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# Traffix Group

## Traffic Engineering Assessment

Proposed Retirement Living Facility

1-9 Allen Street & 777-781 Warrigal Road,  
Oakleigh

Prepared for  
EBG

September 2021

G30255R-01B

## Document Control

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## Table of Contents

<b>1.</b>	<b>Introduction.....</b>	<b>1</b>
<b>2.</b>	<b>Existing Conditions.....</b>	<b>2</b>
2.1.	<i>Subject Site.....</i>	2
2.2.	<i>Planning Scheme Zones &amp; Surrounding Uses.....</i>	3
2.3.	<i>Road Network.....</i>	4
2.4.	<i>Sustainable Modes of Transport.....</i>	6
2.4.1.	Public Transport.....	6
2.4.2.	Bicycle Access & Walkability.....	9
2.5.	<i>Existing Permit.....</i>	9
<b>3.</b>	<b>Proposal.....</b>	<b>10</b>
3.1.	<i>The Development.....</i>	10
3.2.	<i>Car Parking &amp; Access Arrangements.....</i>	10
3.3.	<i>Additional On-Street Parking.....</i>	10
3.4.	<i>Bicycle Parking.....</i>	11
3.5.	<i>Waste Collection &amp; Loading.....</i>	11
<b>4.</b>	<b>Car Parking Considerations.....</b>	<b>12</b>
4.1.	<i>Statutory Requirements – Clause 52.06.....</i>	12
4.2.	<i>Car Parking Demand Assessment.....</i>	14
4.2.1.	Anticipated Parking Demand.....	15
4.3.	<i>Allowing Fewer Car Spaces.....</i>	15
4.3.1.	Existing On-Street Parking.....	15
4.3.2.	Appropriateness of Sought Reduction.....	17
4.4.	<i>Car Parking Layout &amp; Access Arrangements.....</i>	17
<b>5.</b>	<b>Traffic Considerations.....</b>	<b>19</b>
5.1.	<i>Café.....</i>	19
5.2.	<i>Retirement Living.....</i>	19
5.3.	<i>Total Traffic Generation.....</i>	20
<b>6.</b>	<b>Bicycle Considerations.....</b>	<b>21</b>
<b>7.</b>	<b>Loading Considerations.....</b>	<b>22</b>
7.1.	<i>Loading.....</i>	22
7.2.	<i>Waste.....</i>	22
<b>8.</b>	<b>Conclusions.....</b>	<b>23</b>

## List of Figures

Figure 1: Locality Map	2
Figure 2: Site Frontage - View from Ellingworth Parade	3
Figure 3: Planning Zone Map - Monash	4
Figure 4: Warrigal Road – View South	5
Figure 5: Warrigal Road - View North	5
Figure 6: Allen Street - View West	5
Figure 7: Allen Street - View East	5
Figure 8: Public Transport Map	7
Figure 9: Proposed Crossover Closures & On-street Parking Changes	11
Figure 10: Monash PPTN Area Map	13

## List of Tables

Table 1: Summary of Public Transport Services	8
Table 2: Proposed Development Schedule	10
Table 3: Statutory Car Parking Requirements (Clause 52.06)	13
Table 4: Nearmap Parking Survey Results	16
Table 5: Case Study Summary - Retirement Village (figures in trips per unit)	20

## List of Appendices

**Appendix A** Parking Survey

**Appendix B** Swept Paths

## 1. Introduction

Traffix Group has been engaged by EBG to undertake a Traffic Engineering Assessment for the Proposed Retirement Living Facility at 1-9 Allen Street & 777-781 Warrigal Road, Oakleigh.

This report provides a detailed traffic engineering assessment of the parking and traffic issues associated with the proposed development.

A Planning Permit (TPA/49990) exists for the site for a residential aged care facility accommodating and medical centre. This application is for a new permit for a residential retirement living facility and café.

In the course of undertaking this assessment, we have reviewed development plans and background material, and assessed the car parking and traffic impacts of the proposal, including in the context of the existing permit. We have relied on a historical site inspection of the subject site that was undertaken in May 2020, due to the recent Victoria COVID-19 lockdowns.

Our assessment is as follows.

## 2. Existing Conditions

### 2.1. Subject Site

The subject site is located on the north-eastern corner of the intersection of Warrigal Road and Allen Street in Oakleigh.

The subject site is irregular in shape with a total area of approximately 6,250 square metres and has frontages to Allen Street and Warrigal Road of approximately 148 metres and 40 metres, respectively.

The subject site comprises four properties:

- No. 1-9 Allen Street, we understand was historically occupied by the Department of Health and Human Services (currently vacant). Vehicle access to the site is provided via 4 crossovers located along Allen Street.
- No. 777 Warrigal Road, occupied by a single storey dwelling. Vehicle access to the site is provided via a shared crossover with property No. 779 to Warrigal Road.
- No. 779 Warrigal Road, occupied by a single-storey dwelling. Vehicle access to the site is provided via a shared crossover with property No. 777 to Warrigal Road.
- No. 781 Warrigal Road, occupied by a single-storey dwelling. Vehicle access to the site is provided via a single width crossover at the site's south-eastern boundary to Allen Street.

A locality plan and aerial photograph of the site are provided at Figure 1 and Figure 2 respectively.

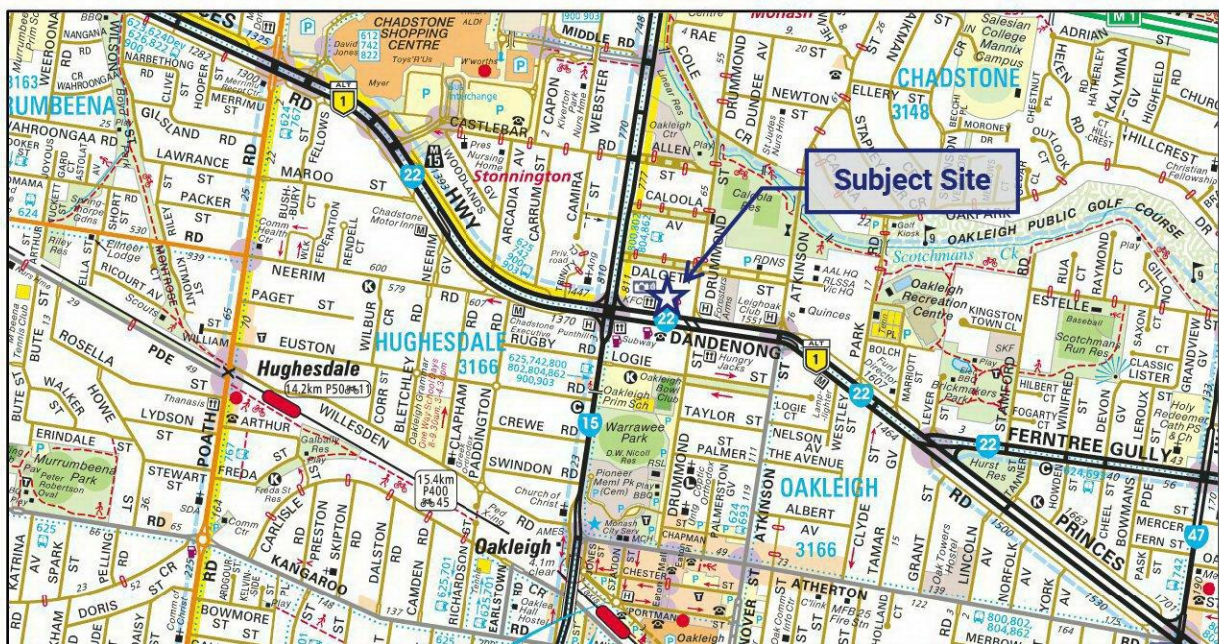


Figure 1: Locality Map



Figure 2: Site Frontage - View from Ellingworth Parade

Source: Nearmap

## 2.2. Planning Scheme Zones & Surrounding Uses

The subject site is zoned 'Neighbourhood Residential Zone – Schedule 2 (NRZ2)' under the Monash Planning Scheme. A planning zone map is provided at Figure 3.

Land uses in the immediate vicinity of the subject is generally residential in nature with public park and recreation uses located immediately to the east. In the broader area, commercial/retail uses are located further to the west and east.

The land abuts Road Zone (Category 1) at the west and Public Park Reserve Zone at the east. Notable other nearby uses include:

- Scotchmans Creek Trail and Linear Reserve, located immediately to the east,
- Caloola Reserve, located approximately 70 metres to the east
- Chadstone Shopping Centre, located approximately 500 metres to the west,
- Oakleigh Primary School, located approximately 550 metres south of the site,
- The Oakleigh Major Activity Centre<sup>1</sup>, located approximately 650m south of the subject site.
- Oakleigh Public Golf Course, located approximately 750 metres east of the site,
- Oakleigh Railway Station, located approximately 1.3km south of the site.

