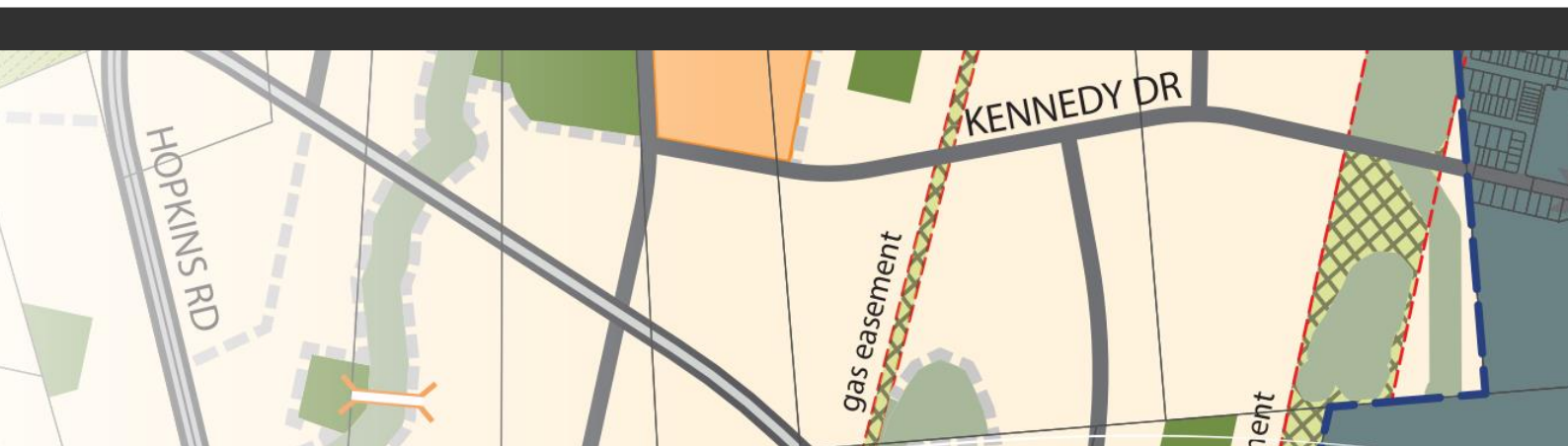


## ***Amendment C146 – Melton Planning Scheme***

Expert Evidence Statement – Traffic & Transport  
235 – 311 Beattys Road, Plumpton



16585REP001C-F

21 November 2016



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### DOCUMENT INFORMATION

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Prepared by	Valentine Gnanakone	Reviewed by	James Dear
Signature		Signature	

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## CONTENTS

<b>1</b>	<b>QUALIFICATIONS AND EXPERTISE.....</b>	<b>4</b>
<b>2</b>	<b>INTRODUCTION.....</b>	<b>6</b>
<b>3</b>	<b>AMENDMENT C146 MELTON PLANNING SCHEME .....</b>	<b>6</b>
<b>4</b>	<b>EXISTING CONDITIONS .....</b>	<b>7</b>
<b>4.1</b>	<b>Site Location .....</b>	<b>7</b>
<b>4.2</b>	<b>Road Network.....</b>	<b>7</b>
<b>5</b>	<b>PLUMPTON PRECINCT STRUCTURE PLAN (PSP 1078).....</b>	<b>8</b>
<b>5.1</b>	<b>General .....</b>	<b>8</b>
<b>5.2</b>	<b>Road Network.....</b>	<b>10</b>
5.2.1	Beattys Road .....	11
5.2.2	Kennedy Drive .....	11
5.2.3	Future North – South Road.....	11
<b>5.3</b>	<b>Public Transport Network .....</b>	<b>13</b>
<b>6</b>	<b>REVISED CONCEPT.....</b>	<b>14</b>
<b>6.1</b>	<b>Overview.....</b>	<b>14</b>
<b>6.2</b>	<b>Road Layout Review .....</b>	<b>16</b>
6.2.1	General .....	16
6.2.2	Public Transport Implications.....	17
<b>6.3</b>	<b>Arterial Road Alignment.....</b>	<b>20</b>
<b>7</b>	<b>CONCLUSIONS.....</b>	<b>21</b>

## FIGURES

Figure 1	Site Location.....	7
Figure 2	Locality Plan .....	8
Figure 3	Site Location within PSP Area.....	9
Figure 4	Plumpton PSP Road Network .....	10
Figure 5	Detailed view of Road Network .....	10
Figure 6	Beattys Road – Connector Street Frontage.....	11
Figure 7	Connector Street – (25m) .....	12
Figure 8	Local Access Street Level 2 Road (20 metres) .....	12
Figure 9	Proposed Public Transport Network.....	13
Figure 10	Exhibited School, Active Open Space and Community Locations .....	14
Figure 11	Modified Layout Plan .....	15
Figure 12	On-Street Parking Review .....	16
Figure 13	Connector Road Alignment Comparison .....	18
Figure 14	Bus Route Catchment Review (Prepared by Roberts Day) .....	19
Figure 15	Bus Route Comparison (Prepared by Roberts Day) .....	20

# 1 QUALIFICATIONS AND EXPERTISE

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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)
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 Gadens Lawyers, representing Dahua Dacland Plumpton Pty Ltd, to provide my expert opinions in relation to the traffic engineering matters relevant to the Planning Scheme Amendment (C146 & 147).

Facts, Matters, and Assumptions Relied Upon: Melton Planning Scheme  
Relevant Exhibition Documentation for Amendment C146 & 147  
DRAFT Kororoit – Precinct Structure Plan  
DRAFT Plumpton – Precinct Structure Plan  
Relevant submissions  
Plans prepared by Roberts Day

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

---

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

I have been requested by Gaydens on behalf of Dahua Dacland Pty Ltd to undertake an assessment of the traffic engineering matters relevant to the land addressed as 235-311 Beattys Road, Plumpton (Property 28) as a result of the Planning Scheme Amendment C146, and present expert evidence on the traffic implications of the proposal to the Planning Panel. I note that Dahua Dacland Pty Ltd also have control over properties 31 and 32 and, where relevant, my evidence also considers those properties.

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

- The orientation of the proposed state government P-12 school, active open space and community facility and notably the consequential changes to the connector road network;
- The alignment of the east-west arterial to the south of the site.

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 C146 MELTON PLANNING SCHEME

---

The Plumpton Precinct Structure Plan (PSP) has been prepared by the Victorian Planning Authority (VPA) in consultation with Melton City Council and other authorities, to guide the development of the land within the amendment area known as the Plumpton PSP (PSP 1078). The PSP area will ultimately house in the order of 10,680 new homes to accommodate an expected population of 29,900 residents.

