

**ratio:**

**Prepared for:**  
Minter Ellison on behalf of Ramsey  
Property Group

**Prepared by:**  
Stephen Hunt

**Traffic and Transport Expert Evidence  
Greater Geelong Planning Scheme  
Amendment C395**

6 November 2019

**r:**

**traffic:evidence**

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**Prepared for:**

Minter Ellison on behalf of Ramsey Property  
Group  
Our reference 166628PANEL001 F01 Geelong  
Amendment C395

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# 1 Statement of Evidence

## Reference

Greater Geelong Planning Scheme Amendment C395.

## Name and Address

Stephen John Hunt - Principal  
Ratio Consultants Pty Ltd  
8 Gwynne Street, Cremorne, VIC 3121

## Professional Qualifications

Bachelor of Engineering (Civil), 1975, Swinburne University of Technology.  
Graduate Diploma of Highway and Traffic Engineering, 1981, Chisholm Institute of Technology.

## Professional Experience

- 2017 – Present: Principal – Traffic, Ratio Consultants.
- 2010 – 2016: Group Manager – Cardno Victoria
- 2007 – 2010: Consultant, Cardno Grogan Richards.
- 1988 – 2006: Director, Grogan Richards.
- 1975 – 1988: Traffic Engineer with Cities of Doncaster and Templestowe, Caulfield and Prahran.

## Professional Expertise

- 1.1.1 I have worked in the area of Traffic and Transportation Engineering throughout my career. My area of expertise includes traffic advice and assessment of a wide range of land use and development proposals for planning authorities, government agencies, corporations and developers.
- 1.1.2 My training, qualifications and experience including involvement with a wide variety of developments over a number of years, qualifies me to comment on the traffic and transport implications of this proposal.

## Instructions which define the scope of this report

- 1.1.3 I have been instructed by Minter Ellison on behalf of the Ramsey Property Group, to undertake a review of the Amendment C395 to the Greater Geelong Planning Scheme and prepare an expert evidence statement for submission and presentation at the upcoming panel hearing.
- 1.1.4 My instructions from Minter Ellison are included in Section 2.2.

## Facts, Matters and Assumptions Relied Upon

- 1.1.5 During preparation of this report the facts, matters and assumptions I have relied upon are outlined in Section 2.3

## Identity of Persons Undertaking the Work

- 1.1.6 Stephen Hunt of Ratio Consultants.

## Declaration

- 1.1.7 I have read the Planning Panels Victoria Expert Witness guidelines (April 2019) and understand my obligations to the Panel.

- 1.1.8 I have no relationship with the client other than a business engagement to comment on this matter.
- 1.1.9 My involvement in this project commenced in October 2019 and I was not involved in the preparation of the Amendment or any associated planning.
- 1.1.10 I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance which I regard as relevant have to my knowledge, been withheld from the Panel.

A handwritten signature in black ink, appearing to be 'S. Hunt', written in a cursive style.

**Stephen Hunt**  
**Principal: Traffic**  
**Ratio Consultants**

## 2 Introduction

### 2.1 Overview

- 2.1.1 I have been instructed by Minter Ellison lawyers, on behalf of Ramsey Property Group to provide my expert opinion with respect to the proposed Amendment to the Greater Geelong Planning Scheme (Amendment C395).
- 2.1.2 Amendment C395 seeks to incorporate the City of Greater Geelong's 'Settlement Strategy' (2018) and 'Northern and Western Geelong Growth Area Framework Plan' (2019) into the Greater Geelong Planning Scheme.
- 2.1.3 This report has been prepared in accordance with the recently updated Planning Panels Victoria Expert Witness guidelines.
- 2.1.4 In the course of preparing this assessment, I have reviewed the existing conditions, examined the proposed road network plans and referred to the documents and plans outlined in the following instructions.
- 2.1.5 My opinions with respect to the traffic and transport issues I have been asked to review, relating to Amendment C395, are set out in the following report.

### 2.2 Instructions

- 2.2.1 My instructions in this matter were provided by Minter Ellison on the 10<sup>th</sup> October 2019. The instructions were to undertake the following:
  1. *“Review all materials enclosed in your brief;*
  2. *Attend a conference with our client to discuss the Amendment and its implications;*
  3. *Prepare an expert witness statement which outlines your views in relation to the traffic matters associated with the Amendment; and*
  4. *Attend the Panel Hearing for the purposes of providing expert evidence.”*
- 2.2.2 I was further instructed in an email also dated 10<sup>th</sup> October 2019 to review the following issues and to provide my expert opinion with respect to the traffic engineering implications of:
  1. *The design of the Clever and Creative Corridor, namely the width of the reserve;*
  2. *The staging of the proposed external upgrade to Evans Road; and*
  3. *The designation of the “Creamery Road flyover” within the proposed Framework Plan and any requirement for upgrade of the flyover as part of the Amendment / PSP process.*
- 2.2.3 My assessment of the Amendment, the North & West Geelong Growth Areas Framework Plan and supporting documentation has accordingly been focused on areas related to the issues I have been requested to address.

## **2.3 Facts, Matters and Assumptions**

2.3.1 During the course of my assessment I have relied on the following facts, matters and assumptions:

- Site visit, Friday 1<sup>st</sup> November 2019.
- Northern and Western Geelong Growth Areas Framework Plan, March 2019
- Northern and Western Geelong Growth Areas, Movement and Access Report (Reduced Size Format) prepared by GTA dated 14/6/2019.
- Settlement Strategy (2018)
- Clever and Creative Corridor prepared Aecom, November 2018
- Submission to Amendment C395 prepared by Ramsey Property Group.

