

NEWMARK CAPITAL

SEPTEMBER 2021

# BRANDON PARK SHOPPING CENTRE: RESIDENTIAL DEVELOPMENT

## WASTE MANAGEMENT PLAN

wsp



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## BRANDON PARK SHOPPING CENTRE: RESIDENTIAL Waste Management Plan

NEWMARK CAPITAL

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REV	DATE	DETAILS
A	17/12/2020	Waste Management Plan (Draft)
B	18/12/2020	Waste Management Plan
C	22/09/2021	Waste Management Plan

	NAME	DATE	SIGNATURE
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Reviewed by:	Brad Parker	22/09/2021	
Approved by:	Brad Parker	22/09/2021	

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# TABLE OF CONTENTS

1	SUMMARY.....	1
2	INTRODUCTION.....	2
2.1	LAND USE .....	2
3	REPORT PURPOSE .....	3
4	WASTE MANAGEMENT PLAN.....	3
4.1	WASTE GENERATION.....	3
4.2	WASTE SYSTEMS .....	4
4.2.1	DUAL CHUTES .....	4
4.2.2	GENERAL WASTE, COMMINGLED RECYCLING .....	4
4.2.3	FOOD ORGANICS .....	4
4.2.4	GLASS (FUTURE PROVISION) .....	5
4.2.5	HARD WASTE AND E-WASTE .....	5
4.3	INTERNAL WASTE TRANSFER & HANDLING .....	5
4.4	WASTE MANAGEMENT EQUIPMENT .....	5
4.5	WASTE STORAGE AREA & LOCATION .....	6
4.6	BIN SUPPLIER AND COLOURS.....	6
4.7	SIGNAGE .....	7
4.8	WASTE COLLECTION METHODOLOGY .....	7
5	ADDITIONAL INFORMATION.....	8
5.1	COMMUNICATIONS STRATEGY .....	8
5.2	LOCAL CONTEXTUAL ANALYSIS PLAN .....	9
5.3	STANDARDS & COMPLIANCE .....	10
5.4	VENTILATION.....	10
5.5	WASHING & VERMIN PREVENTION .....	10
5.6	NOISE REDUCTION .....	10
6	HIGH LEVEL PURCHASING SCHEDULE.....	10
6.1	SUPPLIER CONTACT INFORMATION .....	11



## LIST OF APPENDICES

APPENDIX A	
SCALED WASTE ROOM DRAWINGS	
APPENDIX B	
TRAFFIC SWEPT PATHS	

## LIST OF FIGURES

FIGURE 1	EXAMPLE KITCHEN ORGANICS CADDY .....	4
FIGURE 2	SUSTAINABILITY VICTORIA WASTE SIGNAGE .....	7
FIGURE 3	SITE LOCATION (SOURCE: GOOGLE MAPS) .....	9

## LIST OF TABLES

TABLE 1	WASTE COLLECTION SUMMARY .....	1
TABLE 2	DEVELOPMENT SUMMARY .....	2
TABLE 3	WASTE GENERATION RATES .....	3
TABLE 4	WASTE GENERATION ASSESSMENT .....	3
TABLE 5	WASTE STORAGE & CAPACITY .....	5
TABLE 6	TYPICAL STORAGE UNIT DIMENSIONS .....	6
TABLE 7	WASTE STORAGE AREA REQUIREMENTS .....	6
TABLE 8	WASTE COLLECTION SUMMARY .....	7
TABLE 9	COMMUNICATIONS STRATEGY .....	8
TABLE 10	EQUIPMENT SUPPLY SCHEDULE .....	10
TABLE 11	SUPPLIER CONTACT LIST .....	11

# 1 SUMMARY

The below is a summary of the waste management strategy proposed for the subject site. The complete report must be read in detail prior to implementing the waste management plan.

Located at Ferntree Gully Road, Wheelers Hill the new 11 storey residential development at Brandon Park Shopping Centre will comprise of:

- 28 One Bed Apartments
- 115 Two Bed Apartments
- 6 Three Bed Apartments

The following waste systems and collection arrangements are proposed for the development:

**Table 1 Waste Collection Summary**

Stream	Equipment	Collections per Week	Collection Operator
General Waste	4no. 1100L Bins	2	Private Collection
Commingled Recycling	4no. 1100L Bins	2	Private Collection
Food Organics	8no. 120L Bins	3	Private Collection
Glass	3no. 240L Bins	2	Private Collection
Hard Waste/E-waste	2m <sup>2</sup> Line marked area	As Required	Private Collection

All waste collections will occur on-site directly from the ground floor level waste room. A 6.4m or smaller collection vehicle will be utilised to perform all collections, propping adjacent to the waste room with operators to collect the material directly from the waste room and return empty storage containers immediately upon emptying. A minimum height clearance of 3.5m throughout vehicle path of travel, allowed within the parking lanes.

Bins will not be stored outside of the title boundary or presented to kerb for collection at any time.

Building management will ensure sufficient access is provided for operators during collection times.

## 2 INTRODUCTION

The following Waste Management Plan has been prepared for a proposed residential development at Brandon Park Shopping Centre at Ferntree Gully Road, Wheelers Hill.

This Waste Management Plan (WMP) has been prepared based on City of Monash's *Multi-Unit and Commercial Developments Waste Management Plan Guide for Applicants (2020)* and best practice waste management methodology and technologies commonly available in Australia.

