









TRANSPORT IMPACT ASSESSMENT

PROPOSED MULTIPLE RESIDENCE AND SHOP DEVELOPMENT

LOT 8001 BARINGA DRIVE, BARINGA

Prepared for

VANTAGE BUILDING GROUP

12 AUGUST 2026

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1.0 INTRODUCTION

Rytenskild Traffic Engineering (RTE) has been engaged by Vantage Building Group to prepare a Transport Impact Assessment for its proposed multiple residence and shop development at Baringa.

This report forms part of a Development Application to be lodged with Economic Development Queensland (EDQ). The following issues have been addressed during the study:

- Car parking supply and design;
- Access design;
- Provision for pedestrians and cyclists; and
- Service vehicle access.

2.0 SUBJECT SITE

As shown in Figure 2.1, the subject site is located on the western side of Baringa Drive and the eastern side of Leslie Crescent and is identified as Lot 8001 on SP344660.

The site is located within the Priority Development Area (PDA), in Sub-precinct 2.8 of the Caloundra South Northern Locality – Precinct 2 and Part of Precinct 6 Plan of Development (PoD).

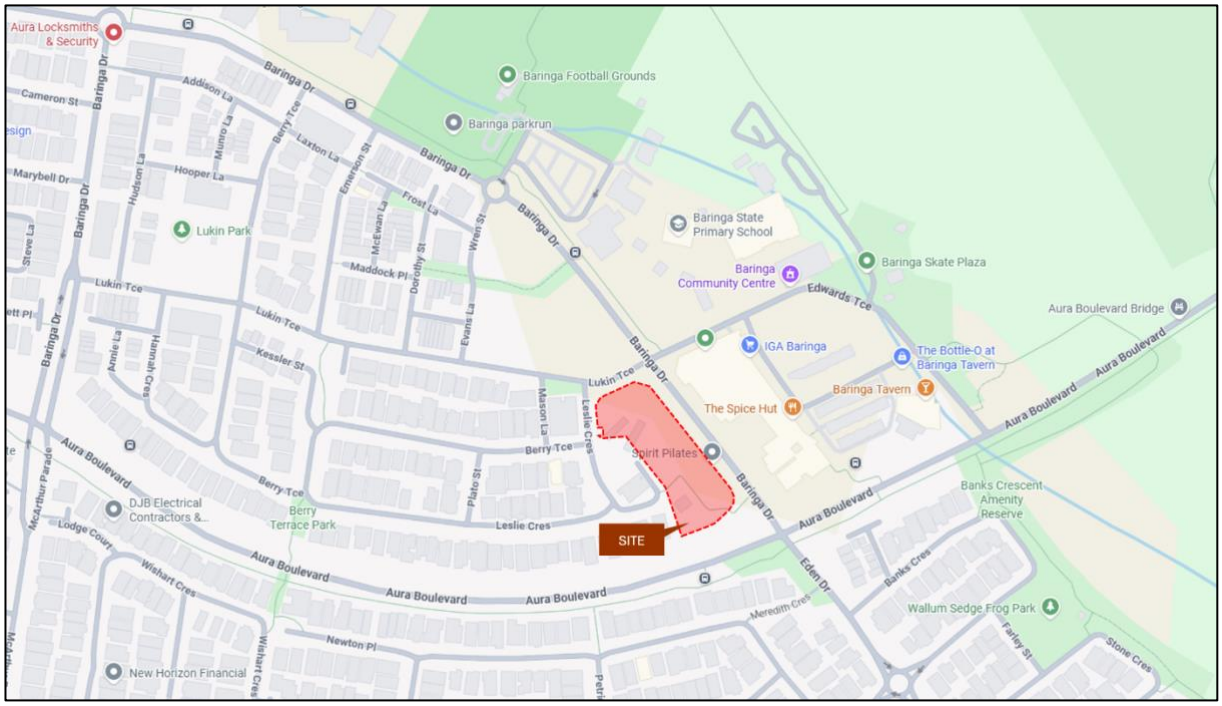




FIGURE 2.1 – LOCATION OF SUBJECT SITE

3.0 SURROUNDING ROAD NETWORK

Adjacent to the site, Baringa Drive is a divided two-lane road with a single lane of travel in each direction, and has a posted speed limit of 50km/hr.

To the north of the site, Baringa Drive connects to Lukin Terrace via a signalised four-way intersection. Lukin Terrace is a two-lane road with a single lane of travel in each direction, and has a posted speed limit of 40km/hr.

To the south of the site, Baringa Drive connects to Aura Boulevard via a signalised intersection. Aura Boulevard generally comprises of two lanes with a single lane of travel in each direction, and has a posted speed limit of 60km/hr.

The Baringa Drive / Lukin Terrace and Aura Boulevard / Baringa Drive intersections are shown in Figure 3.1.



FIGURE 3.1 – AERIAL IMAGES OF THE BARINGA DRIVE / LUKIN TERRACE AND AURA BOULEVARD / BARINGA DRIVE INTERSECTIONS

4.0 PROPOSED DEVELOPMENT

The proposed plan of development comprises a 54-unit terrace home development together with five ground floor Mixed Use tenancies, having a total retail Gross Floor Area (GFA) of 227.97m^2.

The proposed breakdown of dwelling types is as follows:

- Type A – 3 Bed: 36 units
- Type B – 2 Bed: 12 units
- Type C1 – Mixed Use (3 Bed) 4 units, 168.32m^2 Shop
- Type C2 – Mixed Use (3 Bed) 1 unit, 59.65m^2 Shop
- Type D – 2 Bed: 1 unit

The proposal provides a total of 86 car parking spaces, comprising of:

- Residential Car Parking: 67 spaces
- Visitors Car Parking: 14 spaces
- Shop: 5 spaces
- **TOTAL CAR PARKING SPACES:** **86 SPACES**

Vehicular access to the site is proposed via a new crossover off the Leslie Crescent frontage.

The proposed site plan is shown in Figure 4.1.