## **2.4 Limit of Review**

2.4.1 The land holdings of the Ramsey Property Group are entirely contained within the Creamery Road precinct of the Western Growth Area.

2.4.2 As such I have focused my assessment on this part of the Framework Plan and other documentation that relates to the Western Growth Area I have not reviewed the traffic and transport aspects of the Northern Growth Area with the exception of the Evans Road connection between the two growth areas in accordance with my instructions.

# 3 Amendment C395

## 3.1 Overview

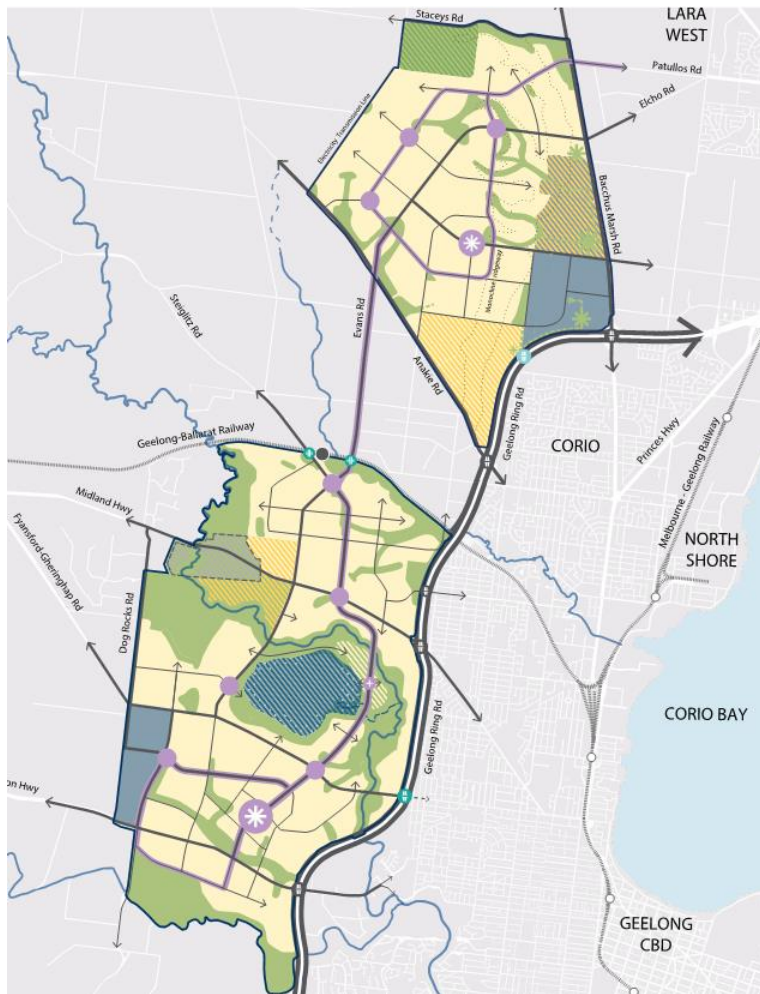
- 3.1.1 Amendment C395 to the Greater Geelong Planning Scheme proposes to incorporate the City of Greater Geelong's *Settlement Strategy (2018)* and the *North and West Geelong Framework Plan (2019)* into the Planning Scheme. The Amendment also proposes policy changes to the *Municipal Strategic Statement* and to rezone land in the Northern and Western Geelong Areas to the Urban Growth Zone.
- 3.1.2 The Amendment was exhibited from 21<sup>st</sup> June to 29<sup>th</sup> July 2019. A total of 102 submissions were received, including submission 75 which was prepared by Ramsey Property Group.
- 3.1.3 Council resolved at its meeting on the 24<sup>th</sup> September 2019 to request the Minister for Planning to appoint an independent panel to consider submissions related to the amendment.

## 3.2 North & Western Geelong Growth Areas Framework Plan

### Future Urban Structure Plan

- 3.2.1 *The North and West Geelong Framework Plan (2019) (NWGGAFP)* was adopted by Council in March 2019, designed to guide urban growth within new neighborhoods in western and north western Geelong.
- 3.2.2 Plan 04 of the Framework Plan includes a *Future Urban Structure Plan* for the Northern and Western Geelong Growth Area, as shown in Figure 3.1.
- 3.2.3 The Plan shows the framework for the future development of the two growth areas, showing proposed:
  - land use areas, including for residential and employment;
  - location of sub-regional and specialised local activity centres;
  - waterways and open space;
  - a *Clever and Creative Corridor* network, supported by an arterial and indicative connector street network;
  - a *Clever and Creative Corridor* linkage between the two growth areas along the alignment of Evans Road;
  - identification of connections between the Growth Areas and the balance of Geelong, including new and upgraded connections across the Geelong Ring Road (including the Creamery Road overpass);
  - future railway station on the Geelong Ballarat Rail Line at Ballan Road; and
  - a potential public transport connection across the Geelong Ring Road to Church Street and to Central Geelong.