### 2.1 LAND USE

<b>Client:</b>	Newmark Capital
<b>Town Planning Application</b>	52260
<b>Land Use Type:</b>	Residential Apartments
<b>Number Levels:</b>	11 levels

**Table 2 Development Summary**

Use	Area (m <sup>2</sup> ) / Quantity
Residential Apartments	149 Apartments

### 3 REPORT PURPOSE

In accordance with City of Monash’s *Multi-Unit and Commercial Developments Waste Management Plan Guide for Applicants* (2020), the purpose of this Waste Management Plan is to:

- Demonstrate the development of an effective waste management system that is compatible with the design of the commercial or multi-unit development (MUD) and the adjacent built environment. An effective waste management system is hygienic, clean and tidy, minimises waste going to landfill, and maximises recycling
- Provide a waste management system that is supported by scaled drawings to ensure the final design and construction is compliant with the WMP, and is verifiable
- Form a document that achieves effective communication of the waste management system so that all stakeholders can be properly informed of its design, and the roles and responsibilities involved in its implementation Stakeholders are defined (but not limited to): owners, occupiers, body corporate, property managers/real estate agents, Council, neighbours and collection contractors
- Ensure residents of MUD’s are not disadvantaged in their access to recycling and other responsible waste management options
- Avoid existing legacy issues that plague many MUD’s due to poor design and insufficient consideration for waste management.

Failure to comply with the Waste Management Plan once endorsed by Council can attract a fine under the City of Monash Local Law No.3.

## 4 WASTE MANAGEMENT PLAN

### 4.1 WASTE GENERATION

Waste generation rates per week are shown in Table 3 and are based on a 7 day per week operation for residential use. The waste generation rates provided within have been prepared based on City of Monash’s *Multi-Unit and Commercial Developments Waste Management Plan Guide for Applicants* (2020).

**Table 3 Waste Generation Rates**

Use	Weekly Generation Rate (Litres / Apartment / Week)			
	General Waste	Recycling	Food Organics	Glass*
One Bed Apartments	50	60	10	10
Two Bed Apartments	80	100	12	20
Three Bed Apartments	95	120	15	25

Weekly waste generation assessment for the development is shown in Table 4.

**Table 4 Waste Generation Assessment**

Use	Quantity / Area (Net Leasable)	Weekly Waste Volume (Litres / Week)			
		General Waste	Recycling	Food Organics	Glass*
One Bed Apartments	28	1,400	1,400	280	280
Two Bed Apartments	115	9,200	10,120	1,380	2,300
Three Bed Apartments	6	570	630	90	150
<b>TOTAL</b>	<b>149</b>	<b>11,170</b>	<b>12,150</b>	<b>1,750</b>	<b>2,730</b>

## 4.2 WASTE SYSTEMS

Waste shall be sorted on-site by residents as appropriate into the following core streams:

- General Waste (Garbage)
- Commingled Recycling
- Organics
- Glass

Extended waste streams will be provided for further diversion of waste from landfill:

- Hard Waste
- E-waste (Electronic Waste)

### 4.2.1 DUAL CHUTES

Dual chutes will be provided for the disposal of waste generated from the apartments as appropriate. There is to be one chute dedicated to garbage and another dedicated to commingle recycling. The chute doors will be signed as garbage or commingled recycling as appropriate. Each chute will output directly into the stream 1,100L bin within the ground floor refuse room.

Bins at the chute termination points will be required to be manually rotated by building management (or equivalent) as appropriate (estimated once per day for both garbage and recycling).

Rubber skirting is to be provided at the end of the chutes to ensure debris from the transfer from chute to bin will not create a risk to operators.

### 4.2.2 GENERAL WASTE, COMMINGLED RECYCLING

Each apartment shall have provisions for plastic lined bins to have a minimum cumulative capacity of 35 litres each for the temporary holding of garbage and commingled recycling. Residents will transfer bagged garbage and loose recyclables as required into the waste chute provided on each floor.

General waste will be disposed of bagged, with commingled recycling to be disposed of loosely within the provided bin(s), bag(s) or marked storage area.

### 4.2.3 FOOD ORGANICS

Each apartment shall have provision for kitchen organics caddys (refer to Figure 1) to have a minimum capacity of 6 litres for the temporary holding of organics (food waste). Residents will transfer the organic waste to the 120 litre organics bins within the chute deposit room at each level as required. Kitchen caddys may be lined with biodegradable bags (i.e. corn-starch bags) or paper (i.e. newspaper) if desired.

**Figure 1 Example Kitchen Organics Caddy**





#### 4.2.4 GLASS (FUTURE PROVISION)

It is understood that the City of Monash are considering offering glass collection service for residents in the future. As such, provisions for separate 240 litre organics drop-off bins have been made within the residential waste room on ground floor.

If implemented, residents will transfer the glass waste to the 240 litre organics bins within the chute deposit room at each level as required. Glass will be collected as a separate stream by a private collection contractor on an as required basis.

#### 4.2.5 HARD WASTE AND E-WASTE

Any hard waste will be transferred to the refuse room in the 2m<sup>2</sup> Line marked area at ground level for collection on an as required basis. Hard waste and E-waste will be collected as separate streams undertaken by City of Monash via special arrangements organised between building management and Council. City of Monash offers one hard waste collection service per annum for eligible households. Residents are permitted to place up to 2m<sup>3</sup> (limits apply) of hard waste on the proper signed hard waste area in the property for collection.

Approximately 0.5m<sup>2</sup> of the 2m<sup>2</sup> hard waste area has been allocated for the temporary holding of e-waste (electronic waste). To enable the collection of various smaller items such as mobile phones, the area may incorporate a 240 litre e-waste bin as deemed appropriate by building management (or equivalent). The remaining e-waste area will be utilised for large items such as flat screen televisions.

### 4.3 INTERNAL WASTE TRANSFER & HANDLING

Waste generated throughout the residential spaces are anticipated to be cleared by residents on an as required basis, with transfer of the garbage and commingled recycling waste through the use of chutes on each level and additional streams transferred into the appropriate bins on each level and areas in the ground floor waste room. Transfer of waste bins from the chute deposit rooms to the ground floor refuse room will be undertaken by facilities/cleaning staff through the use of the provided lifts.

All waste transfer paths are to be exclusively within the site title boundary and do not require cleaners/tenants to exit title to perform operations. Transfer routes for waste collections do not include stairs or gradients greater than 1:14.

### 4.4 WASTE MANAGEMENT EQUIPMENT

**In-chute compaction units** have been incorporated at the termination points for the dual chute system. A compaction ratio of 2:1 is anticipated for both garbage and commingled recycling within the in-chute compactor prior to disposal within the appropriate 1100 litre bins.