FIGURE 4.1 – PROPOSED SITE PLAN

5.0 CAR PARKING

5.1 Car Parking Supply

The subject site is located in Sub-precinct 2.8 of the Caloundra South Northern Locality – Precinct 2 and Part of Precinct 6 Plan of Development (PoD). Appendix H of the PoD states that the following car parking rates are applicable to the proposed land uses:

Multiple Residential (other than duplex):
1 space / dwelling or unit; plus
1 visitor space / 4 dwellings or units

Shop:
1 space per 20m^2 GFA

Application of the above rates to the proposed development results in the following minimum car parking requirements:

Table 5.1: Car Parking requirements under PoD

Component	Minimum Car Parking Spaces Required	Proposed Supply
Residential (54 units)	54 spaces	67 spaces
Visitors (54 units)	13.5 (14) spaces	14 spaces
Shop: 227.97m^2 GFA	11.4 (12) spaces	5 spaces
Total	**80 spaces**	**86 spaces**

While the minimum shop parking rate would ordinarily require additional dedicated spaces, the retail component comprises small neighbourhood-scale mixed use tenancies integrated within the residential development. The proposal provides a total of 86 on-site parking spaces, which exceeds the overall residential parking requirement. Given the complementary nature of the residential and retail parking demands, the surplus residential parking is available to accommodate any occasional retail parking demand, and the overall parking provision is considered satisfactory.

5.2 Car Parking Design

The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the AS2890.1: 2004.

A summary of the proposed car parking characteristics is provided in Table 5.1.

Table 5.1 – Car Parking Design Characteristics

Design Aspect	Minimum Standard	Proposed Provision	Compliance
Parking space length:			
- Residential	5.4 metres	5.4 metres	Compliant
- Visitor	5.4 metres	5.4 metres	Compliant
- PWD	5.4 metres	5.4 metres	Compliant
Parking space width:			
- Residential	2.4 metres	2.4 metres	Compliant
- Visitor	2.4 metres	2.4 metres	Compliant
- PWD	2.4 metres	2.4 metres	Compliant
PWD Shared Area Width	2.4 metres	2.4 metres	Compliant
Aisle Width:			
- Parking aisle	5.8 metres	6.0 metres (min)	Compliant
- Circulation aisle (one-way)	3.6 metres (wall to wall)	N/A	N/A
- Circulation aisle (two-way)	5.5 metres (wall to wall)	6.0 metres (min)	Compliant
Maximum Gradient			
- Parking Bay	1:20 (5.0%)	<1:20 (5.0%)	Compliant
- Parking Aisle	1:16 (6.25%)	<1:20 (5.0%)	Compliant
- PWD Bay	1:40 (2.5%)	<1:40 (2.5%)	Compliant
Height Clearance			
- General Min.	2.2 metres	>2.2 metres	Compliant
- Absolute Min.	N/A	N/A	N/A

The proposed car parking dimensions are shown in Figures 5.1 and 5.2.

A swept path analysis of the proposed car park indicates that the required design vehicle will be able to access and manoeuvre within the facility satisfactorily. Swept path diagrams for B85 and B99 vehicles are provided in Figures 5.3 to 5.7.



