

20 March 2024

Luke Hill  
Development Manager  
Coles Group Property Developments Ltd.  
L3 M8 800 Toorak Road  
HAWTHORN EAST VIC 3123

**Discovery Lane Loading Arrangements  
158-162 High Street, Belmont (Ref. No. PP-470-2023)**

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**

Dear Luke,

## 1. Introduction

### Application Background

A planning permit application (Ref. No. PP-470-2023) was submitted to City of Greater Geelong Council on 19 May 2023 for the redevelopment of the land addressed as 158-162 High Street in Belmont for the purpose of a larger and improved Coles supermarket with ancillary bottle shop, along with a dedicated loading area, at-grade and basement car parking and consolidated access to High Street.

Upon their review of the application, a Request for Further Information (RFI) letter was issued by City of Greater Geelong Council on 16 June 2023. Referral comments were also received from various Council departments.

The application material was updated in response to the comments within the RFI letter and subsequently re-submitted to Council in late 2023. An updated Transport Impact Assessment report (dated 24 November 2023) prepared by our office was included in the RFI submission to assess and reflect updated plans.

### Council Referral

Since this time, additional referral comments have been received from various Council departments in relation to the application material that was provided as part of the RFI submission.

Of note, Council's traffic engineering department has raised concerns around the interface between Discovery Lane and the subject site under post development conditions. These concerns are paraphrased as follows:

- Most vehicles using Discovery Lane currently travel through the car park on the north side of the supermarket building to depart to Church Street;
- The redevelopment seeks to provide the secure loading dock in this location, thereby removing this connection;
- As a result, vehicles using Discovery Lane will be required to travel through the Coles car park (which is private property);

- Discovery Lane is currently used to provide back-of-house loading for the various retail businesses along High Street and therefore, loading vehicles will be required to travel through the Coles car park in order to depart to the external road network; and
- Council have concerns as to whether loading trucks will be able to circulate the Coles car park.

### Purpose of this Document

This document has been prepared to undertake an assessment of the Discovery Lane loading arrangements under post development conditions and to respond to Council’s abovementioned additional comments.

## 2. Discovery Lane Loading Arrangements

### Discovery Lane Interface with Subject Site

The redevelopment seeks to retain the one-way access currently provided to the site via Discovery Lane, as shown in Figure 1.

Figure 1: Proposed Interface Between Discovery Lane & Subject Site



This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

(Source: Clarke Hopkins Clarke – Ground Floor Plan)

As such, the interface between Discovery Lane and the subject site will not be impacted by the redevelopment. Therefore, all vehicles using Discovery Lane will continue to be required to travel through the subject site in order to depart to the external road network.

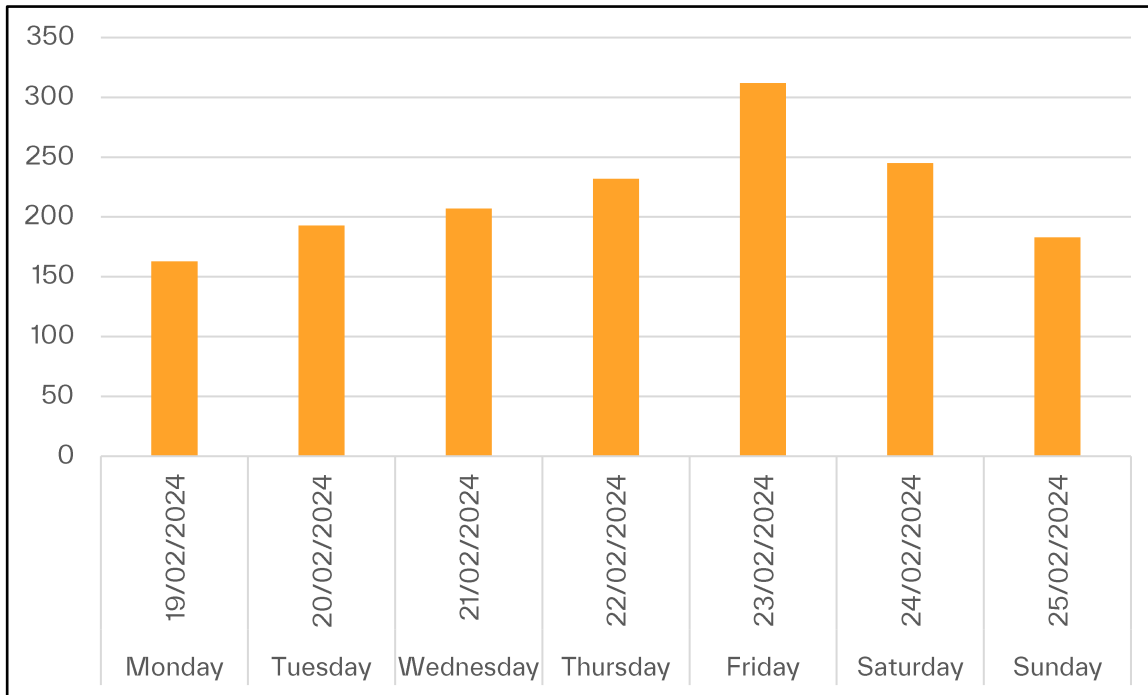
This is an existing arrangement that is understood to have been in place for decades. Notwithstanding, it is understood that the permit applicant is seeking to potentially rectify these arrangements via a legal mechanism (to be determined) within the subject site.