<sup>1</sup> According to City of Monash – Oakleigh Major Activity Centre Structure Plan – dated 28<sup>th</sup> August, 2012

## Traffic Engineering Assessment

1-9 Allen Street & 777-781 Warrigal Road,  
Oakleigh

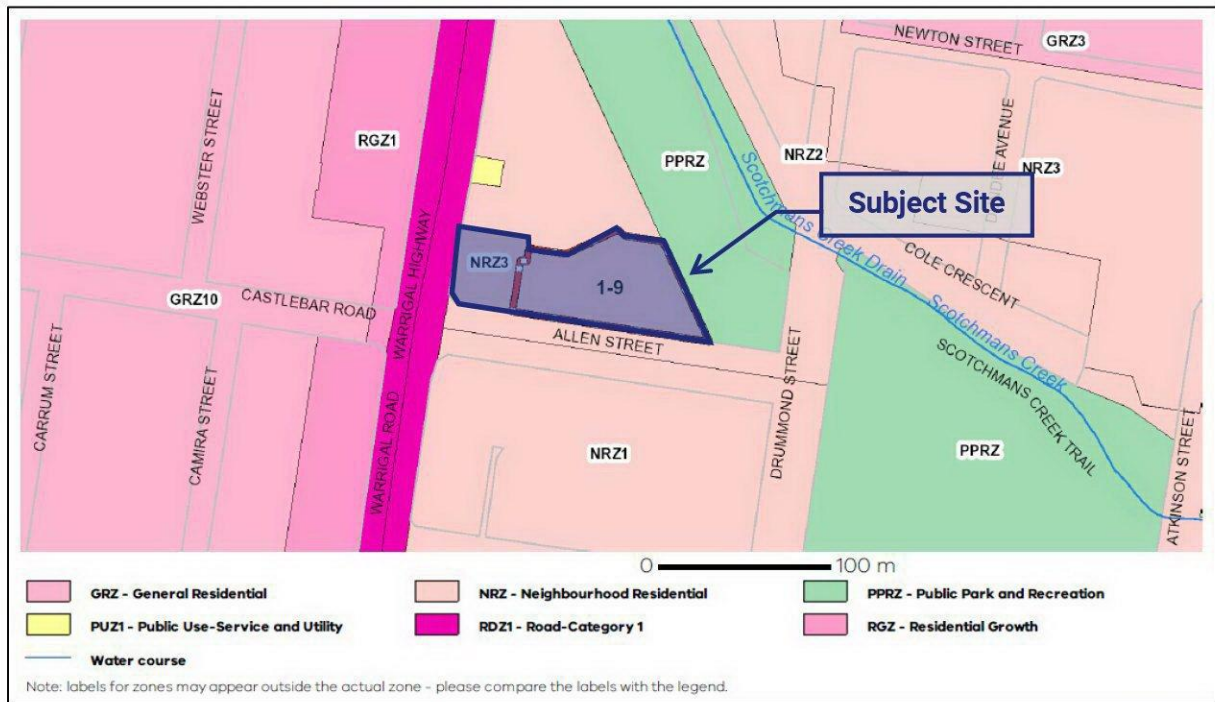


Figure 3: Planning Zone Map - Monash

Source: Vic Plan

### 2.3. Road Network

**Warrigal Road** is a State Arterial Road aligned in a north-south direction and is zoned 'Road Zone Category 1' under the Planning Scheme. It is under the control of Department of Transport.

In the vicinity of the site, Warrigal Road has a divided carriageway that provides three traffic lanes in both directions. A median break is provided at the intersection with Allen Street, with right turn lanes provided at the northern and southern legs to facilitate access to Allen Street to the east and Castlebar Road to the west.

Clearway restrictions apply between 6:30-9:30am and 4-6:30pm on both sides of Warrigal Road in proximity to the site.

A signed speed limit of 60km/h applies to Warrigal Road in the area.

The intersection of Warrigal Road and Allen Street is controlled by a Stop sign, with priority afforded to Warrigal Road. At the intersection, 'Keep Clear' linemarking is provided on the southbound carriageway of Warrigal Road, assisting vehicles to enter and exit Allen Street via the median break.

**Allen Street** is a local Council road aligned in an east-west direction between Drummond Street to the east and Warrigal Road to the west.

In the vicinity of the site, Allen Street has a divided carriageway with a carriageway width of approximately 5.4 metres for the westbound carriageway and 5.3 metres for the eastbound carriageway. Both carriageways accommodate a single lane of traffic and kerbside parking.



## Traffic Engineering Assessment

1-9 Allen Street & 777-781 Warrigal Road,  
Oakleigh

Parking is also accommodated within the median, provided in the form of 90 degree angled spaces.

Prior to the intersection with Drummond Street, the two carriageways along Allen Street converge, forming a single undivided carriageway with a width of approximately 7.9 metres.

U-turn opportunities are provided along Allen Street via breaks in the median at both the eastern and western ends of the street.

Parking along Allen Street is predominantly unrestricted, however  $\frac{1}{2}$ P and No Parking (permit holders excepted) restrictions apply on Saturdays and Sundays.

The default urban speed limit of 50km/h applies to Allen Street.

Figure 6 and Figure 5 provide views of the surrounding road network.

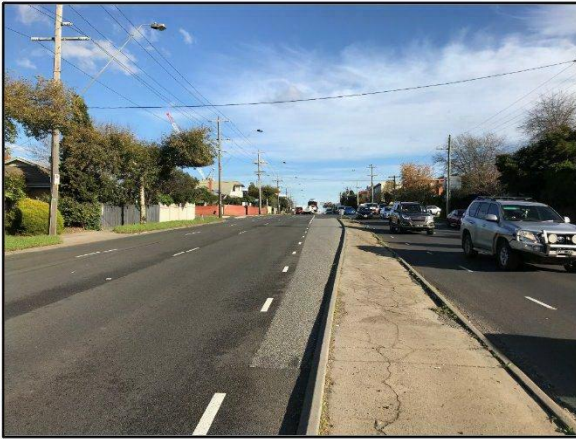


Figure 4: Warrigal Road – View South

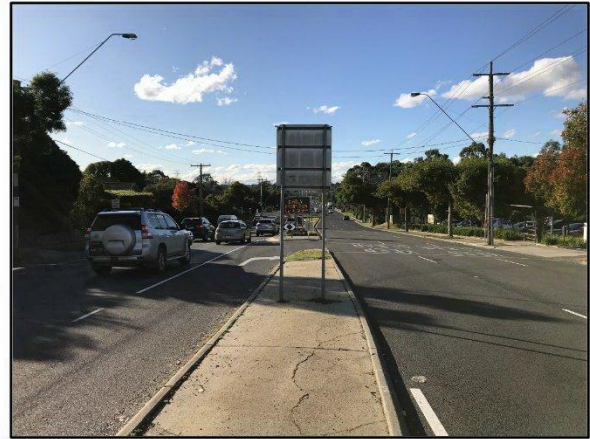


Figure 5: Warrigal Road - View North



Figure 6: Allen Street - View West



Figure 7: Allen Street - View East

## **2.4. Sustainable Modes of Transport**

The site has excellent access to sustainable transport modes and is well located with regard to retail and essential services as detailed below.

### **2.4.1. Public Transport**

The site is well served by public transport services with bus services within walking distance of the site. Chadstone Shopping Centre is located approximately 500 metres west of the site and includes a high number of services operating from the bus interchange.

Oakleigh Railway Station is located approximately 1.3km south of the site, with bus connection running to and from the station.

The available public transport services within proximity of the site are shown in Figure 8 and a summary is provided at Table 1.