FIGURE 5.1 – DIMENSIONED CAR PARKING PLAN

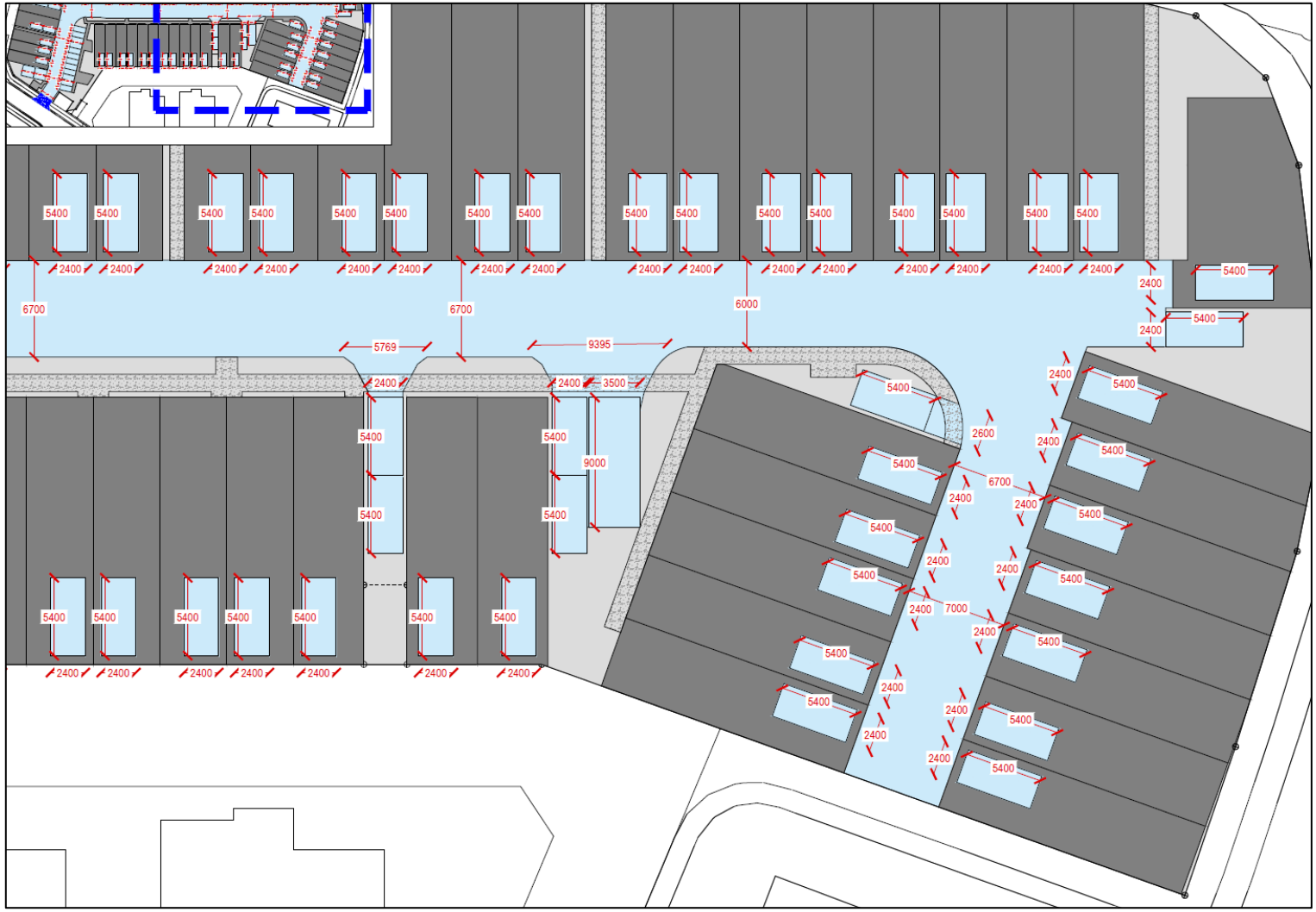


FIGURE 5.2 – DIMENSIONED CAR PARKING PLAN

