

# Traffix Group

## Amendment C436ggee and Planning Permit PP-573-2021

### 1-11 Harbourside Drive, Rippleside

**Date of Statement:** 7 February 2024

**Date of Inspections:** 29 January 2024

**Prepared For:** City of Greater Geelong

**Instructed By:** City of Greater Geelong

**Reference:** G34437A-01A

**STATEMENT TO PLANNING PANELS VICTORIA BY JASON LEE WALSH, TRAFFIC ENGINEER**

# **STATEMENT TO PLANNING PANELS VICTORIA BY JASON LEE WALSH, TRAFFIC ENGINEER**

## **Amendment C436ggee & Planning Permit Application PP-573-2021**

### **Proposed Residential Development**

**at**

**1-11 Harbourside Drive, Rippleside**

**Our Reference: G34437A-01A**

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## Introduction

- 1 I have been instructed by City of Greater Geelong to undertake a traffic engineering review of proposed Amendment C436ggee and Planning Permit Application PP-573-2021 at 1-11 Harbourside Drive, Rippleside.
- 2 In the course of preparing this statement, I inspected the subject site on 29 January 2024, reviewed development plans and background material, and assessed the car parking and traffic impacts of the proposal.
- 3 My qualifications and experience to undertake the following assessment in accordance with Planning Panels Victoria Practice Note 1 are set out in Appendix A.

## Background

- 4 The subject land is known as Balmoral Quay, and development of the land is controlled by the Rippleside Comprehensive Development Plan.
- 5 Amendment C002 was gazetted on 8 March 2001. The Amendment rezoned the land to the Comprehensive Development Zone Schedule 2, implemented the Environmental Audit Overlay, and included the 'Rippleside Comprehensive Development Plan, February 2000' and 'Rippleside Urban Design Guidelines' as Incorporated Documents into the Planning Scheme.
- 6 Planning Permits have issued since 2005 and development of the land has progressed.
- 7 The Council officer report includes a useful diagram setting out development staging for the land. This diagram is copied as Figure 1.

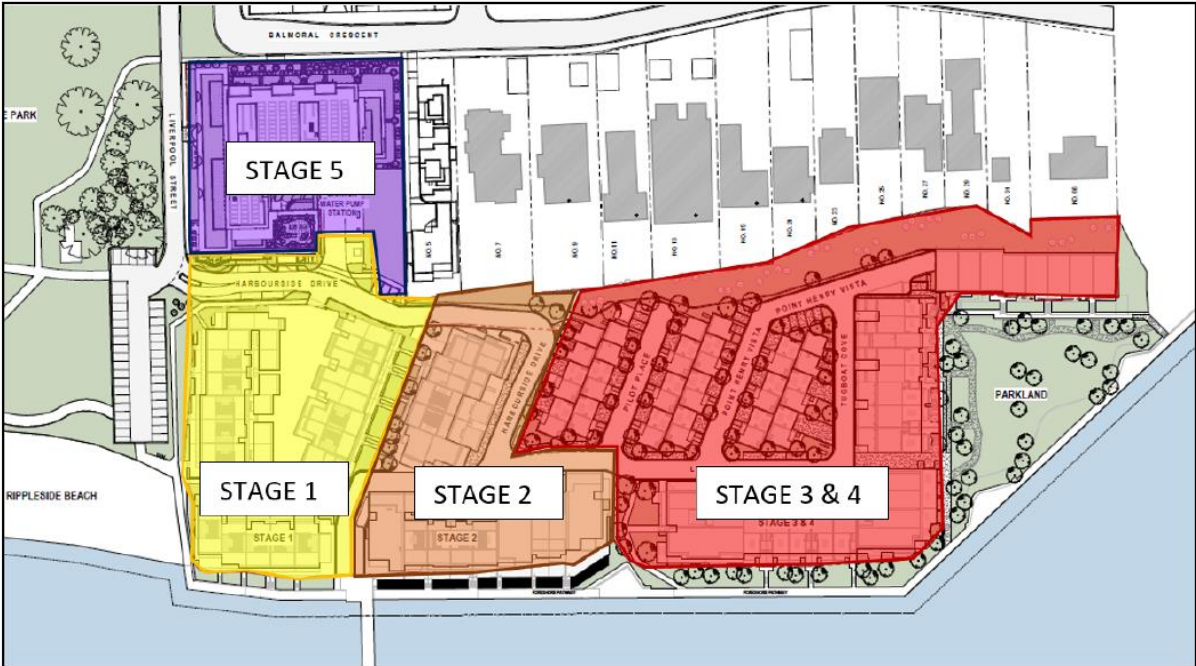


Figure 1: Staging of Development Land

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1-11 Harbourside Drive, Rippleside

- 8 Stage 1 is completed and occupied. Stage 2 is completed and appears partially occupied. Stages 3 and 4 are under construction and nearing completion. Stage 5 is the subject of the Amendment. This land is vacant.
- 9 A summary of the permitted and / or completed development is provided in Table 1.

*Table 1: Summary of Development Yield and Progress*

Stage	Development Yield		Progress
	Dwellings No.	Retail sqm	
1	20	-	Complete
2	23	-	Complete
3-4	61	-	Under construction
Total	104 dwellings	-	
<b>Stage 5*</b>	<b>36</b>	<b>Café – 256sqm</b>	<b>Permit</b>

\* Earlier plans detailed 51 apartments in Stage 5. It seems these plans were amended to account for the Barwon Water Asset. I have taken the current permitted development yield from the Cardno Traffic Report, which accompanied the application. It references an endorsed scheme for Stage 5, but I have not seen these plans.

- 10 In 2022, Urbis on behalf the proponent submitted an application for a combined planning scheme amendment and planning application to update the Rippleside Development Plan and Urban Design Guidelines, as well as develop Stage 5 of Balmoral Quay.
- 11 The application material was accompanied by architectural plans (for Stage 5) prepared by SJB Architecture, dated 4 July 2022, and a Traffic and Transport Assessment, prepared by Cardno, dated 5 July 2022.
- 12 On 22 November 2022, Council resolved to support the preparation and exhibition of the amendment and planning permit.
- 13 The matter was placed on exhibition from 24 August 2023 to 25 September 2023. 173 submissions were received with six (6) in favour and the remainder opposed.
- 14 A number of submissions raised concern with traffic and car parking impacts and pedestrian accessibility.
- 15 Council officers prepared a report (12 December 2023), which provided a response to the submissions. Council resolved to request the Minister for Planning to appoint an independent panel and consider submissions.
- 16 This background and material form the basis of my evidence.

# Proposal

17 The proposal is for a joint Planning Scheme Amendment and planning application.

## Planning Scheme Amendment

- 18 The proposed Planning Scheme amendment seeks to allow an increased maximum building height of 27 metres in Stage 5 of the Balmoral Quay development (the subject site) and will:
- Replace Schedule 2 to the Comprehensive Development Zone to update references to new incorporated documents, and
  - Amend the Schedule to Clause 72.04 (incorporated documents) to replace the existing Rippleside Urban Design Guidelines (June 2000) and the Rippleside Comprehensive Development Plan (February 2000) with new Urban Design Guidelines and a Comprehensive Development Plan both dated March 2023.

## Planning Application

### The Development

19 The proposed planning application is for a seven-storey residential development for Stage 5 (south west corner of the Development Plan). Table 2 provides a summary of the proposed uses.

*Table 2: Proposed Development Schedule*

Use		No./Size
Residential	1-bedroom	36 dwelling
	2-bedroom	30 dwellings
	3-bedroom	18 dwellings
	<b>Total</b>	<b>84 dwellings</b>
Tenancy (shop)		77.8m <sup>2</sup>
Marina Office		34.7m <sup>2</sup>

### Vehicle Access

- 20 Vehicular access to the site is proposed at two locations as follows:
- A two-way fully directional crossover to Balmoral Crescent providing access to level 1 and ground level parking areas (servicing 71 residential car spaces).
  - A two-way fully directional crossover to Harbourside Drive providing access to the lower ground level parking area (servicing 63 car spaces, comprising 31 resident spaces and 32 marina / commercial / visitor spaces).

- 21 The provision of the Harbourside Drive access point will result in the removal of one on-street car parking space.
- 22 Doors are illustrated on both vehicular access points and a secure gate is proposed within the lower ground level car parking area separating the visitor / staff parking area and resident parking area.
- 23 The measures to control vehicle access to / from the site are not specified on the plans.