### Discovery Lane Traffic Volumes

To understand existing traffic conditions within Discovery Lane, our office commissioned a tube count survey within Discovery Lane over a weeklong period, commencing on Monday 19 February 2024.

The daily traffic volumes using Discovery Lane are presented in Figure 2.

Figure 2: Discovery Lane Daily Traffic Volumes



The daily traffic volumes presented in Figure 2 indicate the following:

- Discovery Lane carries an average of 221 vehicles per day on weekdays;
- A total of 245 and 183 vehicles were recorded using Discovery Lane on Saturday and Sunday respectively; and
- The Friday was the busiest day of the week, with a total of 312 vehicles recorded using Discovery Lane;

When having regard for the definitions provided in Table C1 to Clause 56.06 of the Greater Geelong Planning Scheme, Discovery Lane is considered to be classified as an ‘Access Lane’. The Planning Scheme specifies a daily traffic threshold of 300 vehicles for roads of this classification.

The daily traffic volumes presented in Figure 2 are consistent with this traffic threshold. Therefore, the current volume of traffic using Discovery Lane is considered acceptable, noting that no additional traffic through Discovery Lane is expected.

### Discovery Lane Vehicle Classifications

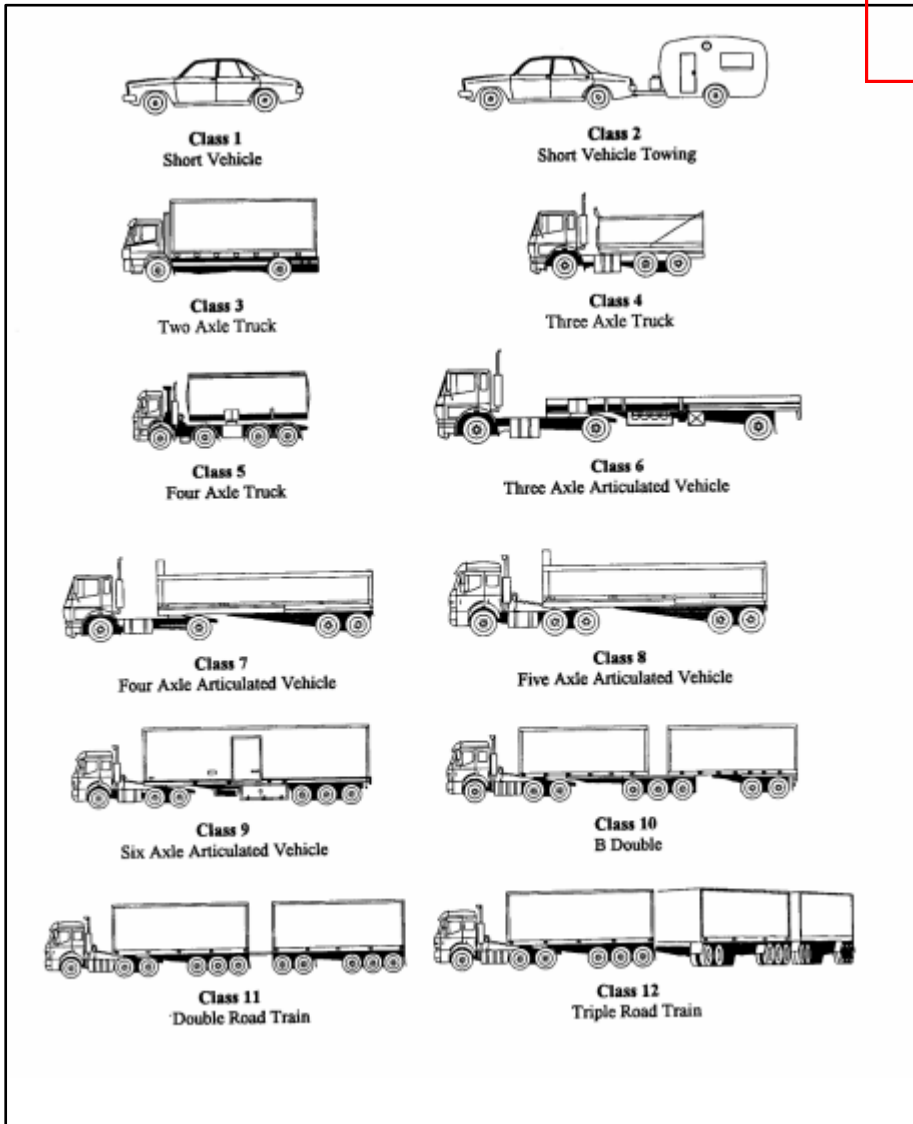
In addition to daily traffic volumes, the tube count survey provides data regarding vehicle classifications.