# Traffic Engineering Assessment

1-9 Allen Street & 777-781 Warrigal Road, Oakleigh

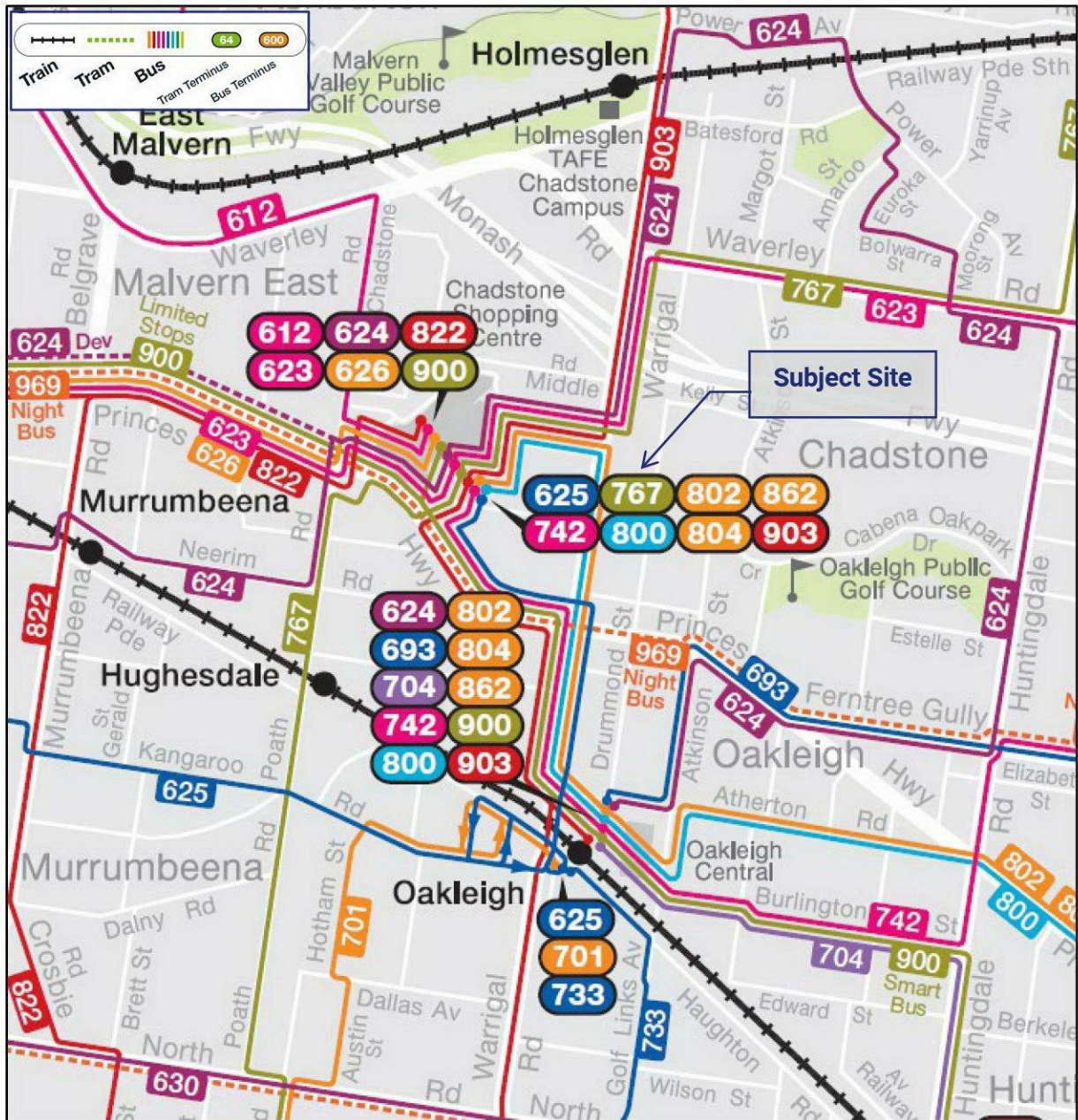


Figure 8: Public Transport Map

Source: ptv.vic.gov.au

## Traffic Engineering Assessment

1-9 Allen Street & 777-781 Warrigal Road,  
Oakleigh

Table 1: Summary of Public Transport Services

Service	Between	Via
<b>Warrigal Road – located approximately 200m walking distance north of the site</b>		
Bus Route 800	Dandenong & Chadstone	Princes Highway & Oakleigh
Bus Route 802	Dandenong & Chadstone	Mulgrave & Oakleigh
Bus Route 804	Dandenong & Chadstone	Wheelers Hill & Oakleigh
Bus Route 862	Dandenong & Chadstone	North Dandenong & Oakleigh
<b>Chadstone Shopping Centre Bus Loop – located approximately 500m walking distance west of the site</b>		
Bus Route 903 (Smartbus)	Altona & Mordialloc	Brooklyn, Coburg & Doncaster
Bus Route 767	Southland & Box Hill	Chadstone, Jordanville & Deakin University
Bus Route 625	Elsternwick & Chadstone	Ormond & Oakleigh
Bus Route 742	Eastland & Chadstone	Vermont South, Glen Waverley & Oakleigh
Bus Route 612	Box Hill & Chadstone	Surrey Hills, Camberwell & Glen Iris
Bus Route 624	Kew & Oakleigh	Caulfield, Carnegie, Darling & Chadstone
Bus Route 822	Chadstone SC & Sandringham	Murrumbeena & Southland SC
Bus Route 623	Glen Waverley & St Kilda	Mount Waverley, Chadstone & Carnegie
Bus Route 626	Middle Brighton & Chadstone	McKinnon & Carnegie
Bus Route 900 (Smartbus)	Stud Park SC (Rowville) & Caulfield	Monash University & Chadstone
<b>Oakleigh Railway Station – located approximately 1.3km walking distance south of the site</b>		
Access to 13 bus routes	Provides connection Chadstone, Glen Waverley, Monash University and Caulfield	

Source: <http://planning-schemes.delwp.vic.gov.au>

#### **2.4.2. Bicycle Access & Walkability**

The site is considered to be very walkable in the context of access to multiple sustainable transport modes, retail and essential services, and other community and daily residential needs.

As noted earlier, the site is located proximate to the Oakleigh Major Activity Centre and also the Chadstone Shopping Centre. These provide access to a wide range of everyday services such as restaurants, cafes, a post office, supermarkets, specialty shops and medical centres.

The site also has convenient access to the Scotchmans Creek Trail, located immediately to the east, providing a shared use path for cyclists and pedestrians. The trail runs between East Malvern Railway Station to Jells Park (Wheelers Hill).

#### **2.5. Existing Permit**

Planning Permit TPA/49990 was issued by the City of Monash at the direction of VCAT (No. P721/2019) for the development of a residential aged care facility accommodating 154 beds and a medical centre accommodating up to 6 practitioners.

Reference is made to the Traffic Engineering Assessment report prepared by Traffix Group (ref. G24270R#3) dated 19 December 2018 that accompanied the original town planning application.

The development provided for a 56 space lower ground level car park, with access approved via Allen Street at the south-east boundary of the site. A separate porte-cochere located centrally along the southern boundary of the site was also approved, with access afforded via two connections with Allen Street.

## 3. Proposal

### 3.1. The Development

The proposal is for a retirement facility comprising a total of 84 retirement living apartments and associated ancillary communal facilities including lounges, physio, gardens, meeting rooms, gyms and cinemas. These facilities will only be available for use by residents.

The proposal also includes a café for the use by both residents and the public.

The proposed development schedule is provided in Table 2.

Table 2: Proposed Development Schedule

Use		No. / Area
Retirement Village (retirement living facility)	1 bed dwelling	5
	2 bed dwelling	62
	3+ bed dwelling	17
	<b>Total</b>	<b>84</b>
Food and drink premises (café)		90 m <sup>2</sup>

### 3.2. Car Parking & Access Arrangements

The development is to provide a total of 104 car spaces, comprising 103 spaces within a lower ground level car park and a single short term pick-up/drop-off space at ground level within a porte-cochere.

Vehicular access is provided via two new crossovers to Allen Street. The western, double width, crossover will provide entry and exit to the lower ground car park as well as entry to the on-site porte-cochere. The eastern single width crossover will provide egress movements from the porte cochere.

The porte-cochere will operate one-way from west to east and facilitate drop-off/pick-up parking and accommodate patient transfer and some vans/loading vehicles.

### 3.3. Additional On-Street Parking

All existing crossovers will be removed and re-established as kerb and channel, realising new on-street parking in the area.

Based on our assessment, we expect there to be opportunity to provide up to 5 new spaces on-street along the site frontages, including 1 space on Warrigal Road and 4 spaces on Allen Street, as illustrated in Figure 10.

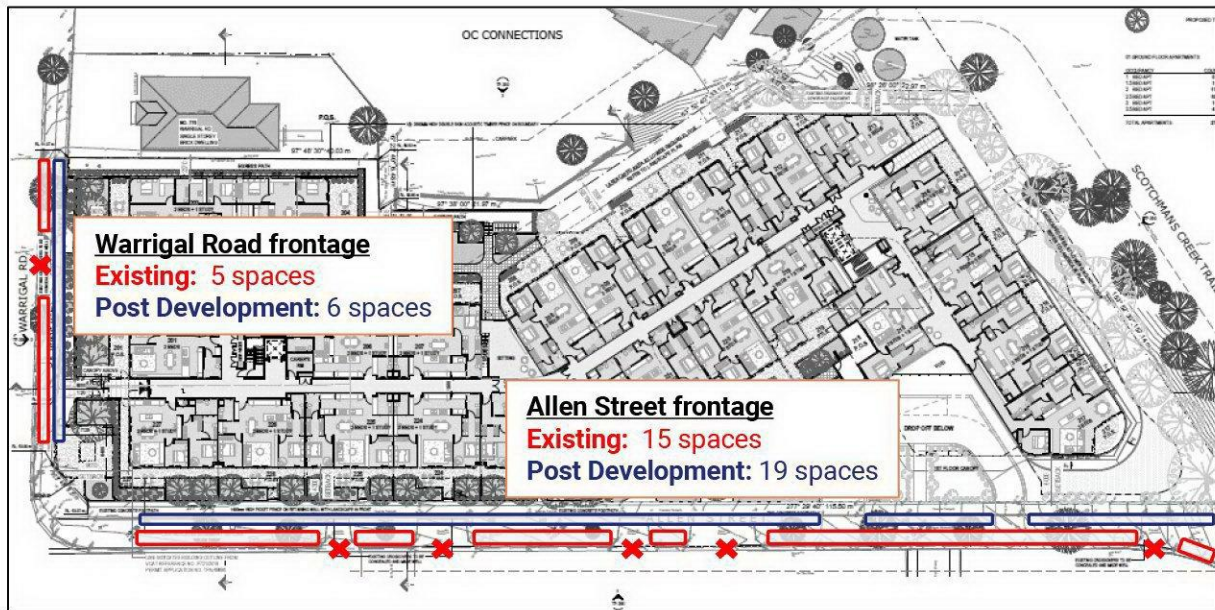


Figure 9: Proposed Crossover Closures & On-street Parking Changes

### 3.4. Bicycle Parking

The development is to provide a total of 20 bicycle spaces as follows:

- 10 secure spaces for residents and staff within the lower ground level car park, and
- 10 spaces for visitors and customers at ground level, located along the Allen Street frontage (but within the site), immediately west of the porte-cochere.