#### **Car Parking**

- 24 The plans detail a total of 134 car parking spaces within the Stage 5 building as:
- 102 resident car spaces, inclusive of 10 tandem pairs, comprising 31 resident car parking spaces (including four tandem pairs) on the lower ground level, 36 resident car parking spaces (including three tandem pairs) on ground level, 35 resident car parking spaces (including three tandem pairs) on level 1.
  - 1 car parking space for the shop tenancy on the lower ground level.
  - 1 car parking space for the marina office on the lower ground level.
  - 30 visitor car parking spaces, available for visitors and marina berth lessees, on the lower ground level. These spaces include 2 x disabled bays, 2 x EV car spaces, and a single car share bay.
- 25 The car share bay would be specifically allocated for car share and therefore would not be available to residential visitors or marina berth visitors. In this regard, there would be 29 car spaces shared between these visitors.
- 26 All tandem pairs will be allocated to three-bedroom dwellings.
- 27 The plans also illustrate a net gain of two (2) on-street car spaces in Harbourside Drive. This is a net gain resulting from the provision of three (3) new spaces on the western side of Harbourside Drive, to the immediate north of the Barwon Water Pump Station, and a loss of a single on-street car space on Harbourside Drive to accommodate the new vehicle crossover.
- 28 In addition, a total of five (5) resident motorcycle parking spaces are provided in the lower ground level parking area.

#### **Bicycle Parking Provisions**

- 29 A total of 115 bicycle parking spaces are proposed as:
- 31 visitor spaces, comprising 21 visitor spaces in the lower ground level car parking area, 6 visitor spaces in the Harbourside Drive setback, and 4 visitor spaces adjacent to the Yacht Approach pedestrian entry.
  - 84 resident spaces in the lower ground level car parking area.

#### **Pedestrian Access**

- 30 A new pedestrian path is proposed along the entire length of the Yacht Approach and Harbourside Drive frontages.

- 31 Pedestrian access to the site is proposed by:
- Harbourside Drive - A door to Harbourside Drive for each of the marina office and retail tenancy. There is no formal access to the residential component, except through the car park to the lift lobby.
  - Yacht Approach - Stair access (with a lift platform) to a residential lobby.
  - Balmoral Crescent – Shared stair access to individual dwellings (2 stairs accessing 4 dwellings). There is also a pedestrian access to the residential amenity space and car park.

**Waste Collection**

- 32 Waste collection is proposed to be undertaken by a private contractor within the lower ground level car parking area using a nominal 'Waste Wise Mini' vehicle with a 6.4 metre length.

## **Existing Conditions**

### **Subject Site**

- 33 The Development Plan area is of irregular shape and is bound by Balmoral Crescent and existing residential properties to the west, a new park under construction to the north, Corio Bay to the east, and Yacht Approach and Rippleside Beach to the south.
- 34 The planning application land, addressed as 1-11 Harbourside Drive, Rippleside, is situated in the south western section of the Development Plan area, and has frontages to Balmoral Crescent to the west (68 metres), Yacht Approach to the south (62 metres), and Harbourside Drive to the east (total of 55 metres comprising 40 metres and 15 metres either side of the Barwon Water asset). An existing residential property abuts the site to the north.
- 35 The site is currently vacant but is being used for construction activities associated with the broader development plan area. Access to the site is informally available from Yacht Approach.
- 36 There is a steep embankment to Balmoral Crescent with a significant level difference (~6m) between Balmoral Crescent and Harbourside Drive.
- 37 The locality of the Development Plan area and planning application land is shown in Figure 2.

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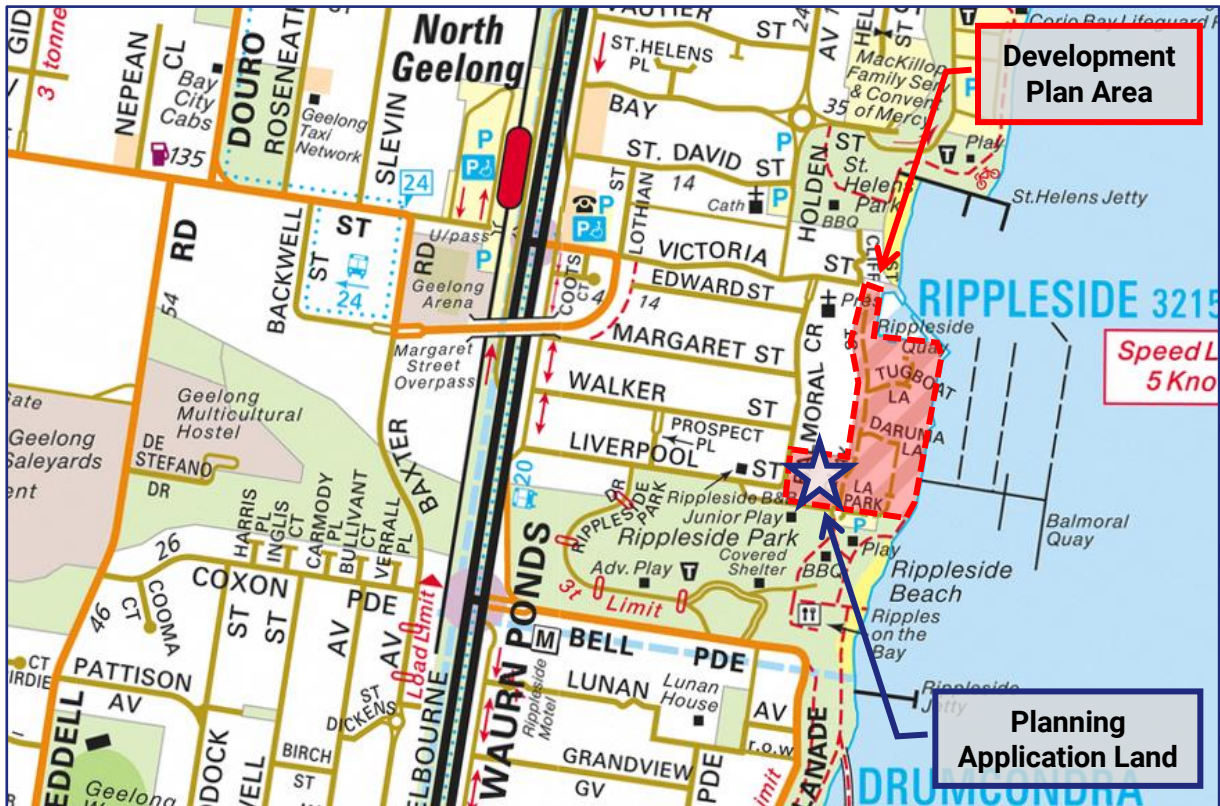


Figure 2: Locality Map

38 An aerial image and site frontage photographs of the application land are provided at Figure 3 to Figure 5.



*Figure 3: Aerial Image of Subject Site*



*Figure 4: Site Frontage Balmoral Crs*



*Figure 5: Site Frontage to Harbourside Dr/Yacht Approach Intersection*

## **Planning Zones and Land Use**

- 39 The subject site is located within a Comprehensive Development Zone – Schedule 2 (CDZ2) under the Greater Geelong Planning Scheme.
- 40 Land use surrounding the site is generally residential in nature.

- 41 Key non-residential uses in the vicinity of the site include:
- Rippleside Park and Rippleside Beach, located immediately south of the site.
  - Rippleside Marina, immediately metres east of the site.
  - North Geelong Railway Station located approximately 700 metres north-west of the site.
  - A small commercial area fronting Melbourne Road, located approximately 400 metres north-west of the site, which includes retail, hospitality and office type tenancies.
- 42 The site is located approximately 2.5km north of the Geelong CBD.

## Traffic Considerations

### Road Network

- 43 **Balmoral Crescent** is identified as a local access street in the Greater Geelong Road register. Balmoral Crescent is aligned in a generally north-south direction and extends between Victoria Street (north) and Liverpool Street (south).
- 44 Balmoral Crescent has a carriageway of approximately 8.9 metres adjacent to the site, narrowing to around 7.3 metres to the north of Margaret Street, providing for through traffic in both directions and unrestricted kerbside parallel parking on both sides of the street. Footpaths are provided on both sides of the street.
- 45 Parking near to the bend of Balmoral Crescent as it approaches Liverpool Street is prohibited.
- 46 The urban default speed limit of 50km/h applies.
- 47 **Liverpool Street** is identified as a secondary distributor in the Greater Geelong Road register. Liverpool Street is aligned in a generally east-west direction, providing a connection between Princes Highway in the west and Balmoral Crescent to the east.
- 48 Liverpool Street has a carriageway of approximately 11.4 metres, however narrows to around 9.0 metres east of Yacht Approach. Parking is typically permitted on both kerbs and the urban default speed limit of 50km/h is applicable.
- 49 In the vicinity of the site, a footpath is provided along the northern side of the street, abutting residential lots, with no footpath provided on the southern side of the street, abutting Rippleside Park.
- 50 **Yacht Approach** is aligned in a generally east-west direction and extends between Harbourside Drive and Liverpool Street.
- 51 Yacht Approach has a carriageway of approximately 6.8 metres, providing for through traffic in both directions. There are no parking signs on Yacht Approach, however the carriageway width means that parking can only be accommodated on a single side of the street.
- 52 The urban default speed limit of 50km/h applies to Yacht Approach. There are no footpaths on Yacht Approach.