Table 5 and Table 6 details the storage method, size, capacity and frequency of collection required for the development.

**Table 5 Waste Storage & Capacity**

Stream	Equipment	Quantity	Collections per Week	Weekly Capacity (L)	Weekly Volume (L) (Compacted 2:1)
General Waste	1,100L Bins	4	2	8,800	6,950*
Commingled Recycling	1,100L Bins	4	2	8,800	6,950*
Food Organics	120L Bins	8	3	2,880	2,730
Glass	240L Bins	4	2	1,920	1,750

*\*Anticipated general and commingled recycling waste volumes include organic and glass waste respectively in its content. To provide a conservative allowance, it is assumed residents uptake of green and glass waste collection will be low at the beginning of operations.*

**Table 6 Typical Storage Unit Dimensions**

Unit	Width (mm)	Depth (mm)	Height (mm)
120 Litre Bin	480	545	930
240 Litre Bin	585	730	1,060
1100 Litre Bin	1,240	1,070	1,330

#### 4.5 WASTE STORAGE AREA & LOCATION

Table 7 demonstrates the cumulative area requirements (excluding circulation) in comparison to the designed provision of ground level waste storage to demonstrate the adequacy of the area provided.

**Table 7 Waste Storage Area Requirements**

Waste Equipment	Area Required	Area Provided
8no. 1100L Bin	10.64m <sup>2</sup>	43.00m <sup>2</sup>
8no. 120L Bin	2.09m <sup>2</sup>	
4no. 240L Bin	1.78m <sup>2</sup>	
Hard Waste and E-Waste Area	2.00m <sup>2</sup>	
<b>TOTAL</b>	<b>16.51m<sup>2</sup></b>	<b>43.00m<sup>2</sup></b>

#### 4.6 BIN SUPPLIER AND COLOURS

All bins will be provided by private supplier. The below bin colours are specified by Australian Standard AS4123.7 2006, however due to the private nature of the collection, these are only recommendations and are not mandatory:

- Garbage (general waste) bins shall have red lids with dark green or black body.
- Recycle bins shall have yellow lids with dark green or black body.
- Food Organics bins shall have green lids with dark green or black body.
- Glass bins shall have purple lids with dark green or black body.
- E-Waste bins shall have white lids with dark green or black body.

Private collection contractors often supply their own bins for collection.

## 4.7 SIGNAGE

Waste drop-off areas and bins will be clearly marked and signed with the approved Sustainability Victoria waste disposal signage, or equivalent, examples of which are provided in Figure 2.

**Figure 2 Sustainability Victoria Waste Signage**



## 4.8 WASTE COLLECTION METHODOLOGY

Waste will be collected as outlined in Table 8.

**Table 8 Waste Collection Summary**

Stream	Equipment	Collections per Week	Collection Operator
General Waste	4no. 1100L Bins	2	Private Collection
Commingled Recycling	4no. 1100L Bins	2	Private Collection
Food Organics	8no. 120L Bins	3	Private Collection
Glass	3no. 240L Bins	2	Private Collection
Hard Waste/E-waste	2m <sup>2</sup> Line marked area	As Required	Private Collection

All waste collections will occur on-site directly from the ground floor level waste room. A 6.4m or smaller collection vehicle will be utilised to perform all collections, propping adjacent to the waste room with operators to collect the material directly from the waste room and return empty storage containers immediately upon emptying. A minimum height clearance of 3.5m throughout vehicle path of travel, allowed within the parking lanes.

Bins will not be stored outside of the title boundary or presented to kerb for collection at any time.

Building management will ensure sufficient access is provided for operators during collection times.

## 5 ADDITIONAL INFORMATION

### 5.1 COMMUNICATIONS STRATEGY

Table 9 below outlines a high level communications strategy for the site, outlining user responsibilities and key points of contact. The 'House Rules and Guidelines' document (or equivalent) prepared by facilities management will further detail contact details and specific reporting procedures.

Once occupancy commences, facilities management will contact Council to ensure their Waste Services department has a record of contact details.

**Table 9 Communications Strategy**

Item	Responsibility	Contact	Notes
Residential Induction	Facilities manager	Residents	<p>Correct waste disposal practices onsite will be provided by facilities management as part of standard residential induction.</p> <p>Residential induction should include clear guidelines to support:</p> <ul style="list-style-type: none"> <li>▪ Waste equipment and correct use (bin rooms, drop off bins, chutes etc.)</li> <li>▪ Waste room locations</li> <li>▪ Waste stream separation (e-waste, glass, food, etc.)</li> <li>▪ Contamination risks and impacts</li> <li>▪ Facilities management / cleaning staff contact details</li> </ul> <p>Induction should be further supported by printed materials for residential reference (including this WMP), which should be available in various languages for ESL speakers where possible. Additional printed materials should be available upon request.</p>
Waste Signage	Facilities manager	To be provided upon occupancy	<p>Facilities management will ensure waste rooms, bin rooms, chutes and bins are appropriately signed at all times.</p> <p>Signage should be clearly marked, with clear instruction (illustrated or otherwise) of acceptable and non-acceptable materials. Signage should be provided in different languages (i.e. Chinese script alongside English text) for ESL speakers.</p>
Illegal Waste Dumping	Facilities manager	City of Monash	Facilities management will report any on-site illegal waste dumping from an external source to Council for collection.
Equipment Purchase	Facilities manager	Equipment Suppliers	Facilities management will be responsible for coordinating equipment provision with nominated suppliers.

Waste Collection	Facilities manager	Private waste collectors	Facilities management will coordinate the collection of each waste stream with the nominated collection contractors, inclusive of vehicle access, collection schedules, and collection times.
Waste Spillage	Residents / Facilities manager	Cleaning Staff	Residents and/or facilities management will contact cleaning staff directly in reporting major waste spillages.
Hard Waste Transfer	Residents	Facilities manager	Residents will contact facilities management to nominate a scheduled time for the transfer of hard waste to basement level.  Facilities management will assist residents in the transfer of hard waste.