Vehicles are classified on the basis of the 12 different vehicle classes, as specified within Appendix B of the Austroads Guide to Pavement Technology Part 4K (2018).

An excerpt of these vehicle classes is provided in Figure 3 for context.

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

Figure 3: Austroads Vehicle Classifications



(Source: Austroads Guide to Pavement Technology Part 4K – Appendix B)

Having regard for Figure 3, the following assumptions are made:

- Class 1 & 2 vehicles are representative of standard passenger vehicles;
- Class 3 vehicles are representative of the 6.4-metre-long SRV (small rigid vehicle, as defined within AS2890.2:2018); and
- Class 4 & 5 vehicles are representative of the 8.8-metre-long MRV (medium rigid vehicle, as defined within AS2890.2:2018).

A summary of the total number of vehicles within each classification recorded within the survey period is summarised in Table 1.

**Table 1: Vehicle Classification Summary**

Vehicle Class	Monday 19/02/24	Tuesday 20/02/24	Wednesday 21/02/24	Thursday 22/02/24	Friday 23/02/24	Saturday 24/02/24	Sunday 25/02/24
<b>1</b>	148	184	195	219	298	235	177
<b>2</b>	1	0	0	0	0	0	0
<b>3</b>	10	8	9	12	13	10	5
<b>4</b>	2	0	3	1	1	0	0
<b>5</b>	2	1	0	0	0	0	1
<b>6</b>	0	0	0	0	0	0	0
<b>7</b>	0	0	0	0	0	0	0
<b>8</b>	0	0	0	0	0	0	0
<b>9</b>	0	0	0	0	0	0	0
<b>10</b>	0	0	0	0	0	0	0
<b>11</b>	0	0	0	0	0	0	0
<b>12</b>	0	0	0	0	0	0	0
<b>Total</b>	<b>163</b>	<b>193</b>	<b>207</b>	<b>232</b>	<b>312</b>	<b>245</b>	<b>183</b>

The results presented in Table 1 indicate the following average number of vehicles within each classification:

- Class 1 (cars) – 208 vehicles per day;
- Class 2 (cars) – Zero vehicles per day;
- Class 3 (SRV) – Ten (10) vehicles per day;
- Class 4 (MRV) – One (1) vehicle per day; and
- Class 5 (MRV) – One (1) vehicle per day.

Of note, no vehicles of Class 6 (HRV) or larger were recorded throughout the survey period.

Based on these results, it is evident that the vast majority of loading activities undertaken within Discovery Lane are completed by trucks comparable in size to a 6.4-metre-long SRV. There are some infrequent loading demands that require larger trucks to access Discovery Lane, with these larger trucks equivalent in size to an 8.8-metre-long MRV.