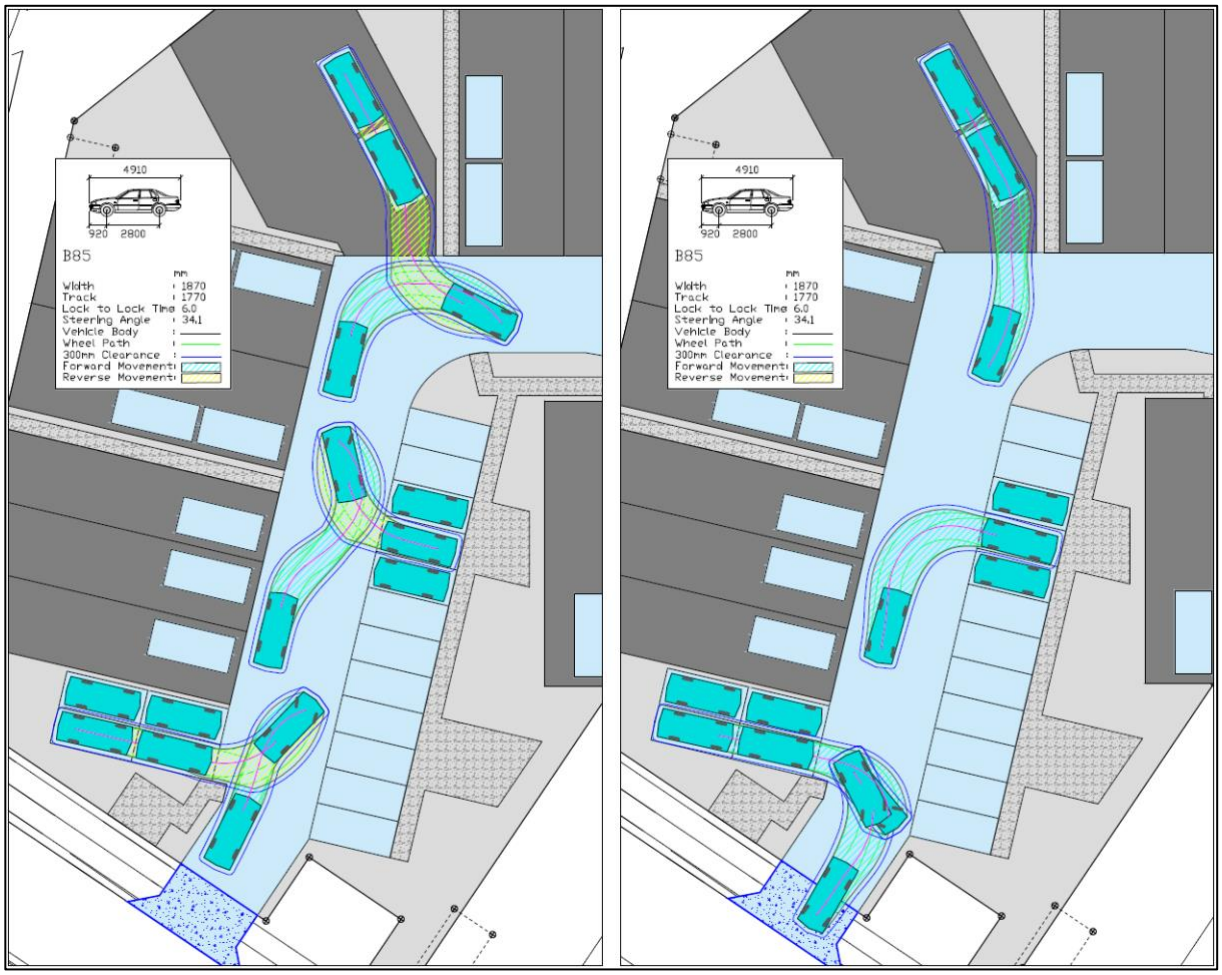


FIGURE 5.3 – SWEPT PATHS OF B85 DESIGN VEHICLE

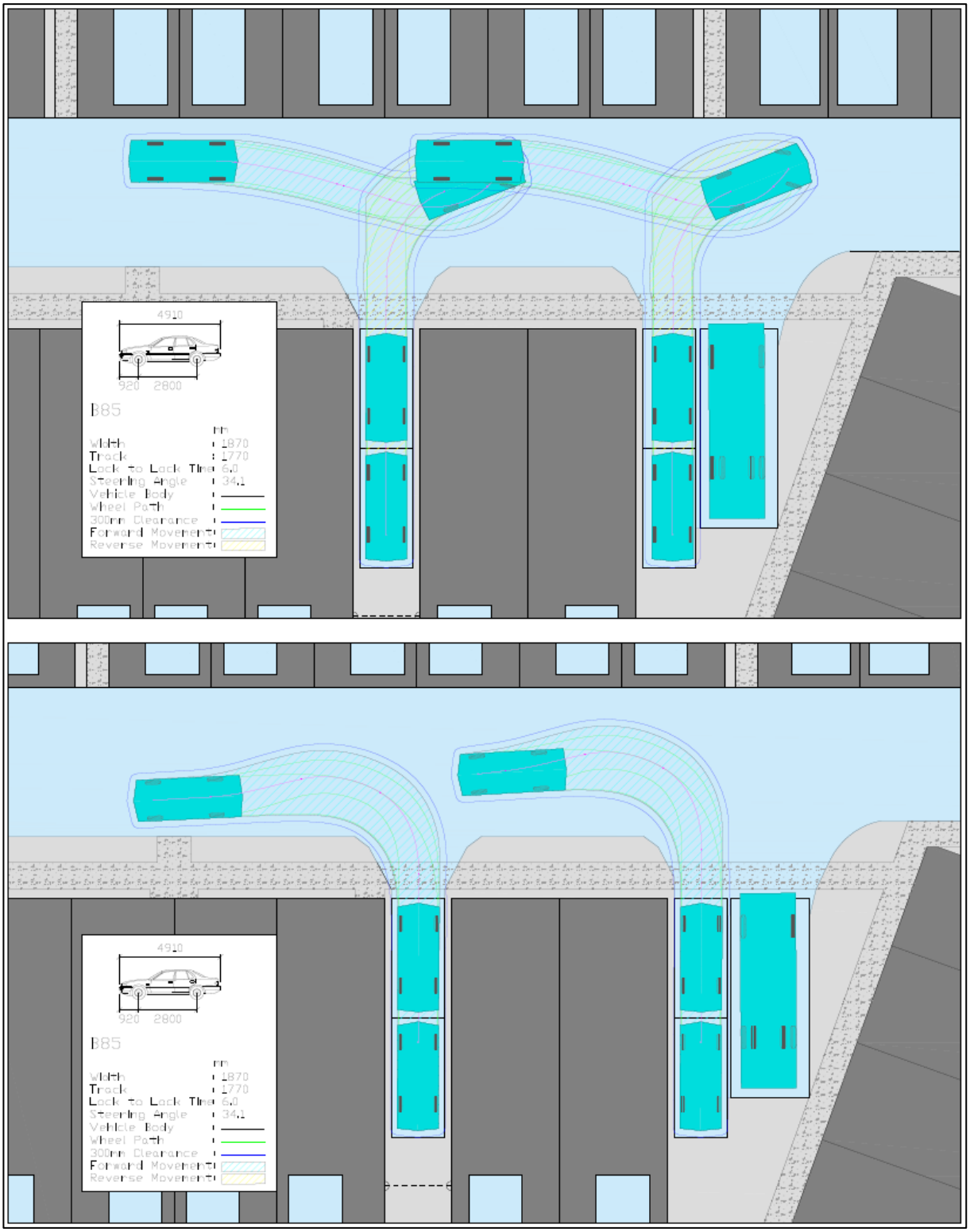