**Figure 3.1: Future Urban Structure Plan**

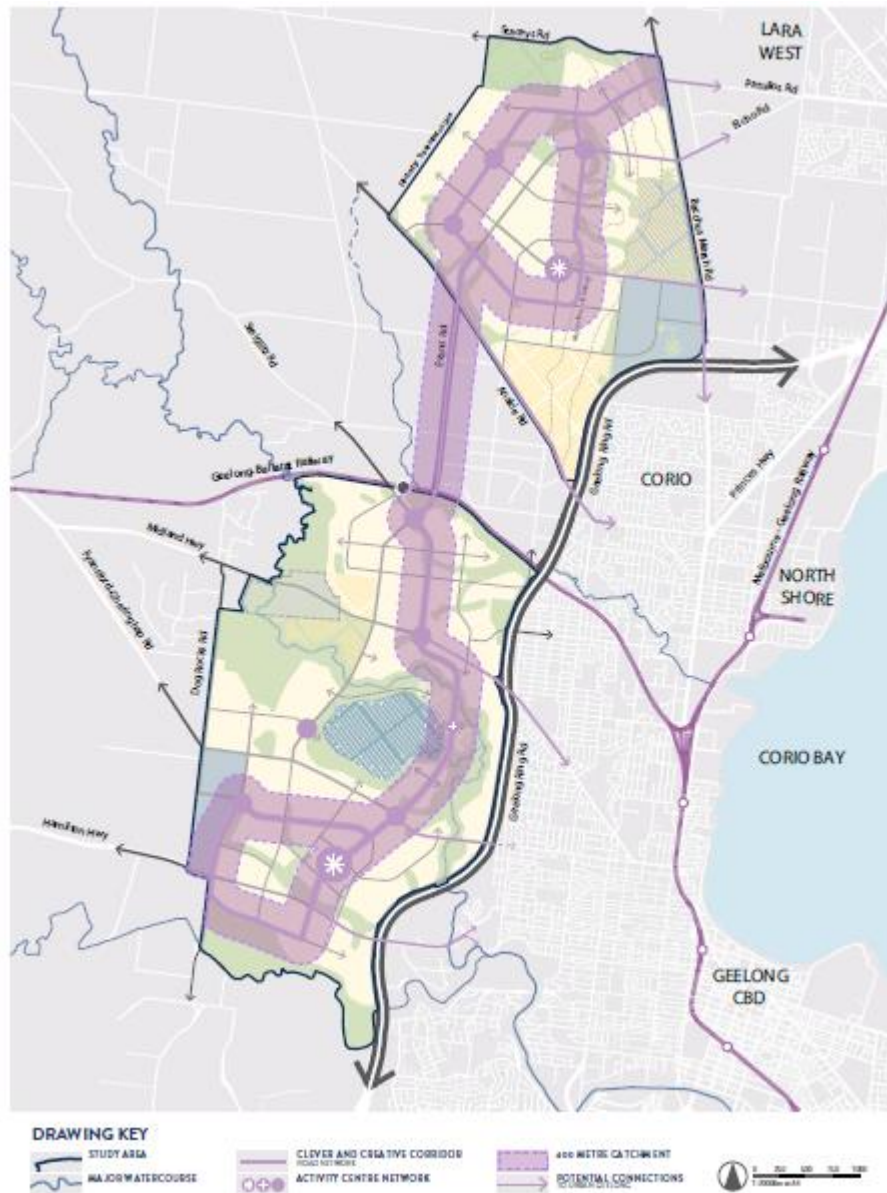


**DRAWING KEY**


**Clever and Creative Corridor**

- 3.2.4 The Framework Plan, as adopted by Council introduces the concept of a Clever and Creative Corridor (CCC) which envisages “a tree line boulevard style transit corridor that priorities public transport, walking and cycling between the activity centres, schools and community facilities, sports reserves and local parks in each neighborhood.”
- 3.2.5 The proposed Clever and Creative Corridor Network for the Growth areas is shown in Plan 05 of the NWGGAFP and shown in Figure 3.2.

**Figure 3.2 Clever and Creative Corridor Plan**



- 3.2.7 The delivery of the CCC is acknowledged in the Framework Plan as a long-term project, to be delivered in conjunction with the progressive development of the nine separate precincts within the combined Growth Areas. Securing land for the corridor is seen as being fundamental to safeguard the ability to deliver major public transport infrastructure to support the new communities.
- 3.2.8 It is proposed that the corridor will be designed with interim (pre public transport) and ultimate configurations. In the interim shared paths and landscaping is proposed within a “median reserve”, converting over time to a public transport corridor. The 14m wide median reserve is designed to allow for either rail or road-based public transport options to be considered.
- 3.2.9 In the interim, public transport movements are proposed to be catered for by parallel “bus capable carriageways shared by all vehicles.”
- 3.2.10 The Framework Plan specifies the proposed design features for the CCC, for both the interim and ultimate as summarised in Table 3.1.

