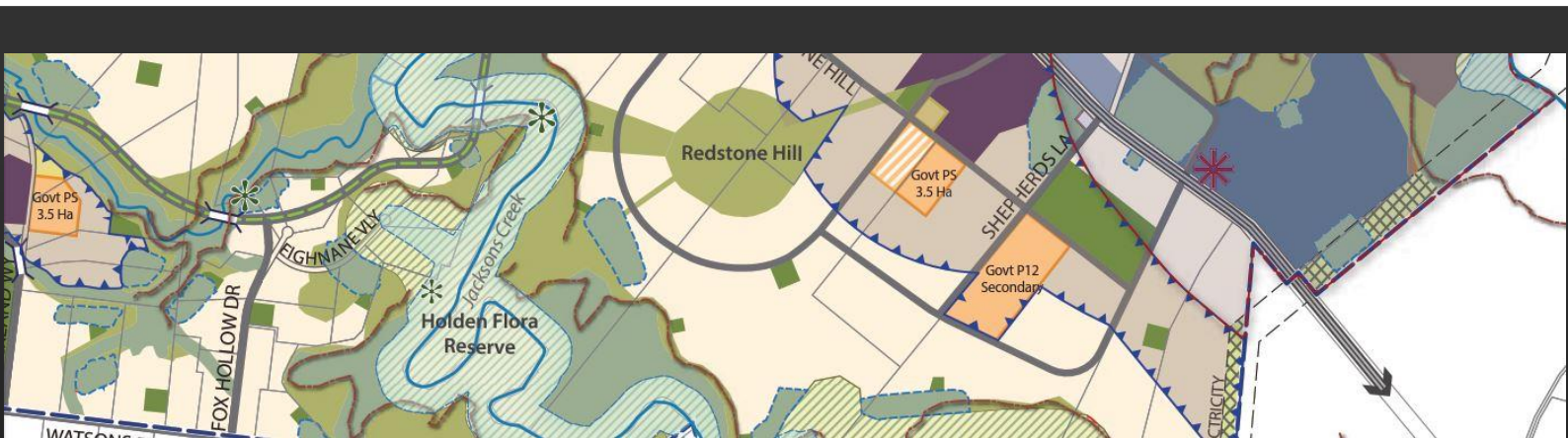


# ***Amendment C207 – Hume Planning Scheme***

Expert Evidence Statement – Traffic & Transport

605 Sunbury Road, Bulla



170540REP001D-F

14 August 2017

## onemilegrid



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### DOCUMENT INFORMATION

Prepared for	RCL Sunbury Pty Ltd		
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Prepared by	Valentine Gnanakone	Reviewed by	David Ballock
Signature		Signature	

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# 1 QUALIFICATIONS AND EXPERTISE

Amendment Number	C207 – Hume Planning Scheme
Date of this Report	14 August 2017
Address of Property	605 Sunbury Road, Bulla
Date(s) of any inspection	21 June 2017
The party for whom the report has been prepared	This report has been prepared at the request of RCL Sunbury Pty Ltd
The person from whom the expert received instructions	Mr. Rory O'Connor of Norton Rose Fulbright

In accordance with Planning Panels Victoria, Guide to Expert Evidence, my qualifications, experience and expertise to provide my opinions on this matter are summarised below:

Name:	Valentine Premkumar Gnanakone
Address:	1/59 Keele Street Collingwood Victoria 3066
Professional Qualifications:	Bachelor of Engineering (Civil), RMIT University 2003 Master of Business Administration (MBA), Deakin University 2013
Professional Registration:	Board of Professional Engineers of Queensland – Registered Professional Engineer of Queensland (RPEQ)  Accredited Road Safety Auditor
Professional Experience:	Director, <b>onemilegrid</b> , 2014 – present Associate, Cardno, 2011 – 2014 Senior Traffic Engineer, Cardno, 2007 – 2011 Engineer, Grogan Richards, 2004 – 2007
Professional Memberships:	Victorian Planning and Environmental Law Association (VPELA) Australian Institute of Traffic Planning and Management (AITPM)
Areas of Expertise:	Car parking and traffic engineering design and compliance.  Traffic advice and assessment of land use and development proposals to local and state planning authorities, government agencies, corporations and developers for a variety of projects including low, medium & high density residential, commercial, retail, industrial, institutional, service orientated and mixed-use projects.  Preparation and presentation of expert evidence before VCAT and Planning Panels.

Expertise to  
Prepare this  
Report:

My professional qualifications, training and experience over a number of years on all forms of development qualifies me to comment on the traffic engineering implications of the proposed amendment.

Relationship to  
the Applicant:

I do not have any private or business relationship with the applicant.

Instructions:

I have been requested by Norton Rose Fulbright, representing RCL Sunbury Pty Ltd, to provide my expert opinions in relation to the traffic engineering matters relevant to the Planning Scheme Amendment C207.

Facts, Matters,  
and Assumptions  
Relied Upon:

Hume Planning Scheme

Relevant Exhibition Documentation for Amendment C207

DRAFT Sunbury South – Precinct Structure Plan

Relevant submissions

RCL Sunbury Pty Ltd Submission to the VPA dated 2 February 2017  
(prepared by Tract)

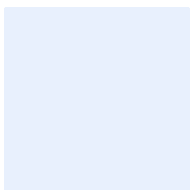
GTA Consultants memorandum dated 6 January 2017

Strategic Transport Modelling Report prepared by GTA Consultants dated  
5 October 2015

Identity of Persons  
Undertaking the  
Work:

Valentine Gnanakone, Director **onemilegrid** (BE Civil, MBA)

*I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.*



---

Valentine Gnanakone  
Director – Senior Traffic Engineer  
**onemilegrid**

## 2 INTRODUCTION

---

My name is Valentine Gnanakone and I am Director at **onemilegrid** where I practice as a traffic engineer.

I have been requested by Norton Rose Fulbright on behalf of RCL Sunbury Pty Ltd to undertake an assessment of the traffic engineering matters relevant to the land addressed as 605 Sunbury Road, Bulla (Property 72) as a result of the Planning Scheme Amendment C207, and present expert evidence on the traffic implications to the Planning Panel.

Specifically, I have been requested to provide my opinions in relation to: -

- The provision for left-in / left-out vehicle access between the RCL land (Property 72) and Sunbury Road.

In the course of preparing this report on the proposal, I have inspected the site and its environs, reviewed development plans and background information and assessed the traffic implications of the amendment.

## 3 AMENDMENT C207 HUME PLANNING SCHEME

---

The Sunbury South Precinct Structure Plan (PSP) has been prepared by the Victorian Planning Authority (VPA) in consultation with Hume City Council and other authorities, to guide the development of the land within the amendment area known as the Sunbury South PSP. The PSP area will ultimately house in the order of 11,800 new homes to accommodate an expected population of more than 33,000 residents.

The PSP has been prepared to identify amongst other things the future transport network including roads, public transport, and active transport with due consideration of broader planning outcomes.