FIGURE 5.4 – SWEPT PATHS OF B85 DESIGN VEHICLE

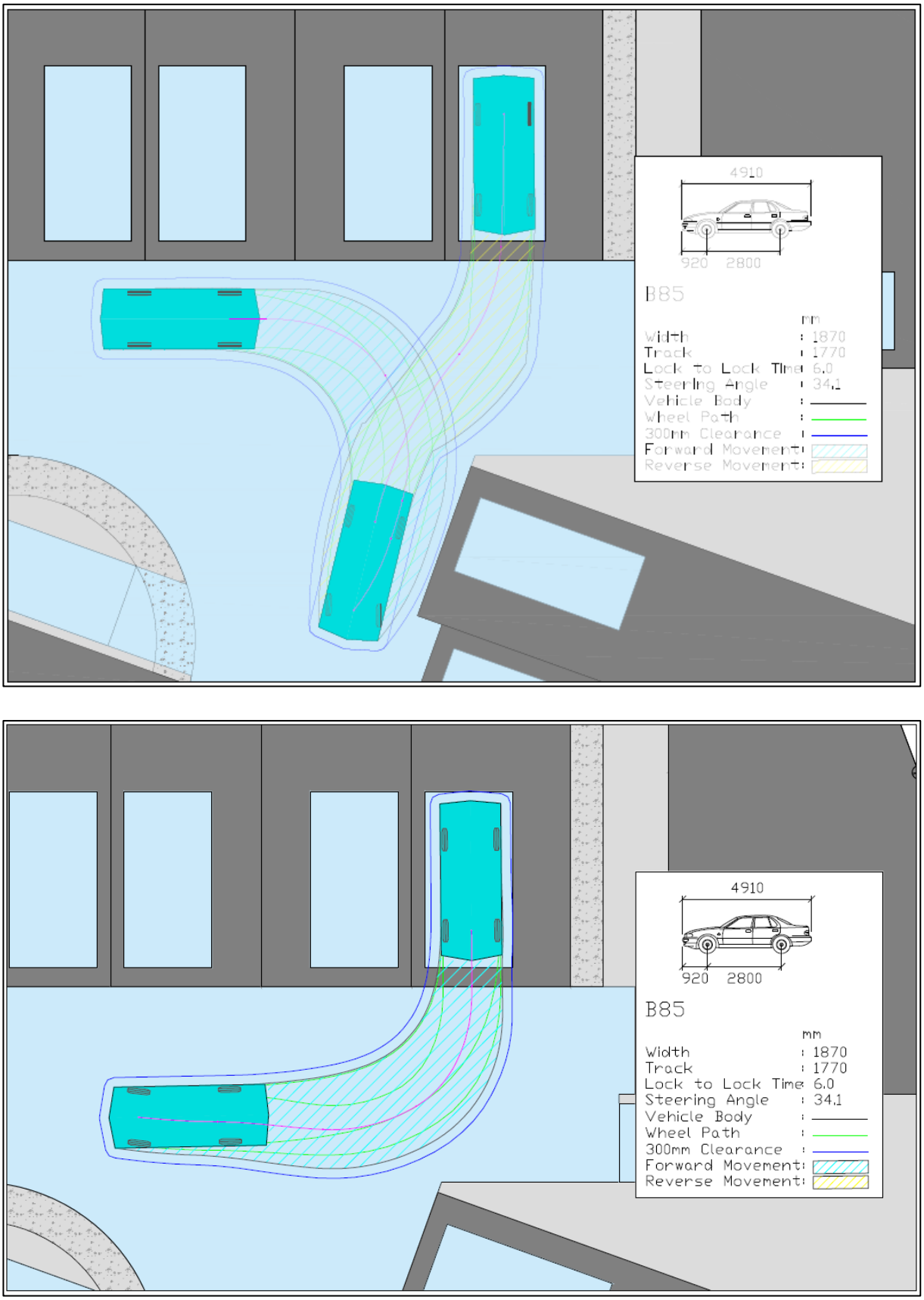
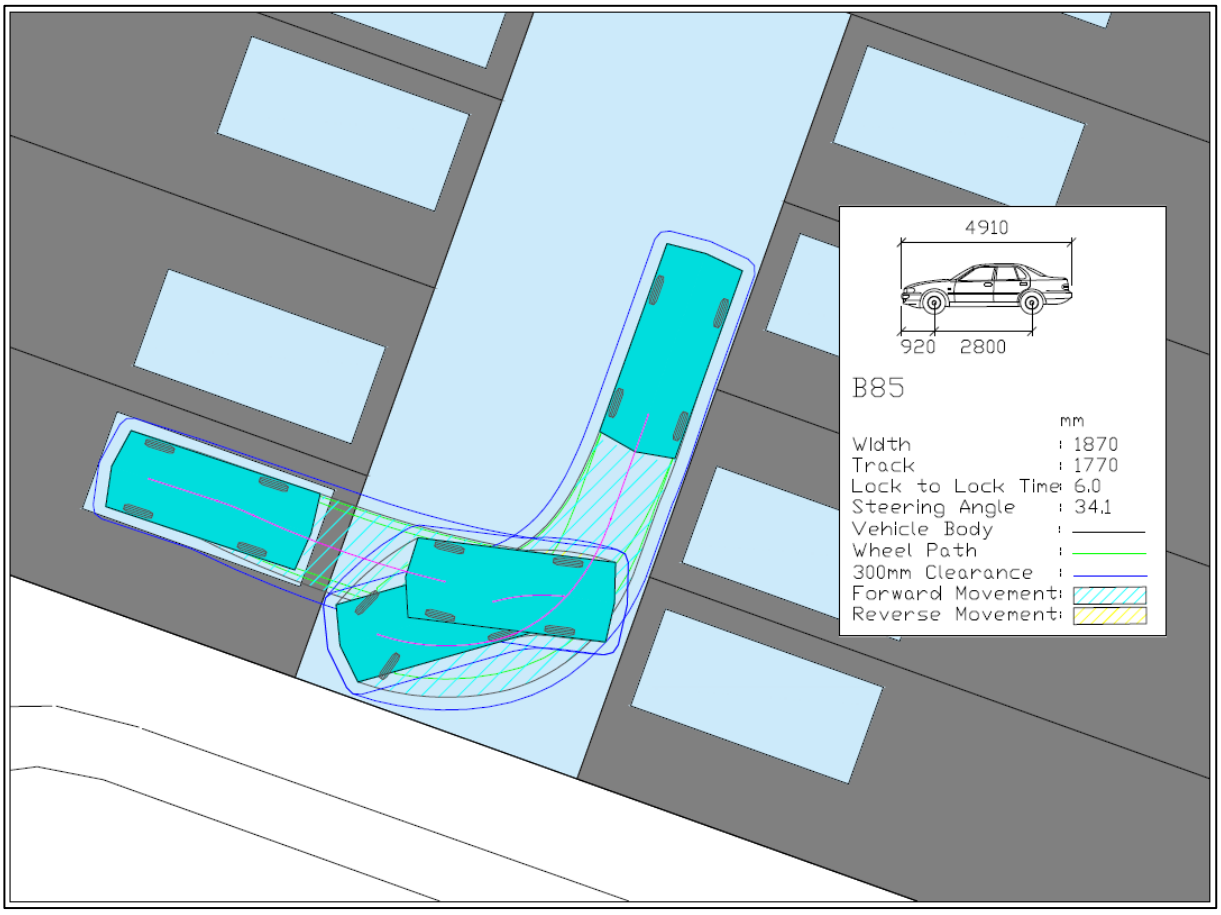