It is also noted that the vast majority of vehicles recorded within the laneway were typical passenger vehicles. As such, we can conclude that Discovery Lane is primarily being used by customers & staff to access the site., rather than back-of-house loading activity for the existing retail tenancies.

## Swept Path Assessment

In order to assess the ability for vehicles to use Discovery Lane for back-of-house loading for the retail businesses along High Street, a swept path assessment has been completed using the 'Autodesk Vehicle Tracking' software program.

Having regard for the discussion in the preceding section of this document and for the purpose of a robust assessment, a swept path assessment has been undertaken for both the 6.4-metre-long SRV and 8.8-metre-long MRV.

The swept path assessment demonstrates the following:

- The SRV is able to turn into Discovery Lane from Regent Street. Once loading is complete, the SRV can circulate the accessways within the Coles car park and depart via the High Street access point. Alternatively, the SRV can circulate the accessways within the adjacent Council car park and then depart via the Church Street access point; and
- The MRV is able to turn into Discovery Lane from Regent Street. Once loading is complete, the MRV can circulate the accessways within the Coles car park and adjacent Council car park and then depart via the Church Street access point. It is recommended that the bollard locations at the raised crossing be amended slightly to provide a wider aperture at the interface between Discovery Lane and the subject site.

On the basis of the preceding swept paths, it is considered that adequate loading arrangements will be maintained within Discovery Lane.

Each of the abovementioned swept paths are provided at Appendix A of this document for reference.

## 3. Conclusion

On the basis of the discussions provided within this document, it is considered that the existing loading arrangements within Discovery Lane will not be impacted by the proposed redevelopment of the subject site based on the data collected and analysed, as well as the swept path assessments undertaken.

Should you have any queries with regard to the details within this document, please contact Jackson Hamill-Beach or the undersigned on (03) 9429 3111.



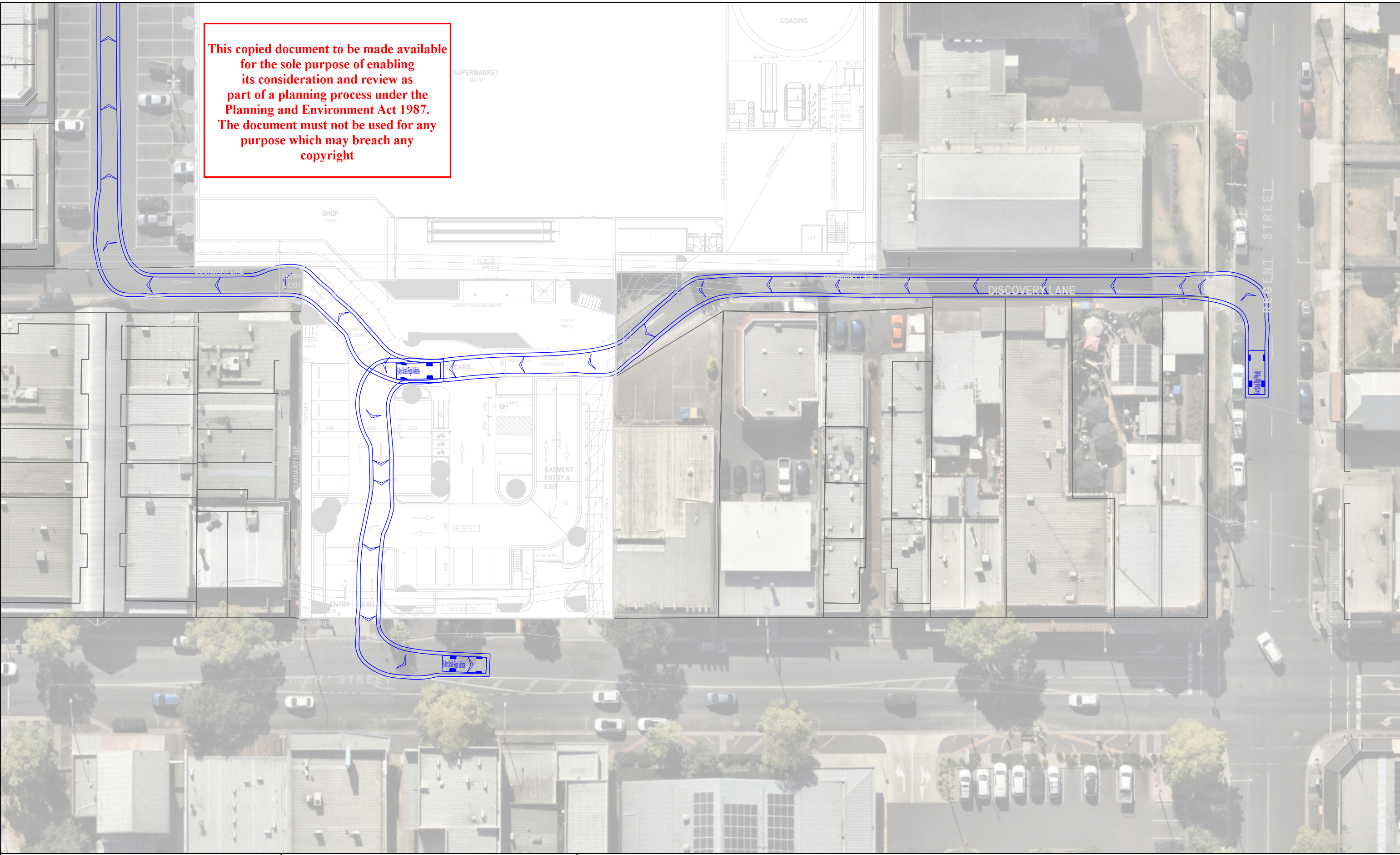
**Chris Greenland**  
**Director: Transport**  
**Ratio Consultants**