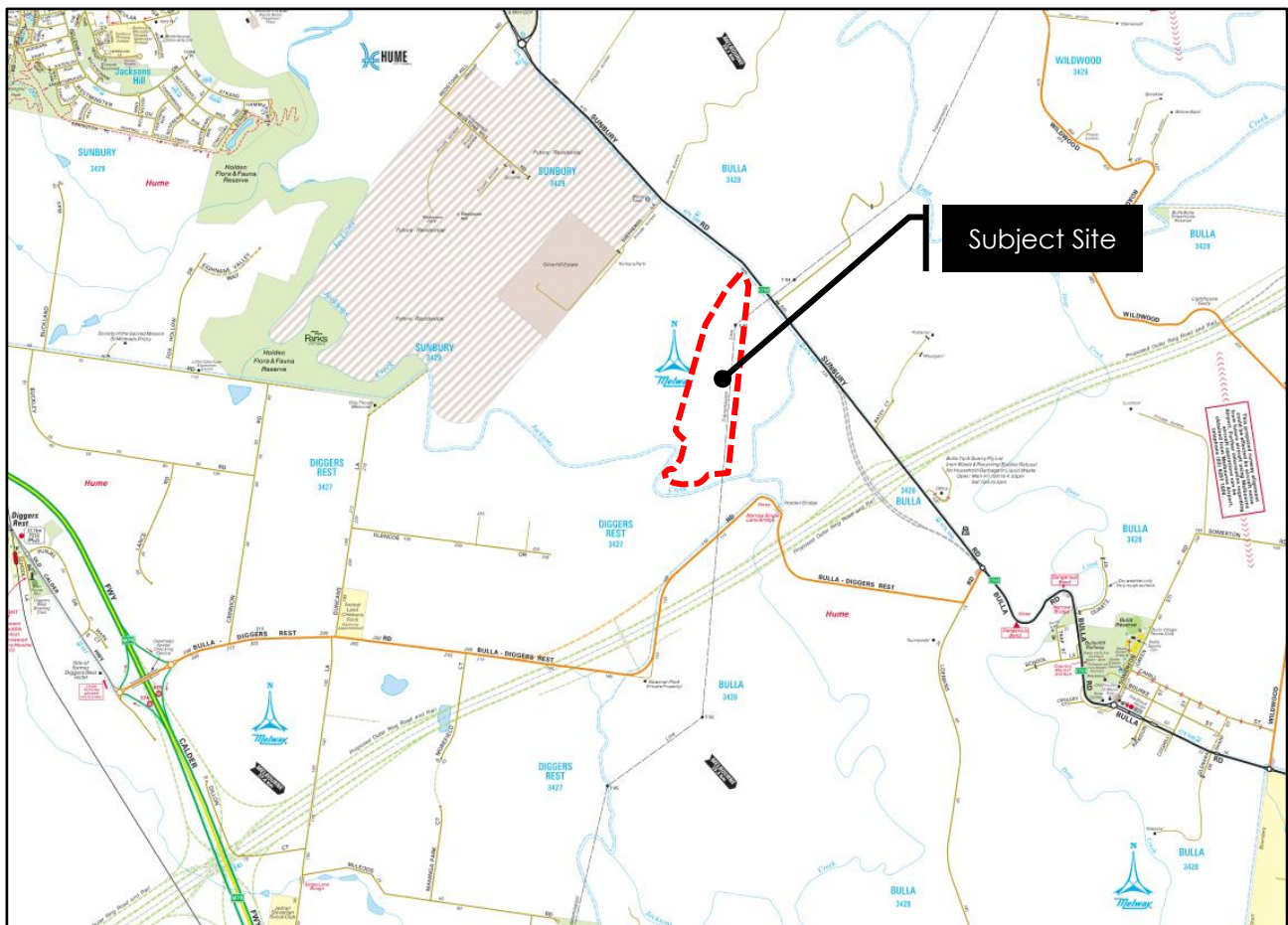
## 4 EXISTING CONDITIONS

### 4.1 Site Location

Property 72 is addressed as 605 Sunbury Road, Bulla and is located on the south side of Sunbury Road.

The site comprises of an irregular shape parcel of land, which has a frontage to Sunbury Road in the north and is bound by Jackson Creek to the south, 525 Sunbury Road and a transmission line easement to the east, and 607 Sunbury Road to the west, as shown in Figure 1.

**Figure 1 Site Location**



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The site is currently occupied by a single dwelling and is primarily utilised as farmland, with an unpaved single width driveway running along the site's western boundary, accessed via Sunbury Road to the north.



An aerial view of the site in context with its surrounds is shown in Figure 2 below.

**Figure 2 Subject Site – Aerial View**



Copyright Nearmap

Land use in the immediate vicinity of the site is primarily rural residential uses and farmland in nature, with the Sunbury Town Centre approximately 4.0 kilometres to the northwest. Of particular note, a green waste recycling/composting facility operated by Veolia, is located on the northern side of Sunbury Road, adjacent the subject site, at 580-600 Sunbury Road, Bulla.

## 4.2 Road Network

**Sunbury Road** is a VicRoads controlled arterial running northwest from the roundabout intersection between Bulla-Diggers Rest Road and Bulla Road in Bulla, to Jackson Creek on the periphery of the Sunbury town centre, where it continues as Macedon Street and Riddell Road.

In the vicinity of the site, Sunbury Road provides two traffic lanes in each direction separated by a 1.5 metre wide painted median. Access to side roads is currently available to properties via informal direct property access directly from Sunbury Road. Similarly, at existing local road intersections access is available directly to Sunbury Road without the provision of turn lane treatments with the exception of quarries to the south and opposite the site to the south (Hi-Quality).