FIGURE 5.5 – SWEPT PATHS OF B85 DESIGN VEHICLE



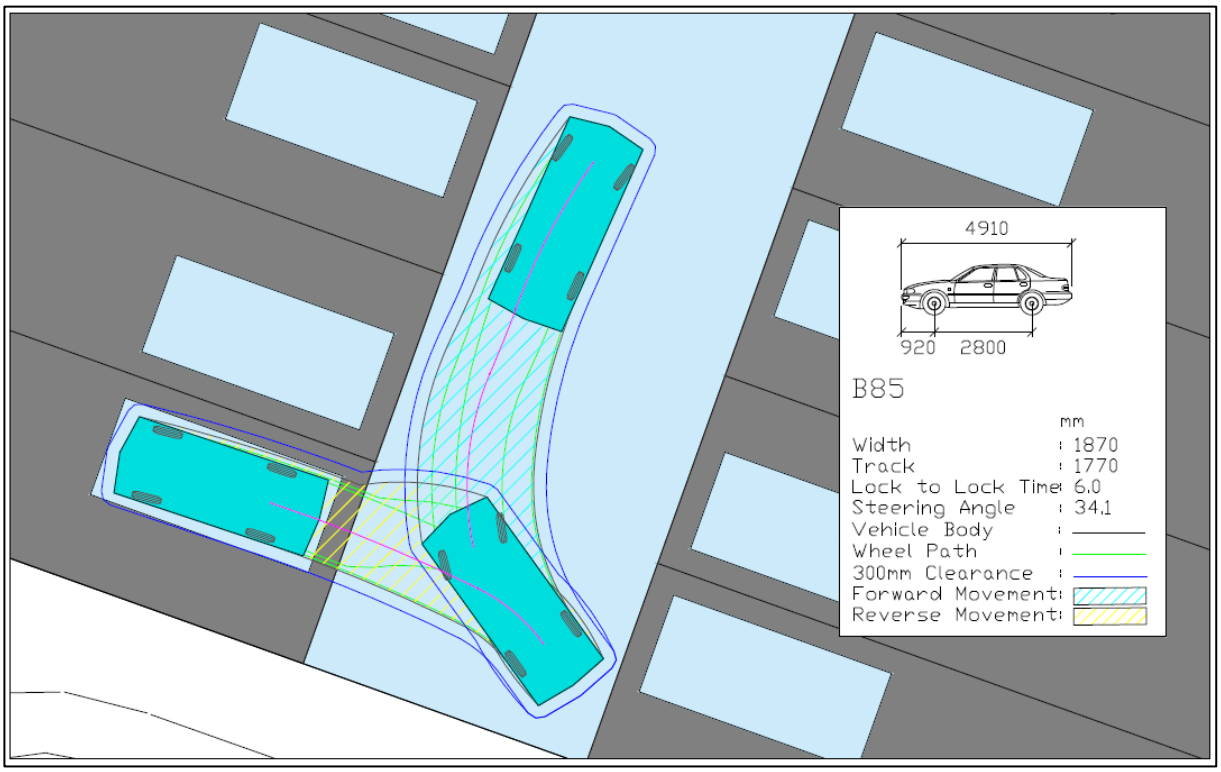


FIGURE 5.6 – SWEPT PATHS OF B85 DESIGN VEHICLE

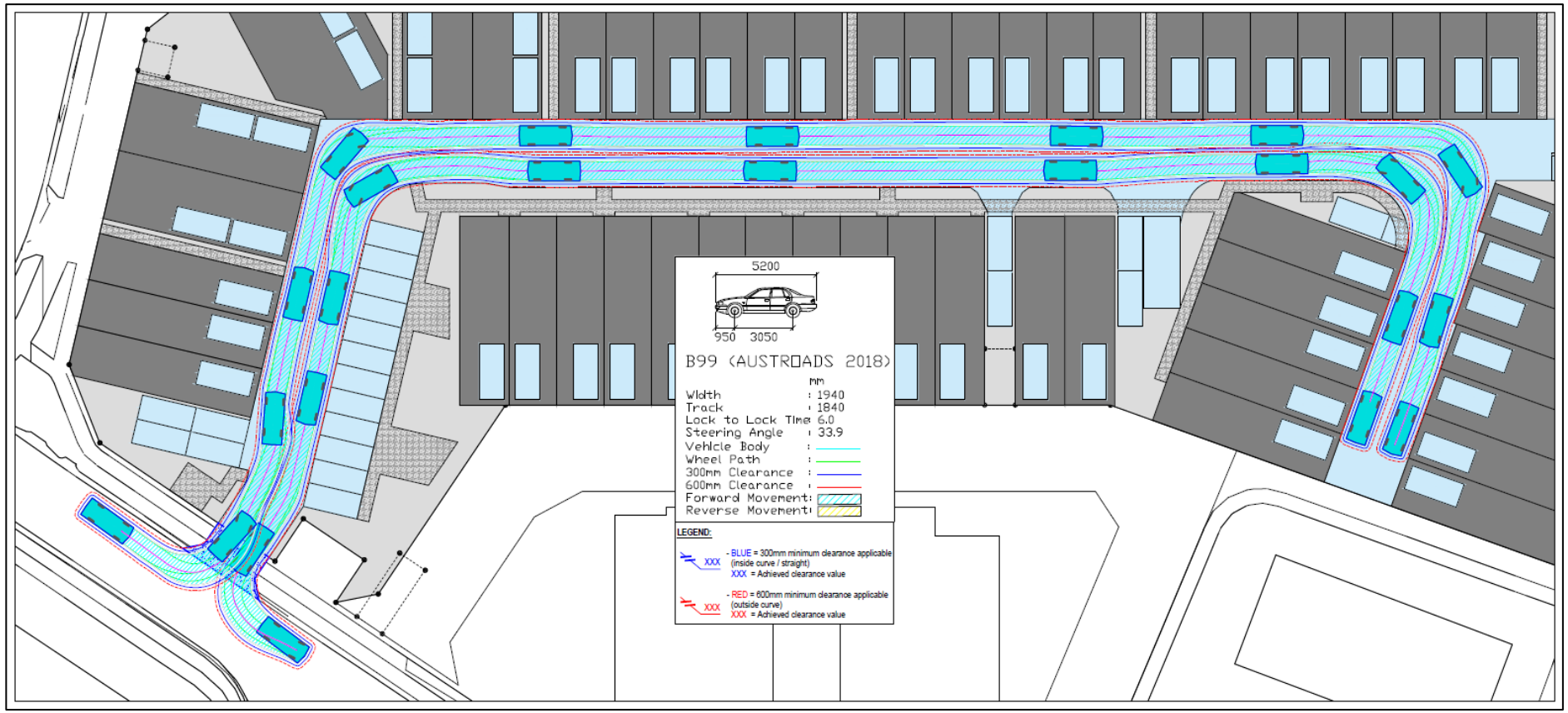


FIGURE 5.7 – SWEPT PATH OF B99 DESIGN VEHICLE

6.0 PROPOSED ACCESS ARRANGEMENTS

Vehicular access to the site is proposed via a new crossover located off the Leslie Crescent frontage.

As shown in Figure 6.1, the proposed vehicle crossover has been designed in accordance with the IPWEA Standard Drawing RS-051. As shown, a pedestrian sight splay has been provided on the departure side of the driveway in accordance with AS2890.1:2004.