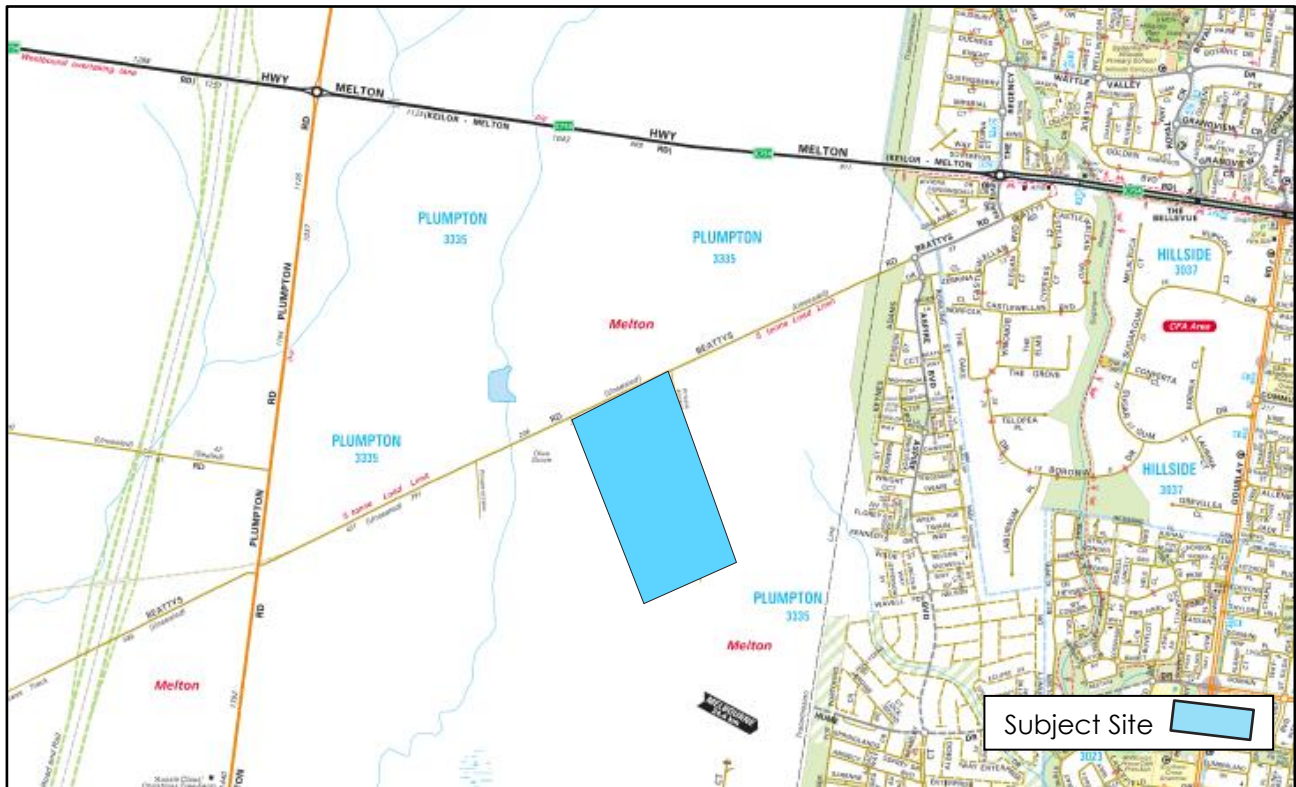
The PSP has been prepared to identify, amongst other things, the future transport network including roads, public transport, and active transport with due consideration of broader planning outcomes. This PSP is being considered in conjunction with the Kororoit PSP (PSP 1080).

## 4 EXISTING CONDITIONS

### 4.1 Site Location

The subject site is located to the south of the Beattys Road reservation and is addressed as 235 – 311 Beattys Road, Plumpton. The site comprises a single land parcel with a total site area of approximately 62.7 hectares, as shown in Figure 1.

**Figure 1 Site Location**



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### 4.2 Road Network

**Beattys Road** is a local road aligned southwest-northeast, running between Western Highway and Melton Highway.

In the vicinity of the site, Beattys Road is an unsealed single carriageway road.



## 5 PLUMPTON PRECINCT STRUCTURE PLAN (PSP 1078)

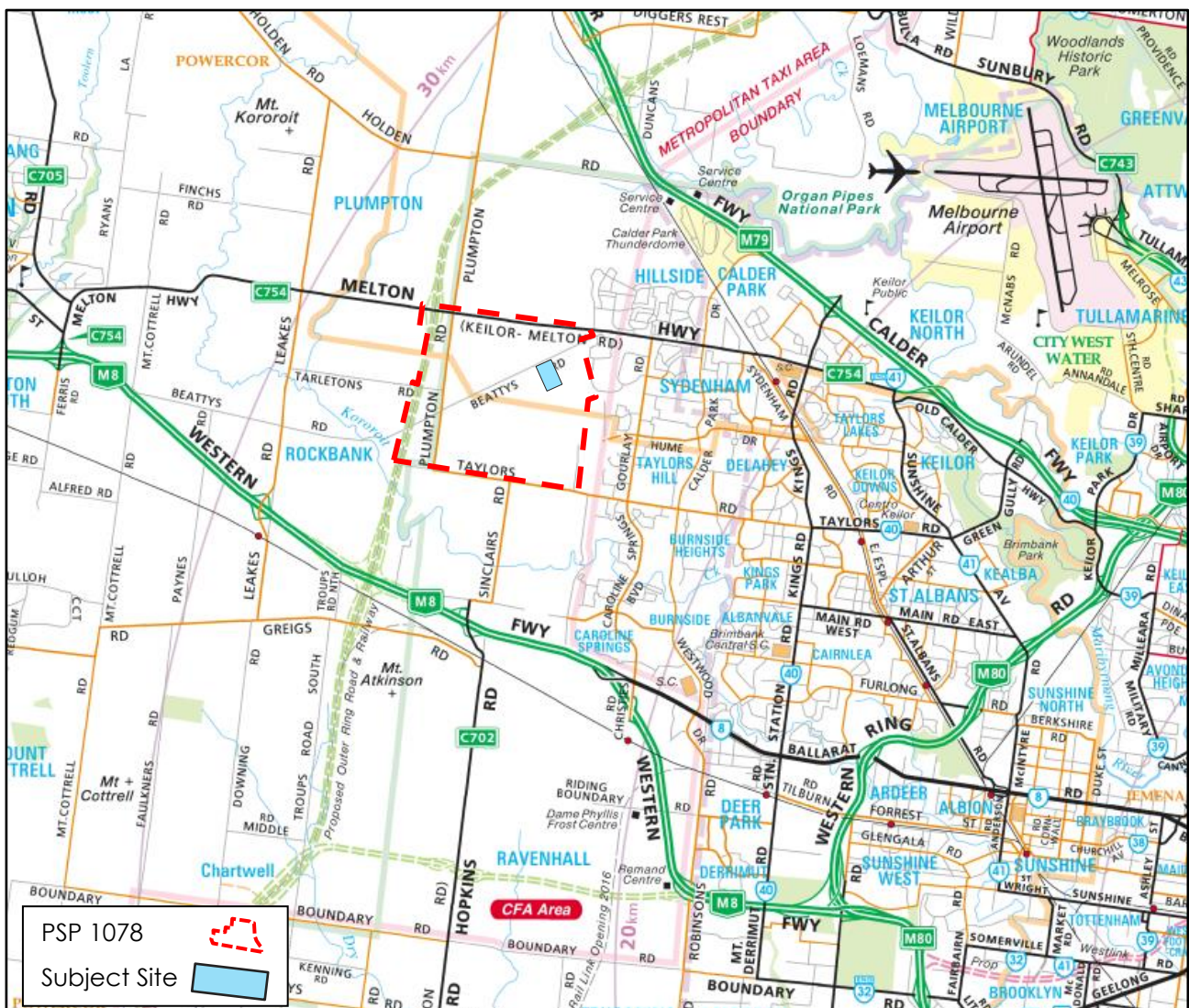
### 5.1 General

The site is identified as Property 28 and is located within the north-eastern section of the Plumpton PSP area, for which a draft Precinct Structure Plan has been prepared by the VPA and Council.

The Plumpton PSP covers an area of 1,016 hectares of land, bounded by the Melton Highway to the north, the approved Taylors Hill West PSP area to the east, Taylors Road and the Kororoit PSP area to the south, and the Outer Metropolitan Ring (OMR) reservation, approved Rockbank North PSP area and proposed Warrensbrook PSP to the west.

The locality of the PSP area and the subject site in the context of the surrounding area is provided in Figure 4.