- 53 **Harbourside Drive** is aligned in a generally north-south direction adjacent to the site and extends from Yacht Approach into the larger Balmoral Quay development.
- 54 Harbourside Drive has a carriageway of approximately 6.6 metres, providing for a through traffic lane in each direction with indented unrestricted kerbside parallel parking on both sides of the street. An approximately 30 metre section of footpath is provided on the east side of the street, extending from the off-street car park at the end of Yacht Approach.
- 55 The urban default speed limit of 50km/h applies.
- 56 The intersection of Balmoral Crescent and Liverpool Street is arranged as a 90 degree bend. Mountable islands and linemarking are provided through the bend to assist motorists in alignment as they travel through the bend. There is also an advisory speed sign recommending a travel speed of 15km/h, when travelling north to west.
- 57 The intersection of Yacht Approach and Liverpool Street is arranged as a 'Y'-intersection, with priority afforded to Liverpool Street.
- 58 The intersection of Yacht Approach and Harbourside Drive is arranged as a T-intersection, with priority afforded to Yacht Approach. The south eastern leg of the intersection provides access to a Council car park
- 59 Figure 6 to Figure 13 illustrate views of the road network in the vicinity of the site.



Figure 6: Balmoral Crs – View North



Figure 7: Balmoral Crs – View South

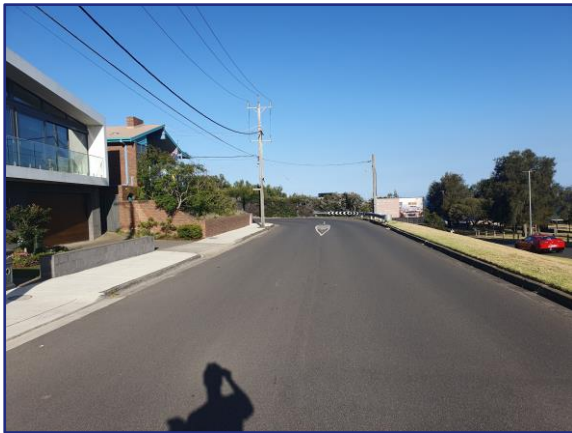


Figure 8: Liverpool St – View East



Figure 9: Liverpool St – View West

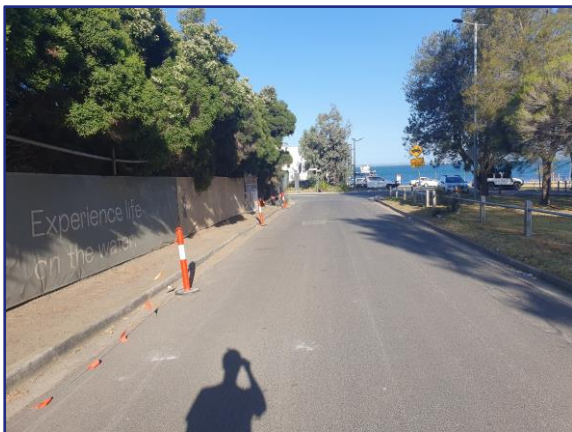


Figure 10: Yacht Approach – View East



Figure 11: Yacht Approach - View West



Figure 12: Harbourside Dr – View North



Figure 13: Harbourside Dr - View South

### **Sustainable Modes of Transport**

61 The site has reasonably good access to sustainable transport modes.

- 62 The site is located approximately 2.5km walk or cycle from the Geelong CBD with dedicated bicycle and pedestrian paths provided for the majority of the journey.
- 63 North Geelong Railway Station is located approximately 700 metres walking distance from the subject site, providing access to services on the Geelong line.
- 64 Bus Route 20, providing a service between Geelong Station and Corio Shopping Centre, has stops on Melbourne Road within approximately 400 metres walking distance of the subject site.
- 65 Bus Route 24, providing a service between Geelong Station and North Geelong Station via Newtown, has stops provided on Victoria Street within approximately 800 metres walking distance of the subject site.
- 66 Figure 14 illustrates the public transport network surrounding the site.

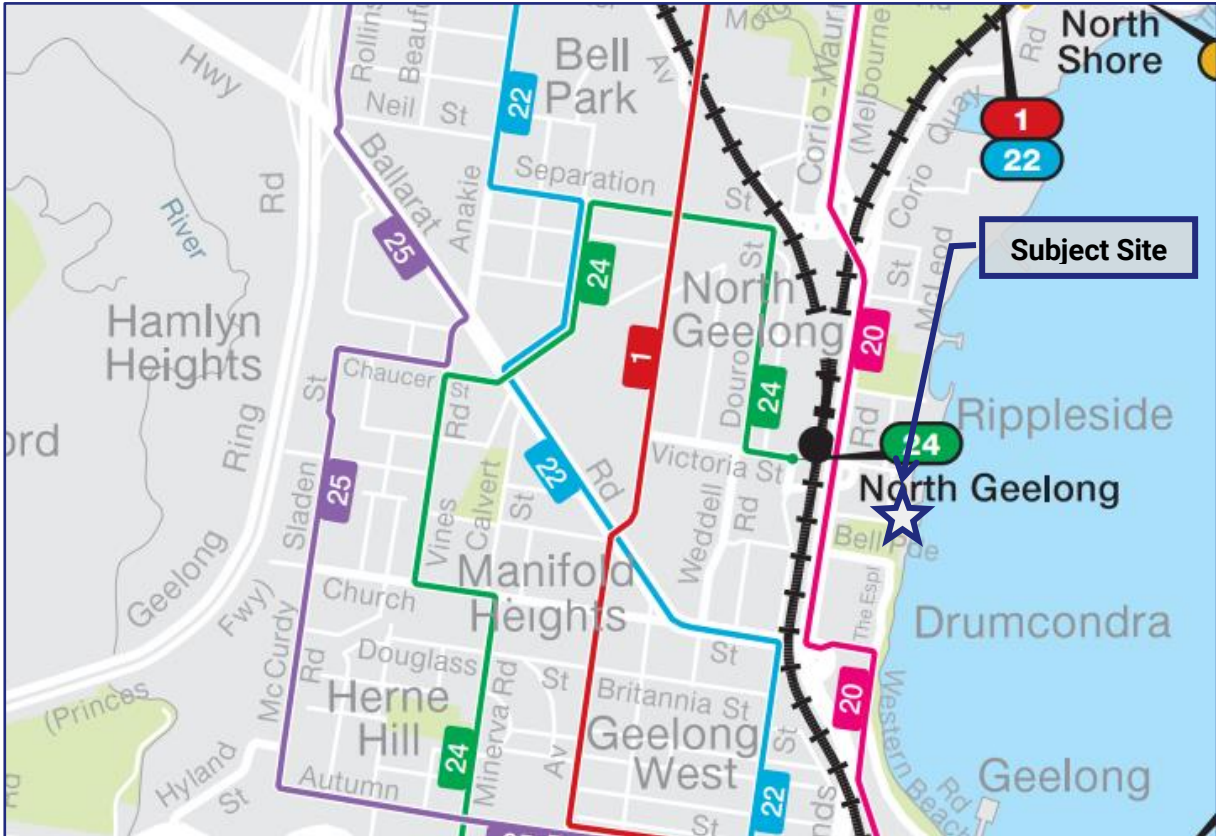


Figure 14: PTV Public Transport Map – Greater Geelong

**Crash Statistics**

- 67 State Road Accidents VicRoads Crashstats internet database for the past five years of available data (1 July 2018 - 30 June 2023) has been reviewed for the area surrounding the site. No recorded incidents were found on Balmoral Crescent, Liverpool Street, Yacht Approach, Harbourside Drive or other local streets in the vicinity of the site.

## **Existing Local Streets Operation**

- 68 The application material did not include any traffic counts for local streets within the area.
- 69 The timing of my engagement (mid December) did not allow collection of traffic data that would be representative of normal conditions. That is my engagement was effectively across the school holiday period.
- 70 To assist with my assessment, Council has provided results of traffic counts undertaken in 2014 for some local streets.
- 71 From my site inspection and review of the area I note the following:

### **Harbourside Drive**

- Harbourside Drive serves a limited function in providing access to car parking for residents in Balmoral Quay.
- In reference to Clause 56 of the Planning Scheme, it serves an 'Access Street' function and would have a target maximum volume of 1,000 – 2,000 vehicles per day.
- Stages 3 and 4 are still being constructed and consequently traffic counts of this street would not be reflective of 'normal' conditions.