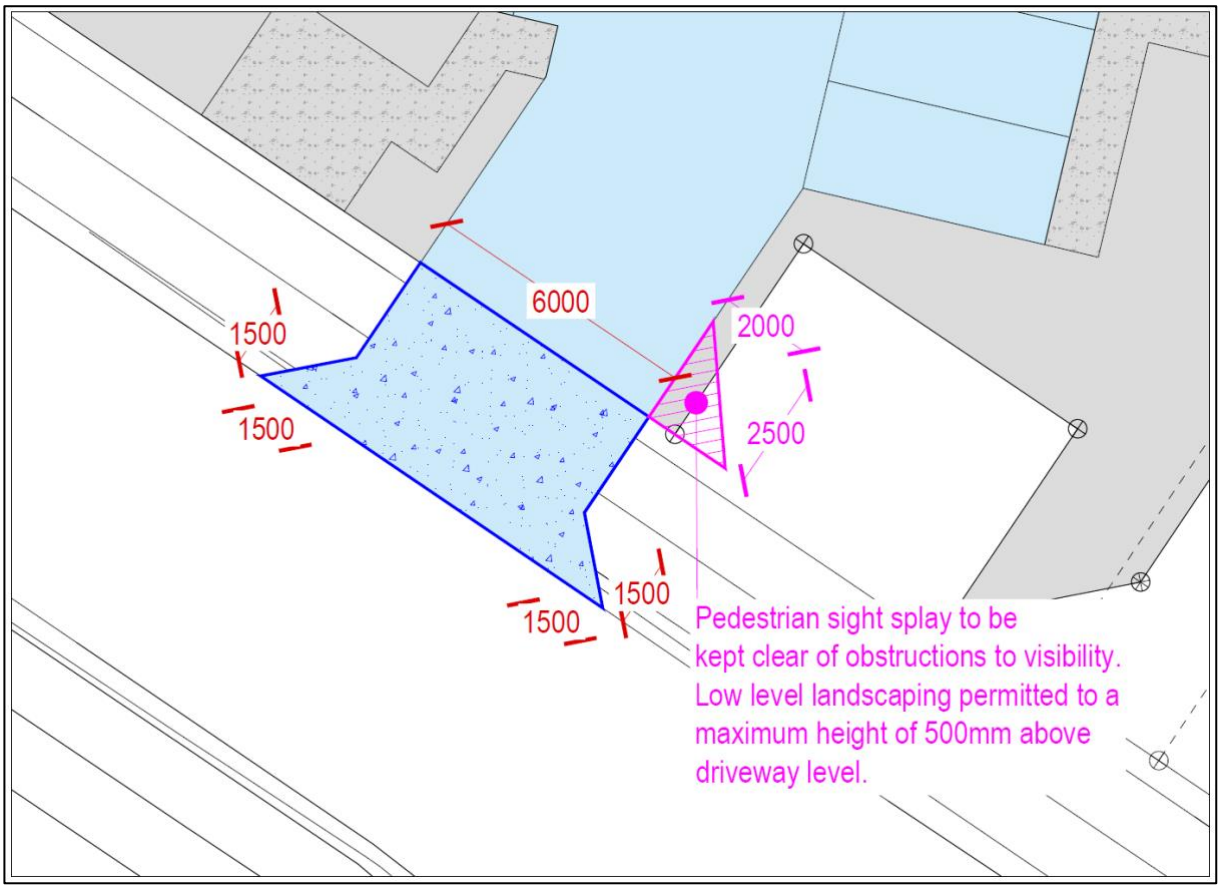


FIGURE 6.1 – PROPOSED LAYOUT AND DIMENSIONS OF VEHICLE CROSSOVER

7.0 PROVISION FOR SERVICE VEHICLES

Appendix H of the Caloundra South Northern Locality – Precinct 2 and Part of Precinct 6 Plan of Development (PoD) states that the following service vehicle spaces are required for the proposed land use:

Multiple Residential (other than duplex):
MRV (Type A Access) + VAN + WCV
(Where >10 dwellings or requiring access via a road)

Shop (XXXm² GFA):
SRV (where <200m² GFA); or
VAN + MRV (where 201–600m² GFA); or
1 VAN + 1 SRV + 1 MRV (where >600m² GFA).

The proposal provides a dedicated service vehicle standing area and internal circulation suitable for vehicles up to the size of a Medium Rigid Vehicle (MRV). As shown in Figure 7.1, an MRV can safely manoeuvre through the site and exit in a forward direction via the dedicated service vehicle exit.

Swept path analysis has also been carried out for a 9.9m Rear Loading Waste Collection Vehicle (RCV), representing the required Waste Collection Vehicle (WCV). As shown in Figure 7.2, the RCV can satisfactorily access the site, carry out waste collection operations and exit the site in a forward direction.

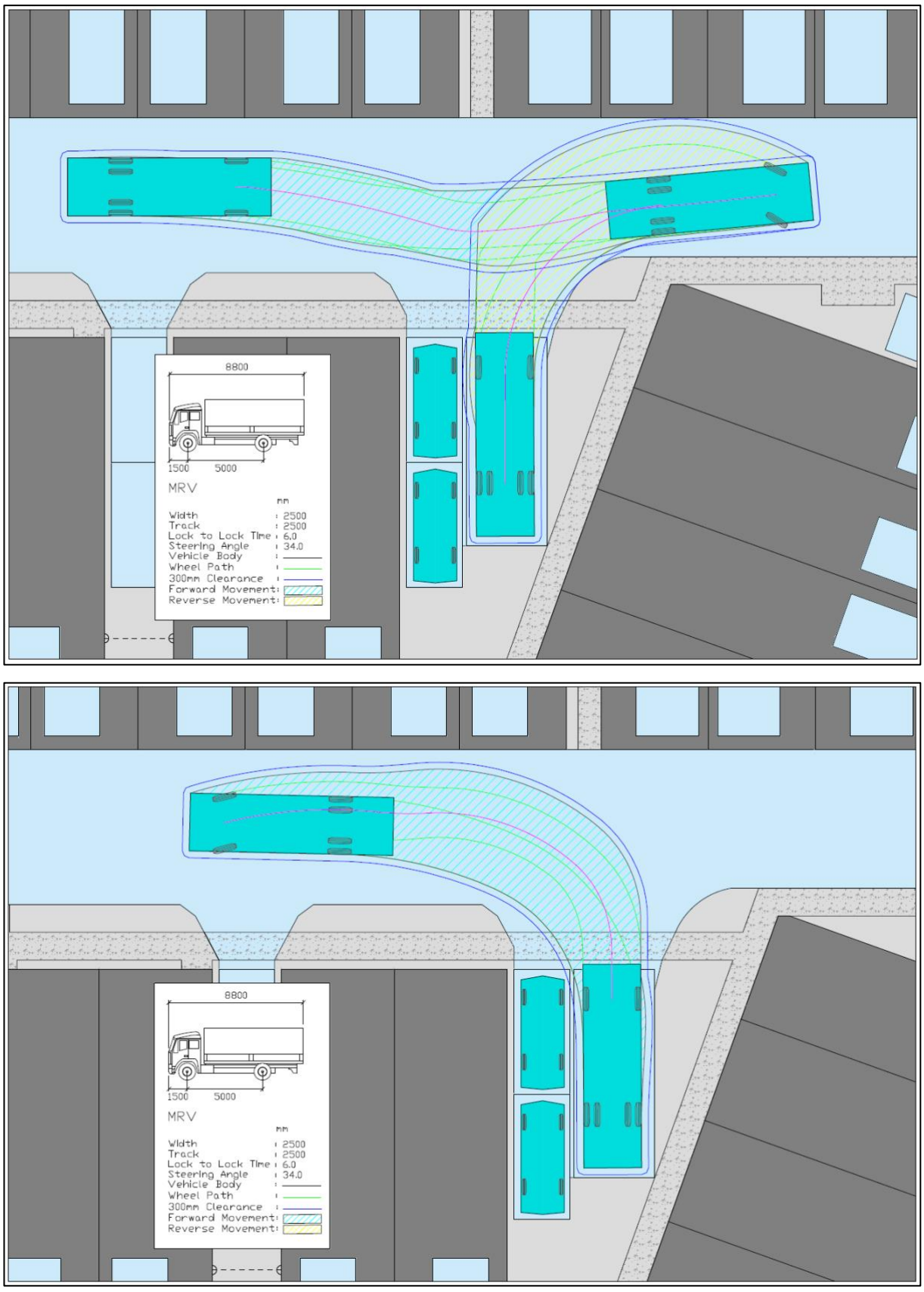


FIGURE 7.1 – SWEPT PATHS OF A MEDIUM RIGID VEHICLE (MRV)



FIGURE 7.2 – SWEPT PATHS OF A REFUSE COLLECTION VEHICLE (RCV)

8.0 PROVISION FOR PEDESTRIANS AND CYCLISTS

Appendix H of the Caloundra South Northern Locality – Precinct 2 and Part of Precinct 6 Plan of Development (PoD) states that the following bicycle parking and end of trip facilities are required for the proposed land uses:

Multiple Residential (other than duplex):
1 resident space / dwelling; plus
1 visitor space / 4 dwellings

Shop:
1 employee space / 100m^2 GFA; plus
1 customer space / 100m^2 GFA.