### 3.5. Waste Collection & Loading

The plans illustrate a refuse room and adjacent loading area within the lower ground level car park.

Waste collection is proposed to be undertaken on site within this area of the car park using a private waste collection vehicle. The loading area will be able to service small loading vehicles including vans and utility vehicles.

Larger vehicles up to a 3 metres in height, including ambulances, can be accommodated within the porte-cochere as required.

## 4. Car Parking Considerations

### 4.1. Statutory Requirements – Clause 52.06

The proposed retirement living facility development falls under the land-use category of 'retirement village' under Clause 73.03 of the Planning Scheme.

The car parking requirements for the proposed development are outlined under Clause 52.06 of the Monash Planning Scheme. The purpose of Clause 52.06 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 adversely 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.*

Clause 52.06-5 states that:

*"Column B rates apply to a site if any part of the land is identified as being within the Principal Public Transport Network Area as shown on the Principal Public Transport Network Area Maps"*

An excerpt of the Principal Public Transport Network (PPTN) Area Map is provided at Figure 10.



## Traffic Engineering Assessment

1-9 Allen Street & 777-781 Warrigal Road,  
Oakleigh

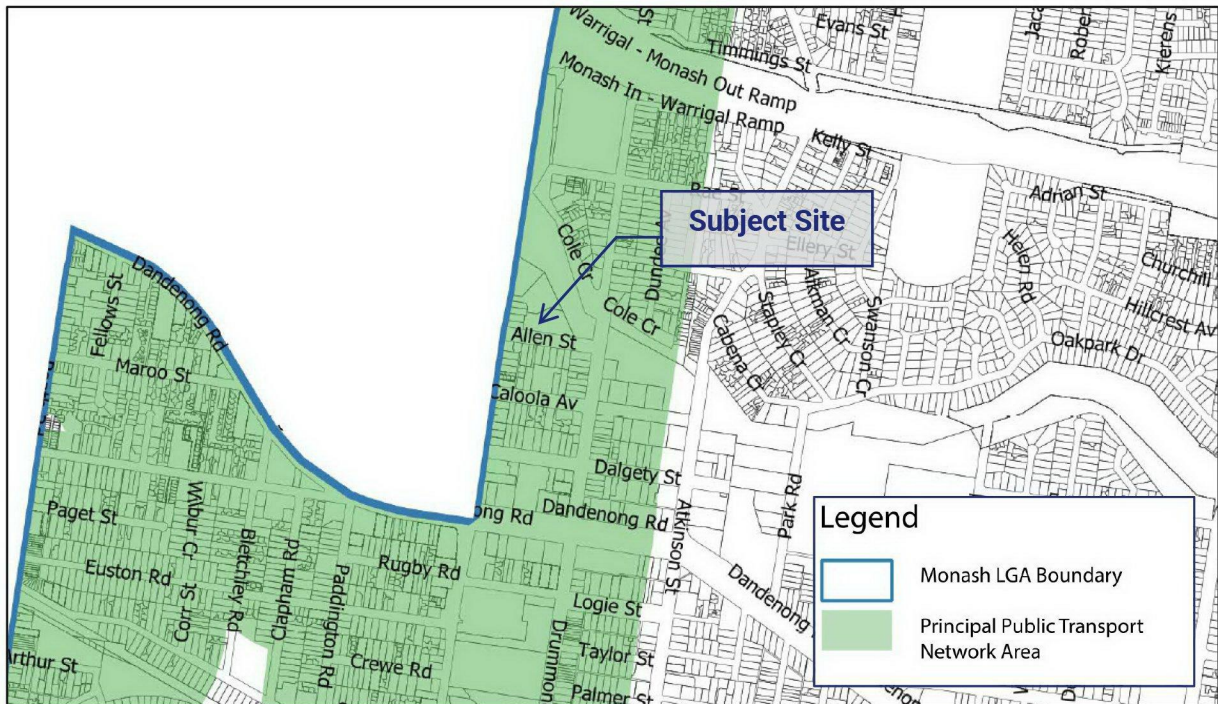


Figure 10: Monash PPTN Area Map

The subject site falls within the PPTN area map and therefore Column B rates apply to the proposal.

A statutory assessment of the proposal under Clause 52.06 is provided at Table 3.

Table 3: Statutory Car Parking Requirements (Clause 52.06)

Use	No / Size	Statutory Requirement	No of Spaces Required
Retirement Village	67	1 car space to each one or two bedroom dwelling for residents	67 spaces
	17	2 car spaces to each three bedroom dwelling for residents	34 spaces
Food & Drink Premises (café)	90 m <sup>2</sup>	3.5 spaces to each 100 square metres of leasable floor area	3 spaces
<b>Total</b>			<b>104 spaces</b>

Based on the table above, the development is statutorily required to provide a total of 104 car space, comprising 101 car spaces for residents and 3 spaces for food and drink premises use.

It is noted that there is no requirement to provide visitor parking for the retirement village use as the site is located within the PPTN area.

The application proposes the provision of 104 car spaces, allocated as follows:

- 103 spaces for residents (exceeding the statutory rates), and
- 1 space for staff of the food and drink premises use.

Based on the above, the proposed development seeks a reduction in the statutory car parking requirement for 2 spaces associated with the food and drinks premises component only.

Importantly, the closure of existing and unused crossovers serving the site will realise XX new on-street parking spaces which will offset the parking dispensation that is sought. However, as these spaces are not provided on-site, a permit is still required.

Clause 52.06-7 of the Planning Scheme allows a permit to be granted to vary the statutory car parking.

Planning Practice Note (June, 2015) specifies that the provisions draw a distinction between the assessment of likely demand for parking spaces, and whether it is appropriate to allow the supply of fewer spaces. These are two separate considerations, one technical while the other is more strategic. Different factors are taken into account in each consideration.

An assessment of the appropriateness of reducing the car parking provision below the statutory requirement is set out as follows.

#### **4.2. Car Parking Demand Assessment**

The Scheme requires the assessment of car parking demand likely to be generated by the proposed use to have regard for listed factors, as appropriate, including:

- *The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use*
- *The variation of car parking demand likely to be generated by the proposed use over time*
- *The short-stay and long-stay car parking demand likely to be generated by the proposed use.*
- *The availability of public transport in the locality of the land.*
- *The convenience of pedestrian and cyclist access to the land.*
- *The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.*
- *The anticipated car ownership rates of likely or proposed visitors or occupants (residents or employees) of the land.*
- *Any empirical assessment or case study.*

An assessment of the projected car parking demand for the proposed development, accounting for these factors follows.

#### **4.2.1. Anticipated Parking Demand**

##### **Food and drink premises (café)**

The proposed café is expected to operate as more service retail, and therefore would draw trade from future residents of the development (including residential visitors) and also from existing residents who reside in the nearby area, rather than be a destination in their own right.

Given the site's access to several alternate modes of transport (and in particular its frontage to the Scotchmans Creek Trail), we expect that there will be a proportion of trade that is 'walk-up' or 'ride-up'.

Proximity to existing and proposed residences (including future retirement living apartments as part of this development), will also contribute to a proportion of 'walk-up' trade.

On this basis, we expect that there will be limited external drive-up trade that generates parking.

Nevertheless, for the purpose of a conservative assessment, we will adopt the statutory rate as representative of demand.

The proposed on-site car parking allocation includes 1 staff space which equates to one staff space per approximately 100 square metres of floor area which is consistent with our expectation of typical staff demands for food and drink premises uses of the size and nature proposed.

We note that a rate of one space per 100 square metres of floor area is regularly accepted by VCAT and Councils throughout Metropolitan Melbourne for staff demands associated with food and drink premises uses in locations with similar attributes to the site.

Based on the preceding, the café component is conservatively expected to be reliant on up to 2 on-street spaces, associated with customers only.

#### **4.3. Allowing Fewer Car Spaces**

When considering if appropriate to provide fewer car parking spaces on-site, the responsible authority must consider as appropriate:

- *The Car Parking Demand Assessment.*
- *Any relevant local planning policy or incorporated plan.*
- *The availability of alternative car parking in the locality of the land.*
- *Any other relevant consideration.*

A discussion of the relevant items follows.

##### **4.3.1. Existing On-Street Parking**

As part of our involvement in a previous application for the subject site, we collected a parking inventory of the on-street parking in the vicinity of the site. The parking inventory was undertaken on Wednesday 20<sup>th</sup> May, 2020.

## Traffic Engineering Assessment

1-9 Allen Street & 777-781 Warrigal Road,  
Oakleigh

The parking inventory area included on-street parking along Allen Street and the surrounding roads within reasonable walking distance of up to 250 metres of the site. For the purposes of this analysis, we have only considered the parking along Allen Street, between Warrigal Road and Drummond Street, and the parking along the east side of Warrigal Road near the site frontage.

Allen Street accommodates up to 70 car spaces. Parking is unrestricted on weekdays, however during the weekend, ½P and No Parking (permit holders excepted) restrictions are applicable on the north and south side of Allen Street respectively. It is noted that parking within the centre median is unrestricted at all times.

Clearway restrictions between 6:30-9:30am and 4-6:30pm Monday-Friday apply along Warrigal Road adjacent to the site. Parking is permitted outside of these times.