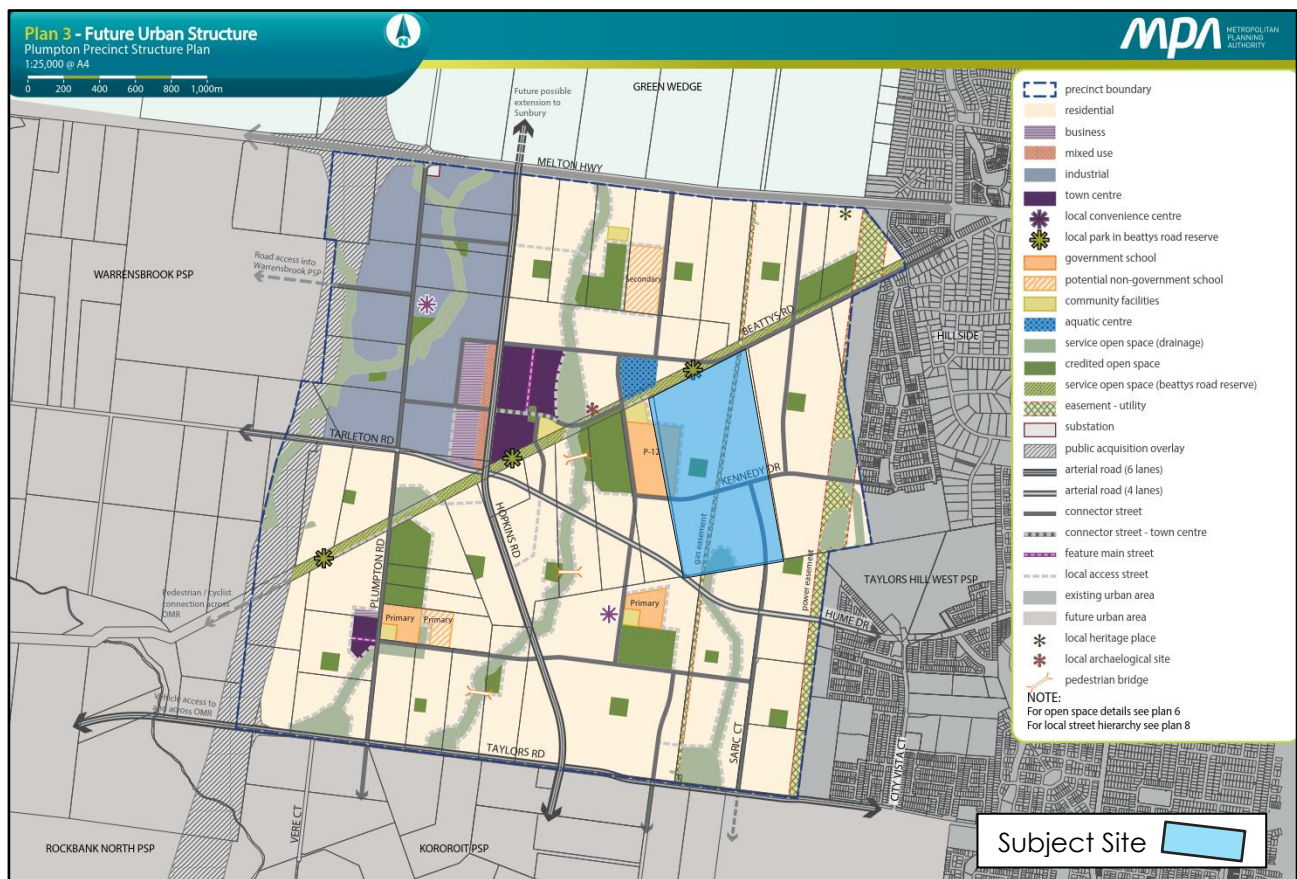
**Figure 2 Locality Plan**



With regard to the PSP planning, Figure 5 illustrates the site location within the PSP area and surrounding road network and land uses.



**Figure 3 Site Location within PSP Area**

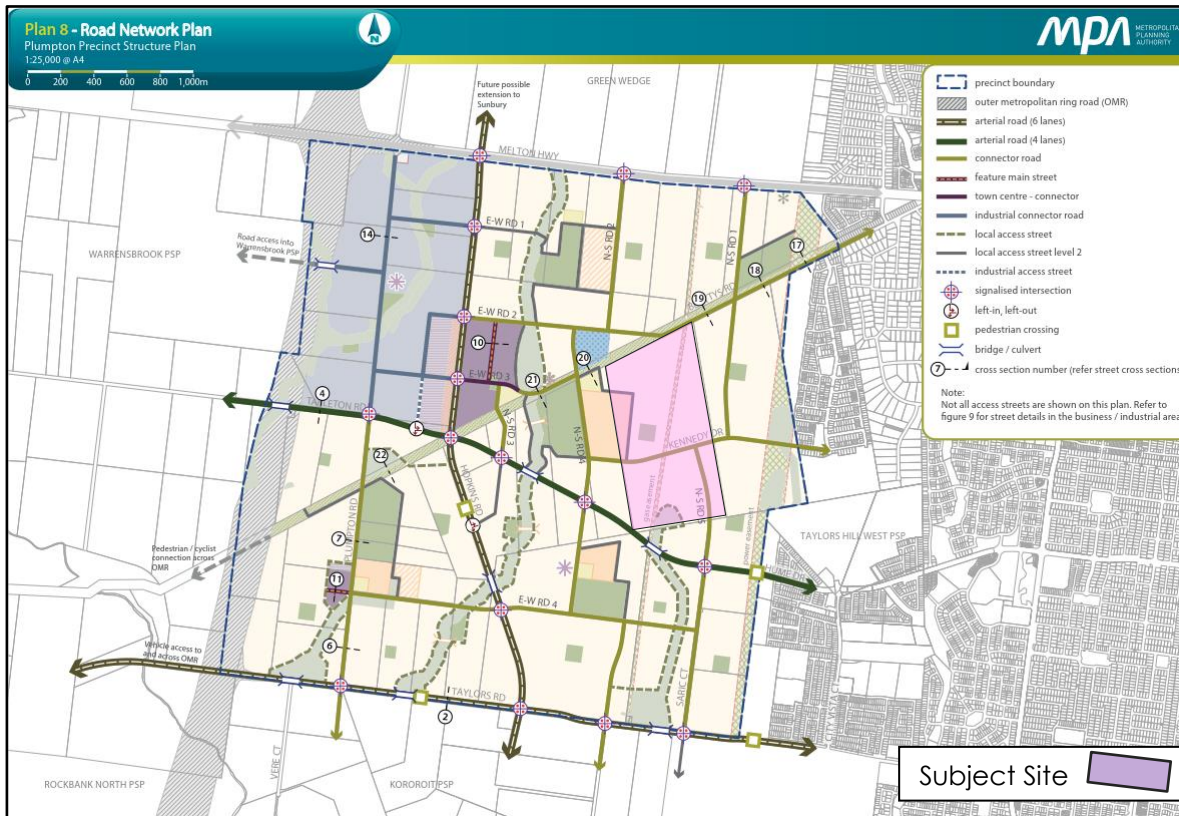


As shown above, the site has frontage to Beattys Road which is proposed primarily as a green link rather than a roadway. An APA gas easement runs generally through the centre of the site.