## 5.2 LOCAL CONTEXTUAL ANALYSIS PLAN

Impacts of the waste system specified in this WMP upon the surrounding local (urban) landscape will be minimised where possible. WSP note that the following key features have been incorporated into waste design and into this WMP:

- **Waste Design:** The waste system as shown was developed with consideration for building services, car parking and building structure, providing for a fully integrated system.
- **Collection Times:** Waste collection will be undertaken in accordance with EPA Noise regulation requirements.
- **Waste Storage:** Waste storage will be contained entirely onsite at ground level. Waste storage will not impact upon street or public amenity.
- **Street Level Interface:** Bins will not be presented to the kerb for collection. Waste collection will not impact upon local amenity or landscaped areas.

**Figure 3 Site Location (Source: Google Maps)**



### 5.3 STANDARDS & COMPLIANCE

### 5.4 VENTILATION

Ventilation will be provided in accordance with Australian Standard AS1668.

### 5.5 WASHING & VERMIN PREVENTION

A third party bin washing service can be engaged to undertake bin washing. Bin washing suppliers must retain all waste water to within their washing apparatus and not impact on the drainage provisions of the site. All equipment used throughout the bin washing process will be provided by the nominated bin washing party and fitted to their bin washing apparatus.

Major waste spillages will be managed as per cleaning staff's standard practice. Residents and/or building management will be responsible for notifying cleaning staff of any spillages. All equipment used throughout cleaning operations will be stored onsite within cleaners' cupboards, access to which will be limited to approved staff only.

A floor waste (wash down) connection should be provided within the waste room at basement level for wash down, subject to hydraulic engineering specifications.

### 5.6 NOISE REDUCTION

All waste areas shall meet BCA and AS2107 acoustic requirements as appropriate with operational hours and collection times assigned to minimise acoustic impact on surrounding premises.

Collection times will generally mimic those of the equivalent Council service(s), and will be limited to those recommended under the EPA Victoria Noise Guidelines (7am-8pm weekdays).

## 6 HIGH LEVEL PURCHASING SCHEDULE

Table 10 lists the waste equipment required for the development under the conditions proposed within this report.

**Table 10 Equipment Supply Schedule**

Item	Quantity	Lid Colour	Body Colour	Typical Service Requirements*	Supplier**
1,100 Litre Garbage Bins	4	Red	Dark Green / Black	Nil	Private Supplier (Sulo or equivalent)
1,100 Litre Recycling Bins	4	Yellow	Dark Green / Black	Nil	Private Supplier (Sulo or equivalent)
120 Litre Garden Organics Bins	8	Burgundy	Dark Green / Black	Nil	Private Supplier (Sulo or equivalent)
240 Litre Glass Bins	4	Yellow	Light Green	Nil	Private Supplier (Sulo or equivalent)
Hard Waste Cage or Bin	1	N/A	N/A	Nil	Private Supplier (Sulo or equivalent)
240 E-waste Bin	1	White	Dark Green / Black	Nil	Private Supplier (Sulo or equivalent)
In-Chute Compactor	2	N/A	N/A	<u>Power Supply</u> : 3 Phase 20Amp	Private Supplier* (Wastech or equivalent)

*\*Services requirements are indicative only and must be confirmed with the manufacture prior to commencement of construction.*

*\*\*Private waste collection contractors often supply their own bins for collection.*

## 6.1 SUPPLIER CONTACT INFORMATION

A complimentary listing of contractors and equipment suppliers is provided in Table 11 below for your reference. WSP is not associated with these suppliers. There exists no obligation to procure goods/services from these companies. This is not, nor is it intended to be, a complete list of available suppliers. WSP does not warrant (or make representations for) the goods/services provided by these suppliers.

**Table 11 Supplier Contact List**

Service Type	Contractor / Supplier Name	Phone	Website
Private Waste Collectors	Citywide Service Solutions Pty Ltd	(03) 9261 5000	<a href="http://www.citywide.com.au">www.citywide.com.au</a>
	SUEZ Environment	13 13 35	<a href="http://www.sita.com.au">www.sita.com.au</a>
	Cleanaway	13 13 39	<a href="http://www.cleanaway.com.au">www.cleanaway.com.au</a>
	Veolia	132 955	<a href="http://www.veolia.com">www.veolia.com</a>
Equipment Suppliers	Sulo Australia (Bins)	1300 364 388	<a href="http://www.sulo.com.au">www.sulo.com.au</a>
	Wastech Engineering (Chutes, In-chute compactors)	(03) 8787 1600	<a href="http://www.wastech.com.au">www.wastech.com.au</a>
Bin Washing Services	The Bin Butlers	1300 788 123	<a href="http://www.thebinbutlers.com.au">www.thebinbutlers.com.au</a>
	Kerbside Clean-A-Bin	(03) 9830 7381	<a href="http://www.kerbsidecleanabin-srp.com.au">www.kerbsidecleanabin-srp.com.au</a>
	Calcorp Services	1800 225 267	<a href="http://www.calcorpservices.com.au">www.calcorpservices.com.au</a>
	WBCM Environmental Australia	1300 800 621	<a href="http://www.wbcm-aust.com.au">www.wbcm-aust.com.au</a>
E-waste Collection Services	TechCollect	1300 229 837	<a href="http://www.techcollect.com.au">www.techcollect.com.au</a>
	Mobile Muster	1800 249 113	<a href="http://www.mobilemuster.com.au">www.mobilemuster.com.au</a>
	ToxFree	1300 869 373	<a href="http://www.toxfree.com.au">www.toxfree.com.au</a>