### **Yacht Approach**

- Yacht Approach serves a limited function in providing access to Harbourside Drive and a small car park for Rippleside Beach.
- Yacht Approach will ultimately provide access to all stages of Balmoral Quay.
- The current use of Yacht Approach is influenced by construction works associated with Stages 3 and 4 of Balmoral Quay, and consequently any traffic counts at this time will not be reflective of 'normal' conditions.
- Based on the cross section of Yacht Approach, and reference to Clause 56 of the Planning Scheme, Yacht Approach would most closely resemble an 'Access Street' and have a target maximum volume of 1,000 - 2,000 vehicles per day.

### **Balmoral Crescent**

- Balmoral Crescent is a local access street (with a wider carriageway than Harbourside Drive and Yacht Approach). For amenity purposes it would have a target maximum volume of 2,000 – 3,000 vehicles per day.
- As the Council classification suggests, Balmoral Crescent provides a local function distributing the local neighbourhood traffic to Victoria Street or Liverpool Street to enable broader access to the arterial road network.
- Council has provided traffic count data for Balmoral Crescent between Walker Street and Margaret Street, taken in April 2014, indicating an average two-way daily traffic volume of 758 vehicles.
- Based on a review of aerial imagery, there does not appear to have been any notable level of additional development in the area surrounding Balmoral Crescent (aside from Balmoral Quay), and therefore I would not expect any material change in traffic volumes from that count.

- The recorded level of traffic is well below the target range for a street of this nature.

### **Liverpool Street**

- Council identifies Liverpool Street as a secondary distributor, in this regard it is expected to provide a broader role than a local street and is expected to carry higher traffic volumes.
- In reference to Clause 56, its cross section and function would most closely resemble a 'collector' road and have a target volume range of 3,000 – 7,000 vehicles per day.
- Council has provided traffic count data for Liverpool Street between Prospect Street and Balmoral Crescent, taken in April 2014, indicating an average daily traffic volume of 728 vehicles.
- Based on a review of aerial imagery, there does not appear to have been any notable level of additional development in the area surrounding Liverpool Street (aside from Balmoral Quay) and therefore I would not expect any material change in traffic volumes from that count.
- The recorded level of traffic is well below the target range for a street of this nature.

## **Traffic Generation**

### **Application Land**

- 72 The Cardno application traffic report adopted the following daily traffic generation rates for the residential component of the development, based on the RTA Guide, with an assumption of 10% of these movements occurring in each of the typical network peak hours:
- 4 daily vehicle movements for 1-bedroom dwellings,
  - 5 daily vehicle movements for 2-bedroom dwellings, and
  - 6 daily vehicle movements for 3-bedroom dwellings.
- 73 The Cardno report adopted the following distributions for residential traffic:
- AM Peak – 80% outbound and 20% inbound, and
  - PM Peak – 40% outbound and 60% inbound.
- 74 Given the site's location and context, I am of the opinion that it would be more appropriate to apply a daily traffic generation rate of 6 vehicle movements per dwelling, regardless of size. I agree with the distribution assumptions and assumption of 10% of daily vehicle movements occurring in each of the typical network peak hours is reasonable.
- 75 The Cardno report assessed likely traffic generation associated with the marina berth spaces as follows:
- 50% of boat owners may access their boat on a typical weekday.
  - Of the boat owners accessing their boat on a typical weekday, 25% may generate and inbound and outbound vehicle movement in each of the peak hours.
  - One inbound movement in the AM peak hour and one outbound movement in the PM peak hour associated with staff of the marina office.

- 76 I am of the opinion the marina traffic generation estimates are conservatively high but acceptable for assessment purposes.
- 77 For the shop tenancy, the Cardno report projected one inbound movement in the AM peak hour and one outbound movement in the PM peak hour associated with staff. Customers of the shop were anticipated to be from nearby residents or patrons already in the area, rather than attracting any new additional traffic to the site.
- 78 This is reasonable.
- 79 Based on the above, I anticipate the proposed development will generate the traffic volumes outlined in Table 3.

*Table 3: Summary of Traffic Generation (Vehicle Movements)*

Use	Daily			AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Residential (84 apartments)	252	252	504	10	40	50	30	20	50
Marina	17	17	34	5	4	9	4	5	9
Shop	1	1	2	1	0	1	0	1	1
<b>Total</b>	<b>270</b>	<b>270</b>	<b>540</b>	<b>16</b>	<b>44</b>	<b>60</b>	<b>34</b>	<b>26</b>	<b>60</b>

- 80 In relation to the residential traffic, Stage 5 has 70% of its car parking accessed from Balmoral Crescent and 30% accessed from Harbourside Drive.
- 81 It is therefore expected the traffic generation will comprise 352 movements to the Balmoral Crescent access and 188 movements to the Harbourside Drive access.

**Stages 1-4**

- 82 Stages 1-4 include 104 dwellings.
- 83 Applying the traffic generation rate of 6 movements per dwelling, it is estimated stages 1-4 when occupied will generate 624 movements per day.

**Traffic Impact**

**Harbourside Drive**

- 84 Harbourside Drive will carry all traffic associated with Stage 1-4, as well as traffic associated with the shop, marina berths and 30% of residential traffic associated with Stage 5 (based on 30% of resident spaces being accessed via Harbourside Drive).
- 85 Based on the preceding assessments, I anticipate that Harbourside Drive will ultimately carry in the order of 800 daily vehicle movements.
- 86 This level of traffic can be readily accommodated by the cross section of Harbourside Drive.

### **Yacht Approach**

- 87 Yacht Approach will carry all traffic from Harbourside Drive to the wider road network.
- 88 Additionally, Yacht Approach provides access to the off-street car park adjacent to Rippleside Beach. This car park has 39 unrestricted car spaces.
- 89 For the purposes of this assessment, I will conservatively assume each car space turns over 3 times per day, so 3 arrivals and 3 departures. It is therefore projected the car park will generate in the order of 234 movements per day.
- 90 In consideration of the Balmoral Quay Harbourside Drive traffic and the car park traffic, I expect Yacht Approach will have a daily volume in the order of 1,050 movements.
- 91 This level of traffic can be readily accommodated by Yacht Approach and is at the lower end of the target range.

### **Balmoral Crescent**

- 92 For the purposes of this assessment, I will presume the Development Plan traffic will be broadly evenly distributed to / from the north and south.
- 93 Motorists travelling to / from the south will likely use Liverpool Street to access the broader network, whilst motorists travelling to the north will use Balmoral Crescent.
- 94 Based on the traffic generation and distribution, I estimate the Development Plan Area, including Stage 5 will add in the order of 580 movements per day, north of the Stage 5 access, to Balmoral Crescent.
- 95 This will result in a post development daily volume of around 1,350 vehicles.
- 96 This will be a noticeable change for existing residents but still be a relatively low level of traffic and still well within the target range for a street of this nature.

### **Liverpool Street**

- 97 Based on the traffic generation and distribution, I estimate the Development Plan Area, including Stage 5 will add in the order of 580 movements per day to Liverpool Street, west of Yacht Approach.
- 98 This will realise a post development daily volume in the order of 1,300 vehicles.
- 99 This level of traffic can be readily accommodated by Liverpool Street.

### **Overall**

- 100 Based on the foregoing assessment, I am of the view that the proposed and existing road network can accommodate traffic associated with the Development Plan area, including Stage 5 of Balmoral Quay.
- 101 I also note the Development Plan and Stage 5 were historically approved in consideration of Stage 5 having 51 apartments. The proposed amended Development Plan and application for Stage 5 is for 84 apartments, that is 33 more than previously approved.

- 102 Thirty three additional apartments equates to an additional traffic projection of 198 movements per day. This is a low level of traffic that would be immaterial to the operation of the surrounding streets.

## Car Parking Considerations

### Statutory Requirements – Clause 52.06

- 103 The car parking requirements for the proposed development are outlined under Clause 52.06 of the Greater Geelong 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.*
- 104 A statutory assessment of the Planning Application is provided at Table 4.

Table 4: Statutory Car Parking Requirements (Clause 52.06)

Use	Size / No.	Statutory Parking Rate	Parking Req.
<b>Residential</b>	66 dwellings	1 space per 1 or 2 bedroom dwelling for residents	66 spaces
	18 dwellings	2 spaces per 3 or more bedroom dwelling for residents	36 spaces
	84 dwellings	1 space per 5 dwellings for visitors	16 spaces
<b>Shop</b>	77.8m <sup>2</sup>	4 spaces per 100m <sup>2</sup> of leasable floor area	3 spaces
<b>Office</b>	34.7m <sup>2</sup>	3.5 spaces per 100m <sup>2</sup> of leasable floor area	1 space
<b>TOTAL</b>			<b>122 spaces</b>

- 105 Based on the table above, the development is statutorily required to provide a total of 122 on-site spaces, comprising 102 spaces for residents, 16 spaces for residential visitors, 3 spaces for the shop tenancy, and 1 space for the office tenancy.