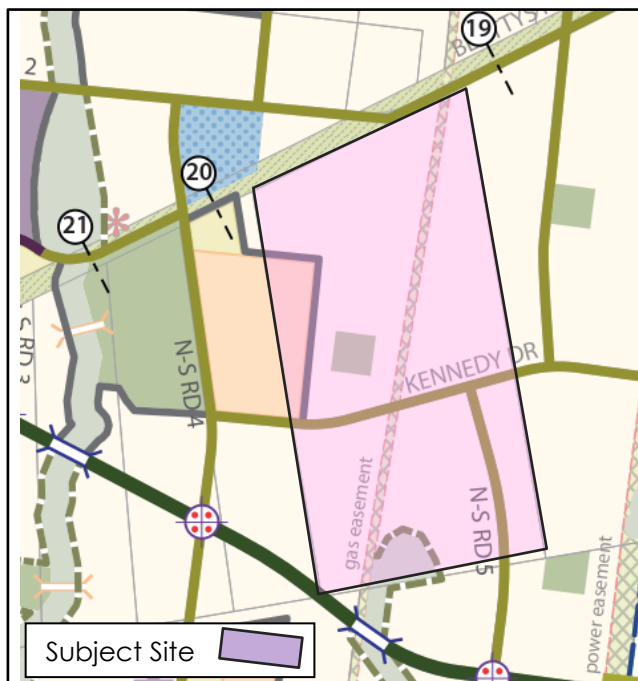
## 5.2 Road Network

As part of the PSP, a road network will be developed to provide for access through and around the precinct. An extract illustrating the proposed road network within the PSP is provided in Figure 4 and Figure 5.

**Figure 4 Plumpton PSP Road Network**



**Figure 5 Detailed view of Road Network**



Of particular relevance to the subject site, a connector road is proposed through the centre of the site running east – west, whilst an local access street is proposed towards the western boundary of the site.

### 5.2.1 Beattys Road

As part of the PSP, Beattys Road is to comprise a combination of green space and a local street network. The local street component will run to the east of the site whilst the green link will run to the southwest along the site frontage, linking to the town centre.

### 5.2.2 Kennedy Drive

As part of the Plumpton PSP, a future Connector Road 'Kennedy Drive' will run generally east – west bisecting the subject site. The future Connector Road will connect to a future north – south Connector Road in the west and the existing Taylors Hill West PSP to the east.

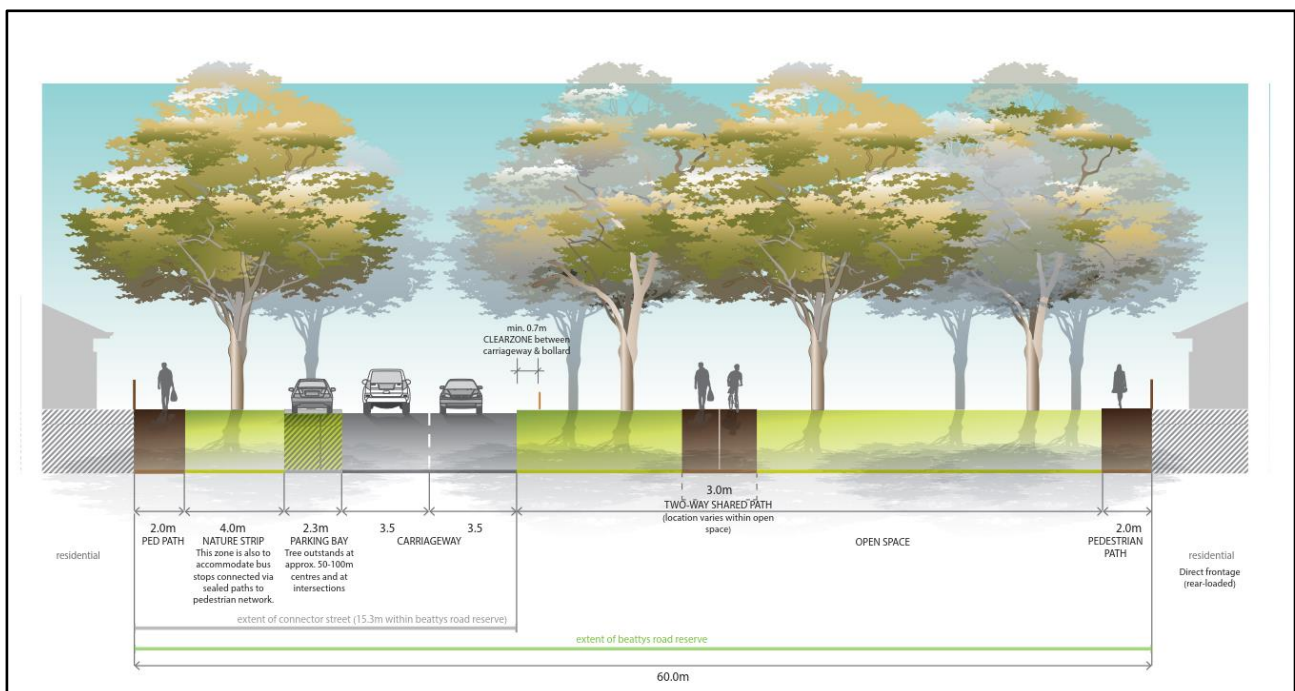
The Connector Road is proposed with a reservation of 25 metres.

### 5.2.3 Future North – South Road

A future local access street (level 2) is proposed towards the western boundary of the site generally aligned north to south before veering west linking to the future north – south connector road. Within the PSP level 2 Access Street's are designated to operate within a 20 road metre reservation.

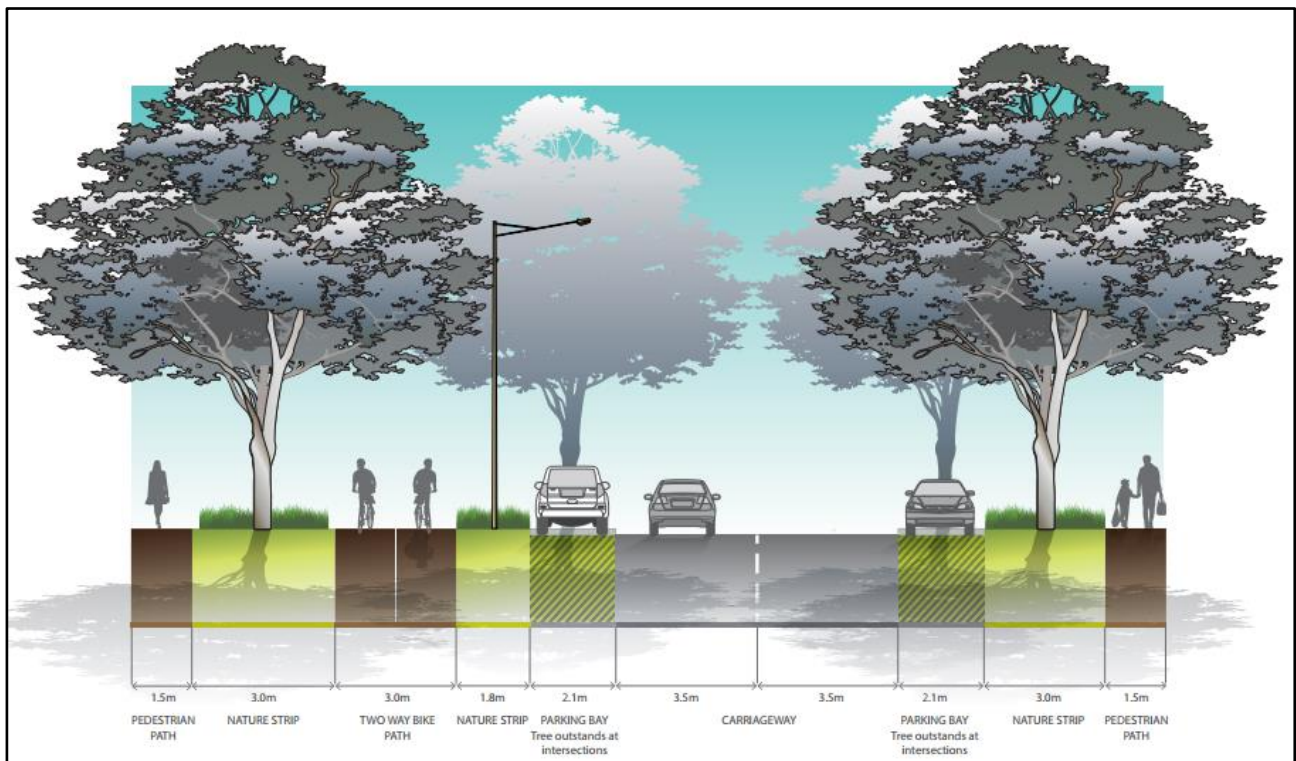
A view of the proposed road cross sections for the relevant roads are provided in Figure 6 through to Figure 8.