# APPENDIX A

SCALED WASTE ROOM  
DRAWINGS

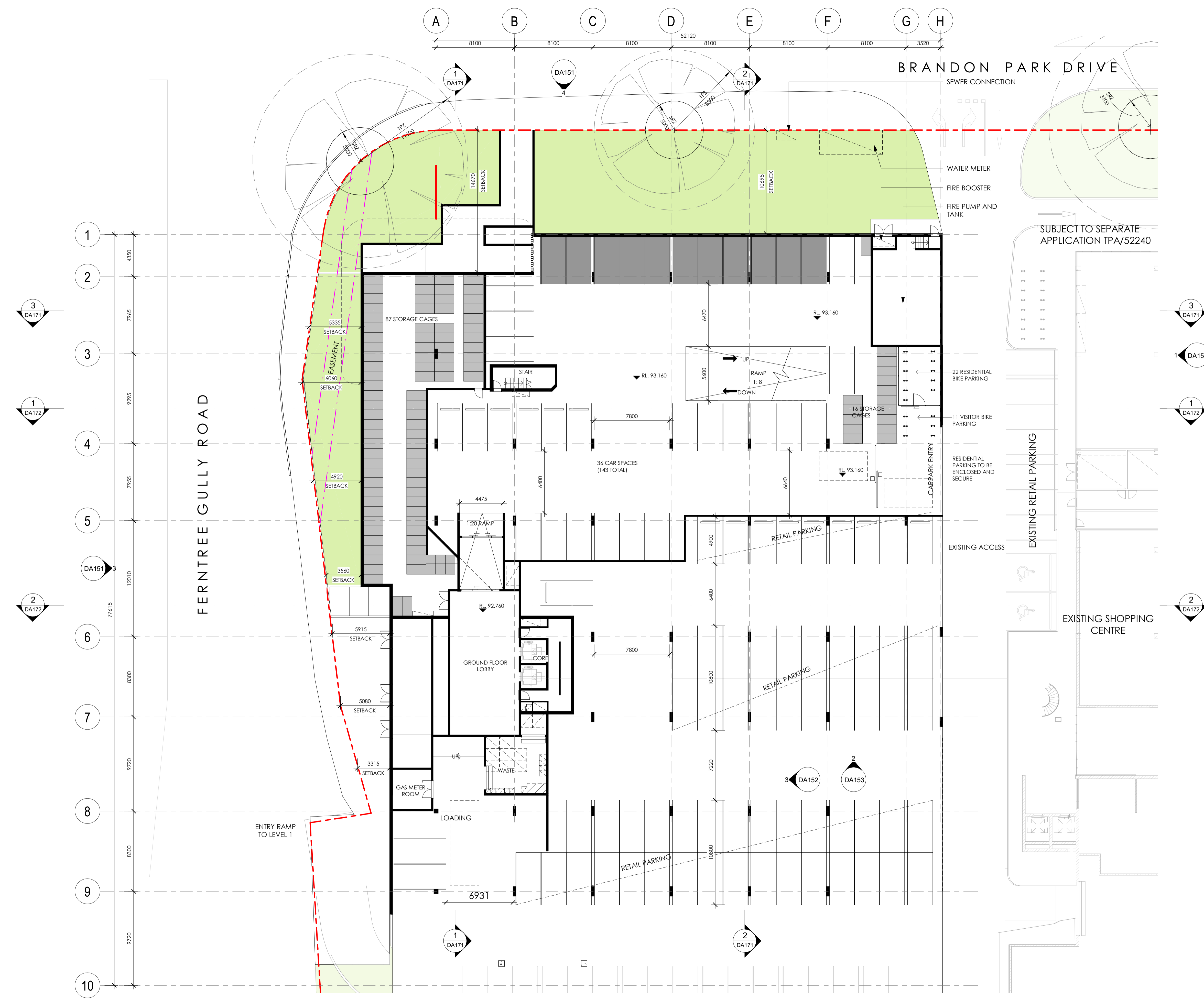




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ISSUE	AMENDMENT	DATE	CHK'D
P1	FOR INFORMATION	06.08.21	SJE
P2	FOR INFORMATION	20.08.21	SJE
P3	FOR INFORMATION	30.08.21	SJE
P4	FOR INFORMATION	09.09.21	IE
P5	FOR INFORMATION	17.09.21	IE