**Table 3.1 Clever and Creative Corridor Configurations**

Design Feature	Width	Interim Configuration	Ultimate Configuration
Median Reserve*	14 metres	For dedicated active transport, planting and place-making furniture	For dedicated public transport
Bus capable road carriageways	2 x 3.5 metre	Shared bus / traffic lane	Traffic lane
Parking bays	2 x 2.1 metres	Kerbside parking	Kerbside parking
Pedestrian paths	2 x 1.5 metres	Pedestrian paths	Pedestrian paths
Off-road shared path	1 x 3.0 metres	Not specified	Shared path
Tree Outstands	Not specified		
Large Nature Strips	Not specified		
Large Tree Canopy	Not specified		

\*Side running reserve where appropriate

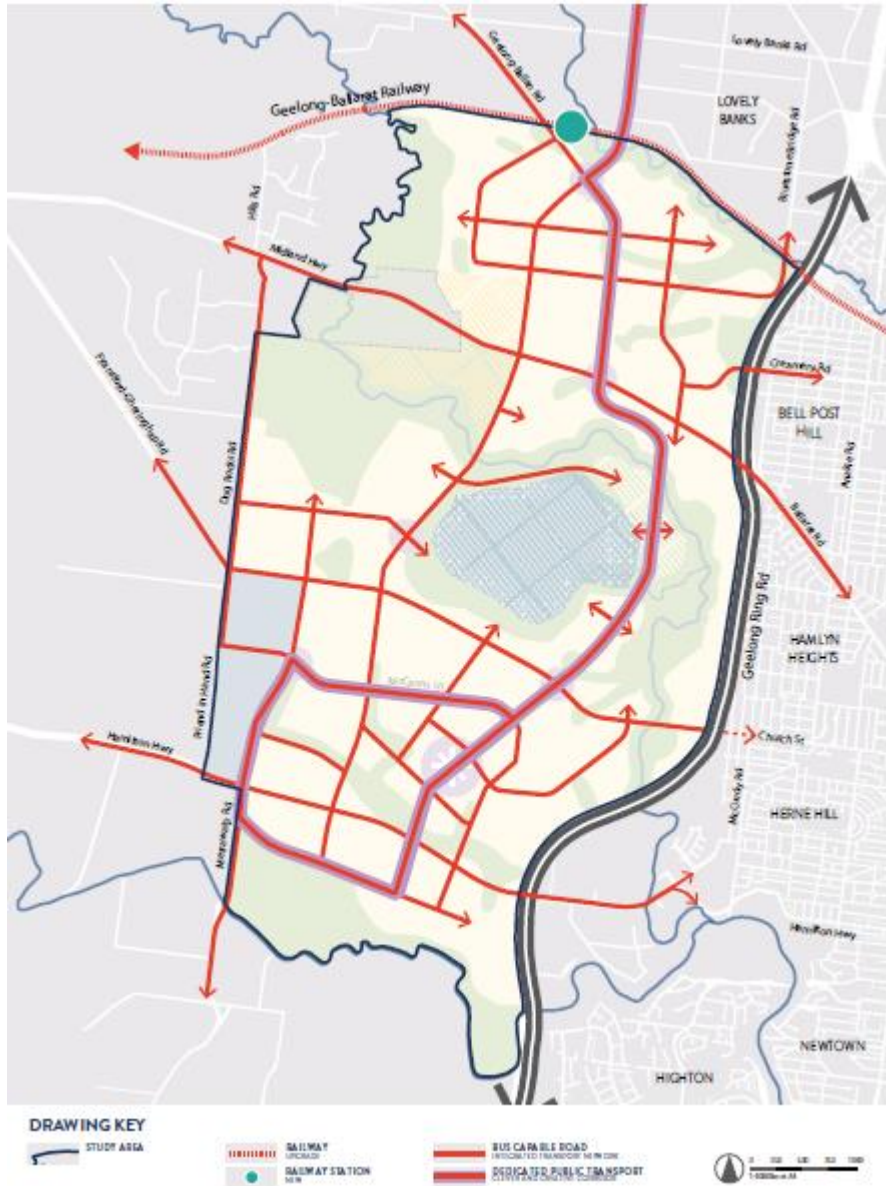
- 3.2.11 The Framework Plan, while specifying the dimensions shown in Table 3.1, together with illustrative images of the concept, does not specify an overall reservation width for the CCC.
- 3.2.12 Having regard to the design features proposed, a width of at least **31.2** metres is required plus additional width to accommodate nature strips and tree planting. The 14.0m width of the median reserve is designed to accommodate tree planting within 3.5 metre wide reservations on either side of a 7.0m wide public transport carriageway.

### **Movement**

- 3.2.13 The NWGGAFP recognises that, as Geelong grows, the capacity for private vehicle trips, particularly commuter trips, will be compromised, with a shift to active and public transport modes considered vital.
- 3.2.14 This is sought to be facilitated within and between the growth areas by the CCC, with travel beyond the growth areas proposed to be accommodated by creating connections to the broader public transport network.
- 3.2.15 Upgrades to the existing roads and intersections, including upgrades to the Geelong Ring Road interchanges, are proposed to be undertaken to provide capacity for rapid bus connections to link all new neighborhoods to the rail network and central Geelong.
- 3.2.16 The Movement Strategy includes detailed Active Transport, Public Transport and Integrated Transport Plans for each growth area, with accompanying context discussion and actions.
- 3.2.17 The Active Transport Plan for the West Growth area identifies Creamery Road and the flyover as providing an active transport connection to Bell Post Hill, nominating upgrading of the overpass to provide a shared path connection.
- 3.2.18 In addition, Evans Road, forming part of the CCC, is identified as incorporating a shared path, including an upgrade of the connection across the Geelong Ballarat Rail line, presumably ultimately in the form of grade separation.

3.2.19 The Public Transport Network for the Western Geelong Growth area is shown in Plan 36 of the Framework Plan, reproduced in Figure 3.3.