**Figure 6 Beattys Road – Connector Street Frontage**

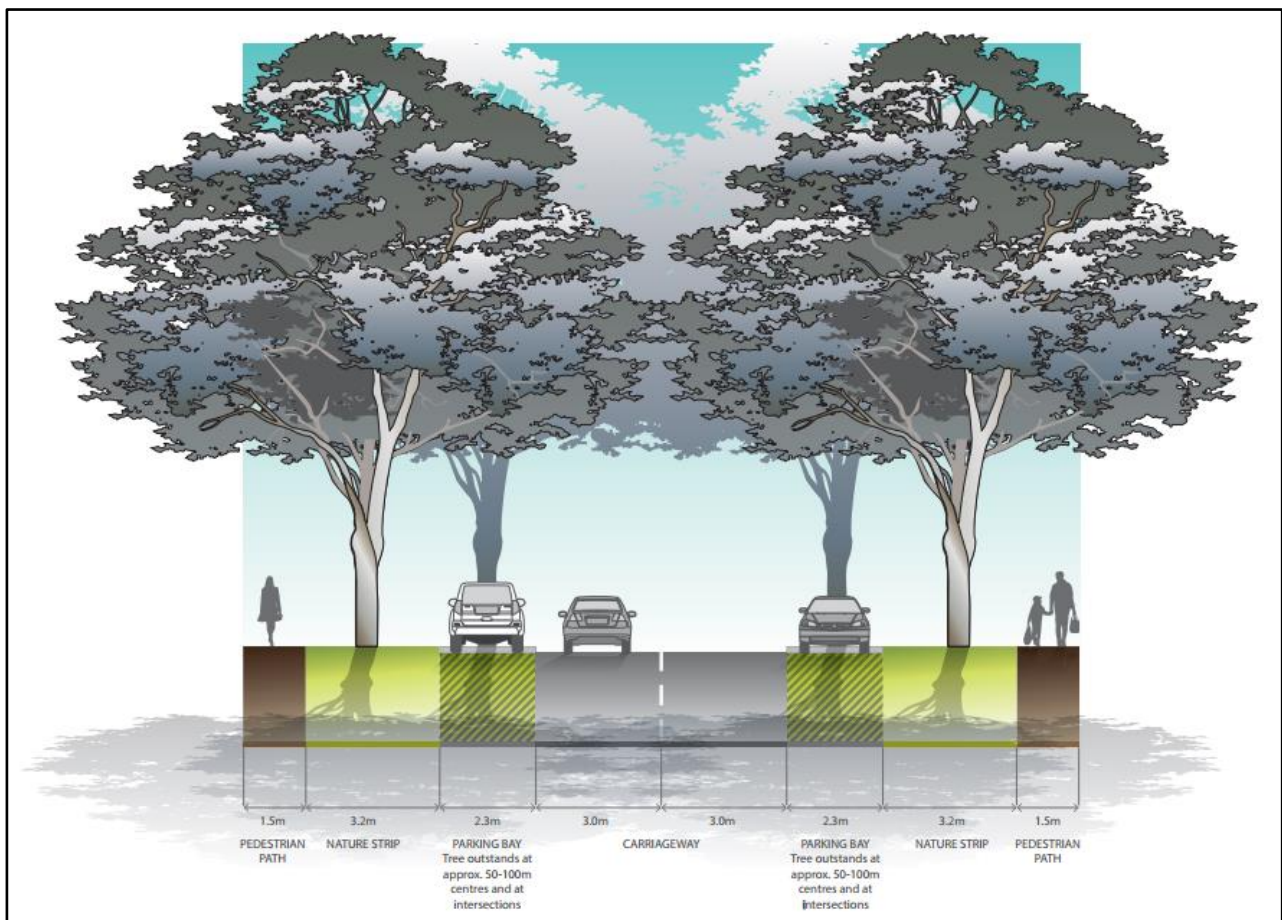




**Figure 7 Connector Street – (25m)**



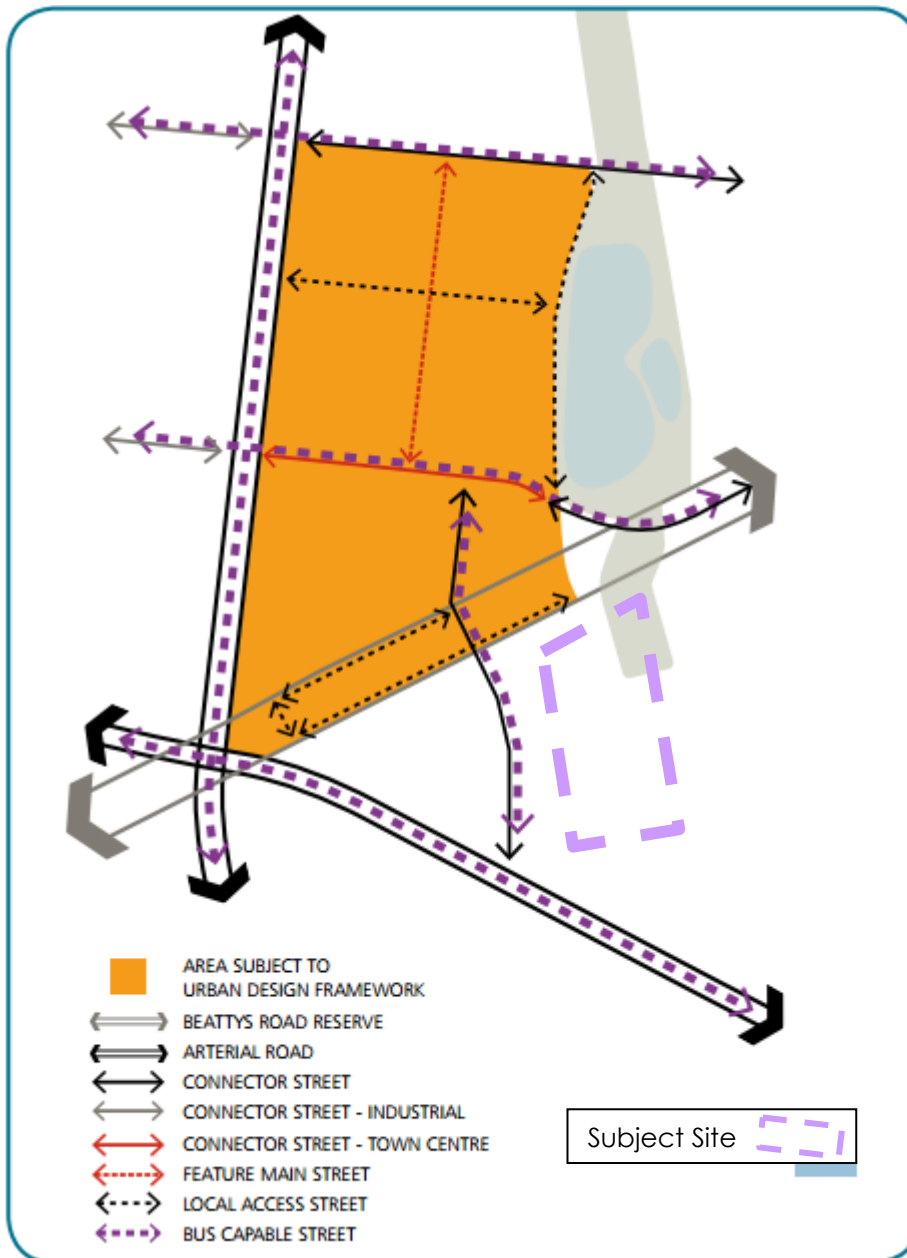
**Figure 8 Local Access Street Level 2 Road (20 metres)**



### 5.3 Public Transport Network

In relation to public transport, the PSP details a network in the vicinity of the site and around the town centre precinct. Of relevance to the subject site as shown in Figure 9 is the proposed Connector Street which runs north – south to the west of the site.

