage 5 PM Peak (3-4pm) (Cranbourne-Frankston Rd/Ballarto Rd/ Pearcedale Rd)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Stage 5 PM Peak (3-4pm)
Site Category: (None)
Roundabout
Site Scenario: 1 | Stage 5 PM

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
SouthEast: Pearcedale Rd															
21	L2	All MCs	35	12.1	35	12.1	0.795	30.5	LOS C	11.6	82.8	1.00	1.17	1.77	52.2
21a	L1	All MCs	129	4.1	129	4.1	0.795	29.8	LOS C	11.6	82.8	1.00	1.17	1.77	50.4
23a	R1	All MCs	531	0.4	531	0.4	0.795	37.1	LOS D	11.6	82.8	1.00	1.17	1.76	52.4
23b	R3	All MCs	29	50.0	29	50.0	0.795	44.8	LOS D	9.6	70.2	1.00	1.16	1.76	51.7
Approach			724	3.6	724	3.6	0.795	35.8	LOS D	11.6	82.8	1.00	1.17	1.76	52.0
East: Ballarto Road E															
4b	L3	All MCs	24	8.7	24	8.7	0.257	8.4	LOS A	1.2	9.1	0.81	0.89	0.81	60.4
4a	L1	All MCs	32	3.3	32	3.3	0.257	8.3	LOS A	1.2	9.1	0.81	0.89	0.81	58.5
5	T1	All MCs	18	35.3	18	35.3	0.257	9.1	LOS A	1.2	9.1	0.81	0.89	0.81	55.7
6	R2	All MCs	25	16.7	25	16.7	0.257	15.2	LOS B	1.2	9.1	0.81	0.89	0.81	56.3
6u	U	All MCs	1	100.0	1	100.0	0.257	22.1	LOS C	1.2	9.1	0.81	0.89	0.81	55.8
Approach			100	14.7	100	14.7	0.257	10.0	LOS B	1.2	9.1	0.81	0.89	0.81	57.9
North: Cranbourne-Frankston Rd N															
7	L2	All MCs	36	17.6	36	17.6	0.705	11.3	LOS B	7.5	54.3	0.86	0.80	1.07	55.4
7a	L1	All MCs	611	2.8	611	2.8	0.705	10.4	LOS B	7.5	54.3	0.86	0.80	1.07	63.8
9a	R1	All MCs	717	1.8	717	1.8	0.850	19.0	LOS B	14.4	102.4	0.99	0.94	1.40	49.5
9	R2	All MCs	200	2.1	200	2.1	0.850	20.7	LOS C	14.4	102.4	0.99	0.94	1.40	44.4
9u	U	All MCs	53	0.0	53	0.0	0.850	23.8	LOS C	14.4	102.4	0.99	0.94	1.40	50.3
Approach			1616	2.5	1616	2.5	0.850	16.0	LOS B	14.4	102.4	0.94	0.88	1.27	54.6
West: Ballarto Road W															
10	L2	All MCs	204	1.0	204	1.0	0.430	12.2	LOS B	2.7	19.0	0.90	0.92	1.06	55.8
11	T1	All MCs	47	24.4	47	24.4	0.568	13.1	LOS B	4.8	35.2	0.97	0.99	1.30	53.1
12a	R1	All MCs	319	3.6	319	3.6	0.568	18.0	LOS B	4.8	35.2	0.97	0.99	1.30	56.3
12b	R3	All MCs	3	33.3	3	33.3	0.568	21.8	LOS C	4.8	35.2	0.97	0.99	1.30	46.3
12u	U	All MCs	1	0.0	1	0.0	0.568	21.7	LOS C	4.8	35.2	0.97	0.99	1.30	47.6
Approach			575	4.6	575	4.6	0.568	15.5	LOS B	4.8	35.2	0.94	0.97	1.21	55.6
SouthWest: Cranbourne-Frankston Rd SW															
30b	L3	All MCs	1	0.0	1	0.0	1.033	55.3	LOS E	40.5	288.5	1.00	2.20	5.03	35.8
30a	L1	All MCs	959	2.2	959	2.2	1.033	55.1	LOS E	40.5	288.5	1.00	2.20	5.03	38.9
32a	R1	All MCs	19	11.1	19	11.1	0.104	14.1	LOS B	0.4	3.1	0.63	0.83	0.63	57.0
32	R2	All MCs	42	5.0	42	5.0	0.104	15.5	LOS B	0.4	3.1	0.63	0.83	0.63	63.6
32u	U	All MCs	1	0.0	1	0.0	0.104	14.8	LOS B	0.4	3.1	0.63	0.83	0.63	55.1
Approach			1022	2.5	1022	2.5	1.033	52.7	LOS E	40.5	288.5	0.98	2.12	4.76	40.2

All Vehicles	4037	3.3	4037	3.3	1.033	28.6	LOS C	40.5	288.5	0.96	1.26	2.22	49.9

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Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
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HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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