**Figure 3.3 – Western Growth Area Public Transport Plan**



3.2.20 The plan provides for a network of “bus capable roads” supporting the CCC, including designation of the Creamery Road connection over the Geelong Ring Road to Bell Post Hill.

3.2.21 Action W4.2.6 of the Framework Plan states:

*“Greater Geelong’s Public Transport Network will expand into each neighbourhood to provide public transport connections to the broader city network and deliver:*

- *Upgrades to the Midland Highway freeway interchange, Hamilton Highway freeway interchange and the **Creamery Road freeway flyover,**”*

3.2.22 Evans Road, forming the CCC link between the West and North Growth areas, is also a designated bus route in the Public Transport Plan.

3.2.23 The Integrated Transport Strategy for the West Growth area is shown in Plan 37 of the Framework Plan, reproduced in Figure 3.4

**Figure 3.4 – West Growth Corridor Integrated Transport**



3.2.24 The Integrated Transport Plan recognises Creamery Road as a local road with a flyover on the Geelong Ring Road. New integrated transport infrastructure identified to support urban development in the West Growth area includes upgrade to Creamery Road to an “urban-standard” connector street.

3.2.25 Action W4.3.6 of the Framework Plan states, in part, that:

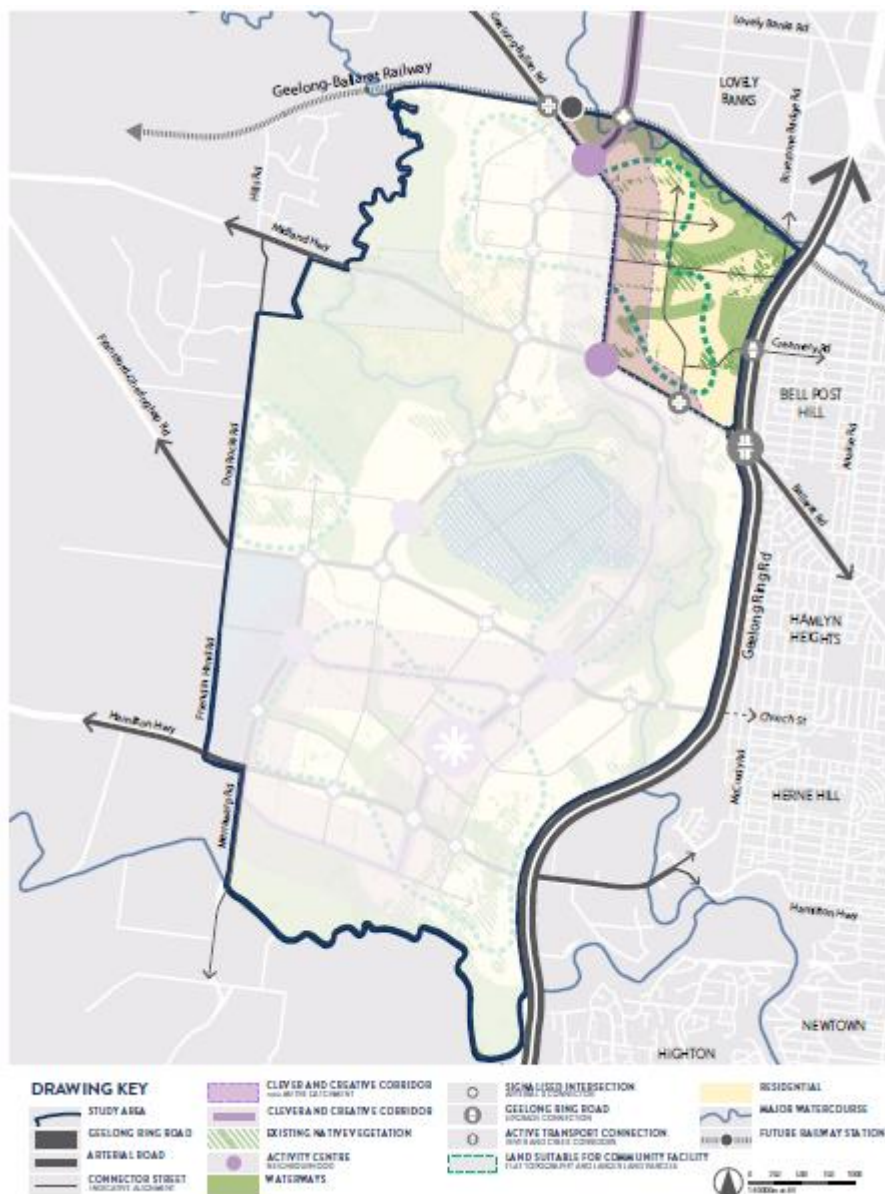
*The integrated transport network will provide private vehicle connections to the broader city network and deliver:*

- *Upgrades to Evans Road between the growth areas to connect the Clever and Creative Corridor.”*

## Delivery

- 3.2.26 The Framework Plan seeks to ensure the growth areas are developed in an orderly sequence by prioritizing precincts and delivery of infrastructure that will be required.
- 3.2.27 The Plan identifies the Creamery Road Precinct in the West Growth Area and Elcho Road East in the North Growth Area as “Short Term Precincts” with Precinct Structure Plans to be prepared and approved in these precincts prior to subsequent PSPs being commenced.
- 3.2.28 It is noted that the Heales Road West Precinct in the Northern Growth Area, which adjoins the northern end of the Evans Road CCC, is prioritised as a “Medium Term Precinct”. Action N5.2.3 of the Framework Plan states that neither the Heales Road West nor the Elcho Road West Precinct Structure Plans will be commenced prior to approval of Elcho Road East PSP.
- 3.2.29 The Creamery Road Precinct is shown in Plan 47 of the Framework Plan as shown in Figure 3.5.

