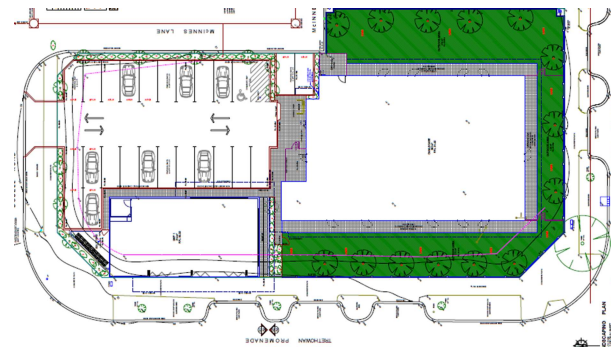


July 2022  
Final

## Alkimos Child Care Centre

Prepared For:  
Lou Di Virgilio Designs

## Transport Impact Statement Report



## DOCUMENT ISSUE AUTHORISATION

Issue	Rev	Date	Description	Prepared By	Checked By	Approved By
0	0	05/07/2022	Draft Report	KL	DNV	DNV
1	0	05/07/2022	Final Report	KL	DNV	DNV

*The information contained in this document is solely for the use of the client identified for the purpose for which it has been prepared. It is not to be used by any third party and no responsibility is undertaken to any third party. All photographs remain the copyright of Donald Veal Consultants and are included for illustration only.*

Donald Veal Consultants Pty Ltd

## TABLE OF CONTENTS

	PAGE
1. INTRODUCTION.....	3
1.1 BACKGROUND.....	3
1.2 SCOPE OF THIS REPORT.....	3
2. EXISTING SITE CONDITIONS.....	4
2.1 LOCATION.....	4
2.2 CURRENT LAND USES.....	5
2.3 ACCESS ARRANGEMENTS .....	5
2.4 ADJACENT ROAD NETWORK.....	5
2.5 EXISTING TRAFFIC VOLUMES .....	7
2.6 CRASH HISTORY .....	7
2.7 PLANNED CHANGES TO THE ROAD NETWORK .....	8
3. PROPOSAL .....	11
3.1 PROPOSED DEVELOPMENT .....	11
3.2 ACCESS.....	12
3.3 PARKING.....	13
3.4 SERVICE VEHICLE .....	13
4. TRAFFIC IMPACT .....	14
4.1 TRIP GENERATION.....	14
4.2 TRIP DISTRIBUTION .....	14
4.3 IMPACT ON THE ADJACENT ROAD NETWORK .....	14
5. SUSTAINABLE TRANSPORT ACCESS .....	15
5.1 PEDESTRIANS AND CYCLISTS.....	15
5.2 PUBLIC TRANSPORT.....	15
6. SUMMARY AND RECOMMENDATIONS .....	17
6.1 SUMMARY.....	17
6.2 RECOMMENDATIONS.....	17
APPENDIX A: CONCEPT PLAN.....	18

# **1. INTRODUCTION**

## **1.1 BACKGROUND**

Lou Di Virgilio Designs has commissioned Donald Veal Consultants (DVC) to prepare this Transport Impact Statement report to support a Development Application for a Child Care Centre at Lot 1831, corner of Trethowan Promenade and Santorini Promenade in Alkimos. The proposal is to be staffed by 10 and provide child care for up to 90 children.

Note that Unit 1 (214m<sup>2</sup>) shown in the plan in **Appendix A** is not part of this development application and will be the subject of a separate submission.

## **1.2 SCOPE OF THIS REPORT**

The structure and scope of this Transport Statement are in accordance with Volume 4 (Individual Developments) of the Western Australian Planning Commission's Transport Impact Assessment Guidelines (2016).



## 2. EXISTING SITE CONDITIONS

### 2.1 LOCATION

The development site is located east of Trethowan Promenade, north of Santorini Promenade, west of Mc Innes Lane and south of Dobell Road, in Alkimos within the City of Wanneroo. The general locality is shown in **Figure 2.1** and in more detail in **Figure 2.2**.