- 106 The application material describes an overall car parking provision of 134 car spaces within the Stage 5 building, and an allocation comprising 102 car spaces for residents, a single space for the marina office, a single space for the shop tenancy, and 30 (29 when accounting for the car share space) car spaces to be shared between residential visitors and lessees of the public marina berths (32 berths).
- 107 The application therefore meets its statutory requirement for the resident and office components of the development.
- 108 The provision of one staff space for the shop tenancy falls short of the requirement for this use.
- 109 The provision of 29 spaces for shared use by residential visitors and marina berth lessees does not technically meet the statutory requirements for residential visitors, as these spaces are not provided for exclusive use by residential visitors.
- 110 Accordingly, a partial waiver of the statutory requirements is sought for these components.
- 111 Clause 52.06-7 of the Planning Scheme allows a permit to be granted to vary the statutory car parking requirement.
- 112 Planning Practice Note 22 (August 2023) specifies 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.
- 113 When determining if the parking dispensation for the shop tenancy and residential visitors is appropriate, I have considered the Decision Guidelines at Clause 52.06 and factors that contribute to whether or not the parking is sufficient and/or suitable.
- 114 A discussion of the suitability of the parking provision is provided as follows.

### **Car Parking Demand Assessment**

- 115 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.*
  - *Any empirical assessment or case study.*
- 116 Discussion of the relevant items follows.

## **Background**

- 117 In addition to the statutory car parking requirements outlined above, a car parking management plan was endorsed as a part of a previous approval for the site, which included parking provisions within Stage 5 for Marina Berths.
- 118 *'The Allocation of Accommodation for Bicycles and Car Parking Management Plan'* dated 2008, prepared by Trendcorp, and endorsed in 2009, includes the following in relation to the subject site (referred to as Building H in this document):
- "The building provides extensive car parking, including 56 visitor car parking consisting of 36 marina public mooring spaces, 14 café/convenience store customer spaces and 10 residential visitor car parks..."*
- 119 On this basis, there has been a historical intent to provide parking at a rate of 1 space per public marina berth. This is no longer the case in the current application, as parking is now intended to be shared between residential visitors and marina berth visitors.

## **Anticipated Car Parking Demand**

### **Shop**

- 120 I am of the view the retail tenancy is likely to be of a service nature and draw the majority of its trade from nearby residents or visitors to the beach or Ripplside Park, rather than be a destination unto itself.
- 121 In this regard, for the purposes of this assessment I will presume the retail tenancy will generate a car parking demand for 2 spaces, comprising a single staff car space and a single customer car space.
- 122 The parking allocation includes provision for a single staff space for the shop, and consequently the application will be reliant on a single off-site car space for customers.

### **Residential Visitors**

- 123 In the traffic engineering profession, a residential visitor peak parking demand rate of 0.1 spaces per apartment is typically adopted. This rate is borne out of historical case study data, with the peaks occurring on weekend days and weekday evenings.
- 124 Based on this rate, I estimate the 84 apartments will generate a visitor demand for around 8 car spaces.

### **Marina Berths**

- 125 I understand that ultimately when the marina is complete there will be in the order of 32 public marina berths.
- 126 There is no material in the application traffic report to assist with a parking demand for marinas. Nonetheless, I think it is reasonable to expect that not all berths would be visited simultaneously.
- 127 There is an Australian Standard for Marinas (AS3962-2020) and it recommends a car parking provision of 0.25 car spaces per berth.

- 128 On this basis, the Australian Standard would suggest a car parking provision of 8 spaces for 32 berths.
- 129 The peak demand for the marina berths is likely to be on weekends or evenings.

**Total**

- 130 Based on the foregoing assessment, I would expect a peak car parking demand for up to 16 car spaces for residential visitors and marina berth visitors. The retail tenancy would generate a demand for 2 car spaces, comprising a single staff car space and a single customer car space.
- 131 In view of the above, I am of the opinion the provision of 29 car spaces to be shared between marina berth visitors and residential visitors is sufficient, and the provision of a single shop space will meet the retail staff demand.
- 132 The application will be reliant on a single off-site car space for retail customers.
- 133 The application traffic report describes there will be an additional two on-street car spaces provided in Harbourside Drive, beyond the statutory requirement for Stages 1-4. These two car spaces will be available for shop customers.
- 134 On this basis, I am of the opinion the sought waiver of car parking is justified.

**Car Parking Surveys**

- 135 Whilst I do not expect the development to be materially reliant on off-site car parking, some residents / residential visitors / marina berth visitors may choose to park off-site.
- 136 To understand existing parking conditions, my firm undertook spot car parking occupancy surveys at 11:45am on Saturday 27<sup>th</sup> January, 2024 and 7:00pm on Tuesday 30<sup>th</sup> January, 2024 to capture the parking supply and demands present in the area immediately surrounding the site, as depicted in Figure 15.
- 137 It is noted the Saturday survey was the Australia Day weekend.
- 138 The survey area included a total of 170 publicly available car parking spaces, with a summary of the results provided at Table 5. Detailed survey results are attached at Appendix B.

*Table 5: Car Parking Occupancy Results*

Time	Sat 27 <sup>th</sup> Jan 24 – 11:45am	Tues 30 <sup>th</sup> Jan 24 – 7pm
Car Parking Supply	170 spaces	170 spaces
No. Cars Parked	70 cars	41 cars
No. Vacant Spaces	100 spaces	129 spaces
Percentage Occupancy	41%	24%

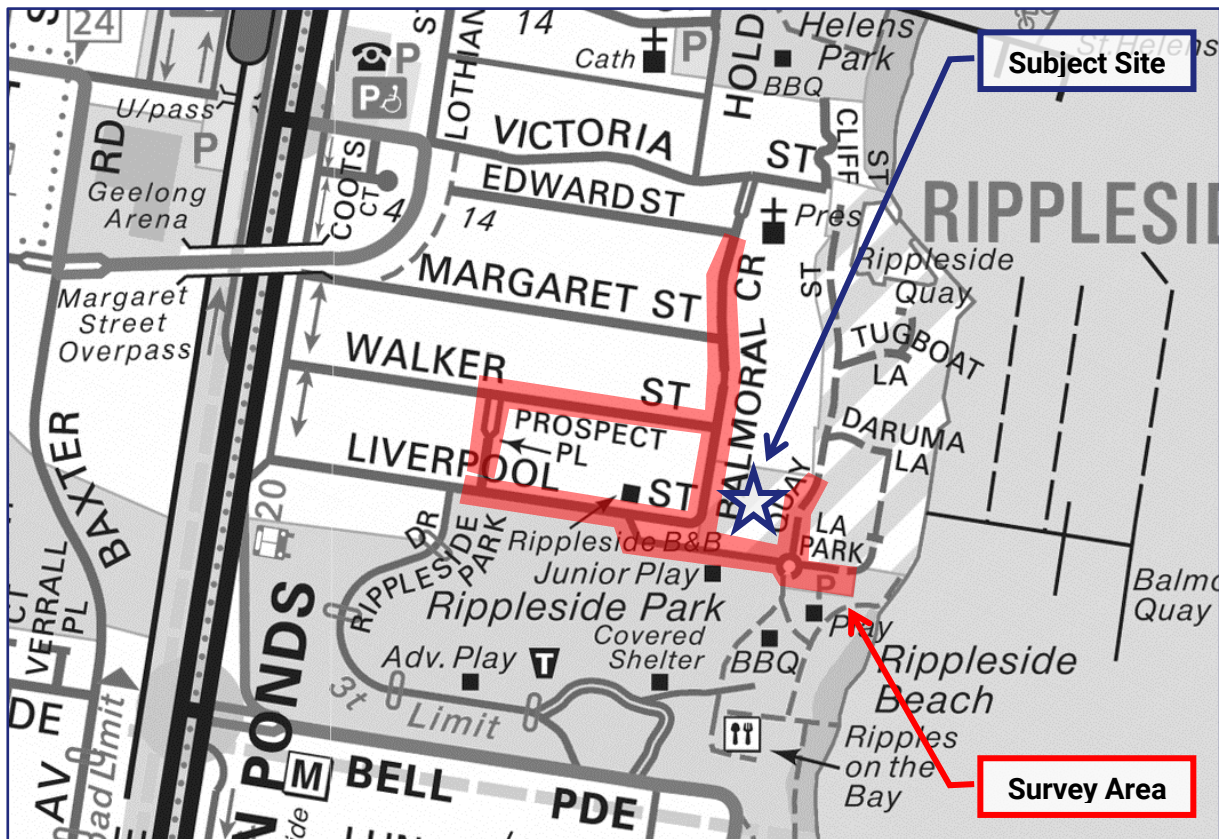


Figure 15: On-Street Car Parking Survey Area

- 139 The car parking survey results show a high level of available parking in the area surrounding the site at the times when I anticipate peak residential visitor and marina berth visitors.
- 140 There is ample off-site car parking to support a modest demand from the subject application should it be needed.