**Figure 9 Proposed Public Transport Network**





## 6 REVISED CONCEPT

### 6.1 Overview

The exhibited PSP documentation suggests the provision of a government school, active open space and a community facility towards the northeast corner of the site. Of relevance, an access street level 2 is proposed along the eastern boundary of the school (largely within property 28), whilst a Connector Road is proposed to run north-south separating the school and active open space. A view of the exhibited plan in the vicinity of the subject are is shown in Figure 10.

**Figure 10 Exhibited School, Active Open Space and Community Locations**



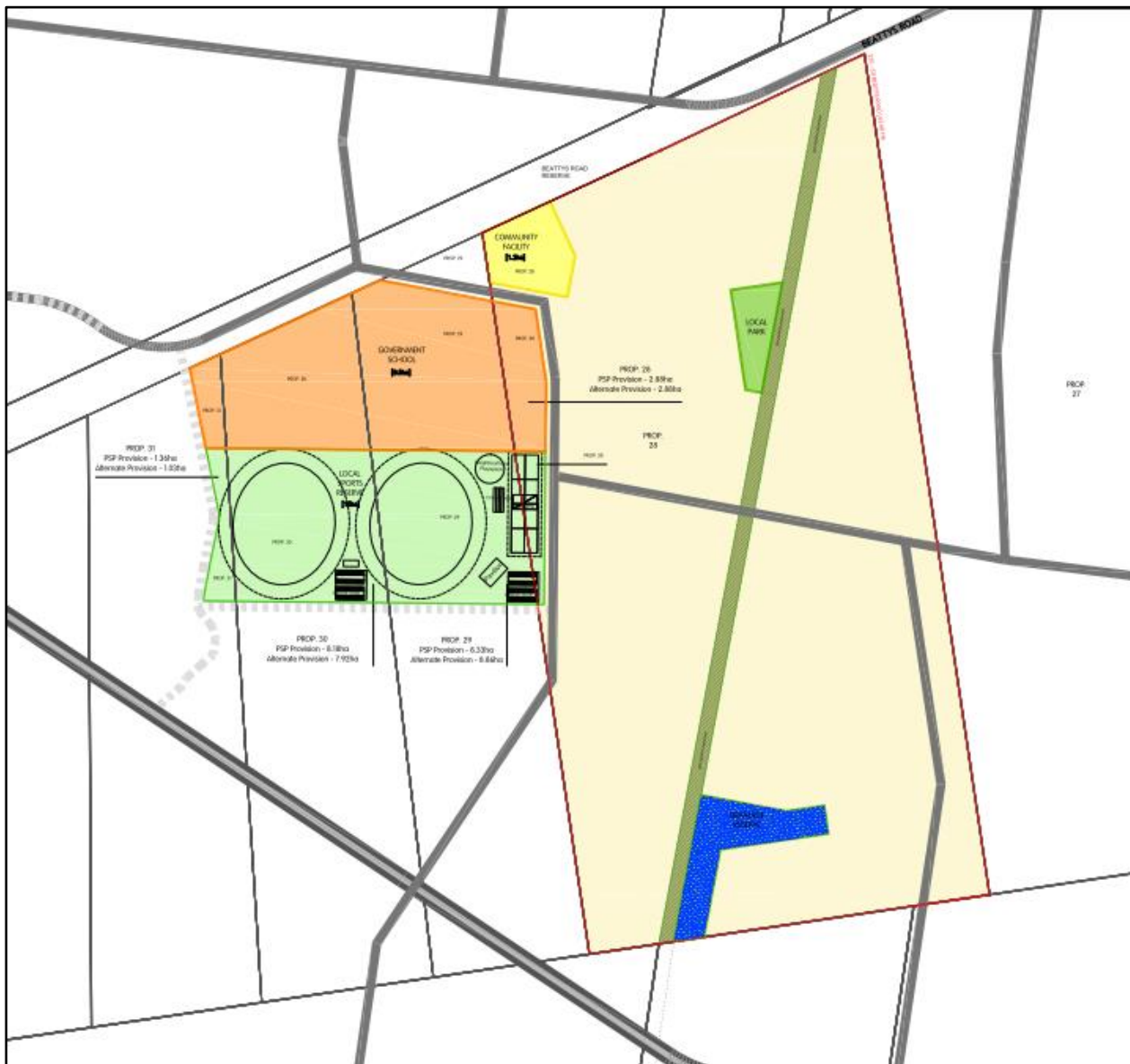
It is my understanding that Dahua Dacland have suggested a rearrangement of some of the key social and community infrastructure elements located in this area, namely being the school, active open space and community centre.

In particular, the Dahua Dacland submission proposes rearranging the proposed school, active open space and community facility to the immediate west of the Dahua Dacland holding (Property 28) and the rotation of the facilities 90 degrees. As a result of the proposed amendments, the north-south connector street, which is currently shown as severing the school and active open space, is proposed to be realigned along the eastern boundary of the school and active open space. A connection to the east-west connector street within the Beattys Road linear corridor to

the north of the site is retained along with connections to the Kennedy Road extension. The community facility is proposed to be located on the north-eastern side of the connector street, adjacent to and south of the Beattys Road corridor. An access street network is also proposed around the school and open space connecting the connector road network.

A view of the proposed modifications to the layout are provided in Figure 11.

**Figure 11 Modified Layout Plan**



In addition to the modifications around the social and community infrastructure a slight realignment of the proposed Hume Drive arterial road extension is proposed to avoid the corner of property 28.