Figure 2.1: General Locality Plan Source: MetroMap

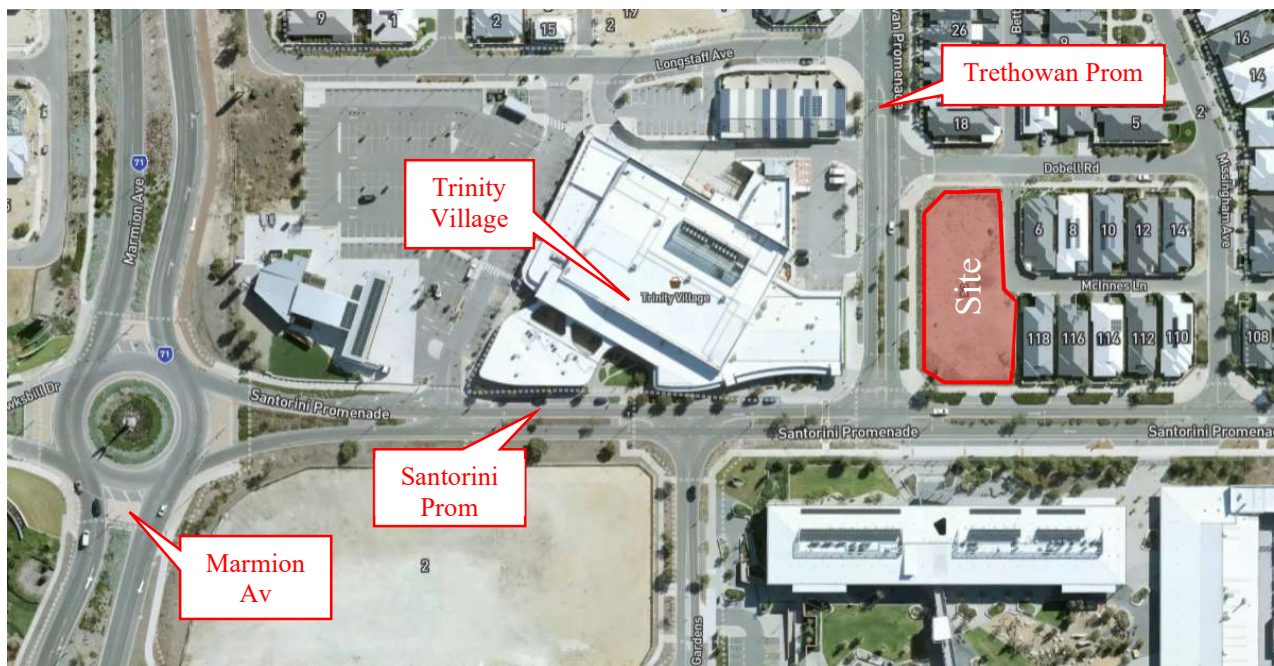


Figure 2.2: Site Location Source: MetroMap

## 2.2 CURRENT LAND USES

The subject site is currently undeveloped as shown in **Photo 1**.



**Photo 1: The Site is currently undeveloped** *Source: Streetview*

Other land uses in the general vicinity of the site comprise residential properties to the north and east. To the south, the land is occupied by Alkimos College, whilst Trinity Village Shopping Centre is to the west of the proposed development.

## 2.3 ACCESS ARRANGEMENTS

Currently, the site has no proper access from any adjacent roads.

## 2.4 ADJACENT ROAD NETWORK

The road network adjacent the site consists of Trethowan Promenade, Santorini Promenade, Dobell Road and Mc Innes Lane.

All adjacent roads are classified as an Access Road in the Main Roads WA's (MRWA) Metropolitan Road Hierarchy as shown in **Figure 2.5** with the urban default speed limit of 50 km/h are shown in **Figure 2.6**.