SUBJECT TO SEPARATE APPLICATION TPA/52240

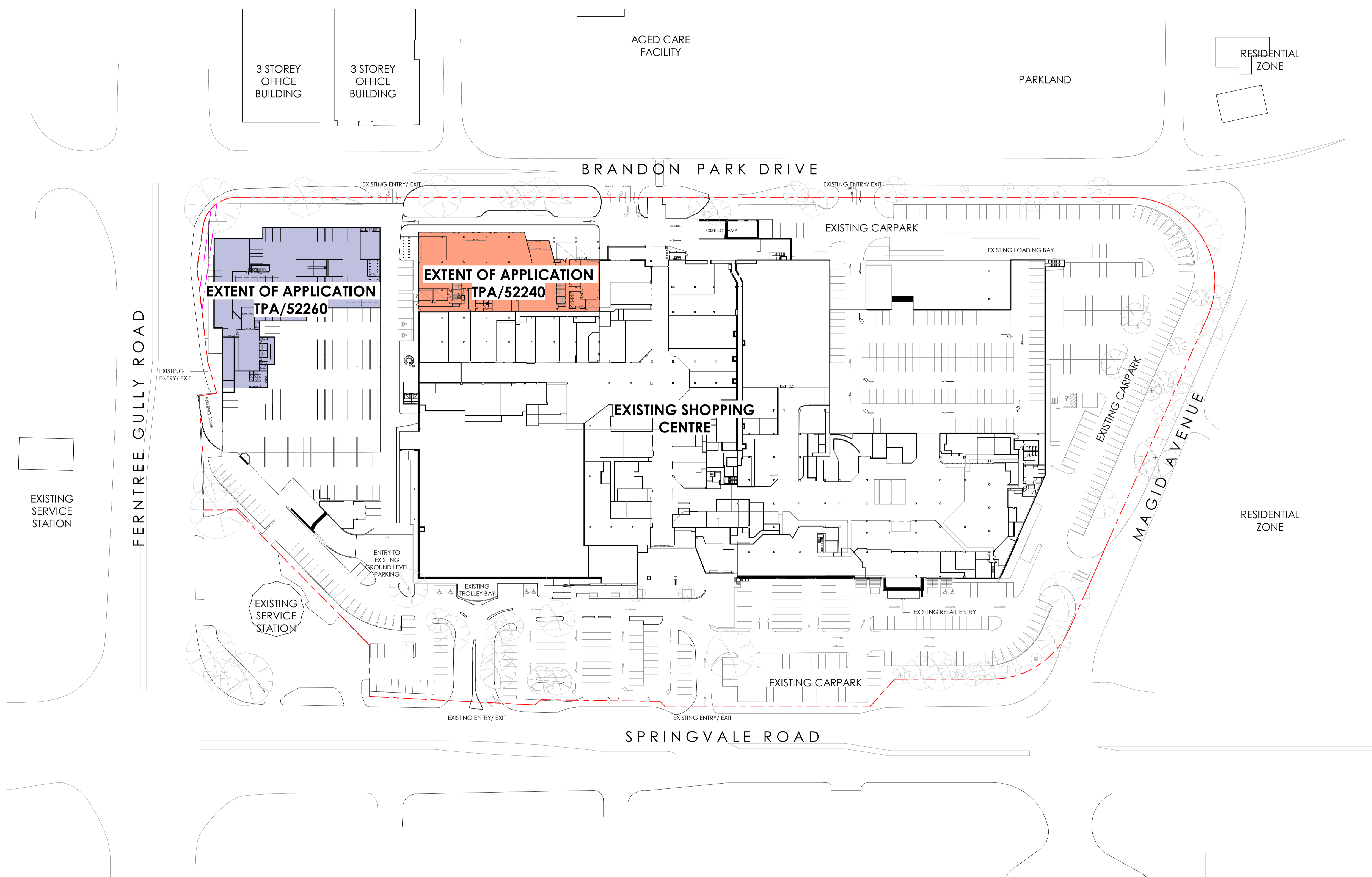
PARKING SCHEDULE	
RESIDENTIAL PARKING	34
RETAIL PARKING	409

LEGEND	
	PROPERTY BOUNDARIES
	EASEMENTS
	LANDSCAPING (REFER TO LANDSCAPE DESIGNER'S DRAWINGS)
	PROPOSED CAR SPACES
	EXISTING CAR SPACES

PROPOSED GROUND FLOOR PLAN



ISSUE	AMENDMENT	DATE	CHK'D
P1	FOR INFORMATION	30.08.21	SJE
P2	FOR INFORMATION	09.09.21	IE
P3	FOR INFORMATION	17.09.21	IE



PROPOSED COMBINED GROUND FLOOR PLAN



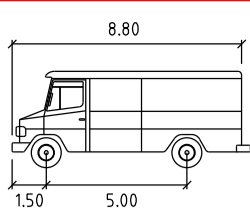
# APPENDIX B

## TRAFFIC SWEEP PATHS

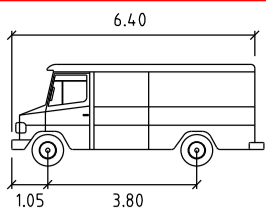


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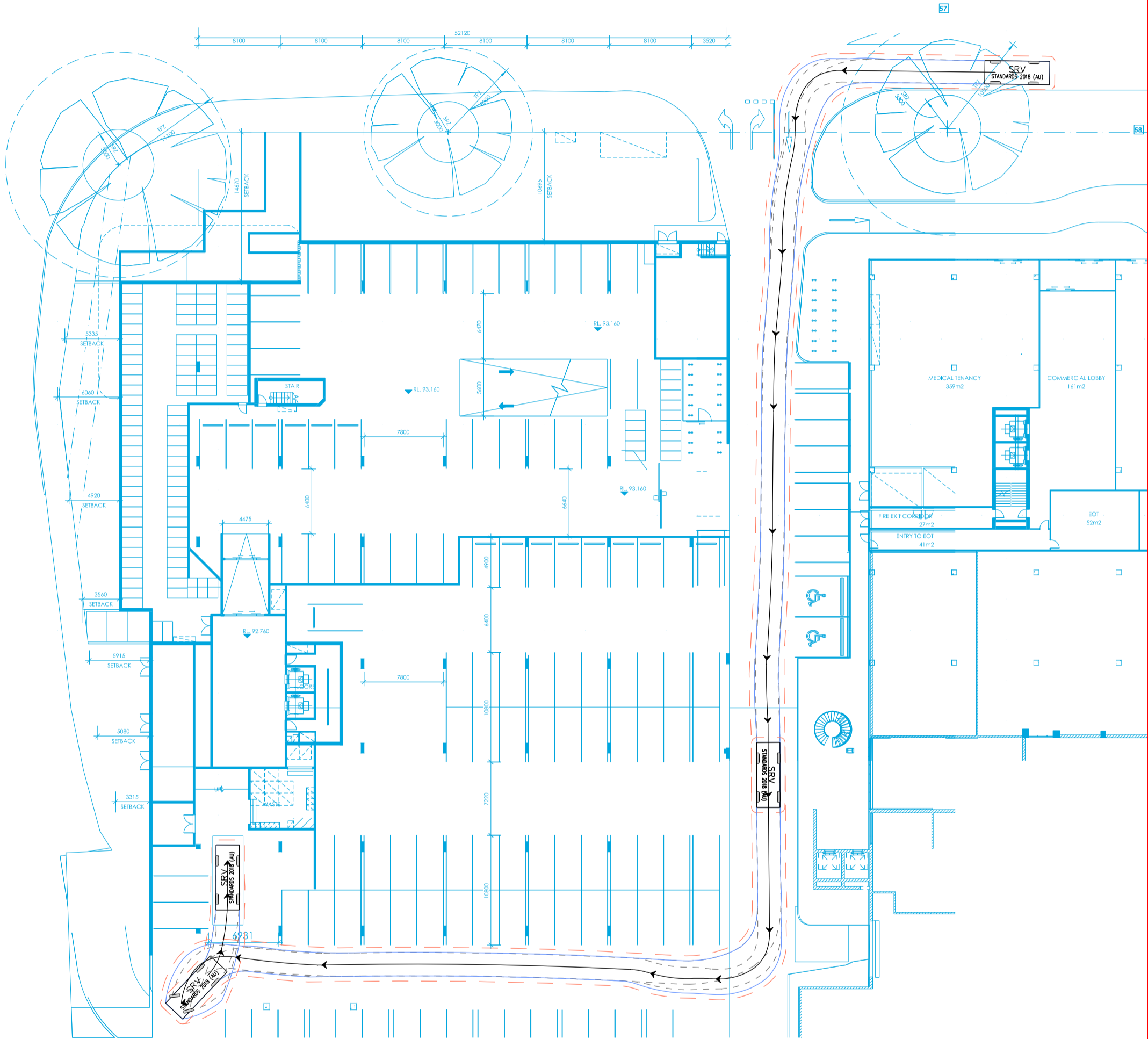
- VEHICLE CENTRE LINE
  - - VEHICLE TYRE PATH
  - VEHICLE BODY PATH
  - - 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h