To understand the existing use of on-street car parking, we have undertaken a series of spot parking surveys utilising Nearmap aerial imagery. A summary of the results is provided at Table 4 and detailed results attached at Appendix A.

Table 4: Nearmap Parking Survey Results

	Thu 29 Apr 2021	Thu 11 Mar 2021	Sun 8 Nov 2021	Sat 31 Aug 2019
	12:19pm	10:23am	2:46pm	9:18am
<b>Capacity</b>	58	58	37	37
<b>Total Number of Cars Parked</b>	28	29	8	4
<b>Total Number of Vacant Spaces</b>	30	29	29	33
<b>Percentage Occupancy</b>	48%	50%	22%	11%

Parking occupancy in the area was noted to be moderately utilised on weekdays, with a maximum occupancy recorded on the Thursday 11<sup>th</sup> March 2021 survey when 29 out of the 58 spaces were occupied. At this time, there was 29 vacant parking spaces within the survey area.

During the weekend surveys, parking occupancy was noted to be only lightly utilised.

The results of the car parking surveys clearly indicate that the availability of car parking within nearby area can appropriately accommodate the expected modest demand for up to 2 spaces associated with the waiver for food and drink premises customers. There will not be a significant impact to on-street parking along Allen Street or Warrigal Road as a result of the development.

Furthermore, the removal of the several existing crossovers along both Allen Street and Warrigal Road will result in a net gain of on-street parking spaces for use by the public which will offset the modest demands of the proposal.

### 4.3.2. Appropriateness of Sought Reduction

Based on the preceding, we are of the view that the proposed on-site car parking provision is sufficient and it is appropriate for a Permit to be issued for a reduction in the statutory car parking requirement under Clause 52.06-7 of the Planning Scheme for the food and drink premises component.

### 4.4. Car Parking Layout & Access Arrangements

The car park layout and access arrangements have been developed with design advice provided to the project architect (Gray Puksand) and is considered to principally meet the relevant requirements of the Whitehorse Planning Scheme and where applicable, the Australian Standard for Off-Street Parking (AS2890.1:2004).

A review of the car park layout reveals:

#### General Car Parking Layout

- Car spaces are to be provided with minimum dimensions of 2.6 metres width and 4.9 metres length, accessible from a minimum 6.4 metre wide aisles as per the requirements of Clause 52.06-9 (Design Standard 2).
- The parallel car space to be provided within the porte-cochere, is to be provided with dimensions of 2.3 metres width, 6.7 metres length and accessed via a 3.6 metre wide aisle in accordance with Clause 52.06-9 (Design Standard 2).
- Tandem spaces are provided with an additional length of 500mm between each space satisfying the requirements of Clause 52.06-9 (Design Standard 2).
- A linemarked accessible parking bay is not required under the BCA, however the staff space is provided such that it can be accessed by a person with a disability, with overall dimensions that generally comply with the Australian Standard for Disabled Parking (AS2890.6:2009). This includes space adjacent the car bay for loading/unloading a wheelchair and a clearance of 2.5 metres above the space.
- A grade no steeper than 1:21 is provided within the parking bay located immediately south-west of the lower ground car park access, in accordance with AS2890.1:2004. It is noted that the parallel car space within the porte-cochere is graded no steeper than 1:39, which is considered appropriate for the type of uses within the porte cochere.
- Car spaces adjacent to walls and structures have been provided with appropriate clearances of at least 300mm to allow for satisfactory car door opening and in accordance with the clearance envelope at Diagram 1 of Clause 52.06-9 (Design Standard 2).
- Columns adjacent to car spaces are to be located within 0.25-1.25 metres from the aisle end of car spaces in accordance with the car parking envelope of Clause 52.06-9 (Design Standard 2).
- Sufficient headroom clearance is to be provided to, from and throughout the basement car park including along the ramp. In particular, a minimum headroom clearance of at least 2.2 metres will be provided in excess of the statutory requirement under Clause 52.06-9 of

the Planning Scheme (Design Standard 2) and in accordance with the relevant Australian Standard (AS2890.1:2004).

**Access, Ramps and & Porte-Cochere**

- Two (2) vehicle crossovers with Allen Street are proposed.
- The western access is to be at least 6.1 metres wide, which provides for a two-way accessway, in accordance with the requirements of Clause 52.06-9 (Design Standard 1) and AS/NZS 2890.1-2004.
- The eastern access to be at least 4.2 metres wide, providing for a one-way single lane accessway, in accordance with the requirements of Clause 52.06-9 (Design Standard 1) and AS/NZS 2890.1-2004.
- Vehicles can enter and exit the site in a forward direction in accordance with Clause 52.06-9 (Design Standard 1).
- Vehicle circulation and passing swept paths within the car park including the site access and porte-cochere have been checked for the 99<sup>th</sup> percentile design vehicle and have been found to be satisfactory, and are attached at Appendix B.
- A grade no steeper than 1 in 10 for the first 5 metres is to be provided from the property boundary, satisfying the requirements of the Planning Scheme (Design Standard 3).
- The ramps are designed with a maximum grade of 1 in 9, satisfying the requirements of the Clause 52.06-9 (Design Standard 3) for a private accessway.
- Regarding loading vehicles, the plans illustrate a maximum grade of 1 in 9, and rate of change of grade not exceeding 1:12 (8.3%) in 4 metres of travel, satisfying the requirements of the relevant Australian Standard (AS2890.2:2018) for an SRV.
- The plans identify pedestrian visibility splays on both sides of the site accesses, with dimensions of at least 2 metres by 2.5 metres in accordance with the requirements of Clause 52.06-9 (Design Standard). Landscaping within this sight triangle should be no higher than 0.9 metres.

In this regard, the above access arrangements, grades, transitions and clearances have been assessed and, in our view, meet the intent of the relevant standards.

Based on the foregoing, the car park layout and access is considered satisfactory.

## 5. Traffic Considerations

### 5.1. Café

The café is expected to generate little, if any, traffic during the peak hours as the majority of trade is expected to be walk-up.

Given that there is staff parking on-site, we will presume that this use generates a single inbound and single outbound movement in the morning and afternoon respectively.

### 5.2. Retirement Living

The RTA Guide to Traffic Generating Developments (2002) sets out traffic generation rates based on survey data collected in New South Wales for a range of land uses. This guide is regularly used in Victoria and is generally regarded as the standard for metropolitan development characteristics.

The RTA Guide sets out the following relevant traffic generation rates for 'housing for aged and disabled persons':

- *Daily vehicle trips = 1 – 2 per dwelling*
- *Weekday peak hour vehicle trips = 0.1 – 0.2 per dwelling*

These rates are consistent with similar developments surveyed by Traffix Group and other traffic engineering companies. The nature of retirement living uses is that they do not typically generate peak traffic during the road network peak hours, as retirees do not need to go to work or undertake the typical commuter peak hour trips.

A summary of relevant 'retirement village' case study data is provided at Table 5.

Table 5: Case Study Summary - Retirement Village (figures in trips per unit)

Facility	Location	Weekday Daily	Weekday AM Peak	Weekday PM Peak
Federation Residential Village	2A Railway Avenue, Werribee	3.37	0.40	0.16
Midland Terrace Retirement Village	1111 Doveton Street, Ballarat North	2.67	0.06	0.12
Menzies Retirement Village	1256 High Street, Malvern	3.20	0.11	0.23
LaTrobe Retirement Village	Village Drive, Reservoir	2.90		
Retirement Village	16-24 Box Forest Road, Glenroy		0.21	0.23
Lifestyle Communities Retirement Village	17 Booker Rise, Bittern	3.42	0.22	0.24
Hunters Green Retirement Village	Rochester Parade, Cranbourne	3.37	0.34	0.21
<b>AVERAGE</b>		<b>3.15</b>	<b>0.22</b>	<b>0.20</b>

Based on the preceding, we adopt a daily traffic generation rate of 3 vehicle movements per unit, including 0.2 vehicle movements per hour per apartment during the AM and PM commuter peak hours.

The application proposes a total of 84 retirement living apartments. The development is therefore predicted to generate 252 daily vehicle movements, including 17 vehicle movements during each of the AM and PM commuter peak hours.

### 5.3. Total Traffic Generation

Overall the development is expected to generate up to 18 vehicle movements in a peak hour.

This level of traffic generation is relatively low in traffic engineering terms, equivalent to less than one vehicle movement being generated every 3 minutes on average during the peak periods.

This is a low level of traffic which will be split between arrivals and departures and will be able to be accommodated by the surrounding road network, including Allen Street, Warrigal Road and Drummond Street.

We note that the existing permit contemplated a development that would generate up to 27 vehicle movements during the AM and PM peak hours. This development has a lower overall traffic generation and therefore will have a reduced impact on the network when compared to the existing permit.



## 6. Bicycle Considerations

Clause 52.34 of the Planning Scheme specifies the bicycle parking requirement for new developments.

There is no bicycle parking requirement listed under Clause 52.34 for 'retirement village' use.

Regarding the proposed food and drink premises (café) component, it is noted that the floor area is not large enough to trigger a requirement to provide bicycle parking.

Accordingly, there is no statutory requirement to provide bicycle parking for the proposed development.

Nevertheless, the development is to provide a total of 20 bicycle spaces comprising:

- 10 secure spaces located within the lower ground level car park for residents and staff, and
- 10 spaces located along the Allen Street frontage, immediately west of the porte-cochere entry, for shared use of residential visitors and café customers.