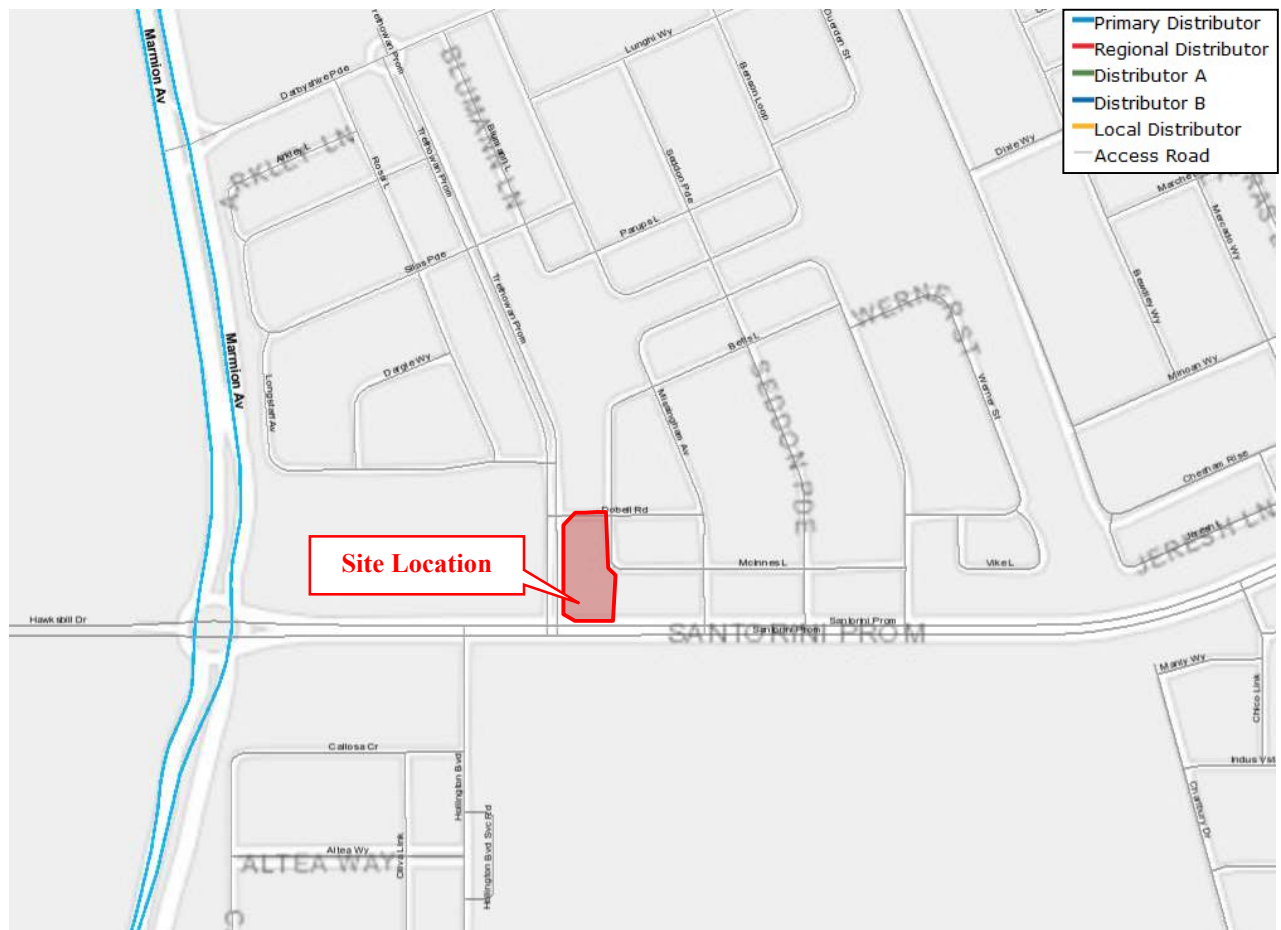


Figure 2.3: MRWA Functional Road Hierarchy Source: MRWA

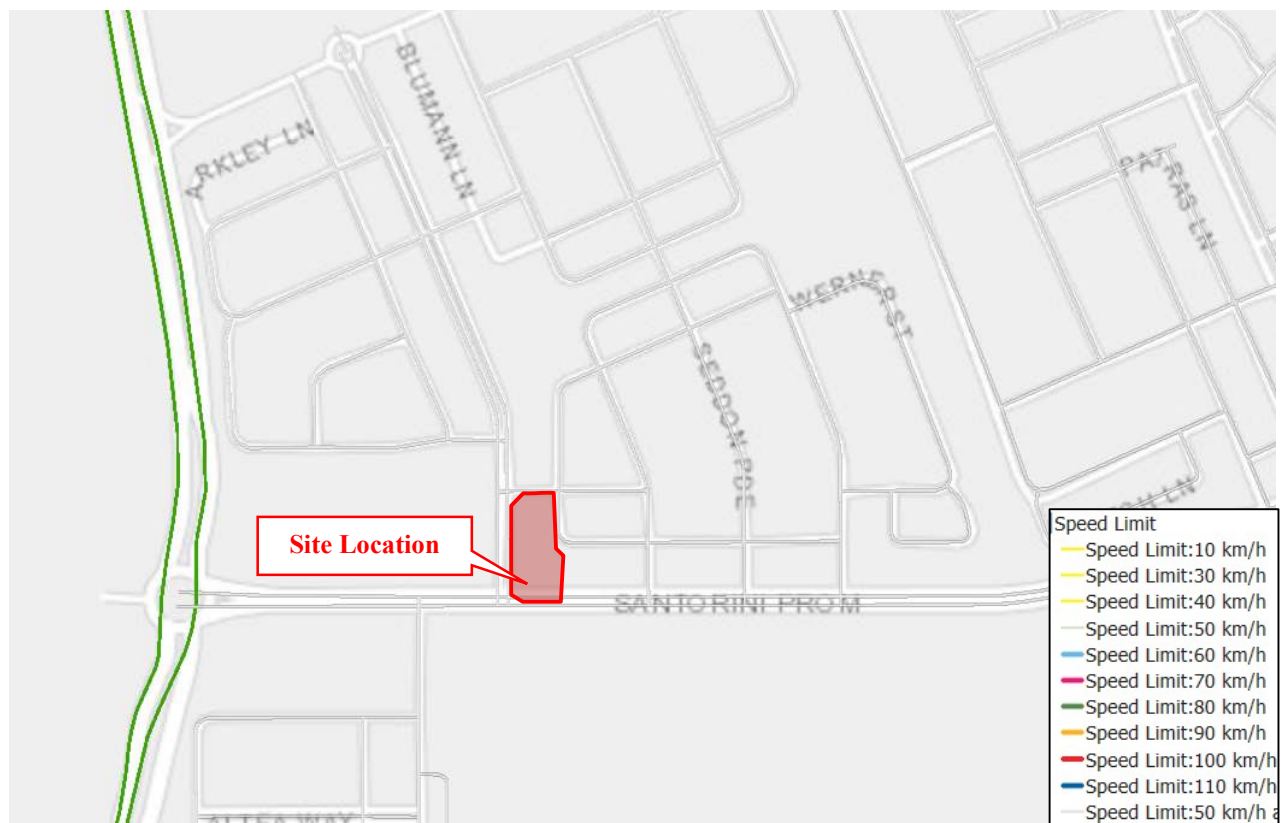


Figure 2.4: Posted Speed limits Source: MRWA

## 2.5 EXISTING TRAFFIC VOLUMES

There is no traffic volume information available on the MRWA Traffic Map database for roads adjacent the proposed site.

## 2.6 CRASH HISTORY

The MRWA Crash Analysis Reporting System (CARS) was interrogated for crash data along the road sections adjacent the site, for the latest five- year period from January 2017 to December 2021.