## 5 SUNBURY SOUTH PRECINCT STRUCTURE PLAN (PSP)

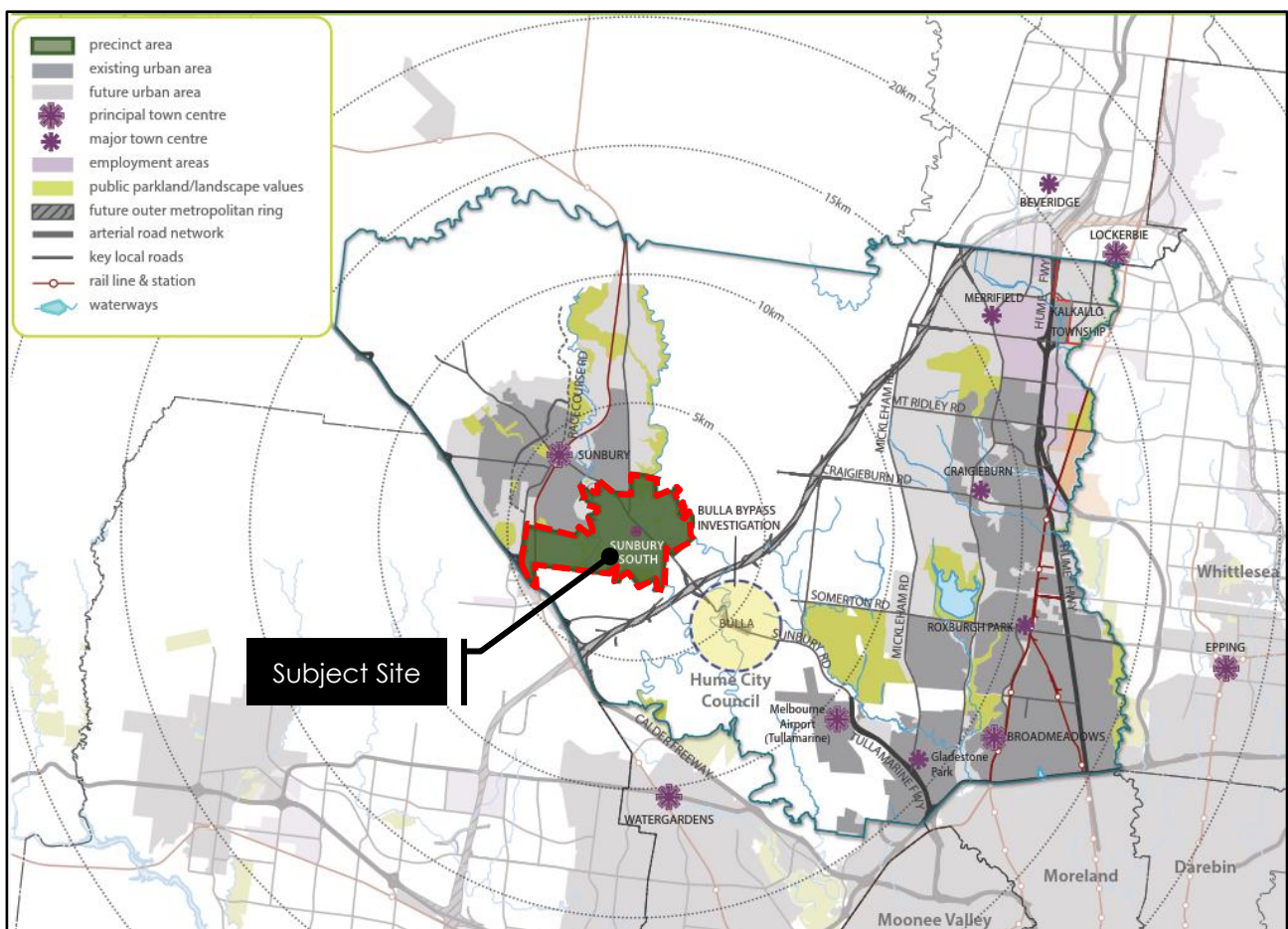
### 5.1 General

The subject site is located within the south-eastern section of the Sunbury South Precinct Structure Plan area, for which a draft Structure Plan has been prepared by the VPA and Council.

The Sunbury South PSP covers an area of approximately 1,798 hectares of land generally bounded by Watsons Road and the Jacksons Creek to the south, Gellies Road and the Emu Creek to the north and north-east, the transmission line easement to the east and Vineyard Road to the west. The precinct abuts a number of existing communities within the Sunbury township, including Goonawarra and Jacksons Hill.

The locality of the PSP area and the subject site in the context of the surrounding area is provided in Figure 3.

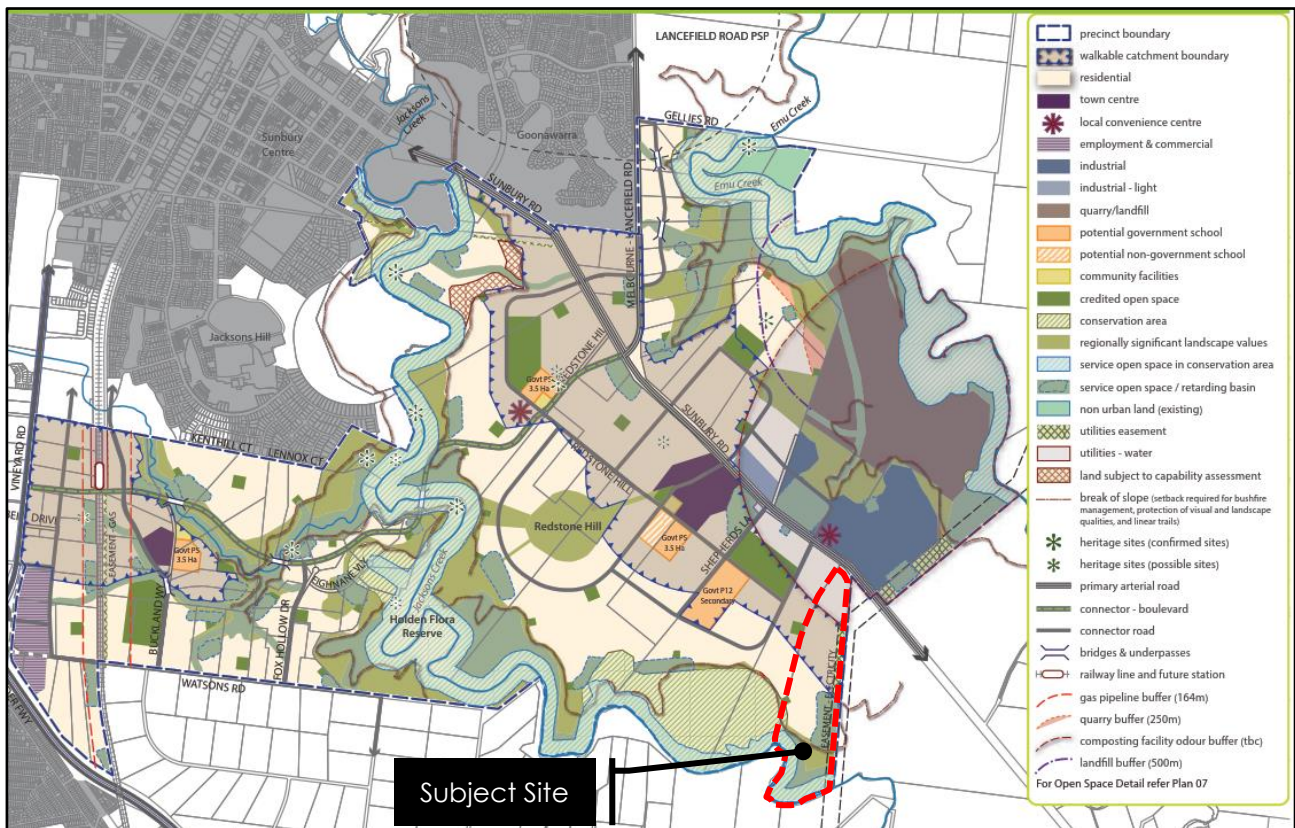
**Figure 3 PSP Locality Plan**



With regard to the PSP planning, Figure 4 illustrates the site location within the PSP area and surrounding road network and land uses.