**Figure 3.5 – Creamery Road Precinct**



3.2.30 The Framework Plan identifies Infrastructure “required to support new communities within each precinct, with the following specified for the Creamery Road Precinct.

#### **State Infrastructure**

- Geelong-Ballarat railway corridor\*
- New railway station, subject to commuter rail services\*
- Upgrade and duplication of the Midland Highway with external upgrades toward North Geelong Station\*
- Upgrade of the Midland Highway interchange on the Geelong Ring Road\*
- Rail overpass of Geelong – Ballarat railway line on the Clever and Creative Corridor and the Cowies Creek corridor, subject to commuter rail services\*
- Public transport services\*

#### **Local Infrastructure**

- The Clever and Creative Corridor, including upgrade of Geelong – Ballan Road and upgrade and realignment of Evans Road\*
- External upgrade of Evans Road towards the Northern Geelong Growth Area to connect to the Clever and Creative Corridor\*
- One arterial intersection on the Midland Highway
- A minimum of four Clever and Creative Corridor intersections on the arterial road and connector street network\*
- Linear active transport corridor along Cowies Creek  
A connector and local street network including upgrades to Creamery Road and Bluestone Bridge road.

\* Infrastructure required to support multiple precincts

3.2.31 The listing of infrastructure items on a precinct by precinct basis in the Framework Plan is intended to provide guidance in the preparation of individual Precinct Structure Plans as progressively prepared as specified in the Delivery Strategy.

3.2.32 It could be expected that these items will also form the basis of transport infrastructure projects to be included in a future infrastructure Contributions Plan, with item noted as *supporting multiple precincts* candidates for inclusion within a standard ICP.

3.2.33 Items listed as State Infrastructure would normally be expected to be facilitated outside of an ICP, due to the identified regional benefits of these projects.

# 4 Traffic Modelling

## 4.1 NWGGA – Movement and Access Report

- 4.1.1 In order to inform the preparation of the Framework Plan, the City of Greater Geelong commissioned GTA Consultants to assess the transport impacts of the proposed Framework Plan including consideration of:
- Existing conditions
  - Performance of a “base” transport network of the land uses and transport network contemplated in the Framework Plan using strategic modelling.
  - Testing of alternate network scenarios and road network recommendations, and;
  - Recommendations relating to sustainable transport measures.
- 4.1.2 The findings of the GTA study are presented in a report dated 14<sup>th</sup> June 2019.
- 4.1.3 Strategic Modelling was undertaken using the State-wide version of the Victorian Integrated Transport Model held by Transport for Victoria. The modelled outputs for the study showed that private motor vehicle travel attributes in excess of 90% of all trips in the study area, and that, without “intervention” this is expected to continue in the interim (2031) and the ultimate (2051) scenarios tested.
- 4.1.4 The report identified that the targeted strategy in the Framework Plan of *50% of journeys to work are made by public transport, walking or cycling* can be considered aspirational and that the modelling undertaken and reported in the Study reflects *current trends and data available* suggests that trip generation rates of between 9.2 and 9.4 trips per dwelling will occur in the Growth Areas, with in excess of 90% of work trips undertaken by private vehicle.
- 4.1.5 GTA modelled a total of 16 scenarios as listed in Table 4.2 of the report, effectively assesses interim and ultimate conditions with or without various options for road network upgrades. With the exception of PC04A, all if the scenarios were predicted on 90% of work trips being by private vehicle and overall trip generation rates of 9.2-9.4 trips per household per day.
- 4.1.6 Scenario PC4A tested an increased public transport usage, modelling through “hard coding” the implications of 15% of mode share being by public transport in 2051, compared with 1.7% in the directly comparable PC04.
- 4.1.7 I have reviewed the modeling as undertaken by GTA and, extracted from the daily volume plots in the Appendices, modelled volumes for road links which are relevant to the issues I have been requested to address.
- 4.1.8 The results are shown in Table 4.1.
- 4.1.9 The following is noted:
- Creamery Road is expected to carry in the order of 7,500 vpd at full development consistent with its likely ongoing function as a higher order connector street. Higher volumes may occur if external upgrades are not undertaken on parallel arterial routes or if public transport initiatives do not result in reductions in private vehicle modal share.
  - Evans Road, forming part of the CCC network and providing the principal transport link between the Western and North Growth Areas, is modelled to carry approximately 7,000 vpd in the higher public transport usage scenario, with higher volumes of up to 11,790 vpd should public transport utilization remain at existing low levels.

- The CCC through the Creamery Road Precinct, with expected public transport links in place, is likely to act as a lower order connector street, carrying volumes in the order of 4,000 vpd. A higher traffic function and increased volumes will be required if public transport links are not delivered.