The results of the search showed 27 crashes on Santorini Promenade between Missingham Avenue and Marmion Avenue and no crashes recorded on other adjacent roads to the site.

One crash required hospital treatment and three others resulted in the need for medical treatment. The remainder were property damage only. See **Figure 2.6 & 2.7**.

Most of the crashes occurred at intersections. The intersection Marmion Avenue and Santorini Promenade recorded 16 crashes, whilst the intersections of Santorini Promenade with Hollington Boulevard recorded two crashes and one crash each at the intersections with Seddon Parade and Trethowan Promenade.

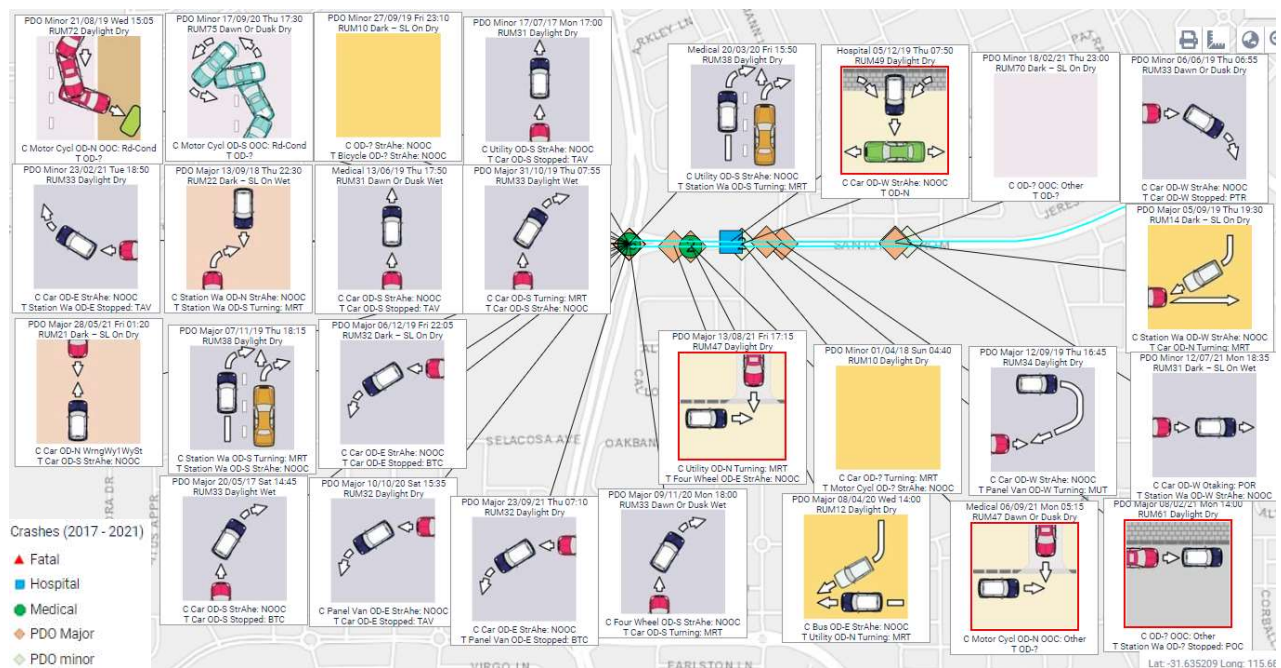


Figure 2.5: Crash Diagram Source: CrashMaps



### Query Summary

Severity	No.	%	Light	No.	%
Fatal	0	0	Dark - Street Lights Not Provided	0	0
Hospital	1	3.70	Dark - Street Lights Off	0	0
Medical	3	11.11	Dark - Street Lights On	7	25.93
PDO Major	14	51.85	Dawn Or Dusk	5	18.52
PDO Minor	9	33.33	Daylight	15	55.56
			Not Known	0	0
Year	No.	%	Conditions	No.	%
2017	2	7.41	Dry	21	77.78
2018	2	7.41	Not Known	0	0
2019	10	37.04	Wet	6	22.22
2020	5	18.52			
2021	8	29.63			
Nature	No.	%	Alignment	No.	%
Head On	1	3.70	Curve	9	33.33
Hit Animal	0	0	Not Known	0	0
Hit Object	2	7.41	Straight	18	66.67
Hit Pedestrian	1	3.70			
Non Collision	1	3.70			
Not Known	0	0			
Rear End	12	44.44			
Right Angle	6	22.22			
Right Turn Thru	1	3.70			
Sideswipe Opposite Dirn	0	0			
Sideswipe Same Dirn	3	11.11			
			<b>Total</b>	<b>27</b>	

Figure 2.6: Summary Crash Details Source: CrashMaps

## 2.7 PLANNED CHANGES TO THE ROAD NETWORK

DVC is aware that Mitchell Freeway Extension project is under construction. Mitchell Freeway extends from Hester Avenue to Romeo Road with two lanes in each direction as shown in **Figure 2.8**. In addition, the Yanchep Rail Extension, part of the state's METRONET project, is under construction at the same time as shown in **Figure 2.9**.