As shown below, the existing transmission easement is proposed to be maintained along the eastern boundary of the site.

**Figure 4 Site Location within PSP Area**



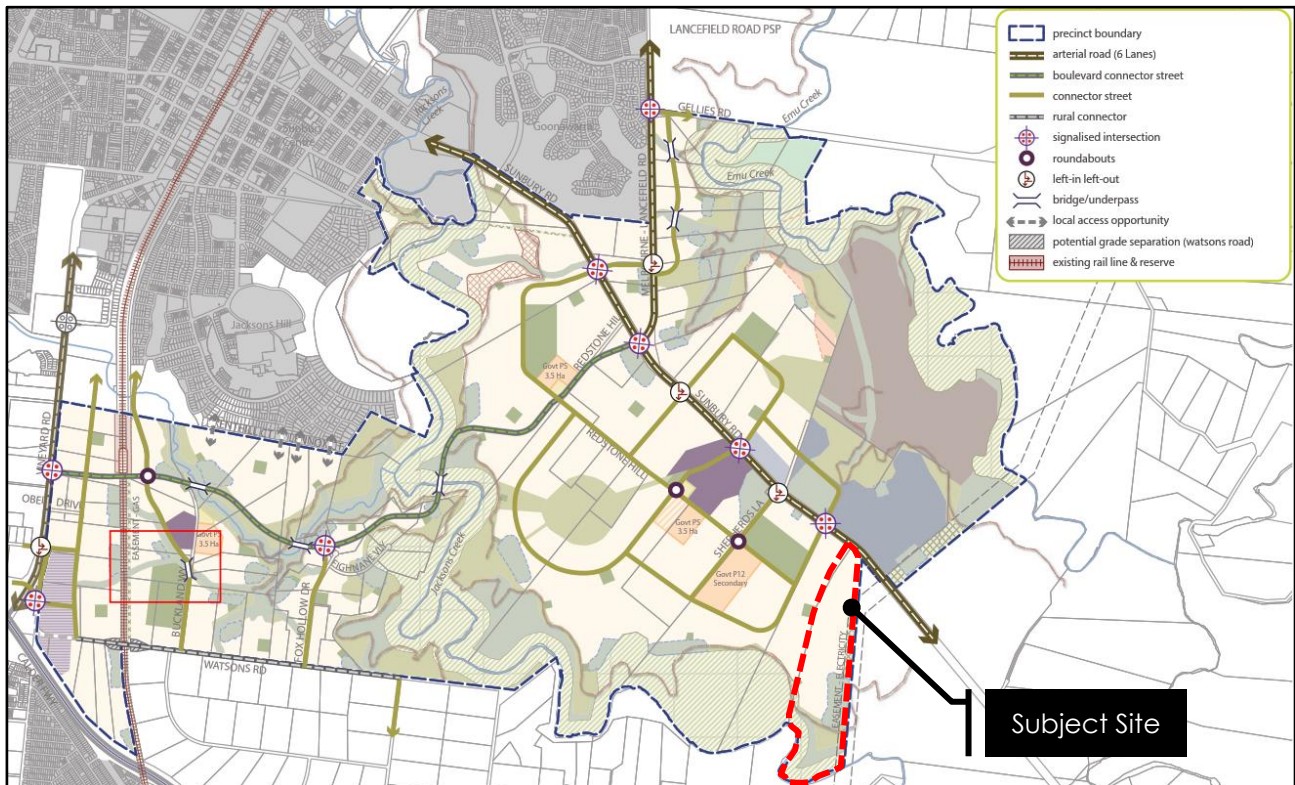


## 5.2 Road Network

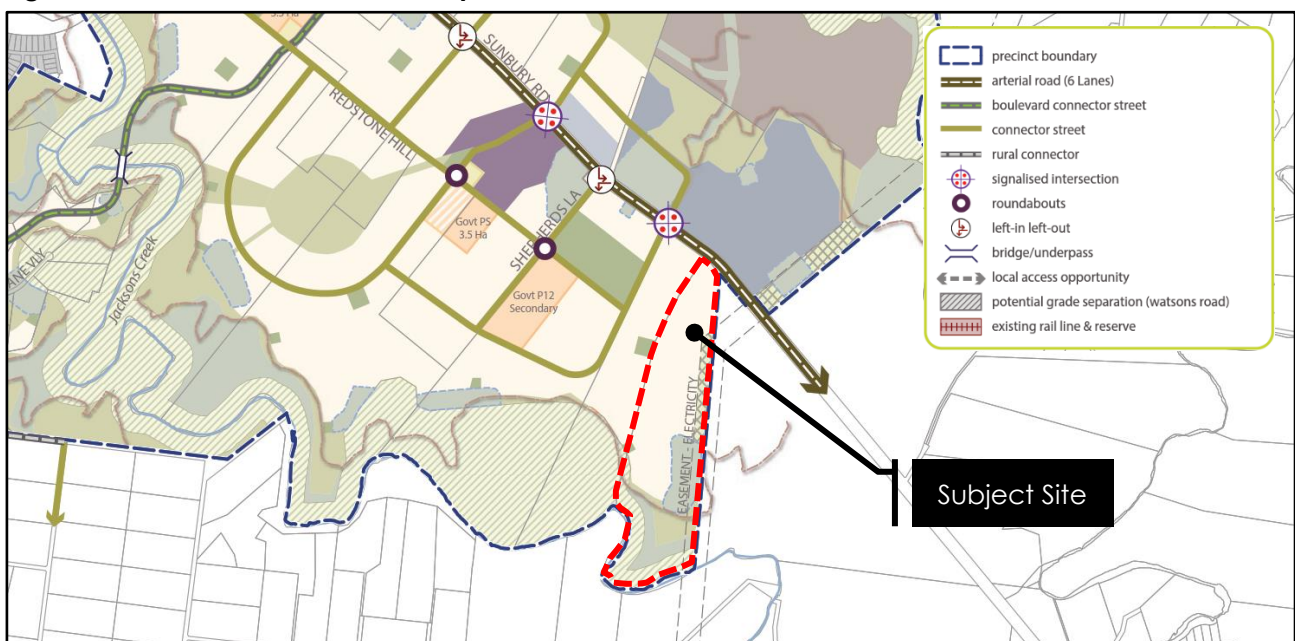
As part of the PSP, existing roads in the vicinity of the subject site will be upgraded and a new road network developed to provide for access through and around the precinct.

An extract of the proposed road layout for the Sunbury South PSP is illustrated in Figure 5 and Figure 6 below. In the vicinity of the site, Sunbury Road is designated as a 6-lane arterial road.