Bicycle spaces are to be provided in the form of double-sided horizontal rails with dimensions of 1.8 metres length, spaced at 1.0 metre centres and accessible from a 1.5 metre aisle in accordance with AS2890.3-2015.

## 7. Loading Considerations

### 7.1. Loading

Clause 65.01 of the Planning Scheme states that the responsible authority must consider a number of matters as appropriate including:

- *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

A loading bay is to be provided within the lower ground level car park, adjacent to the refuse room. This loading bay is to be utilised predominantly for waste collection (described below) and will also service small loading vehicles including vans and utility vehicles.

Larger vehicles up to 3 metres in height, including ambulances, will be accommodated within the porte-cochere.

Swept path diagrams that demonstrate satisfactory vehicle movements for an ambulance are attached at Appendix B.

### 7.2. Waste

Waste bins will be stored in a refuse room identified within the lower ground level car park. The plans identify a loading/collection area adjacent to the refuse room.

We have undertaken swept path assessments for a waste 'mini-loader' vehicle (nominal 6.4 metre length, 2.1 metre height). It was found that this vehicle can satisfactorily enter the car park in a forward direction (via the RoW), reverse into the loading/collection area, and then exit the site in a forward direction. Swept path diagrams that demonstrate satisfactory waste vehicle movements are attached at Appendix B.

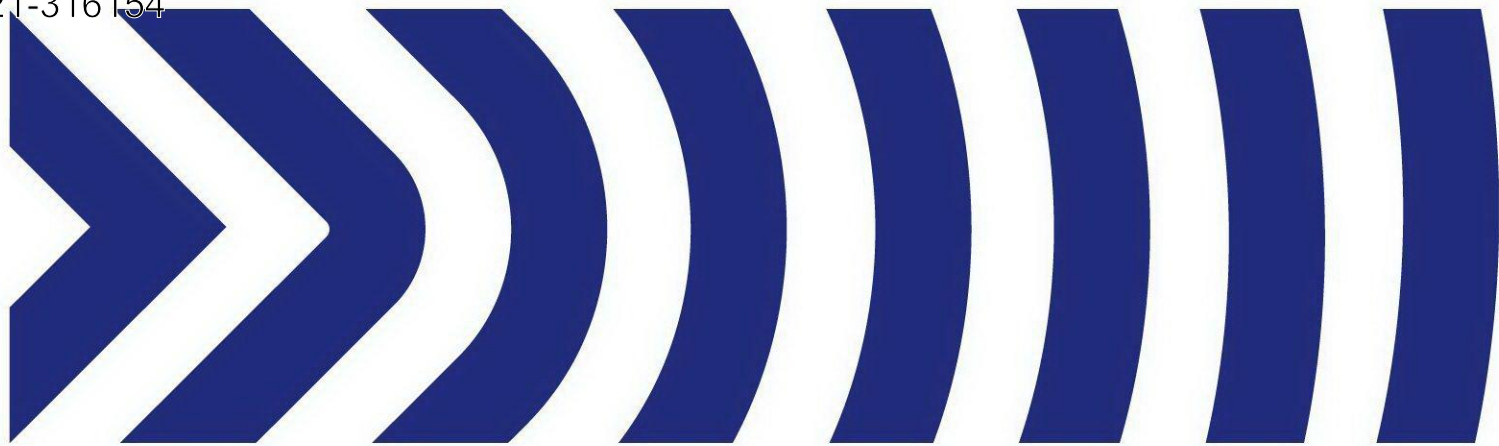
Accordingly, we are satisfied that suitable loading and waste provisions can be accommodated on site.

## 8. Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed retirement living facility at 1-9 Allen Street & 777-781 Warrigal Road, Oakleigh, we are of the opinion that:

- a. The proposed development has a statutory car parking requirement of 104 car spaces under Clause 52.06-5 of the Planning Scheme.
- b. The application proposes a total provision of 104 car spaces, however seeks a reduction of 2 spaces for the food and drinks premises (café) use.
- c. The required reduction in parking under Clause 52.06-6 is supported on the following grounds:
  - i) The proposal will realise 5 additional parking spaces along the Allen Street and Warrigal Road site frontages.
  - ii) The site is well served by public transport and alternative transport modes.
  - iii) The provision of bicycle parking in excess of statutory requirement.
  - iv) The proposed reliance of on-street car parking for customers is acceptable.
- d. The proposed parking layout and access arrangements accord with the requirements of the Planning Scheme, AS2890.1:2004 (where relevant) and current practice.
- e. The level of traffic generated by the proposal is low, once distributed to the multiple access routes, will not have a material impact on the surrounding road network.
- f. A suitable provision of bicycle parking is to be provided on site.
- g. Appropriate loading and waste vehicle access arrangements are to be provided.

There are no traffic engineering reasons why a planning permit for the proposed retirement living facility at 1-9 Allen Street & 777-781 Warrigal Road, Oakleigh, should be refused, subject to appropriate conditions.



# **Appendix A**

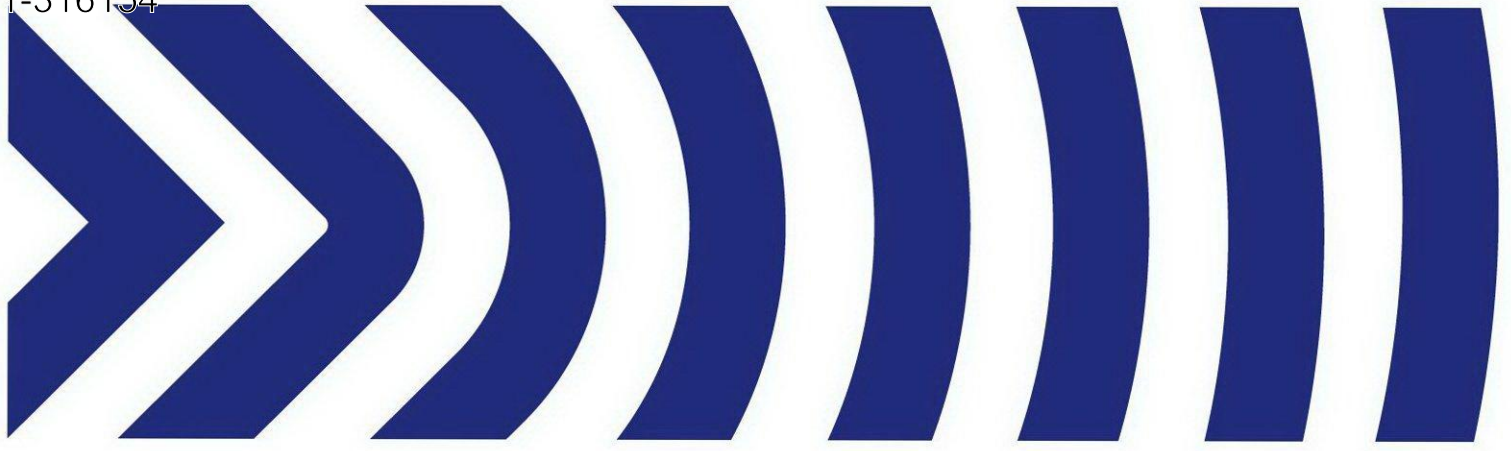
## **Parking Survey**

Supervised By: Timothy Amanatidis

Surveyed By: Timothy Amanatidis

Survey Dates &amp; Times: See below

Location	Restriction	Capacity Min - Max	Nearmap Parking Surveys			
			Thu 29 Apr 2021	Thu 11 Mar 2021	Sun 8 Nov 2021	Sat 31 Aug 2019
			12:19pm	10:23am	2:46pm	9:18am
<b>ON-STREET CARPARKING</b>						
<b>ALLEN STREET</b>						
<b>North</b>						
Warrigal Road to Drummond Street	No Stopping	-	0	0	0	0
	1/2P Sat-Sun	19	0	0	0	0
	No Stopping	-	0	0	0	0
<b>Median</b>						
Warrigal Road to Drummond Street	Unrestricted	30	27	28	8	4
<b>South</b>						
Warrigal Road to Drummond Street	No Stopping	-	0	0	0	0
	No Parking Sat-Sun, Residential Parking Permit Holders Excepted	21	1	1	0	0
	No Stopping	-	0	0	0	0
<b>ALLEN STREET</b>	<b>Capacity</b>	30 - 51	51	51	30	30
	<b>Total Number of Cars Parked</b>		28	29	8	4
	<b>Total Number of Vacant Spaces</b>		23	22	22	26
	<b>Percentage Occupancy</b>		55%	57%	27%	13%
<b>WARRIGAL ROAD</b>						
<b>East</b>						
No. 775 N.B to Allen Street	Cleaway 6:30-9:30am, 4:00-6:30pm Mon-Fri	7	0	0	0	0
<b>WARRIGAL ROAD</b>	<b>Capacity</b>	7 - 7	7	7	7	7
	<b>Total Number of Cars Parked</b>		0	0	0	0
	<b>Total Number of Vacant Spaces</b>		7	7	7	7
	<b>Percentage Occupancy</b>		0%	0%	0%	0%
<b>SUMMARY =&gt; ON-STREET CARPARKING</b>						
<b>Spaces Available</b>			58	58	37	37
<b>Total Number of Cars Parked</b>			28	29	8	4
<b>Total Number of Vacant Spaces</b>			30	29	29	33
<b>Percentage Occupancy</b>			48%	50%	22%	11%
Note: Public parking includes spaces that are available to the general public and excludes 'No Stopping' areas, 'Loading Zones' and 'No Parking' areas during the relevant enforcement periods						
<b>LEGEND:</b>						