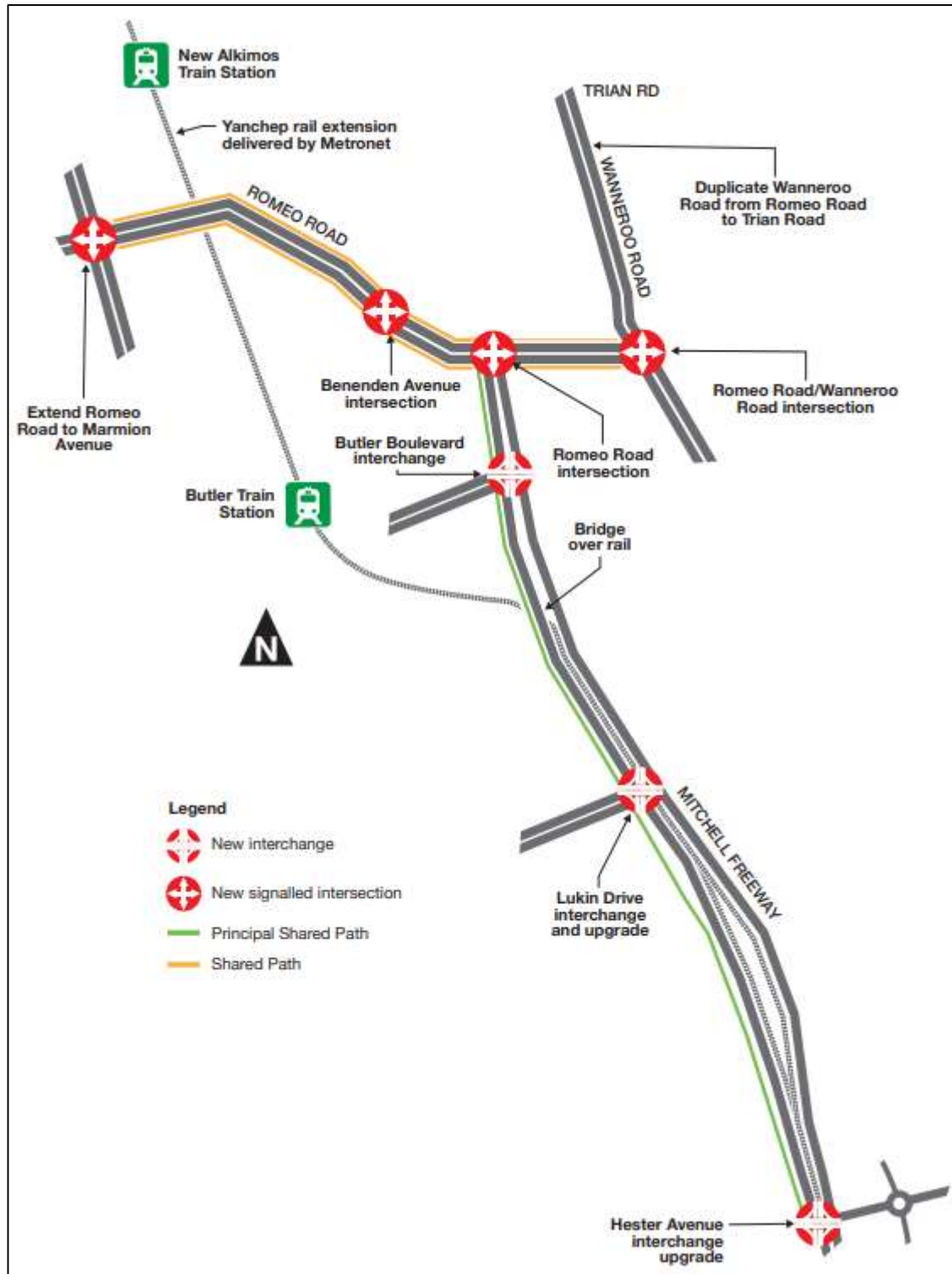


Figure 2.8: Extension Mitchell Freeway Plan *Source: MRWA*

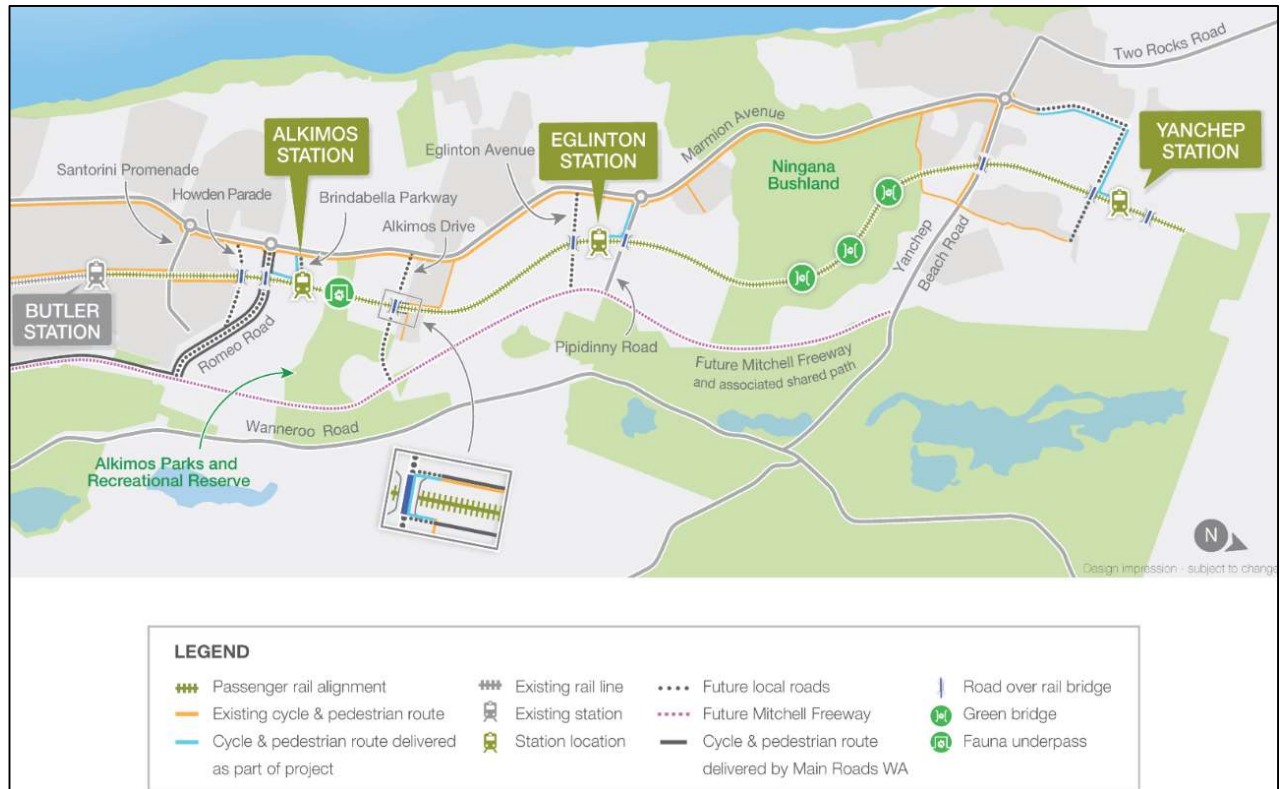


Figure 2.9: Yanchep Rail Extension Source: METRONET

### 3. PROPOSAL

#### 3.1 PROPOSED DEVELOPMENT

The proposed development will employ 10 staff and have up to 90 children on site at any one-time during opening hours. **Figure 3.1** shows the Concept Plan and a larger version shown in **Appendix A**. It should be noted that the internal layout details of the site will be assessed based on a Child Care Centre land use under *City of Wanneroo Local Planning Policy 2.3*.



Figure 3.1: Concept Plan

Source: Lou Di Virgilio Designs



### 3.2 ACCESS

The concept plan shows a single vehicular access to the site from Dobell Road with a width of 6m. The sight distance at the proposed crossover is clear in both directions. However, a bush at corner of the intersection of Mc Innes Lane and Dobell Road (see **Photos 2 and 3**) may restrict sight distance and should be removed.



**Photo 2: Bush at the intersection of Mc Innes Ln & Dobell Rd – view looking east**

*Source: Streetview*



**Photo 3: Bush at the intersection of Mc Innes Ln & Dobell Rd – view looking west**

*Source: Streetview*

### **3.3 PARKING**

All car parking for the development has been accommodated within the site boundary. A total of 25 car bays are provided with 11 reserved for staff and 14 visitor bays including one ACROD bay as shown in **Figure 3.1**. Four of the staff bays are tandem bays and two others are accessed from McInnes Lane.

Local Planning Policy 2.3 Child Care Centres land use requires one bay per staff member and 9 parking bays plus 1 per 8 children accommodated in excess of 54 for visitors. Thus, the development application requires 10 staff bays and 14 visitor bays.