**Figure 5 Sunbury South PSP Road Network**



**Figure 6 Detailed view of Sunbury South PSP Road Network**

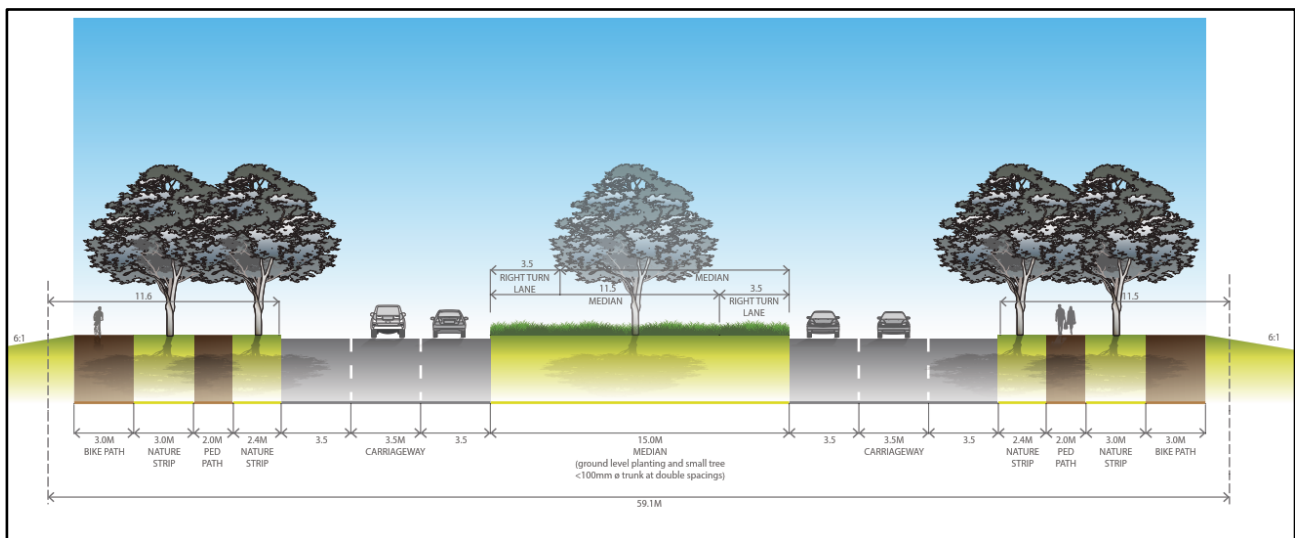


Of particular relevance to the subject site, the PSP road network does not propose any direct connection to the site. All access to the subject site is required via the connector road network proposed to the north of the site which has a signalised connection to Sunbury Road.

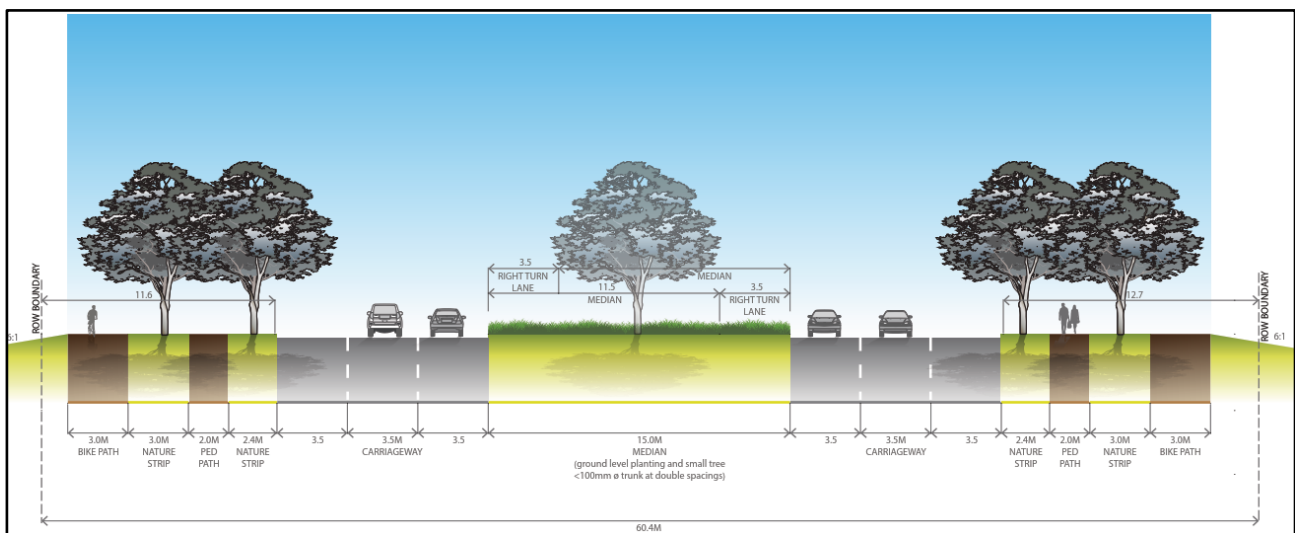
## 5.2.1 Sunbury Road

As part of the PSP, Sunbury Road is to be upgraded to provide 3 traffic lanes in each direction separated by a central median. Two alternative cross-sections for Sunbury are proposed in the PSP with Option 1 and Option 2 set within 59.1 metre and 60.4 metre road reservations respectively, as shown in Figure 7 and Figure 8 below.