## 6.2 Road Layout Review

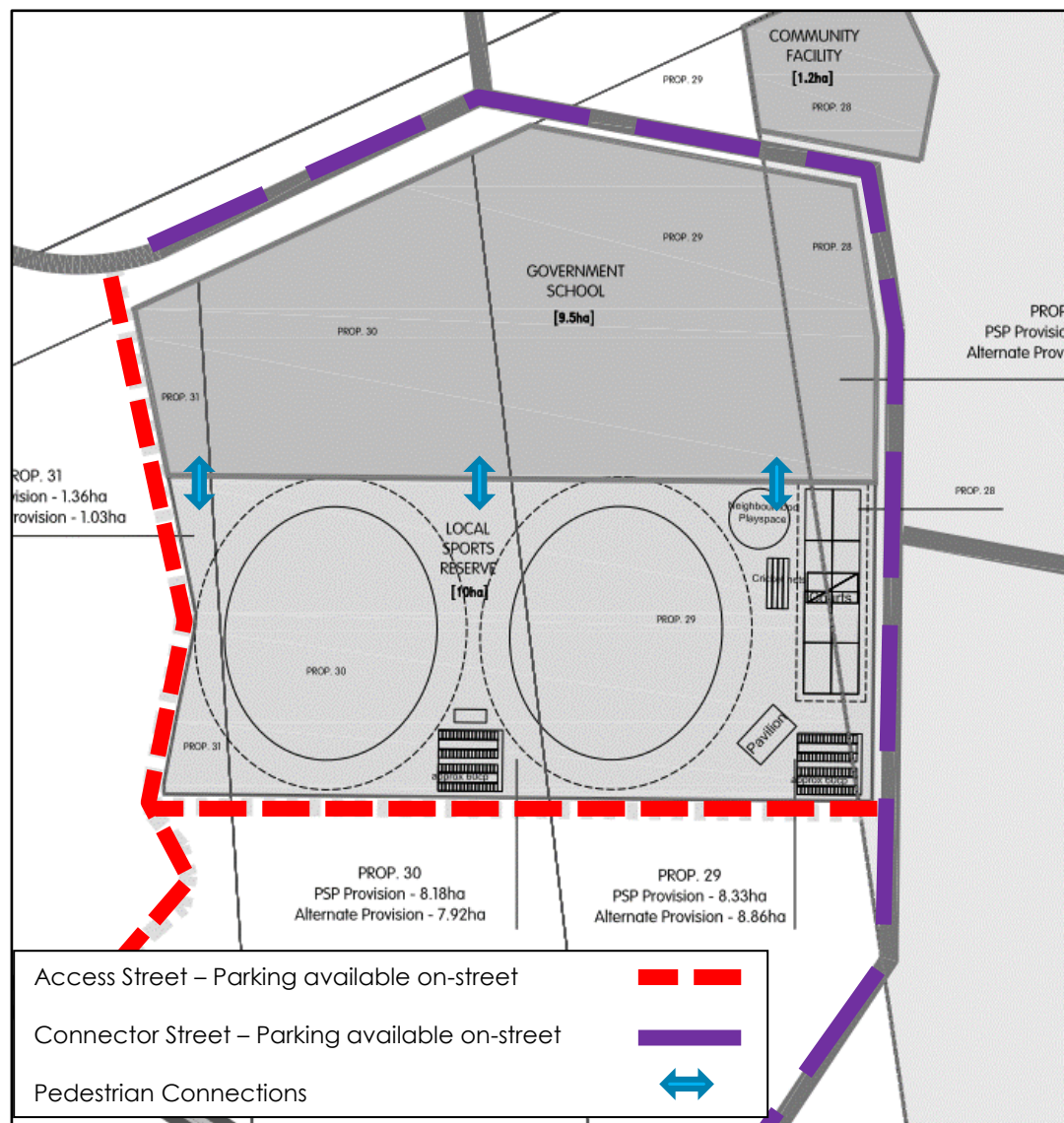
### 6.2.1 General

The main feature of the amended road layout is the reorientation of the connector road which instead of bisecting the school and active open space, now travels around those sites. It is considered that the collocation of active open space with a government school site has a significant benefit with the regard to the synergies across the land uses and from a safety perspective.

Of particular note, in the modified plan, there would not be a 25 metre wide road reserve which would act as a severance of the two land uses, necessitating any pedestrian movement between the two uses to cross a connector standard road. Instead, there is the opportunity to provide direct pedestrian connections between the two uses, in addition to a collocation / sharing of parking opportunities.

It is acknowledged that on-street parking for the active open space would also be preferential however the modified layout does not preclude that opportunity with a series of access streets travelling around the site as shown in Figure 12.

**Figure 12 On-Street Parking Review**



### 6.2.2 Public Transport Implications

I note that the Connector Street is required to carry a public transport bus route on the Principal Public Transport Network (PPTN). The current route travels north from traffic signals at Hume Drive via Kennedy Road and linking up to a series of connector streets in the north in the vicinity of the town centre. This route effectively travels through one bend.

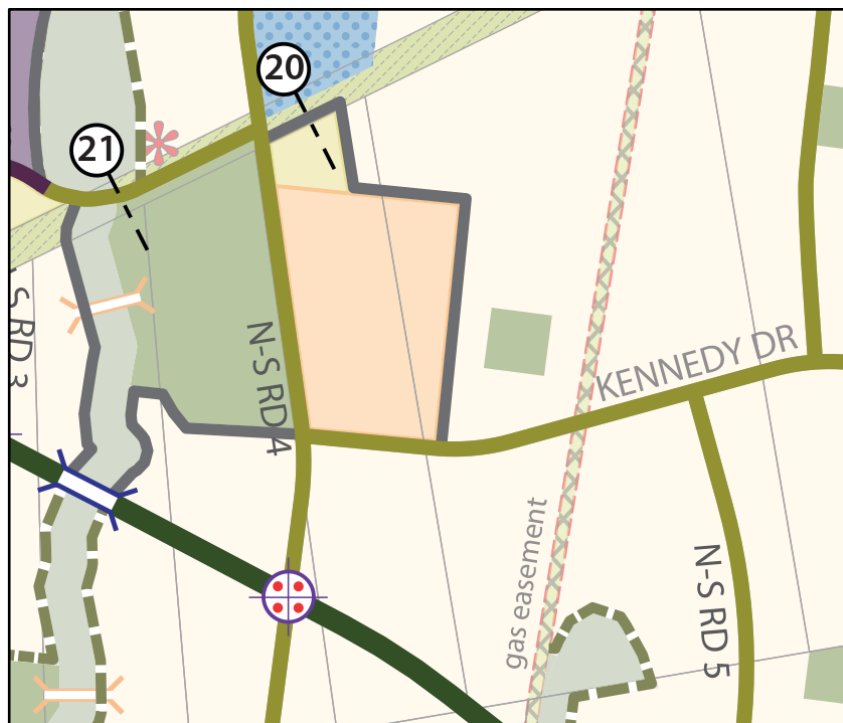
The modified route proposes a north eastern alignment of the connector road from the traffic signals at Hume Drive around the active open space and the government school linking to the series of connector streets in the north in the vicinity of the town centre. The proposed new route connects into Beattys Road at the same point as the exhibited version. The modified route would see the introduction of two bends in the road however I do not expect these bends to result in any delays to bus services as they can be designed to provide priority to through movement. Based on this, the amended proposal would not see the introduction of any additional intersections.

A comparison of the two connector road alignments is provided in Figure 13.



**Figure 13 Connector Road Alignment Comparison**

Existing



Proposed



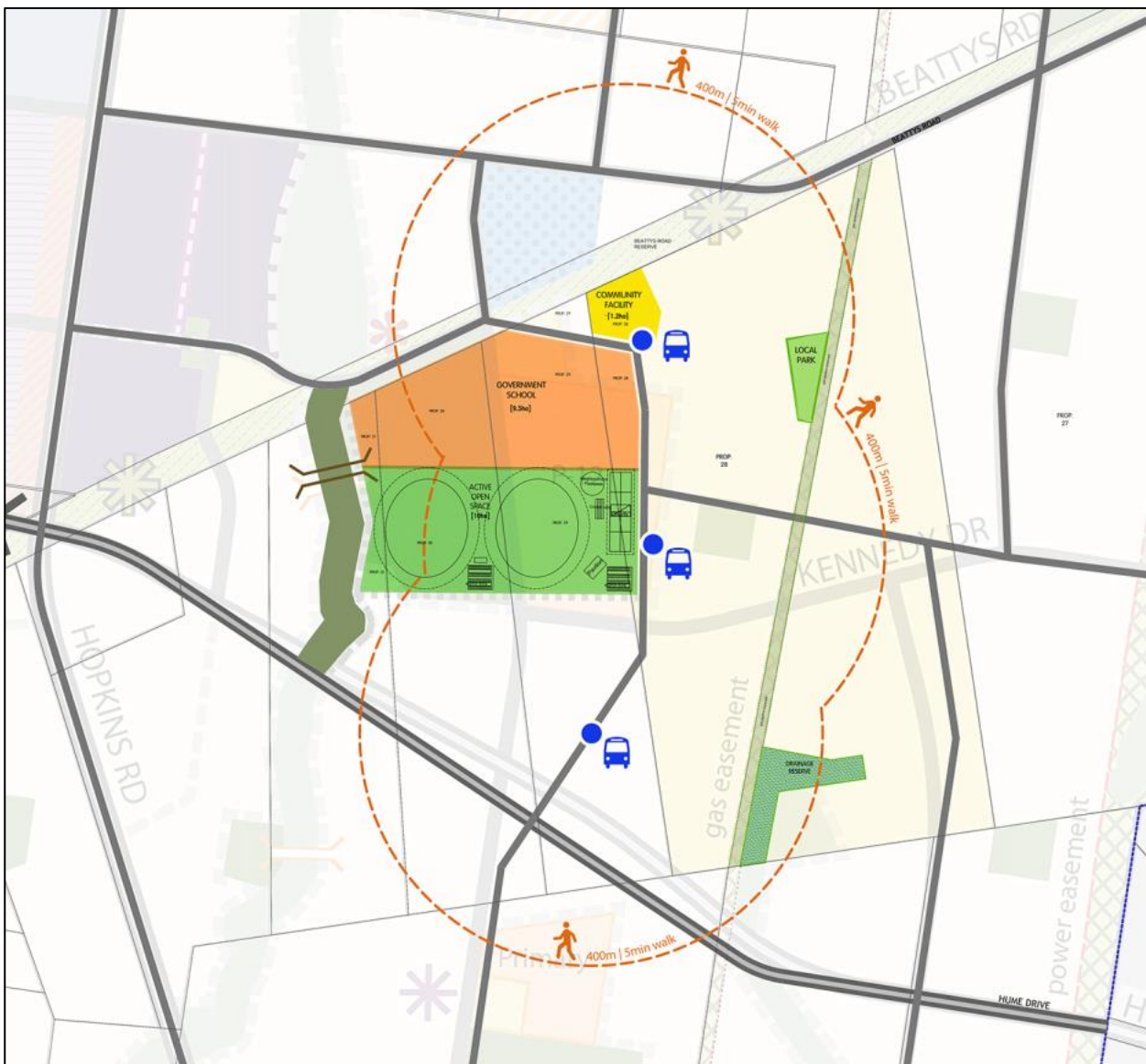
As noted above, the proposed realignment of the connector street will result in an increase in the number of bends in the road, however the intersections can be designed to ensure that priority is provided to the northbound movement and as such the route will effectively be direct.