Application of the above rates results in the following minimum requirements for the proposal:

Table 8.1: Bicycle Space requirements under PoD

Component	Minimum Bicycle Space Required
Residential (54 units)	Residents: 54 spaces Visitors: 14 spaces
Shop: 227.97m^2	Residents: 3 spaces Visitors: 3 spaces
Total	**Residents: 57 spaces** **Visitors: 17 spaces**

Bicycle parking will be provided in accordance with the above requirements, and will be designed in accordance with AS2890.3:2015.

9.0 TRAFFIC IMPACT

The proposed development is expected to generate traffic volumes consistent with the anticipated development of the site under the Caloundra South Priority Development Area. Given the scale and nature of the proposal, the traffic generated is not expected to adversely affect the operation of the surrounding road network or nearby intersections.

10.0 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The proposed development comprises 54 terrace homes, including five ground floor Mixed Use tenancies with a combined retail gross floor area (GFA) of approximately 227.97m^2.

- The proposal provides a total of 86 car parking spaces, comprising:
  - 67 residential spaces;
  - 14 residential visitor spaces; and
  - 5 Shop parking spaces.

- The proposal provides sufficient on-site parking to accommodate the anticipated demand. While the Mixed Use parking provision is lower than the nominal rate, the integrated nature of the development allows surplus residential parking to accommodate any occasional retail parking demand.

- The geometric layout of the proposed parking facilities has generally been designed in accordance with AS 2890.1:2004.

- Vehicular access to the site is proposed via a new crossover located on the Leslie Crescent frontage.

- The proposed vehicle crossover has been designed in accordance with IPWEA Standard Drawing RS-051. A pedestrian sight splay has been provided on the departure side of the driveway in accordance with AS 2890.1:2004.

- Appendix H of the Plan of Development requires provision for an MRV, van and WCV for the multiple residential component, together with the applicable service vehicle requirements for the Shop component.

- Swept path analysis confirms that an MRV can manoeuvre through the site and exit in a forward direction via the dedicated service vehicle exit.

- Swept path analysis has also been carried out for a 9.9m Rear Loading Refuse Collection Vehicle. The vehicle can access the site, carry out waste collection operations and exit in a forward direction.

- Bicycle parking will be provided in accordance with the requirements of Appendix H of the Caloundra South Northern Locality – Precinct 2 and Part of Precinct 6 Plan of Development and will be designed in accordance with AS2890.3:2015.

- The proposed development is expected to generate traffic volumes consistent with the planned function of the surrounding road network within the Caloundra South Priority Development Area and is not expected to adversely affect its operation.

APPENDICES

APPENDIX A – TRAFFIC COUNT DATA

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MANUAL TRAFFIC SURVEY RESULTS

Unit Type: Camera
RTE ID: 24127
Location: Aura Blvd / Baringa Dr, Baringa
Date: Friday, 12 July 2024
Comments: Fine weather
Class Light

Time	N-Thru	N-Right	N-Left	S-Thru	S-Right	S-Left	E-Thru	E-Right	E-Left	W-Thru	W-Right	W-Left	Total	Cumul Tot
7:00	3	4	3	3	12	11	45	4	5	74	1	4	169	
7:15	4	8	2	3	23	13	75	3	9	98	3	6	247	
7:30	4	4	3	4	33	13	63	6	3	122	2	8	265	
7:45	4	5	9	3	39	13	50	11	8	143	5	6	296	977
8:00	7	8	14	9	46	6	73	26	9	142	4	2	346	1154
8:15	13	7	36	20	37	8	65	31	18	198	3	1	437	1344
8:30	13	11	27	25	28	10	74	37	13	103	5	15	361	1440
8:45	14	17	14	6	25	3	67	8	11	99	9	6	279	1423
9:00	4	13	6	3	15	1	64	12	10	86	4	14	232	1309
9:15	2	10	2	2	18	8	71	3	10	59	9	8	202	1074
9:30	5	18	6	3	22	5	66	5	11	82	5	6	234	947
9:45	7	15	5	2	12	7	56	7	13	71	3	14	212	880
AM PEAK HR	**25**	**73**	**33**	**14**	**92**	**17**	**268**	**35**	**55**	**326**	**27**	**34**	**947**	

Time	N-Thru	N-Right	N-Left	S-Thru	S-Right	S-Left	E-Thru	E-Right	E-Left	W-Thru	W-Right	W-Left	Total	Cumul Tot
14:30	10	16	8	19	19	5	47	26	4	120	3	6	283	
14:45	29	11	24	8	19	3	79	13	8	118	9	15	336	
15:00	15	30	17	6	17	9	87	13	41	105	6	12	358	
15:15	7	19	8	5	13	3	78	12	29	111	9	8	302	1279
15:30	14	21	8	3	14	7	107	8	38	123	15	6	364	1360
15:45	8	13	12	7	14	3	94	13	30	116	15	13	338	1362
16:00	5	18	11	6	19	5	94	19	22	88	10	6	303	1307
16:15	19	16	6	6	16	5	113	11	26	130	7	10	365	1370
16:30	10	17	2	8	21	6	103	23	19	98	12	11	330	1336
16:45	10	21	2	6	17	10	105	10	39	88	15	5	328	1326
17:00	22	20	6	7	18	4	87	9	22	98	7	12	312	1335
17:15	10	19	11	5	16	8	88	12	34	80	14	23	320	1290
17:30	16	25	6	4	11	4	57	6	31	87	12	17	276	1236
17:45	5	25	3	5	9	5	67	7	19	69	10	15	239	1147
PM PEAK HR	**58**	**110**	**28**	**27**	**71**	**31**	**404**	**44**	**145**	**422**	**58**	**72**	**1236**	