MRV AS2890.2 metres  
 Width : 2.50  
 Track : 2.50  
 Lock to Lock Time : 6.0  
 Steering Angle : 34.0

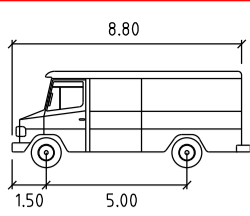


SRV metres  
 Width : 2.30  
 Track : 2.30  
 Lock to Lock Time : 6.0  
 Steering Angle : 38.0

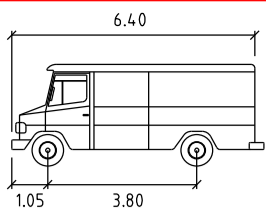


**SWEPT PATH KEY**

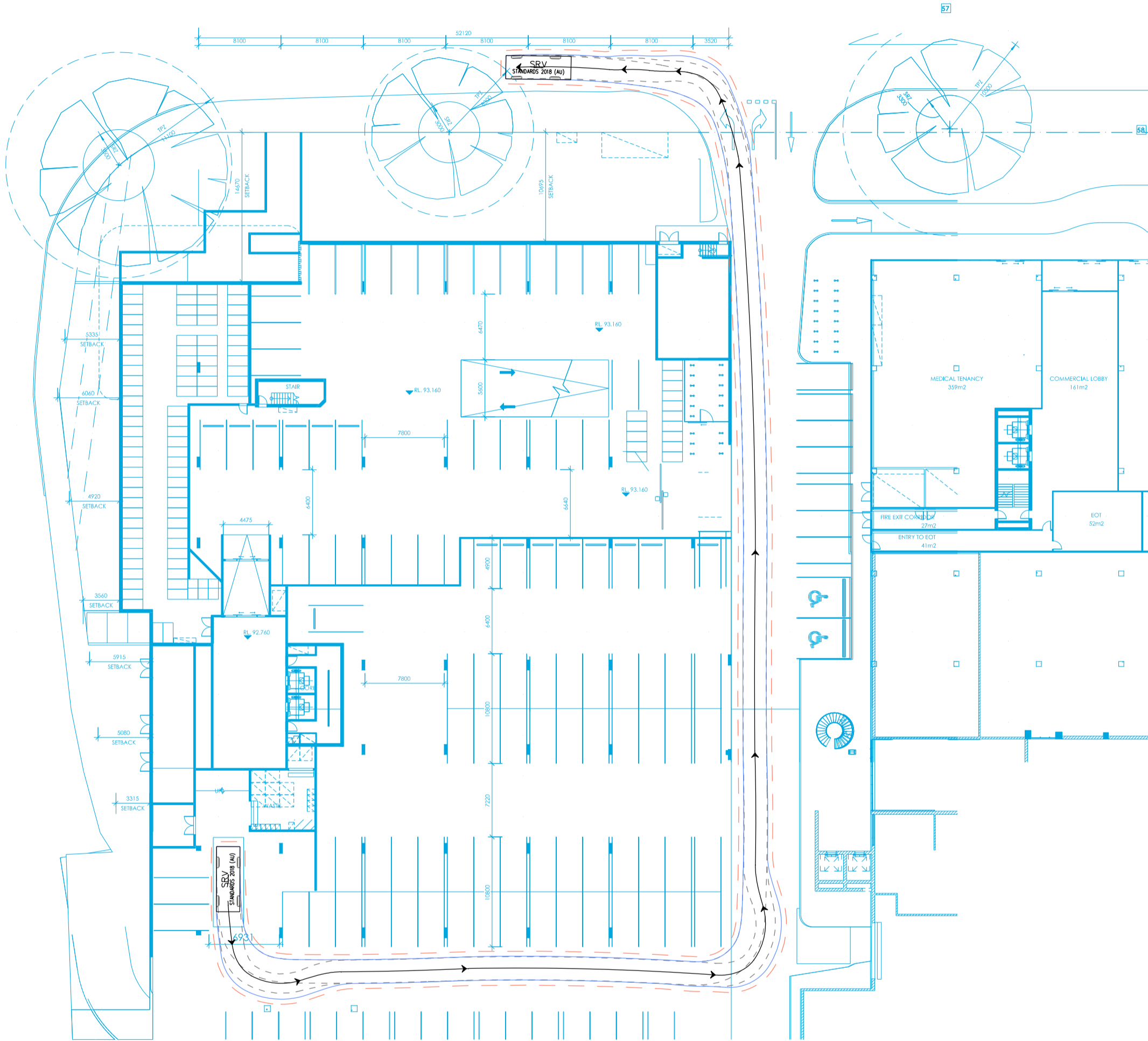
- VEHICLE CENTRE LINE
  - - VEHICLE TYRE PATH
  - VEHICLE BODY PATH
  - - 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h