Hence, the minimum parking requirements are met by the development application.

### **3.4 SERVICE VEHICLE**

The bin store is located at the northwest of site boundary. The bins will be placed kerbside for weekly collection by local council refuse truck. A bin pad sufficient to cater for the proposed number of bins is recommended along Dobell Road.

## **4. TRAFFIC IMPACT**

### **4.1 TRIP GENERATION**

Based on RTA Guide to Traffic Generating Developments, it recommends for planning purposes, adopting a Childcare Centre for pre-school peak hour traffic generation rate of 1.4 trips/child in the AM Peak between 0700-0900 hours and 0.8 trips/ child in the PM peak between 1430-1600 hours.

The traffic generation for the site is estimated to be 108 vehicle trips in the AM and 72 vehicle trips in the PM. It should be noted that AM drop off/ pick traffic will be spread over 2 hours which equates to approximately 54 vehicle per hour (vph).

Institute of Transportation Engineers (ITE) Trip Generation Manual 9<sup>th</sup> edition also indicate the day-care centre generate approximately 13.41trips/100 m<sup>2</sup> in the PM peak. Thus, on this basis, the development would generate approximately 78 trips in the PM peak hour.

A peak hour rate of less than 100 trips is only considered to represent a 'moderate impact' under WAPC's *Transport Impact Assessment Guidelines*, and no further technical analysis is therefore required.

### **4.2 TRIP DISTRIBUTION**

The bulk of these trips are expected to distribute proportionally between eastbound and westbound with emphasis to/from the west possibly attracting up to 90% of all in/out movements.