**Table 4.1 – GTA Modeled Daily Volumes – July 2019**

<b>GTA Scenario</b>	<b>Description</b>	<b>Creamery Road Overpass</b>	<b>Evans Road (NW Link)</b>	<b>CCC (Ballan Road) North of Midland Highway</b>
	Existing 2016	4,830 vpd	300 vpd	2040 vpd
<b>PC02</b>	Interim 2031 with external road upgrades	5,440 vpd	4,140 vpd	4120 vpd
<b>PC03</b>	Ultimate 2051 without external upgrades	10,400 vpd	10,860 vpd	16,190 vpd
<b>PC04</b>	Ultimate 2051 with external upgrades	8,780 vpd	11,790 vpd	8610 vpd
<b>PC04A</b>	Ultimate 2051 with external upgrades and increased public transport usage	7,680 vpd	7,080 vpd	4050 vpd

Source: N&WGGGA – Movement and Access Report- GTA Consultants (June 2019)

## 4.2 Geelong Growth Areas Transport Infrastructure Strategy

- 4.2.1 A Transport Infrastructure Strategy is proposed to be prepared which, amongst other things, will review concerns with respect to capacity limitations of the existing transport network, identify upgrade works that will be required and the funding model for works as identified, including through an Infrastructure Contributions Plan.
- 4.2.2 A draft brief for the study was prepared by Council which contemplated commencement of Stage 1 of the study in July 2019, with project finalisation by May 2020.
- 4.2.3 It is understood that the draft was prepared effectively as a “reverse brief” and that it is being refined by Council and DoT in conjunction with potential consultants.
- 4.2.4 The timing of completion of the study and the opportunity for input for stakeholders is unclear at this stage, however the finalisation of the study to inform preparation of PSPs and ICPs for the Growth Area is committed.
- 4.2.5 In my opinion, the:
- commitment to the study,
  - ongoing input from DoT and Council, and
  - timely completion to inform preparation of future PSP’s and an ICP

provides the appropriate mechanism to ensure that transport issues and sequencing of development will be appropriately identified prior to preparation and adoption of initial PSPs.

# 5 Comment on Issues Raised

## 5.1 Clever and Creative Corridor Design

### Issue

- 5.1.1 Concern has been expressed that the reservations required to accommodate the various element within the Clever and Creative Corridors will be unduly wide, creating a psychological urban barrier and separation of communities either side of the corridor.
- 5.1.2 It is noted that, as discussed in 3.2.11 and 3.2.12 above, the Framework Plan does not specify overall reservation widths for the CCC, although having regard to the design features proposed to be incorporated, a width of at least 31.2m will be required. Variations on the design features shown in the supporting document *North and Western Growth Areas Clever and Creative Corridor* prepared by Aecom in November 2018, suggest that reservation width of in excess of 40metres may be required.

### Council Response

- 5.1.3 Council in response to the submission do not support amendments to the Framework Plan, noting that the plan outlines a 14m land allocation to create a dedicated and separated median reserve, for active and public transport movements.
- 5.1.4 It also noted that the design of the CCC will occur in detail as part of the Precinct Structure Plan Process.

### Opinion on Issue

- 5.1.5 I agree with the concept of the CCC and fully support the identification of the corridor within the Framework Plan.
- 5.1.6 In my opinion, it is the most appropriate mechanism for ensuring the delivery of a high standard active and public transport network to serve the Growth Areas and to ensure that the dedicated corridor required is facilitated through the PSP and ICP processes to follow.
- 5.1.7 Concepts for the CCC as discussed in the Framework Plan and supporting studies identify that, in association with the delivery of connective active and public transport networks, the corridor can also incorporate road connections, with adjacent parking lanes and boulevard landscaping features. With these features included, the corridor as envisaged is likely to exceed 40m in width, with a consequent separation of adjacent communities as submitted.
- 5.1.8 The essential component is the establishment of a 14.0m wide corridor to provide for a high standard public transport network linking activity centres and neighbourhoods with the Growth Areas, and potential connections to employment precincts and public transport nodes within the region.
- 5.1.9 Parallel high-quality active transport connections are also required and should be planned adjacent to the public transport reservation throughout the Growth areas.
- 5.1.10 It is noted that the proposed 14.0m median reserve within in CCC is proposed to be initially developed as active transport and landscaped areas, converting over time to public transport corridors as the growth areas develop and connectivity between initial corridors is established.
- 5.1.11 I consider that a standard CCC width should be specified in the Framework Plan which allows for the creation of the 14.0 m median reserve initially, together with an additional 6.0 metre width to incorporate pedestrian and shared paths. The combined 20.0m reservation provides for ongoing active transport facilities adjacent to public transport within the reservation.

- 5.1.12 Other components of the corridor such as parallel street networks will vary from precinct to precinct and in particular, it is unlikely to be necessary for a higher order road network with adjacent parking lanes to be established consistently throughout the corridor network.
- 5.1.13 In some sections, parallel streets may not be necessary.
- 5.1.14 In my opinion, elements such as roads adjacent to the public and active transport corridor, forming the balance of the CCC, should be identified in association with the preparation of each PSP.
- 5.1.15 It would be constructive for typical cross-sections for variations in the CCC to be prepared to inform preparation of subsequent PSPs, showing supplementary reservation widths which would be required beyond the 20.0 m corridor to accommodate parallel “service” roads or, in some locations, higher order connector or arterial roads.