**Car Parking Layout & Access Arrangements**

- 141 I have assessed the car park layout and access arrangements for the proposed development against the relevant requirements of the Greater Geelong Planning Scheme and where applicable, the Australian Standard for Off-Street Parking (AS2890.1:2004), and report as follows.

**Car Park Access Management**

- 142 The application plans indicate that both vehicular access points are provided with some form of secure door.
- 143 It is not clear from the application material how access through these points will be managed for residents, employees and visitors.

- 144 In particular, if the door to the lower ground level car park is to be secure, then there will need to be a mechanism, such as an intercom / card reader to allow residential visitor / marina berth visitor access. The mechanism should be ideally housed in a central median to allow the driver appropriate access without getting out of the vehicle.
- 145 This will require an amendment to the plans to allow for a wider access.
- 146 Furthermore, the garage door should be setback a minimum of 5.5 metres to allow a vehicle to prop clear of the pedestrian path on Harbourside Drive, whilst it waits for the door opening.
- 147 This is likely to result in the loss of a single car space. The assessment of car parking reveals that there would still be sufficient car parking provided to accommodate this change.
- 148 Similarly, the garage door to the Balmoral Crescent access should be setback 5.5 metres. There is no need for an intercom at this access as it is only for residents.
- 149 These amendments should form a condition of permit should one issue.

#### **General Car Parking Layout**

- 150 Car spaces have generally been designated with minimum dimensions of 2.6 metres width and 4.9 metres length, accessible from 6.4 metre wide aisles, meeting the Planning Scheme requirements.
- 151 Tandem car parking spaces have been provided with a 5.4 metre length, meeting the Planning Scheme requirements.
- 152 Disabled car parking spaces are provided with dimensions of 2.6m x 4.9m and a shared space of the same size in accordance with the Australian Standards, noting that the Planning Scheme effectively allows for disabled car parking spaces to be provided with a 4.9m length.
- 153 Car spaces adjacent to walls have been provided with appropriate clearances to allow for satisfactory car door opening.
- 154 Columns are sited within 0.25-1.25 metres from the aisle end of car spaces in accordance with the Planning Scheme car parking envelope to allow for access into and out of spaces.
- 155 There is no requirement for blind aisle extensions under Clause 52.06, however blind aisles of at least 1 metre are provided throughout the car parking levels in accordance with the recommendation of the Australian Standard.

#### **Internal Access & Ramps**

- 156 Internal accessways are generally provided with a width of at least 6.2 metres allowing for vehicle passing within car parking areas.
- 157 The internal ramp is provided with a main grade of 1:4 with 3 metre long 1:8 transitions at the top and bottom of the ramp.
- 158 The internal ramp is provided with a width of 4 metres between walls limiting it to one-way at any one time.
- 159 Swept path diagrams presented in the Cardno report demonstrate that passing opportunities are provided in the accessway running parallel to the ramp.

- 160 Given the location of the passing opportunities, it will be difficult for drivers travelling in opposing directions to see each other before they need to stop to let the other vehicle pass. Accordingly, there is a likelihood that when two vehicles meet, one will need to reverse back to the location where passing opportunities are provided.
- 161 The ramp will serve 36 resident car parking spaces and given the relatively low level of, and tidal nature of the traffic expected, I don't anticipate a high incidence of the situation outlined above.
- 162 Therefore whilst not ideal, I am satisfied the ramp arrangement is an acceptable outcome.
- 163 A minimum headroom clearance of at least 2.2 metres is provided throughout basement levels and along the ramp in accordance with AS2890.1:2004.

#### **Site Access**

- 164 Pedestrian sight splays measuring 2.5 metres along the accessway and 2.0 metres along the site frontage are indicated on the exit side of both vehicular access points.
- 165 Both vehicular access points are provided with a width of at least 5.5 metres allowing for two-way simultaneous movements.
- 166 A maximum grade of 1:10 for the 4.65 metres within the site is indicated for the Balmoral Crescent access point.
- 167 The proposed location of Balmoral Crescent access point results in obstructed sight distance to the south-west along Liverpool Street. The main obstruction is the fence and vegetation on the corner property of the bend.
- 168 A member of my team measured the available sight distance to Liverpool Street is only approximately 30 metres.
- 169 AS/NZS 2890.1-2004 (Off-street Car Parking) specifies a desirable and minimum distance of 55 metres and 35 metres respectively, based on a frontage road speed of 40km/h.
- 170 It is likely the majority of motorists travelling through the bend from west to south would be travelling at a speed less than 40km/h.
- 171 In this regard, whilst not essential, a safer outcome would be to translate the access to the south to improve sight distance or alternatively restrict the access to left-in / left-out.

## **Bicycle Considerations**

- 172 Clause 52.34 of the Greater Geelong Planning Scheme specifies the bicycle parking requirement for new developments.
- 173 The relevant requirements are summarized in Table 6.

Table 6: Statutory Bicycle Parking Requirements

Use	Units	Statutory Requirement	No. Of Spaces Required
Dwellings	84 dwellings	1 space per 5 dwellings for residents 1 space per 10 dwellings for visitors	17 resident spaces 8 visitor spaces
Shop	77.8m <sup>2</sup>	1 space per 600m <sup>2</sup> of leasable floor area for staff if the leasable floor area exceeds 1,000m <sup>2</sup> 1 space per 500 m <sup>2</sup> of leasable floor area for customers if the leasable floor area exceeds 1,000m <sup>2</sup>	0 staff space 0 visitor spaces
Office	34.7m <sup>2</sup>	1 space to each 300m <sup>2</sup> of net floor area for staff if the net floor area exceeds 1,000m <sup>2</sup> 1 space to each 1,000m <sup>2</sup> of net floor area for staff if the net floor area exceeds 1,000m <sup>2</sup>	0 staff space 0 visitor spaces
<b>Total</b>		<b>Resident Staff Visitors</b>	<b>17 resident spaces 0 staff spaces 8 visitor spaces</b>

- 174 Based on the above assessment, the planning application is statutorily required to provide a total of 25 bicycle spaces, comprising 17 resident spaces and eight visitor spaces.
- 175 The proposal includes the provision of 115 bicycle parking spaces, including 84 resident spaces and 31 spaces for visitor use.
- 176 These provisions exceed the minimum requirements under Clause 52.34 of the scheme.
- 177 Bicycle parking has been provided in accordance with AS2890.3-2015 with a mix of vertical and horizontal rails as follows:
- Wall mounted vertical rails are dimensioned at 1.2 metres deep, 0.5 metres spacings, and are accessible from an aisle 1.5 metres wide.
  - Horizontal rails are provided with dimensions of 1.8 metre length and spaced at 1.0 metre centres, accessible from a 1.5 metre aisle.
  - Two tier horizontal resident spaces are provided with dimensions of 2 metres x 0.5 metre centres and accessible from a 2 metre aisle.
- 178 These dimensions will provide for convenient and accessible bicycle parking.

## Pedestrian Considerations

- 179 The subject application proposes to construct a footpath along the Harbourside Drive and Yacht Approach frontages to connect to existing paths on Balmoral Crescent and on the east side of Harbourside Drive to allow further connection through to the shared path along the waterfront.
- 180 The proposed footpath connections are appropriate for the subject development.

- 181 There is an existing section of footpath on Balmoral Crescent that is steep as it connects Balmoral Crescent to Yacht Approach, leading to a path within Rippleside Park.
- 182 Whilst the development will increase pedestrian traffic on this link, I am of the view improvement of this link is a Council responsibility, if it chooses to do so.
- 183 The Harbourside Drive footpath has a general width of 1.4 metres, narrowing to a metre as it travels past the site access. I am of the view a 1.4 metre width should be retained through this area, which will require minor modifications to the access and ramp arrangements.
- 184 This should be required as a condition of permit.
- 185 The primary pedestrian entrance to the building is from Yacht Approach via stairs and a platform lift.
- 186 Secondary access to the lift cores is available through the two car parking areas.
- 187 Whilst not essential, I am of the opinion better pedestrian access should be provided from Yacht Approach to facilitate more convenient access for residents with prams / strollers and the like.

## **Loading & Waste Considerations**

### **Loading Considerations**

- 188 Clause 65.01 of the Planning Scheme states 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.'*
- 189 Loading activities for residential dwellings associated with furniture movers/removalists when residents move in/out are anticipated to occur relatively infrequently. It is therefore considered appropriate for delivery vehicles to utilise nearby on-street parking or on-site parking.
- 190 The shop tenancy and marina office are both relatively small and are not anticipated to require frequent servicing by delivery vehicles. I am satisfied that on-street parking in the vicinity of the site can be utilised for loading activities associated with these tenancies.
- 191 Based on the preceding, I am satisfied that loading activities for the proposed development can be undertaken without any notable amenity, traffic flow or road safety impacts.