**Figure 7 Sunbury Road – Primary Arterial Road 6 Lane (59.1m) – Ultimate Option 1**



**Figure 8 Sunbury Road – Primary Arterial Road 6 Lane (60.4m) – Ultimate Option 2**



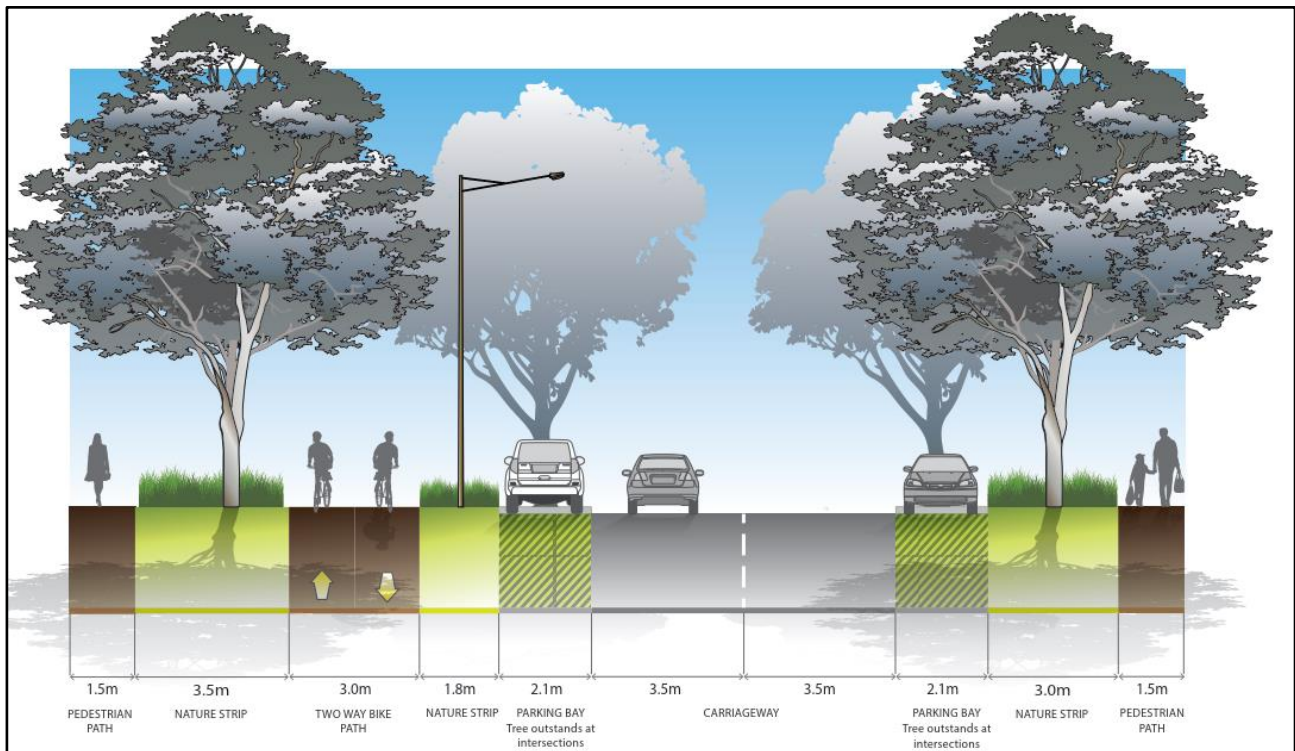


## 5.2.2 Future North – South Road

A future connector street is proposed running south from intersection IN-01 on Plan 13 (referenced as IT01 in the Precinct Infrastructure Plan) along the eastern boundary of 607 Sunbury Road (Property 71) before dog-legging north approximately mid-block.

Within the PSP, connector streets are designated to operate within a 25 metre road reservation as shown in Figure 9.

**Figure 9 Residential Connector Street (25m)**



## 5.3 Traffic Volumes

As part of the preparation of the PSP, GTA were engaged by the VPA to prepare a traffic model for the precinct. Within the model, projections were made for the interim and ultimate development scenarios.

### 5.3.1 Sunbury Road

With respect to Sunbury Road, the model projects that it will carry in the order of 33,700 vehicles per day along the frontage of the site in the interim (2031) and approximately 79,900 vehicles per day ultimately (2046).

## 6 PROPOSAL

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RCL Sunbury Pty Ltd is seeking the inclusion of a left-in/left-out access point on Property 72 to/from Sunbury Road to be shown within the PSP so as not to preclude the development of the property.

I understand that RCL is in a position to commence development of the site in the near future and as such reliance on other parties to develop may impact on the ability for the property to be serviced by a vehicular access.

My opinions follow.

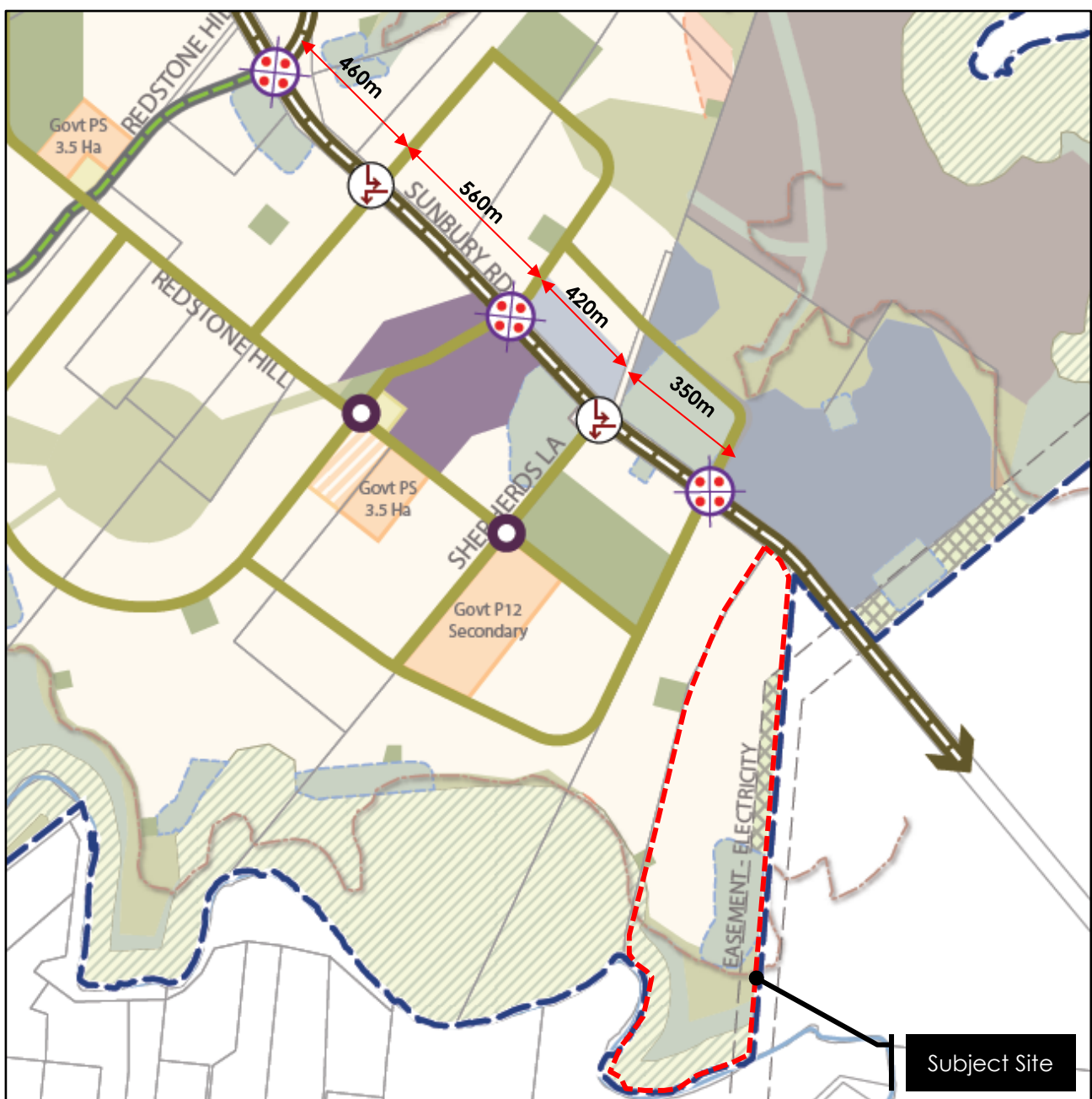
## 7 ACCESS OVERVIEW

### 7.1 Sunbury Road Access Arrangements

The Sunbury South draft PSP within Plan 9 illustrates the proposed access arrangements and road network within the PSP area. Of relevance to the subject site a connector road network is proposed to the north on the boundary of Property 70 and 71. The connector road intersects with Sunbury Road and forms a cross intersection which is to be controlled by traffic signals. This signalised intersection is referred to as IN-01 within the PSP and referenced as IT01 in the Precinct Infrastructure Plan. To the north of the proposed signals a combination of left in / left out access points and traffic signals have been shown.