**This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright**

# Appendix A Swept Path Assessment

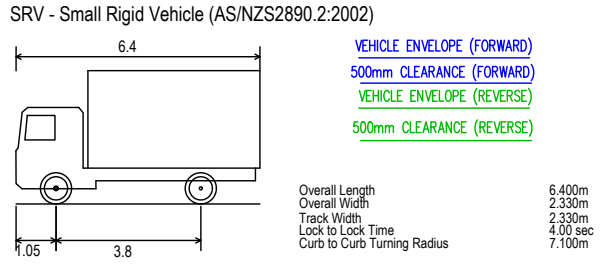
**This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



C:\USERS\JACKSON.HAMILL\BEACH\RATIO CONSULTANTS\19490T - GENERAL DESIGN\SKETCH ADVISE (INCLUDING SWEEP PATHS)\19490T-SK01\19490T-SK01-H.DWG 18/03/2024 2:29:35 PM

**ratio:**  
 RATIO CONSULTANTS PTY LTD  
 ABN 005 422 104  
 8 GWYNNE STREET  
 CREMORNE, VICTORIA 3121  
 TELEPHONE (03)9429 3111  
 FACSIMILE (03)9429 3011



Proposed Retail Development  
 158-162a High Street, Belmont  
 Swept Path Assessment