### **Waste Considerations**

- 192 The Waste Management Plan submitted with the application (prepared by Leigh Design, dated 29<sup>th</sup> June, 2022) indicates that waste collection will be undertaken by a private contractor. Collection will occur within the lower ground level car parking area with a nominal 6.4 metre long waste collection vehicle.

- 193 The Cardno report includes swept path diagrams demonstrating a vehicle of this size accessing the lower ground level parking area from Harbourside Drive, undertaking a three-point turn in the parking aisle and exiting to Harbourside Drive in a forwards direction.
- 194 The lower ground level car parking area is provided with a headroom clearance of at least 2.5 metres which is sufficient to accommodate the nominated waste collection vehicle.
- 195 Based on this information, I am satisfied that waste collection can be undertaken appropriately on site without any safety or operational issues being caused.

## Development Plan

- 196 I have reviewed the proposed Rippleside Development Plan, March 2023.
- 197 The Development plan shows a road network and pedestrian network generally consistent with the previously approved Development Plan. It is noted large parts of the road and pedestrian network are already constructed or are at least under construction.
- 198 I am satisfied the road network and pedestrian network shown on the Development Plan is appropriate.

## Consideration of Submissions

- 199 A total of 173 submissions were received during the public exhibition of the proposed Amendment and Permit Application, with a significant number of these submissions raising traffic engineering related concerns.
- 200 Council officers provided a summary of the key traffic engineering related concerns which are outlined in Table 7, with my response to each concern included.

*Table 7: Consideration of Submissions*


Identified Concern	Response
<p>Many submissions raised concerns with the location of the access to the building off Balmoral Crescent. The proximity to the bend where Liverpool Street turns into Balmoral Crescent has been identified by many users of the area as a location of significant concern due to traffic cutting the corner, speed and the possibility of vehicles turning into the development causing queuing on the road.</p>	<p>A consideration of the appropriateness of the Balmoral Crescent access location is provided in site access assessment.</p> <p>I am of the opinion that the proposed access is acceptable but a safer outcome could be achieved by either:</p> <ul style="list-style-type: none"> <li>• Translating the access to the south to improve sight distance; or</li> <li>• Restricting the access to left-in/left-out.</li> </ul>

Identified Concern	Response
<p>The majority of submitters raised car parking as a substantial concern. Concerns primarily were focused on the current car parking issues in the area, with many submitters noting that there is limited on-street car parking available making it difficult to navigate the street network, access driveways, cross the road safely or park in proximity to their destination. Many believed that the increase in population and flow on effects to traffic and parking would exacerbate existing issues. Additionally existing issues were considered to be resulting from construction workers parking in the area. Some submitters also raised the Rippleside Park refurbishment and expansion works, citing that there will be an even greater community demand for car parking in this location. Other submitters raised the reduction in car parking sought as unreasonable and that additional parking would need to be provided on site to address the demand of the apartments. Some submissions raised specific concerns with the sharing of the marina and visitor spaces at the development and the reduction to car parking sought. Finally, concerns were raised with existing residents parking their vehicles on a longer than temporary basis in the Council car park at the end of Yacht Approach.</p>	<p>The car parking assessment outlined within the body of the report addresses these issues.</p> <p>The application is meeting its statutory requirement for residents and in my assessment, I have estimated the application will have no material need to rely on off-site car parking.</p> <p>In any event, even if there was a modest reliance on off-site car parking, the spot surveys show that on-street parking is only moderately used at the expected peak times of the development.</p> <p>The issue of construction parking is temporary and is a matter that should be addressed as part of a Construction Management Plan condition.</p>
<p>Four submitters raised concerns with the reliance of bicycle parking on the site to justify the reduction in car parking. It was noted by various submitters that residents of the new building would likely be retirees, or holidaymakers from Melbourne who would rely on private vehicles to gain access to the site, and as such the provision of bicycle parking would not be utilised.</p>	<p>While the provision of a significant amount of on-site bicycle parking (well above the statutory requirement) is a benefit to the development, I do not consider it a significant factor in justifying the modest waiver of car parking sought.</p>

Identified Concern	Response
<p>Many submissions raised concerns with the increase in traffic for the surrounding street network. The proposal according to many submissions has not appropriately addressed both the existing traffic volumes and the anticipated traffic volumes. Request for updated traffic modelling was raised by a number of submitters.</p> <p>Some submissions also raised secondary issues of the capability of the road network to handle the additional traffic volumes, as well as the public transport network.</p>	<p>Given the timing of my involvement in this matter (which was through the Christmas and school holiday period), it was not possible for me to commission traffic counts in the area surrounding the site that would be representative of typical conditions.</p> <p>Furthermore, traffic counts of Harbourside Drive and Yacht Approach would be influenced by construction works associated with Stage 3 and 4.</p> <p>Notwithstanding the foregoing, I am comfortable the local streets are adequately designed to accommodate the projected levels of development traffic.</p>
<p>As a part of the original planning permit for the site, the Department of Transport and Planning required improvement works to the intersection of Liverpool Street and Melbourne Road. Some submitters were aware of this and queried when these works would be undertaken. One mentioned the original permit requiring traffic lights at this intersection and requested timing on these works.</p>	<p>I understand that Council has had discussions with the Department of Transport and Planning (DTP) and that DTP has advised that Council are the responsible authority for the works required under the previous approval. Council no longer consider these works necessary.</p> <p>I am of the opinion that these works are not necessary as a result of the development.</p> <p>Nonetheless, Council can pursue these works as part of satisfying existing permit conditions.</p> <p>From a review of the officer’s report, I understand after discussions with the Department of Transport and Planning, Council does not consider these works necessary.</p>
<p>As a part of the original Planning Permit PP647/2004 for the site, improvement works to Liverpool Street, adjacent to Yacht Approach were endorsed. The plans showed that Yacht Approach would be a left turn only, with a concrete median preventing traffic turning right onto Liverpool Street and continuing onto Balmoral Crescent. Various submitters have queried when these works will be undertaken.</p>	<p>I am of the opinion that these works are not necessary as a result of the development.</p> <p>Nonetheless, Council can pursue these works as part of satisfying existing permit conditions.</p> <p>From a review of the officer’s report, I understand Council does not consider these works necessary.</p>

## Conclusions

- 201 Having undertaken a traffic engineering assessment of the proposed Planning Scheme Amendment and planning permit application for residential development at 1-11 Harbourside Drive, Ripplside, I am of the opinion that:
- a) The level of traffic generated as a result of this proposal can be accommodated by the proposed and existing road network.
  - b) The proposed development has a statutory car parking requirement of 122 car spaces under Clause 52.06 of the Planning Scheme.
  - c) The application proposes 134 car spaces but intends to share residential visitor car spaces with marina berth visitors.
  - d) Based on an empirical assessment, I am satisfied the proposed car parking provision is acceptable and the sharing of residential visitor and marina berth visitor parking is also acceptable.
  - e) Therefore the sought waiver of car parking is justified.
  - f) Conditions of permit should require minor modifications to the arrangement of car parking and access, as outlined in my evidence.
  - g) Subject car parking and access arrangements.
  - h) The proposed bicycle parking provisions and layout satisfy the Planning Scheme requirements.
  - i) Loading and waste have been considered and the arrangements are suitable.
  - j) The proposed Amendment to the Development Plan is acceptable from a traffic and pedestrian perspective.
  - k) There are no traffic engineering reasons to refuse the proposed Amendment to the Planning Scheme and Planning Permit Application for the proposed residential development at 1-11 Harbourside Drive, Ripplside, subject to appropriate conditions.
- 202 I have made all the inquiries that I believe are desirable and appropriate and there are no matters of significance I regard as relevant, which to the best of my knowledge, have been withheld from the Panel.



JASON LEE WALSH  
DIRECTOR  
TRAFFIX GROUP  
7 February 2024



# **Appendix A**

## **Qualifications & CV**

# Amendment C436ggee and Planning Permit PP-573- 2021

1-11 Harbourside Drive, Rippleside

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## **Name**

Jason Lee Walsh - Director, Traffix Group Pty Ltd

## **Address**

Level 28, 459 Collins Street

MELBOURNE

VICTORIA 3000

## **Qualifications**

My educational qualifications and membership of professional associations are as follows:-

- Bachelor of Civil Engineering, Monash University
- Bachelor of Science, Monash University
- Fellow, Victorian Planning & Environmental Law Association

## **Experience**

I have approximately 25 years experience in Traffic Engineering including:

- 1995-2000 at Turnbull Fenner (now Traffix Group), including short term placements at the cities of Bayside and Whittlesea.
- 2000-2011 at Grogan Richards Pty Ltd (now Cardno).
- 2011-present at Traffix Group.

## **Areas of Expertise**

- Car parking and Traffic.
- Traffic advice and assessment of land uses and development proposals to planning authorities, government agencies, corporations and developers (including major residential, retail, food and drink, commercial, industrial, institutional and mixed use projects).
- Preparation and presentation of evidence before VCAT and Panels.