## **5.2 Creamery Road Overpass Upgrade**

### **Issue**

- 5.2.1 The Framework Plan 37 – Integrated Transport, shown in Figure 3.4, depicts the existing Creamery Road bridge over the Geelong Ring Road, with an upgrade of the “connection” potentially through construction of on and off ramps to the Ring Road identified.
- 5.2.2 Concern has been expressed as to the need for additional ramps to the Ring Road from Creamery Road and the impact of ramps on traffic movements through the adjacent local traffic precincts.

### **Council Response**

- 5.2.3 Council have responded to the issue, clarifying that the “upgrade” identified relates to the existing flyover and the works required will be identified at PSP stage.

### **Opinion on Issue**

- 5.2.4 Creamery Road is an existing local road running between Ballan Road and Rollins Road in Bell Post Hill, continuing to the east to Anakie Road as Braund Avenue.
- 5.2.5 In association with the construction of the Geelong Rong Road, a flyover bridge was constructed to provide local connectivity from Bell Post Hill to Ballan Road and facilities including Myers Reserve and Covenant College. The bridge structure allows for a two-lane road, providing a 3.5m traffic lane in each direction. A 1.5m footpath is provided on the north side and a 1.2m path on the south.
- 5.2.6 The existing configuration of Creamery Road at the bridge is shown in Figure 5.1.

**Figure 5.1 – Creamery Road Bridge over Geelong Ring Road – Looking East**



- 5.2.7 In my opinion, upgrading of the bridge to provide an interchange connection to the Geelong Ring Road is neither necessary nor desirable given the proximity of the flyover to the full diamond interchange at Midland Highway, 880m to the south
- 5.2.8 Creamery Road provides for a single traffic lane in each direction which is consistent with its existing function and projected future operation as a bus capable connector road. As such, widening of the bridge to provide for additional traffic lanes is also unnecessary. If upgrading of the road, say to a four-lane cross-section occurred, the additional capacity would attract diverted traffic movements and result in undesirable impacts on local streets in the Bell Post Hill area as well as the future Creamery Road Precinct.
- 5.2.9 In my opinion, the only possible upgrade which may be considered at PSP stage is the possible widening of the footpath on the northern side to enable the path to operate as a fully compliant shared path, supporting the proposed active transport network.
- 5.2.10 This will be considered in association of the PSP and the overall active transport network including expected active transport links to the east along the Cowie Creek underpass of the Geelong Ring road.
- 5.2.11 In my opinion, widening the bridge to provide to enable creation of a fully compliant shared path, is unlikely to be justified having regard to comparable parallel facilities along Cowies Creek.

## 5.3 Staging of Evans Road Upgrade

### Issue

- 5.3.1 Evans Road will provide for the principle connection between Northern and Western Growth Areas and will form part of the CCC, providing high quality public transport connections between the Growth Areas and to the Geelong Ring Road employment Precinct.
- 5.3.2 The NWGGAMA report prepared by GTA in June 2018, identified that the road could act as an arterial road, requiring duplication to a four-lane divided arterial, in addition to the requirements of the CCC.
- 5.3.3 Concern has been expressed that the modelling is not sufficiently robust at this stage to identify the required standard of the link, particularly having regard to the assumptions within the modelling in relation to public transport modal share.

### Council Response

- 5.3.4 Council has responded suggesting that Evans Road upgrade will be required to support movements between the Growth Areas and as part of the CCC.

### Opinion on Issue

- 5.3.5 Evans Road is a local road with a 20m reservation which runs between Ballan Road and Staceys Road in the north. A two-lane sealed carriageway is provided between Ballan Road and Valleyside Drive north of the Ballarat Rail line, with an unsealed pavement in the northern section.
- 5.3.6 Evans Road looking north towards the rail line in the sealed section is shown in Figure 5.2, while the unsealed section north of Lovely Banks Road is shown in Figure 5.3.
- 5.3.7 The GTA modelling undertaken to date, based on very low public transport usage, suggest that, in the interim (2031), Evans Road can be expected to carry approximately 4,000 vpd, increasing to around 11,800 vpd at full development. With a moderate swing to public transport of 15%, volumes using Evans Road are predicted to reduce to approximately 7,000 vpd.
- 5.3.8 In my opinion, as modelled, volumes on Evans Road do not require or warrant duplication and identification of an upgrade to this standard in the Framework Plan is premature and arguably unnecessary.
- 5.3.9 The route will form an integral part of the CCC network, providing the public and active transport link between the Growth Areas. As such, the Framework plan should provide for the future widening of the road reserve along Evans Road, to provide for the required public transport corridor.
- 5.3.10 In my opinion an upgraded two lane road will be sufficient to comfortably accommodate modelled volumes between the growth areas, even in a the low public transport usage scenario. A shared path, can also be accommodated in the existing reservation.
- 5.3.11 As such, road widening of Evans Road by 14.0m will be needed to accommodate the public transport corridor, with other aspects of the CCC accommodated within the existing reserve.
- 5.3.12 In my opinion both Growth areas benefit equally from the provision of the Evans Road CCC and future upgrade. As such the cost of land provision and construction of the link would be items which would be appropriately considered within an ICP applying to both areas.
- 5.3.13 Upgrading of Evans Road is expected to only be required in the longer term, however timing will be identified in the Geelong Growth Areas Transport Infrastructure Strategy, informed by additional modelling.

**Figure 5.2 - Evans Road looking north toward the Rail Line**



**Figure 5.3 – Evans Road north of Lovely Banks Road looking North**