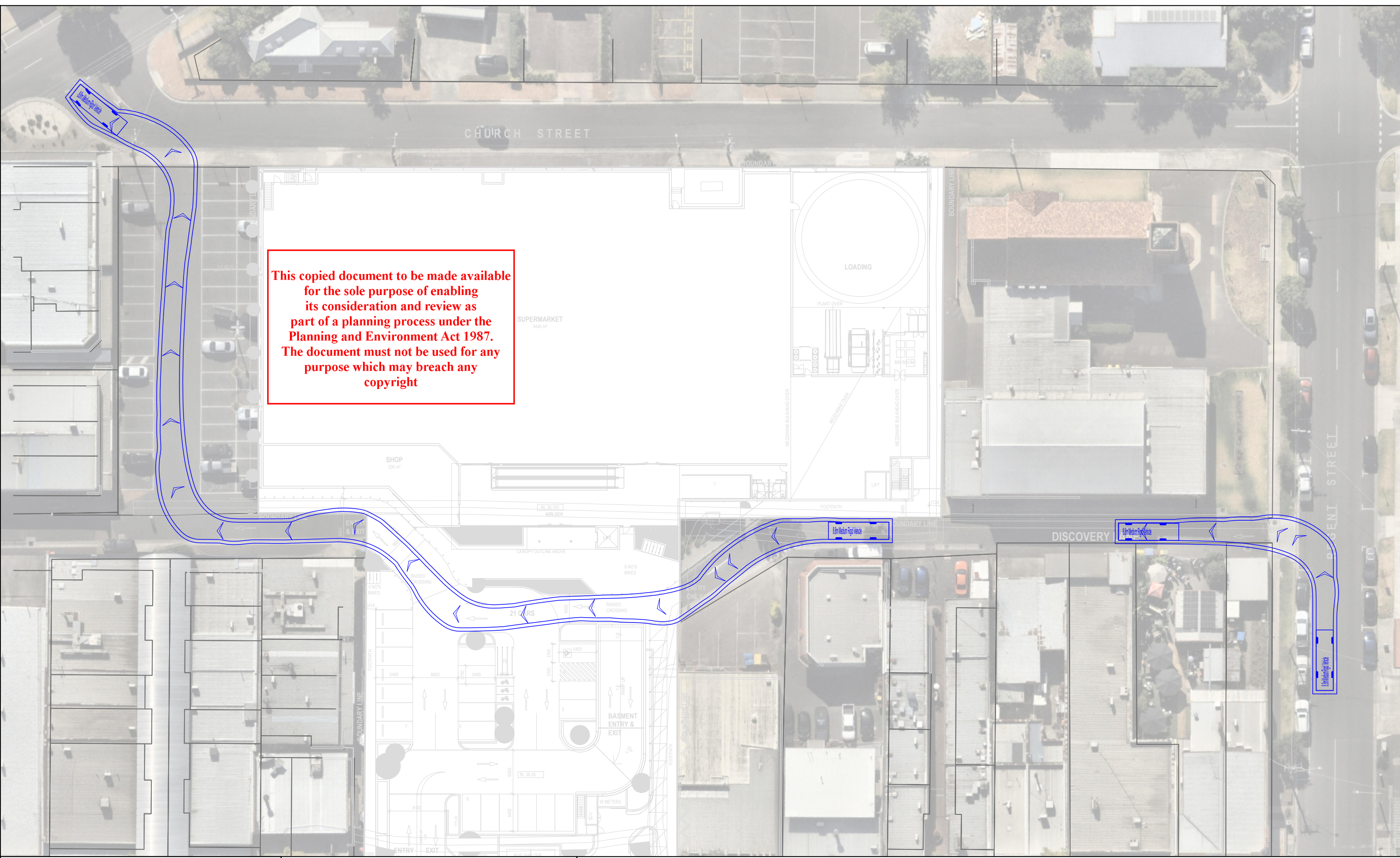
NOTE:  
 1) Base plan supplied by Clarke Hopkins Clarke Architects.  
 2) Maximum design speed 5km/h

RATIO REFERENCE 19490T-SK01-N/JHB	SHEET No. 09 of 20	SCALE 1:500 @ A3	DATE 18/03/2024
--------------------------------------	-----------------------	---------------------	--------------------





C:\USERS\JACKSON.HAMILL\BEACH\RATIO CONSULTANTS\19490T - GENERAL DESIGN\SKETCH ADVICE (INCLUDING SHEET PATHS)\19490T-SK01-N.DWG 18/03/2024 2:28:38 PM

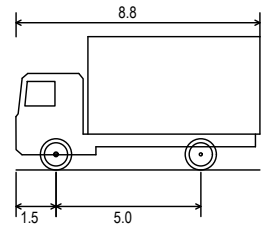


This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

# ratio:

RATIO CONSULTANTS PTY LTD  
ABN 005 422 104  
8 GWYNNE STREET  
CREMORNE, VICTORIA 3121  
TELEPHONE (03)9429 3111  
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)  
500mm CLEARANCE (FORWARD)  
VEHICLE ENVELOPE (REVERSE)  
500mm CLEARANCE (REVERSE)

Overall Length 8.800m  
Overall Width 2.500m  
Track Width 2.500m  
Lock to Lock Time 4.00 sec  
Curb to Curb Turning Radius 10.000m

## Proposed Retail Development

158-162a High Street, Belmont  
18/03/2024

NOTE:  
1) Base plan supplied by Clarke Hopkins Clarke Architects.  
2) Maximum design speed 5km/h



RATIO REFERENCE 19490T-SK01-N/JHB	SHEET No. 10 of 20	SCALE 1:500 @ A3	DATE 07/02/2024
--------------------------------------	-----------------------	---------------------	--------------------