A review of the intersection and separation to other nearby intersections is provided in Figure 10.

**Figure 10 Exhibited PSP Sunbury Road Intersection Arrangements**

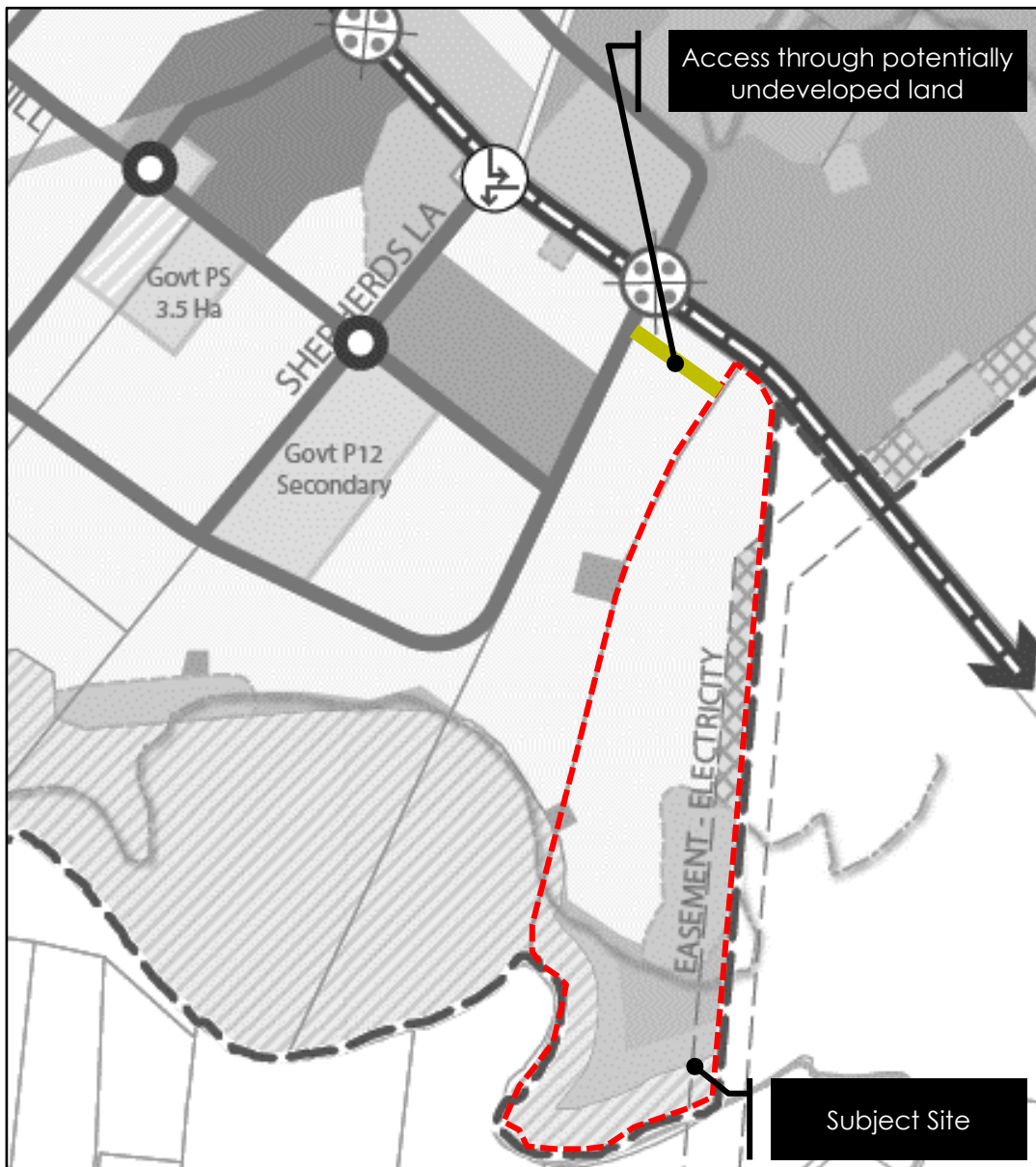


## 7.2 RCL Concerns

I am advised that RCL is in a position to commence development of Property 72 in the near future with preliminary designs currently underway. Access to the RCL property however is reliant on the development of the site to the north and moreover the construction of a connector road for at least 50 metres into the site (to allow for appropriate separation from the Sunbury Road intersection). From that point, a local road connection through Property 71 would be required to connect Property 72.

A view of the potential access arrangement is shown in Figure 11.

**Figure 11 Exhibited PSP Sunbury Road Intersection Arrangements**



As there are a number of unknowns in this regard, particularly with Property 71 being in a position to deliver the proposed road and connection to Property 72, there is potential for the RCL property to become land locked until such time as Property 71 is developed. In light of this, RCL is seeking the introduction and illustration within the PSP of a left-in/left-out vehicle access to Property 72. This access will allow for direct access between Property 72 and Sunbury Road and will have direct benefits in terms of the early implementation of the Sunbury South PSP and can be provided without compromising the safety or functionality of Sunbury Road.



## 7.3 Traffic Engineering Review

### 7.3.1 VicRoads and VPA Opinion

A submission was made by RCL Sunbury Pty Ltd with regard to the provision of a left-in/left-out access point Sunbury Road to the VPA. The VPA and VicRoads considered the submission and responded as follows:

*'After discussions with VicRoads, the VPA has determined that it is inappropriate for the PSP to show provision of Left-in/left-out access points to local roads. These will be negotiated with VicRoads as part of development discussions, noting that VicRoads will not unduly restrict access to Land parcels.'*

In general terms, I do not disagree with the response from the VPA in a typical circumstance where the property would have reasonable access to the external road network from the outset. However, in this situation, Property 72 is heavily if not completely reliant on the development of land to the north of the site which includes the construction of a connector road and some form of intersection to Sunbury Road. If the developer of Properties 70 and 71 does not commence development within the same timeframe, RCL will be required to wait for the access to come 'online'.

I agree that VicRoads have the ability to approve left-in / left-out access arrangements to local roads and this can occur through discussions however there is no certainty that VicRoads will approve the proposed left-in / left-out arrangement. In this case, development of Property 72 would be significantly delayed.