## **Expertise to Prepare this Assessment**

My experience and expertise over the past 25 years, including involvement with varied forms of developments, qualifies me to comment on the traffic implications of the proposed development.

## **Instructions**

I was instructed by City of Greater Geelong to undertake a traffic engineering assessment and prepare an evidence statement for the proposed Planning Scheme Amendment and Planning Permit Application for residential development at 1-11 Harbourside Drive, Rippleside.

**Facts, Matters and Assumptions Relied Upon**

- Exhibition material, including application plans prepared by SJB Architects, dated 4 July 2022; Traffic and Transport Assessment prepared by Cardno, dated 5 July 2022, and Rippleside Comprehensive Development Plan, March 2023.
- Council officer report and Council resolution, December 2023.
- Submissions
- Historical permits and Development Plan.
- Greater Geelong Planning Scheme.
- Australian Standard for Off-Street Parking (AS2890.1:2004)
- Australian Standard for Bicycle Parking (AS2890.3:2015).
- Site inspection.
- Relevant experience.

**Documents Taken into Account**

See above.

**Identity of Persons Undertaking Work**

Jason Walsh as per the evidence statement.

Marcus Koorn (Senior Traffic Engineer, Traffix Group) assisted with preparation of the evidence report.

**Summary of Opinions**

See Conclusions section of the evidence statement.



# **Appendix B**

## **Car Parking Survey Results**

Supervised By:  
Surveyed By: Marcus Koom

Survey Dates & Times: See below

Location	Restriction	Capacity Min - Max	Saturday, 27th January, 2024	Tuesday, 30th January, 2024
			11:45am	7:00pm
<b>ON-STREET CARPARKING</b>				
<b>LIVERPOOL STREET</b>				
<b>South Side</b>				
Balmoral Crescent to Yatch Approach	No Stopping	-	0	0
	Unrestricted	2	0	0
	No Stopping	-	0	0
Yatch Approach to Rippleside Park Drive	No Stopping	-	0	0
	Unrestricted	17	0	0
	No Stopping	-	0	0
<b>North Side</b>				
Prospect Street to Eb#29	No Stopping	-	0	0
	Unrestricted	7	5	0
Eb#29 to Balmoral Crescent	Unrestricted	5	3	2
	No Stopping	-	0	0
<b>LIVERPOOL STREET</b>	<b>Capacity</b>	<b>31 - 31</b>	<b>31</b>	<b>31</b>
	<b>Total Number of Cars Parked</b>		<b>8</b>	<b>2</b>
	<b>Total Number of Vacant Spaces</b>		<b>23</b>	<b>29</b>
	<b>Percentage Occupancy</b>		<b>26%</b>	<b>6%</b>
<b>BALMORAL CRESCENT</b>				
<b>East Side</b>				
Liverpool Street to crossover #7	No Stopping	-	0	0
	Unrestricted	8	2	1
crossover #7 to crossover #15	Unrestricted	6	2	1
crossover #15 to crossover #31	Unrestricted	5	0	1
<b>West Side</b>				
Edward Street to Margaret Street	No Stopping	-	0	0
	Unrestricted	6	2	1
	No Stopping	-	0	0
Margaret Street to Walker Street	No Stopping	-	0	0
	Unrestricted	6	1	1
	No Stopping	-	0	0
Walker Street to Liverpool Street	No Stopping	-	0	0
	Unrestricted	2	0	0
	No Stopping	-	0	0
<b>BALMORAL CRESCENT</b>	<b>Capacity</b>	<b>33 - 33</b>	<b>33</b>	<b>33</b>
	<b>Total Number of Cars Parked</b>		<b>7</b>	<b>5</b>
	<b>Total Number of Vacant Spaces</b>		<b>26</b>	<b>28</b>
	<b>Percentage Occupancy</b>		<b>21%</b>	<b>15%</b>

Supervised By:  
Surveyed By: Marcus Koom

Survey Dates & Times: See below

Location	Restriction	Capacity Min - Max	Saturday, 27th January, 2024	Tuesday, 30th January, 2024
			11:45am	7:00pm
<b>HARBOURSIDE DRIVE</b>				
<b>East Side</b>				
Yatch Approach to Opposite Nb of Subject Site	No Stopping	-	0	0
	Unrestricted	2	1	0
	No Stopping	-	0	0
<b>West Side</b>				
Nb of Subject Site to Yatch Approach	No Stopping	-	0	0
	Unrestricted	2	1	0
	No Stopping	-	0	0
<b>HARBOURSIDE DRIVE</b>		<b>Capacity</b>	<b>4 - 4</b>	<b>4</b>
		<b>Total Number of Cars Parked</b>	<b>2</b>	<b>0</b>
		<b>Total Number of Vacant Spaces</b>	<b>2</b>	<b>4</b>
		<b>Percentage Occupancy</b>	<b>50%</b>	<b>0%</b>
<b>YATCH APPROACH</b>				
<b>North Side</b>				
Liverpool Street to Harbourside Drive	No Stopping*	-	0	0
<b>South Side</b>				
Harbourside Drive to Liverpool Street	No Stopping	-	0	0
	Unrestricted	15	0	0
	No Stopping	-	0	0
<b>YATCH APPROACH</b>		<b>Capacity</b>	<b>15 - 15</b>	<b>15</b>
		<b>Total Number of Cars Parked</b>	<b>0</b>	<b>0</b>
		<b>Total Number of Vacant Spaces</b>	<b>15</b>	<b>15</b>
		<b>Percentage Occupancy</b>	<b>0%</b>	<b>0%</b>
<b>WALKER STREET</b>				
<b>North Side</b>				
Balmoral Crescent to Eb#39	No Stopping	-	0	0
	Unrestricted	8	2	4
Eb#39 to Eb#21	Unrestricted	9	7	7
<b>South Side</b>				
Prospect Street to Eb#38	No Stopping	-	0	0
	Unrestricted	8	2	3
Eb#38 to Balmoral Crescent	Unrestricted	9	6	6
	No Stopping	-	0	0
<b>WALKER STREET</b>		<b>Capacity</b>	<b>34 - 34</b>	<b>34</b>
		<b>Total Number of Cars Parked</b>	<b>17</b>	<b>20</b>
		<b>Total Number of Vacant Spaces</b>	<b>17</b>	<b>14</b>
		<b>Percentage Occupancy</b>	<b>50%</b>	<b>59%</b>

Supervised By:  
Surveyed By: Marcus Koom

Survey Dates & Times: See below

Location	Restriction	Capacity Min - Max	Saturday, 27th January, 2024	Tuesday, 30th January, 2024
			11:45am	7:00pm
<b>PROSPECT STREET</b>				
<b>East Side</b>				
Walker Street to Liverpool Street	No Stopping	-	0	0
	Unrestricted	7	4	3
	No Stopping	-	0	0
<b>West Side</b>				
Liverpool Street to Walker Street	No Stopping	-	0	0
	Unrestricted	7	1	1
	No Stopping	-	0	0
<b>PROSPECT STREET</b>	<b>Capacity</b>	<b>14 - 14</b>	<b>14</b>	<b>14</b>
	<b>Total Number of Cars Parked</b>		<b>5</b>	<b>4</b>
	<b>Total Number of Vacant Spaces</b>		<b>9</b>	<b>10</b>
	<b>Percentage Occupancy</b>		<b>36%</b>	<b>29%</b>
<b>OFF-STREET CAR PARK AT END OF YATCH APPROACH</b>				
	Unrestricted	33	28	8
	1 1/2 P	6	3	2
<b>OFF-STREET CAR PARK AT END OF YATCH APPROACH</b>	<b>Capacity</b>	<b>39 - 39</b>	<b>39</b>	<b>39</b>
	<b>Total Number of Cars Parked</b>		<b>31</b>	<b>10</b>
	<b>Total Number of Vacant Spaces</b>		<b>8</b>	<b>29</b>
	<b>Percentage Occupancy</b>		<b>79%</b>	<b>26%</b>
<b>SUMMARY</b>				
<b>Car Parking Supply</b>		<b>170 - 170</b>	<b>170</b>	<b>170</b>
<b>Total Number of Cars Parked</b>			<b>70</b>	<b>41</b>
<b>Total Number of Vacant Spaces</b>			<b>100</b>	<b>129</b>
<b>Percentage Occupancy</b>			<b>41%</b>	<b>24%</b>

Note: Public parking includes spaces that are available to the general public and excludes 'No Stopping', 'Loading Zones' and 'No Parking' areas, etc., during the relevant enforcement periods

\* Width of Yatch Approach not sufficient to appropriately accommodate parking on both sides of the carriageway. Accordingly, car parking capacity has only been considered on one side of the street.

**LEGEND:** Public Parking

Not available to the general public

No Stopping/  
Other No Parking