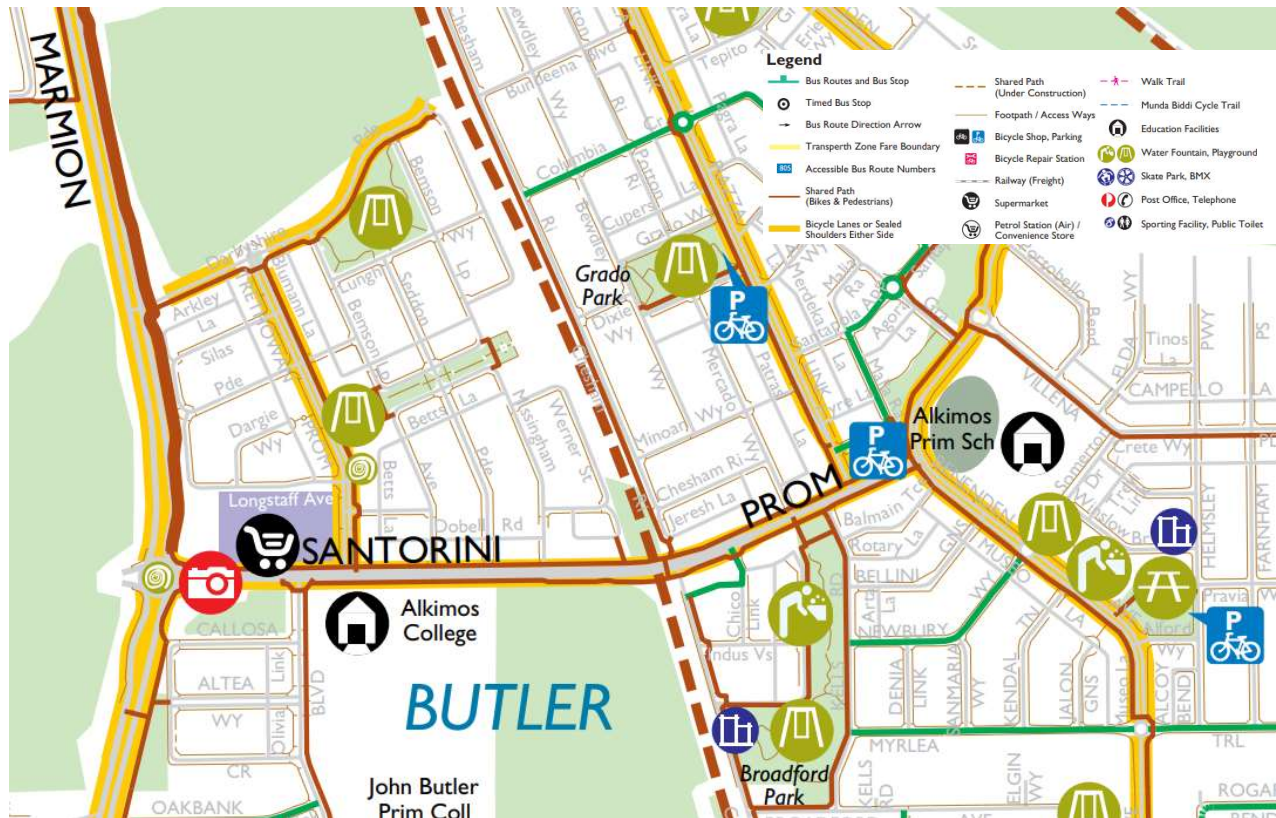
### **4.3 IMPACT ON THE ADJACENT ROAD NETWORK**

The site will add a further 78 trips during the peak hour onto the surrounding road network. This level of demand will have only a moderate impact on the local road network and operation of key intersections.

## 5. SUSTAINABLE TRANSPORT ACCESS

### 5.1 PEDESTRIANS AND CYCLISTS

Footpaths are currently provided along the southside of Dobell Road and shared paths are also available along Trethowan Promenade and Santorini Promenade adjacent the site as shown in **Figure 5.1**. The map also shows the construction of a principal shared path (PSP) along the Yanchep railway line corridor.



**Figure 5.1: Active Transport Map** Source: City of Wanneroo – Your Move

### 5.2 PUBLIC TRANSPORT

Bus service 483 is within close proximity to the site running along Santorini Promenade, whilst bus services 490 and 491 operate along Marmion Avenue, see **Figure 5.2**.

Bus service 483 operates between Clarkson Station and Alkimos from 05:00 to 22:00 hours. The 490 and 491 bus services run between Butler Station and Two Rocks and Yanchep, respectively.

In the future, once the Yanchep Rail Extension project is operational, the available public transportation network is expected to be improved, especially in terms of connectivity between Alkimos and Perth CBD.