A review of the residential catchment areas has also been undertaken which indicates that the amended connector street network results in a greater level of accessibility to the bus route by residents. In fact, the typical 400 metre radius area from a bus route to a dwelling is improved as a result of the modified network which represents an overall improvement to the area.

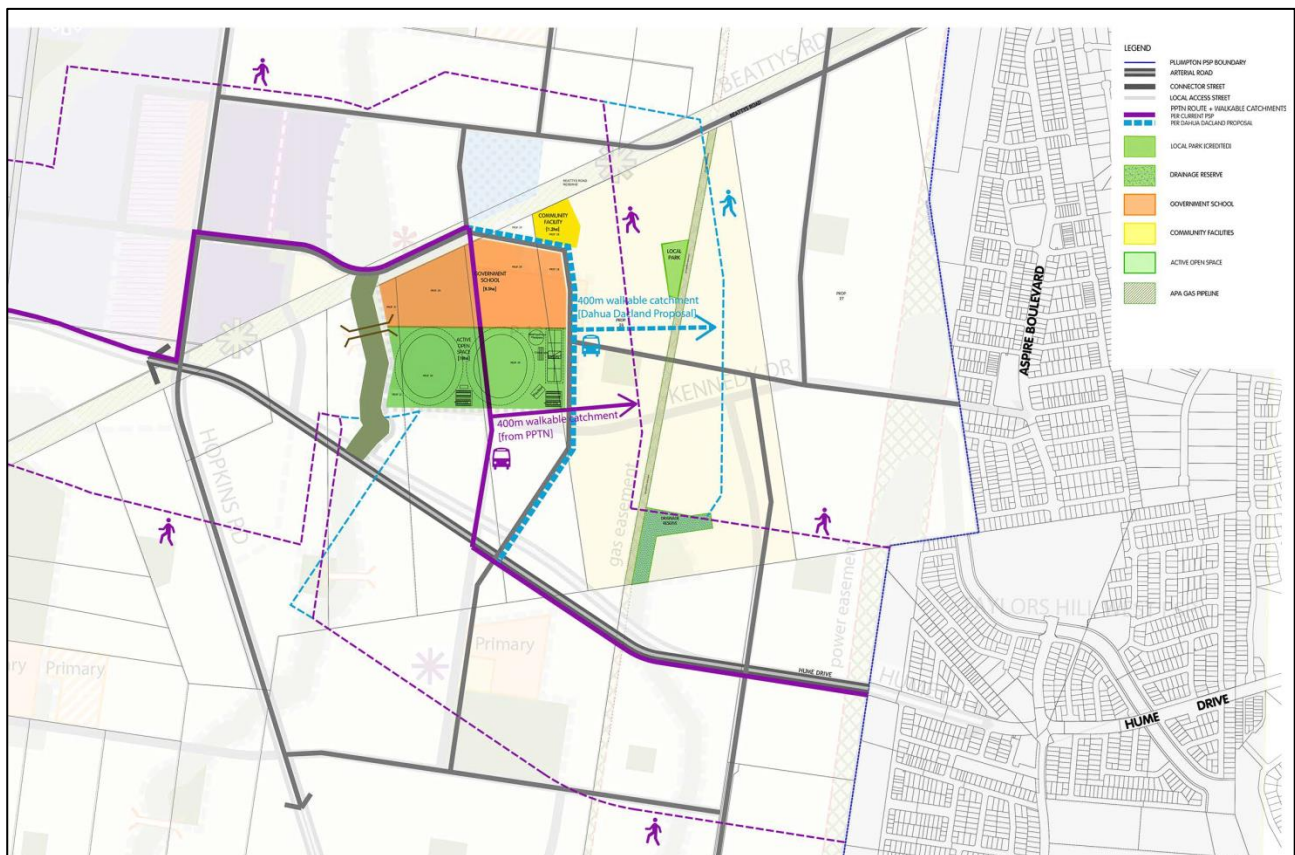
A view of the connector road catchment areas is provided in Figure 14, whilst a comparison between of the catchment areas is provided in .



Figure 14 Bus Route Catchment Review (Prepared by Roberts Day)



**Figure 15 Bus Route Comparison (Prepared by Roberts Day)**



In relation to travel distances, the exhibited proposal from the Hume Drive intersection through to the connector streets at the north is approximately 900 metres. The modified layout results in a travel distance of approximately 1,150 metres or a modest increase of only 250 metres.

This level of increase level is not considered to be detrimental to the operation of the public transport bus network operation.

In view of the foregoing assessment it is considered that the consequential changes to the road network as a result of the improved school, active open space and community facilities is acceptable and will not impact on the connectivity of the network or public transport.

## 6.3 Arterial Road Alignment

A minor realignment of the arterial route in the southeast corner of the site is proposed to effectively avoid property 28. The proposed realignment has no material impact from a traffic point of view and is therefore considered acceptable.

## 7 CONCLUSIONS

---

I have been requested to provide my expert opinions in relation to the Dahua Dacland proposal to rearrange some of the social and community infrastructure elements located generally central to the PSP area in the vicinity of the Dahua Dacland land holding (Property 28, 31 and 32).

As a result of the proposed amendments, the north-south connector street, which is currently shown as severing the school and active open space, is proposed to be realigned along the eastern boundary of the school and active open space.

In addition, Dahua Dacland propose a minor realignment of the Hume Drive arterial extension to the south of Property 28.

A summary of my expert opinion with regard to the traffic and transport implications of the proposal are as follows: -

- The amended Connector Road network will remove a barrier between the active open space and the proposed government school thus encourages synergies between the two uses;
- The colocation of the two uses will result in an improved arrangement for pedestrians moving between the school and active open space;
- On-street car parking opportunities will not be compromised as a result of the proposal;
- The public transport objectives will still be realised through the amended network with regard to walkability and catchment areas;
- The proposed minor alignment amendment to the Hume Drive arterial extension is acceptable.