MRV AS2890.2 metres  
 Width : 2.50  
 Track : 2.50  
 Lock to Lock Time : 6.0  
 Steering Angle : 34.0

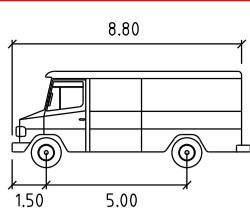


SRV metres  
 Width : 2.30  
 Track : 2.30  
 Lock to Lock Time : 6.0  
 Steering Angle : 38.0

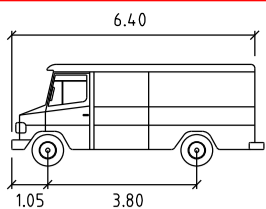


**SWEPT PATH KEY**

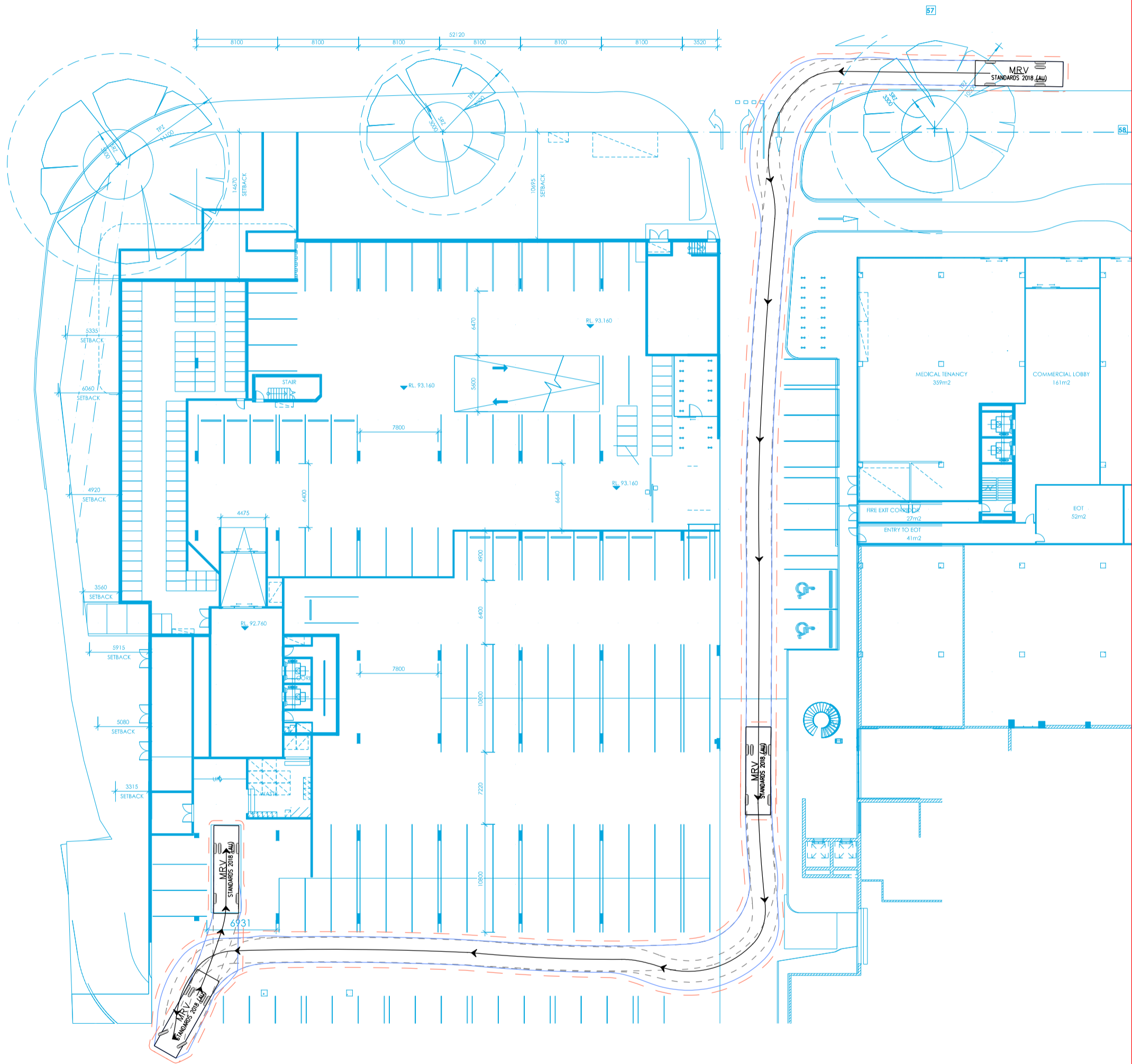
- VEHICLE CENTRE LINE
  - - - VEHICLE TYRE PATH
  - VEHICLE BODY PATH
  - - - 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h



MRV AS2890.2 metres  
 Width : 2.50  
 Track : 2.50  
 Lock to Lock Time : 6.0  
 Steering Angle : 34.0

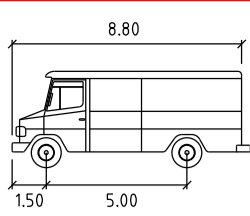


SRV metres  
 Width : 2.30  
 Track : 2.30  
 Lock to Lock Time : 6.0  
 Steering Angle : 38.0

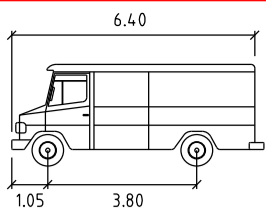


**SWEPT PATH KEY**

- VEHICLE CENTRE LINE
  - - VEHICLE TYRE PATH
  - VEHICLE BODY PATH
  - - 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h



MRV AS2890.2 metres  
 Width : 2.50  
 Track : 2.50  
 Lock to Lock Time : 6.0  
 Steering Angle : 34.0



SRV metres  
 Width : 2.30  
 Track : 2.30  
 Lock to Lock Time : 6.0  
 Steering Angle : 38.0