# Appendix B

## Swept Paths

**VEHICLE USED IN SIMULATION**  
(VEHICLE SPEED - 5KM/H)

99th percentile  
(AS/NZS 2890.1:2004)

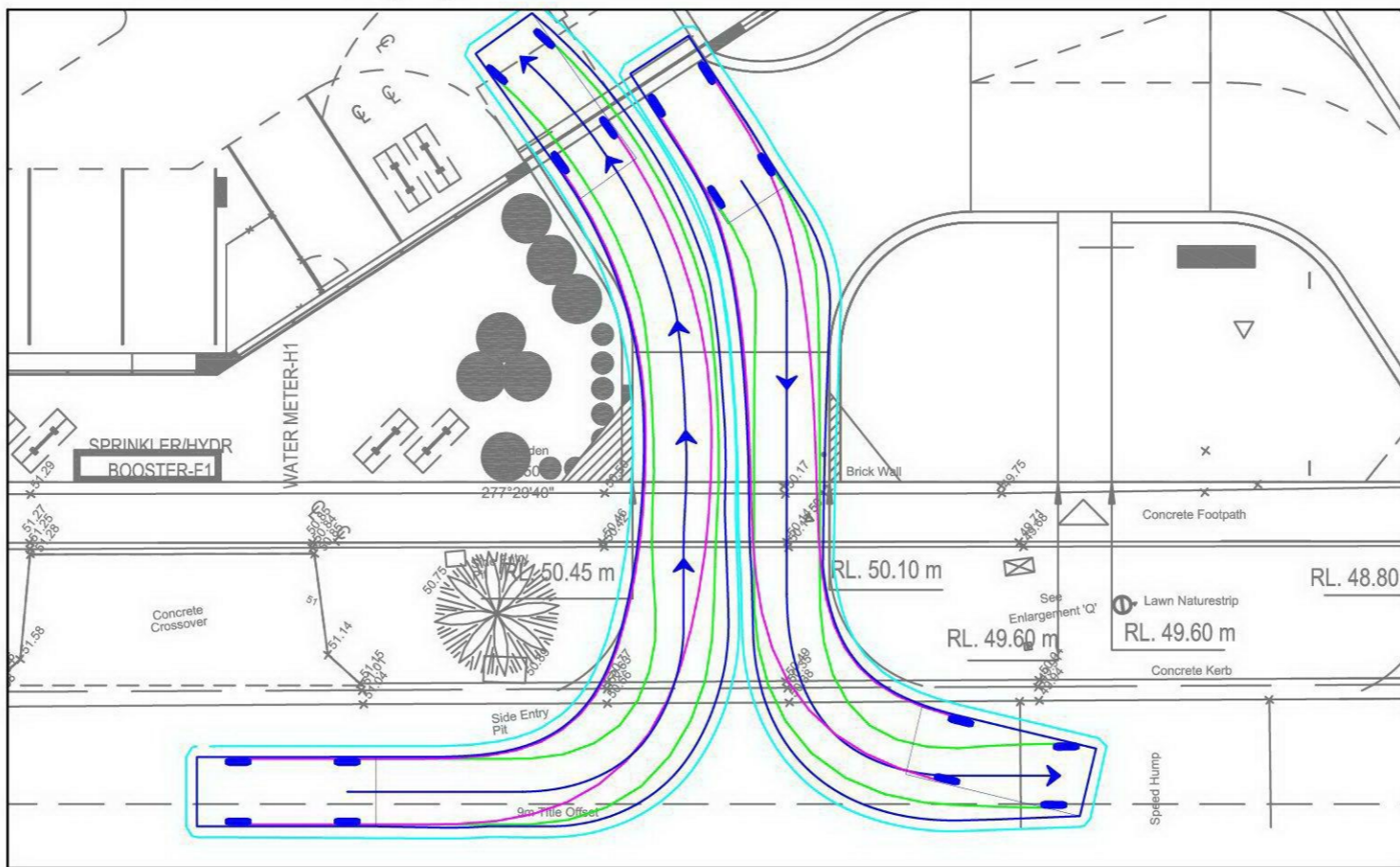
Width : 1.94  
Track : 1.84  
Kerb to Kerb Radius : 12.5m

\* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

**LEGEND**

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

**CAR PARK ACCESS - PASSING (B99)**



**VEHICLE USED IN SIMULATION**  
(VEHICLE SPEED - 5KM/H)

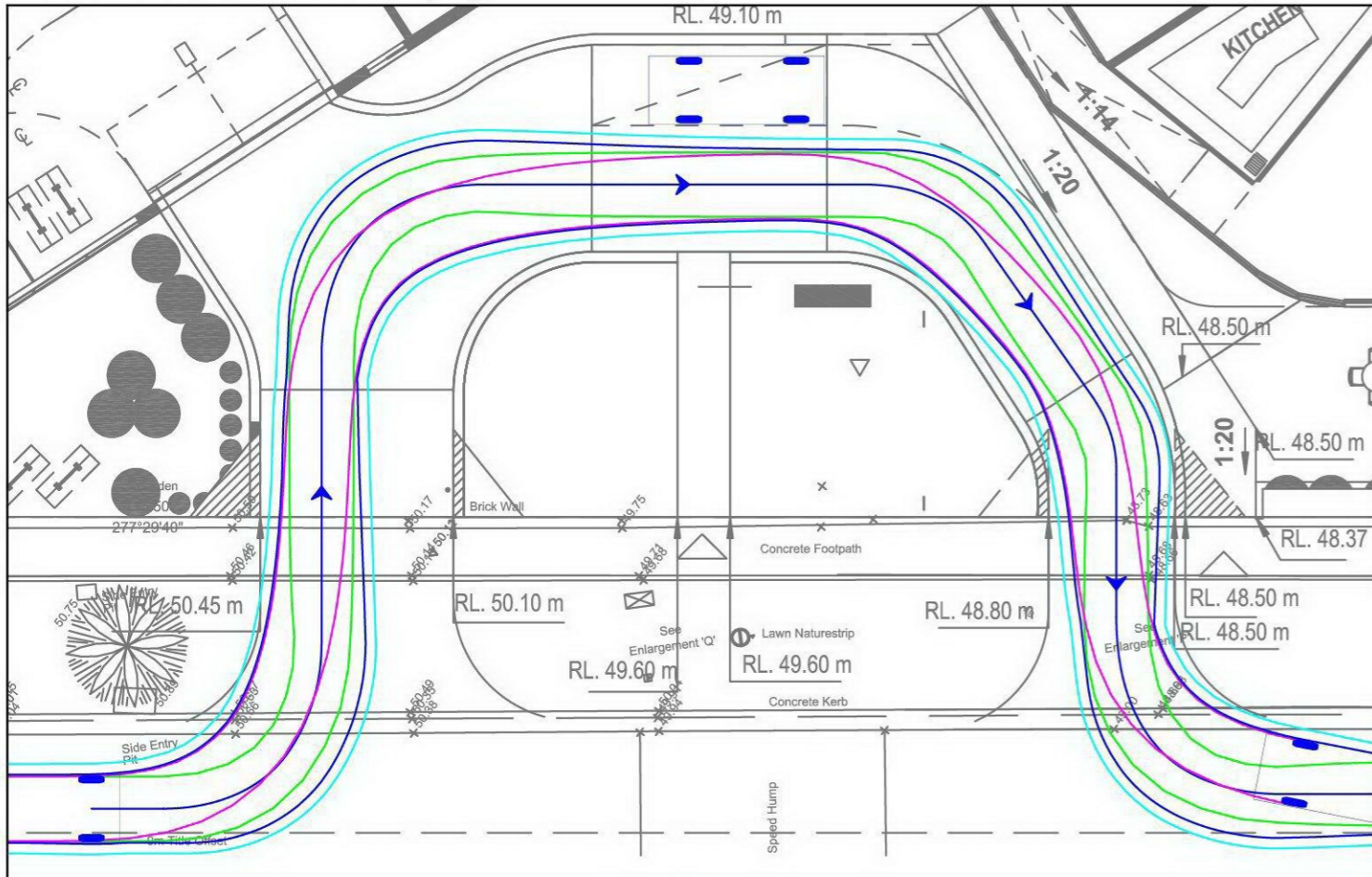
Ambulance (Mercedes-Benz 316)