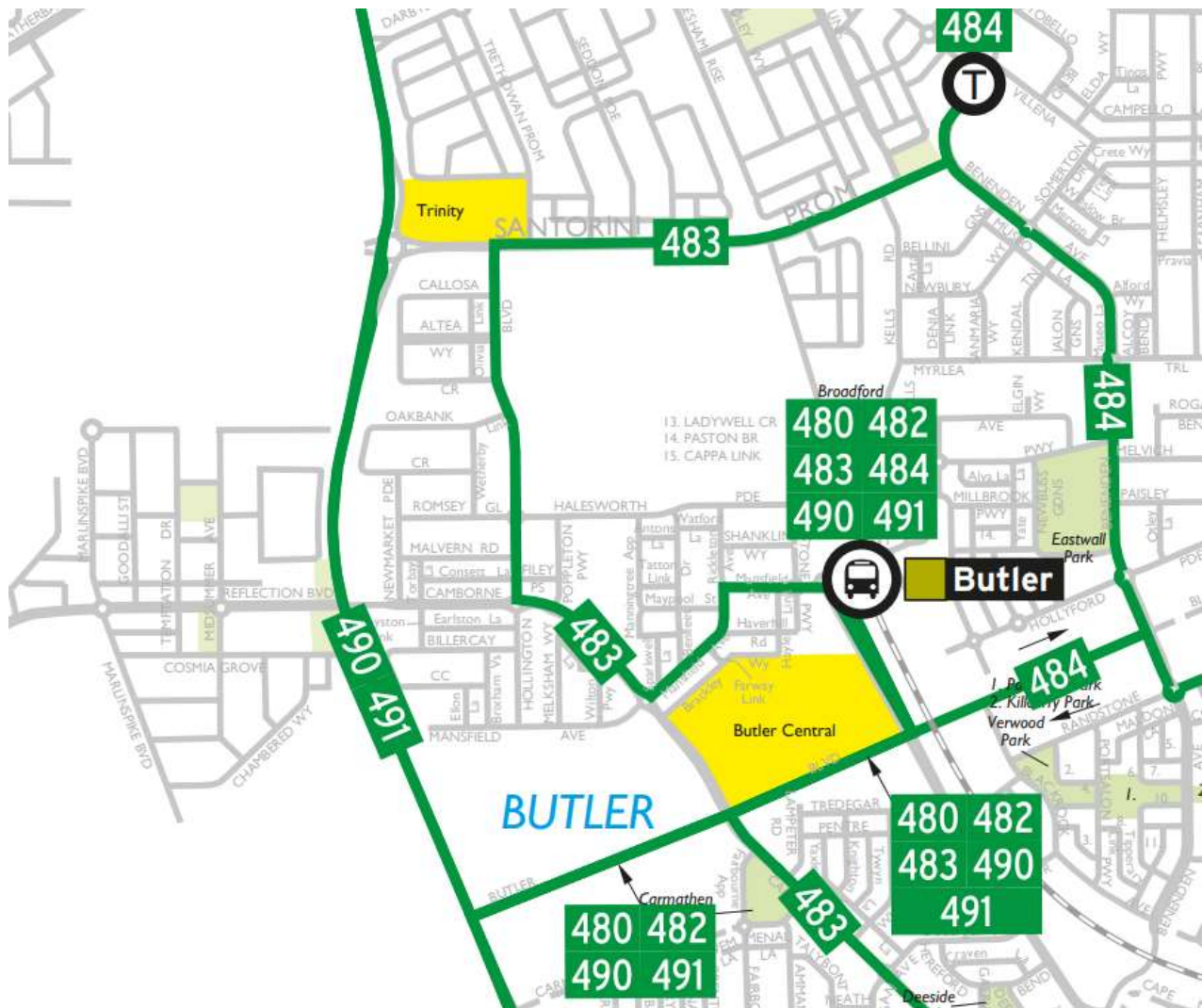


Figure 5.2: Public Transportation Network

Source: TransPerth

## **6. SUMMARY AND RECOMMENDATIONS**

### **6.1 SUMMARY**

Lou Di Virgilio Designs has commissioned Donald Veal Consultants (DVC) to prepare this Transport Impact Statement report to support a Development Application for a Child Care Centre at Lot 1831, corner of Trethowan Promenade and Santorini Promenade in Alkimos. The proposal is to be staffed by 10 and provide child care for up to 90 children.

The development site is located east of Trethowan Promenade, north of Santorini Promenade, west of McInnes Lane and south of Dobell Road, in Alkimos and will be accessed from a single vehicular crossover onto Dobell Road.

The site is expected to generate some 78 vph at peak times. This magnitude of traffic can be readily accommodated by the local access roads via Dobell Road.

All car parking for the development has been accommodated within the site boundary. A total of 25 parking bays have been included with 11 bays reserved for staff and 14 bays for visitors including one ACROD bay.

Local Planning Policy 2.3 Child Care Centres land use requires one bay per staff member and 9 parking bays plus 1 per 8 children accommodated in excess of 54 for visitors. Thus, the development application requires 10 staff bays and 14 visitor bays.

Hence, the minimum parking requirements are met by the development application.

Local council refuse collection vehicles will collect weekly from the kerbside.

### **6.2 RECOMMENDATIONS**

Vegetation on the corner of Dobell Road and McInnes Lane is impacting sight distance and we recommend its removal. Ground covering plants should be introduced to avoid this safety hazard.

A bin pad on Dobell Road is recommended to accommodate the likely number of waste bins used by the development.

Based on the assessment documented in this report, we fully support the development application in terms of its traffic and road safety impact and recommend its approval.

## **APPENDIX A: CONCEPT PLAN**