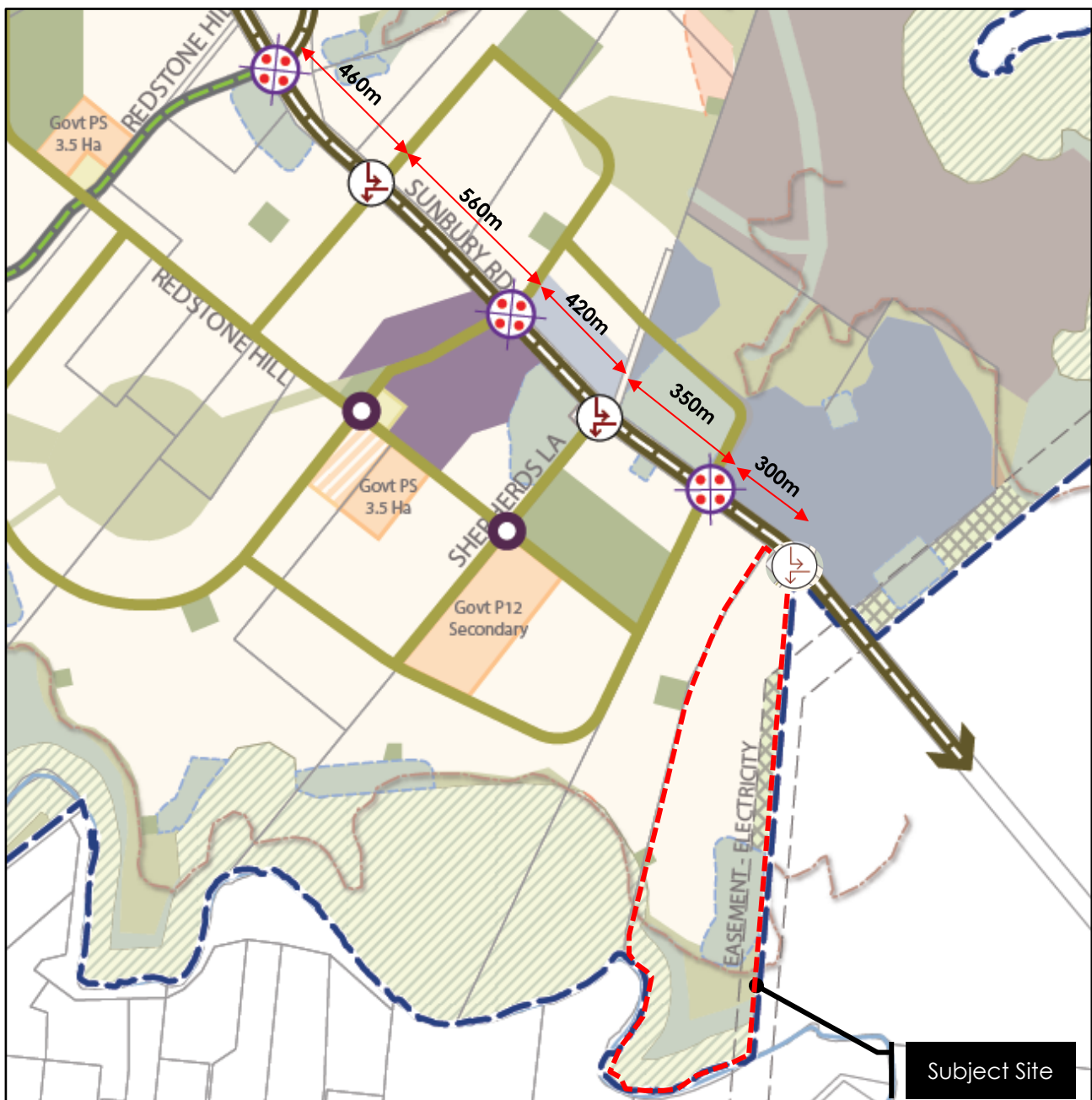
### 7.3.2 Traffic & Transport Planning

Property 72 has a single road frontage of approximately 110 metres which is to Sunbury Road. No other access is available to the site.

The RCL submission is for the inclusion of a left-in / left-out access to Property 72. A review of the location of the site access indicates that it will be separated to the future signals to the north at IT-01 by no less than 300 metres which is more than sufficient separation from a set of signals.

A view of the proposed access arrangements is provided in Figure 10.

**Figure 12 Exhibited PSP Sunbury Road Intersection Arrangements**



### 7.3.3 Intersection Arrangement

The intersection will be facilitated by a left turn deceleration lane which will allow for motorists turning into the site to be clear of through traffic when accessing the site with no impact on the proposed signals. Furthermore, there are clear sight distances to the north and south which will ensure that there are no safety issues as part of the proposed intersection.

The internal road into the site has been designed as an Access Street with a typical cross section of 16 metres which would provide for a 7.3m pavement which allows for intermittent on-street parking, in accordance with Section 4.2 of the Sunbury South PSP. Typically, a road of this nature would have a capacity for up to 3,000 vehicles per day.

### **7.3.4 Traffic Generation**

Property 72 is expected to yield in the order of 400 lots, which based on typical traffic generation rates of 9 vehicle movements per day per lot and 10% occurring during the peak hours equates to 3,600 vehicle movements per day and 360 vehicle movements during the peak hours.

In the unlikely scenario that the development occurs prior to any other connections being made available, the access road connection to Sunbury Road will carry 3,600 vehicle movements per day. This level of traffic is over the typical capacity of an Access Street. Notwithstanding, through the banning of parking for the first section of road and with the knowledge that further connections will be available in the near future it is considered that the Access Street capacity is considered acceptable.

It is my view that this access strategy will ensure that safe and efficient access is provided to the site from the outset and will continue through the life of the project and into the future.

### **7.3.5 Interim Access**

Sunbury Road currently operates as an undivided carriageway with a painted median. In the interim prior to other road connections, the ability for a fully directional access in my view would be appropriate to allow for right turn movements into and out of the site. At such time as the signals are constructed to the north or the road is upgraded to provide a central median, the right turn movements could then be removed.

### **7.3.6 Summary**

In view of the above, it is my opinion that to provide certainty it is beneficial to include within Plan 9 – Street Network a left-in / left-out access to Property 72 to ensure that access to the site is available from the outset. I am of the view that this is an acceptable outcome and will not impact on the operation of the surrounding existing and future road work.

## 8 CONCLUSIONS

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I have been requested to provide my expert opinions in relation to the RCL Sunbury submission in relation to Amendment C207. In particular, I have been requested to provide my opinion with regard to the provision of a left-in / left-out access to Sunbury Road.

A summary of my expert opinion regarding the traffic and transport implications are as follows:

- Intersection treatments along Sunbury Road are appropriately spaced;
- Signals are proposed to the north of the site connecting to Sunbury Road. No connection is proposed to Property 72;
- In the event that development does not occur on neighbouring properties, there is no certainty that access to the site will be available;
- Due to this uncertainty, I am of the view that it is appropriate for the PSP to show a left-in / left-out access to the subject site;
- The provision of a left-in / left-out will be appropriately separated from nearby intersections, and will provide for safe and efficient access.