Width : 2005  
Track : 1705  
Lock to Lock Time : 6.0  
Steering Angle : 37.1

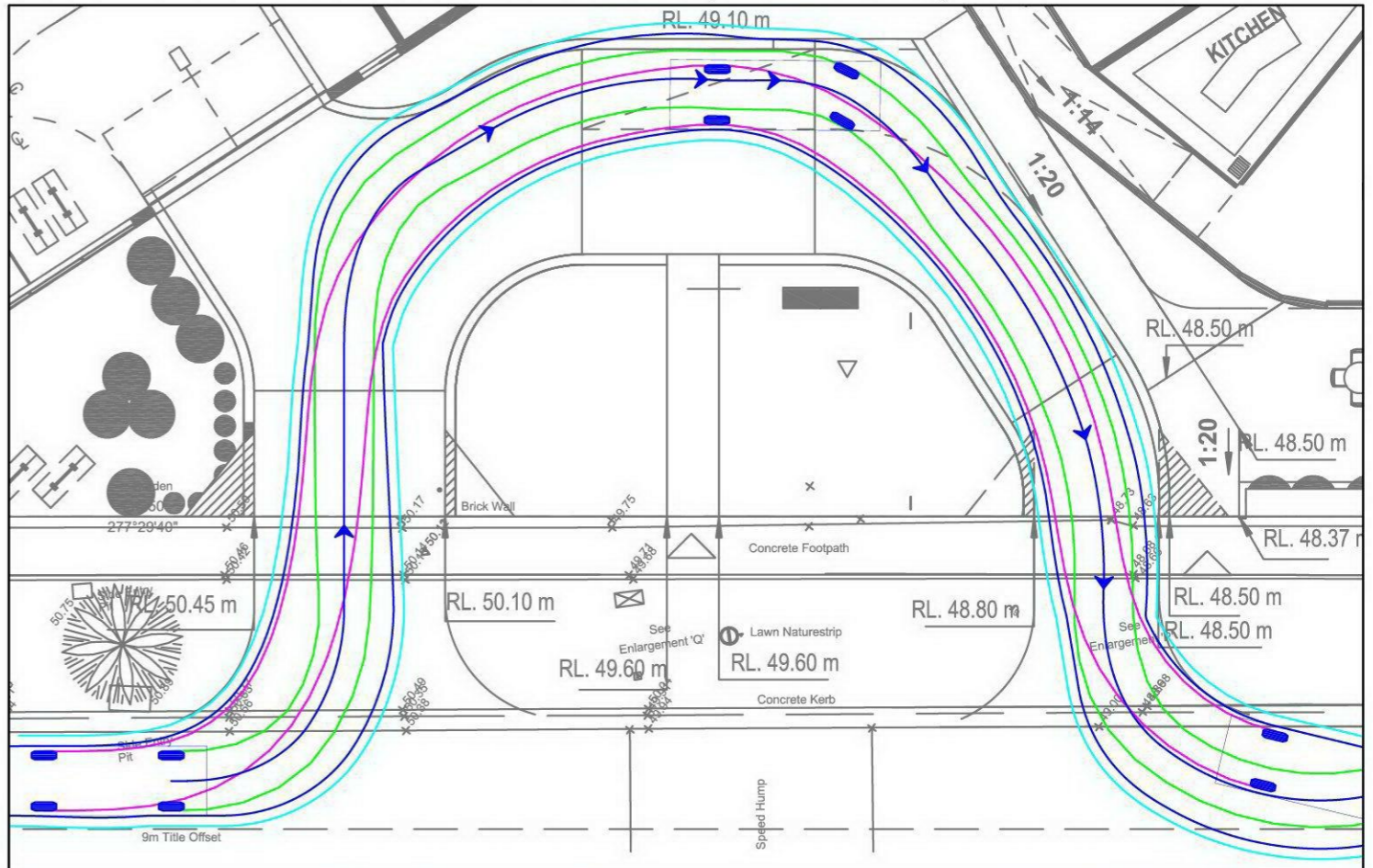
**LEGEND**

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

**PORTE-COCHERE - CIRCULATION (B99)**



**PORTE-COCHERE - AMBULANCE ACCESS & CIRCULATION (6.05m AMBULANCE)**



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	10/09/2021	TP APPLICATION	T. AMANATIDIS	C. MORELLO

**1-9 ALLEN STREET & 777-781 WARRIGAL ROAD, OAKLEIGH**  
PROPOSED RETIREMENT LIVING FACILITY

**GENERAL NOTES:**  
BASE PLANS BY VIA ARCHITECTS, RECEIVED 11 SEPTEMBER 2021.

**FILE NAME:** G30255-01  
**SHEET NO.:** 01

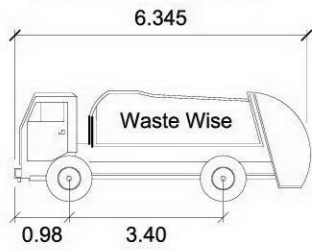


**SCALE:** 1:200 (A3)

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**VEHICLES USED IN SIMULATION**  
(VEHICLE SPEED - 5KM/H)



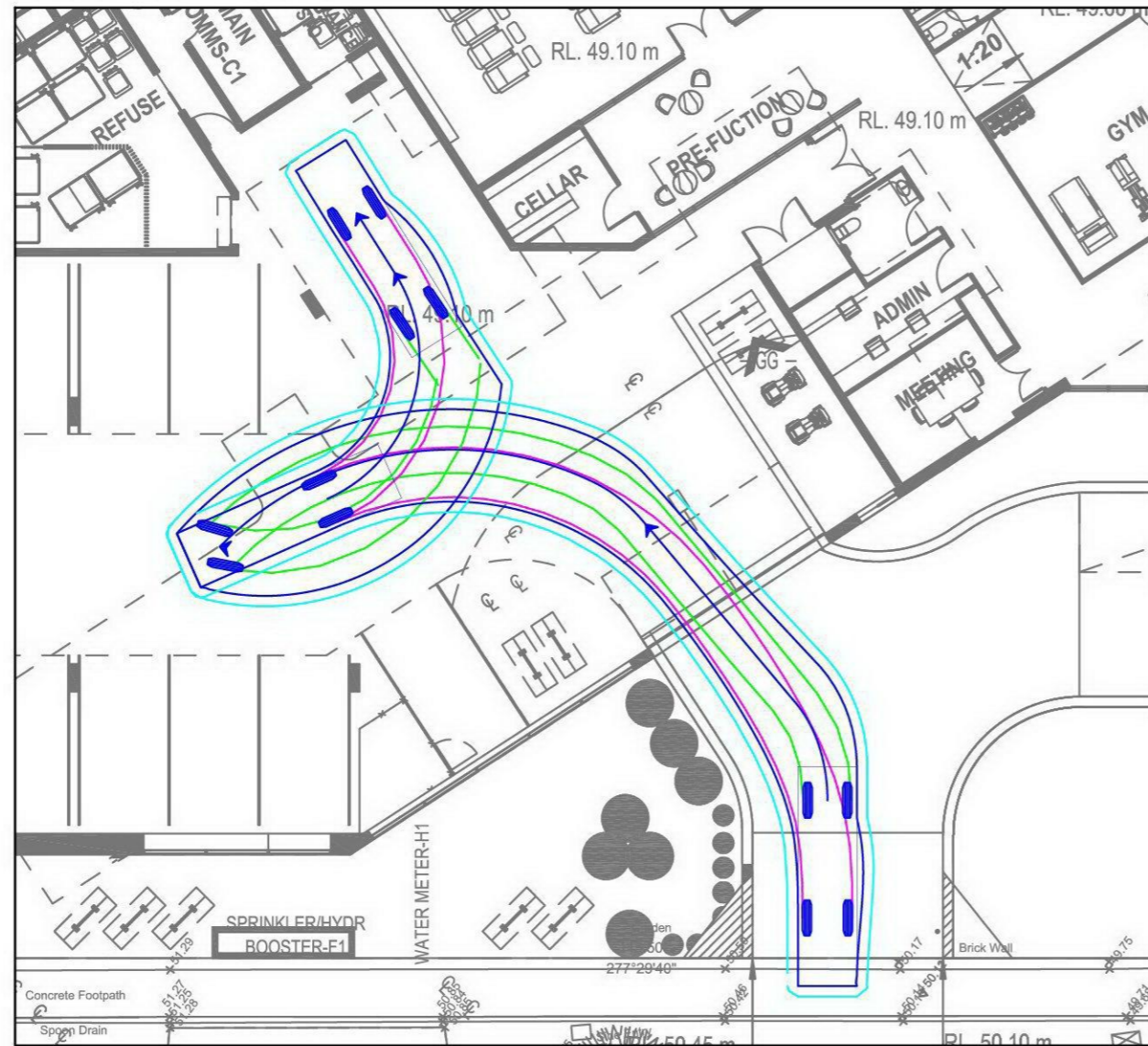
**Waste Wise Mini (Hino 300)**

- Width : 1.7m
- Front Track : 1.4m
- Rear Track : 1.44m
- Kerb to Kerb Radius : 12.4m

**LEGEND**

- REAR WHEELS (magenta line)
- FRONT WHEELS (green line)
- VEHICLE BODY (blue line)
- BODY CLEARANCE (cyan line)

**WASTE TRUCK - INGRESS**



**WASTE TRUCK - EGRESS**



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	10/09/2021	TP APPLICATION	T. AMANATIDIS	C. MORELLO

**1-9 ALLEN STREET & 777-781 WARRIGAL ROAD,  
OAKLEIGH**  
PROPOSED RETIREMENT LIVING FACILITY

**GENERAL NOTES:**  
BASE PLANS BY VIA ARCHITECTS, RECEIVED  
11 SEPTEMBER 2021.

**FILE NAME:** G30255-01  
**SHEET NO.:** 02



**SCALE:**  
1:200 (A3)

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