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## Traffic Management Report for Glenmore Park Child and Family Centre

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## 1. Introduction

Loka Consulting Engineers Pty Ltd has been engaged by Designcorp Architects to provide Traffic Management Plan for the site at Glenmore Park Child and Family Centre (refer to Figure 1 and Figure 2).

A Traffic Management Plan and Report is required for the proposed development to identify the impacts of the proposal on the local street network and mitigation measures required to ameliorate any impacts, describes the site and provides details of the development proposal.

- Reviews the road network in the vicinity of the site, and traffic conditions on that road network.
- Reviews the geometric design features of the proposed car parking facilities for compliance with the relevant codes and standards.
- Assesses the adequacy and suitability of the quantum of off-street car parking provided on site.



• **Figure 1 - The Subject Site (from SIX Maps)**

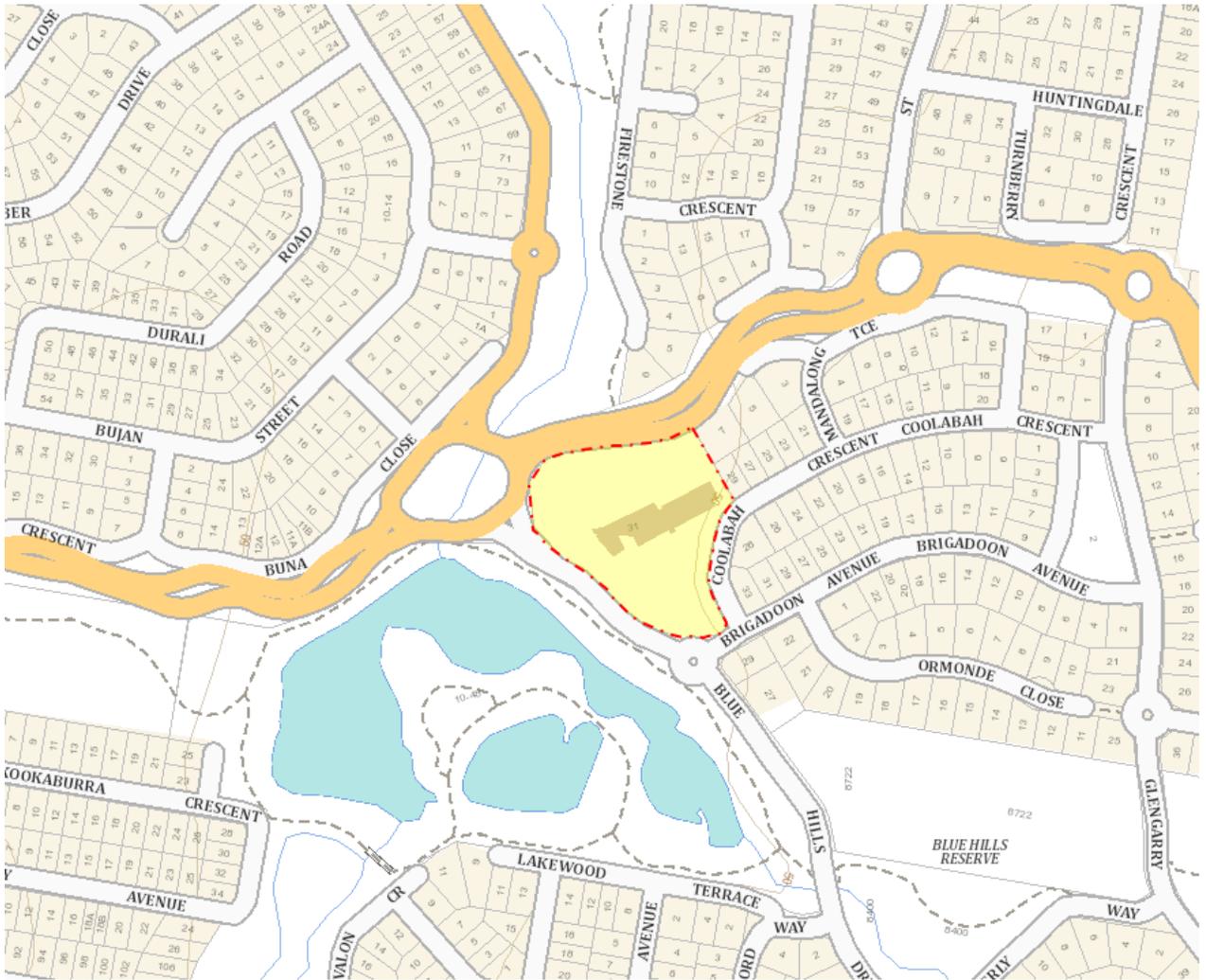


Figure 2 - Site location map (from SIX Maps)

## 2. Proposed Development

The proposed development will facilitate alteration and addition works as following:

1. Conversion of 2 meeting rooms into childcare rooms. Small wall between rooms is to be removed.
2. Conversion of current chair storage into children's bathroom. Children's bathroom waste and water supply to be gained from adjoining cleaners rooms mop sink.
3. Removal of old double entry doors into room to be replaced with single entry door closer to hallway as well as pool type fence and gate internally.
4. Addition of sink to existing kitchenette for hand washing.

The proposed development is bounded by:

- 29 Coolabah Crescent & 7 Mandalong Terrace on the East
- Blue Hills Drive on the West
- Glenmore Parkway on the North,
- Brigadoon Avenue & Coolabah Crescent on the South.

There is an existing vehicular crossing to the site from Blue Hills Drive

## 2.1. Public Transport, Pedestrians and Cyclists

The area is well connected to public transport, with bus stations located in close proximity to the site.

- 1- It takes 5 minutes walking (350m) from the site to Surveyors Creek Rd at Kiber Drive bus stop (refer to Figure 2-1).
- 2- It takes 8 minutes walking (650m) from the site to Glengarry Drive opp Westerly Way bus stop (refer to Figure 2-2).

Table 2-1 shows the bus line name; routes and the time between two successive trips. Refer to Transport NSW for accurate details.

Location	Line Name	Route	Interval
Bus stop 1	781	St Marys to Penrith via Glenmore Park	Twice per day
	797	Penrith to Glenmore Park	15 min
Bus Stop 2	794	Glenmore Park to Penrith via The Northern Rd	15 min
	799	Glenmore Park to Penrith via Regentville	30 min

Table 2-1 Bus line, route, and time

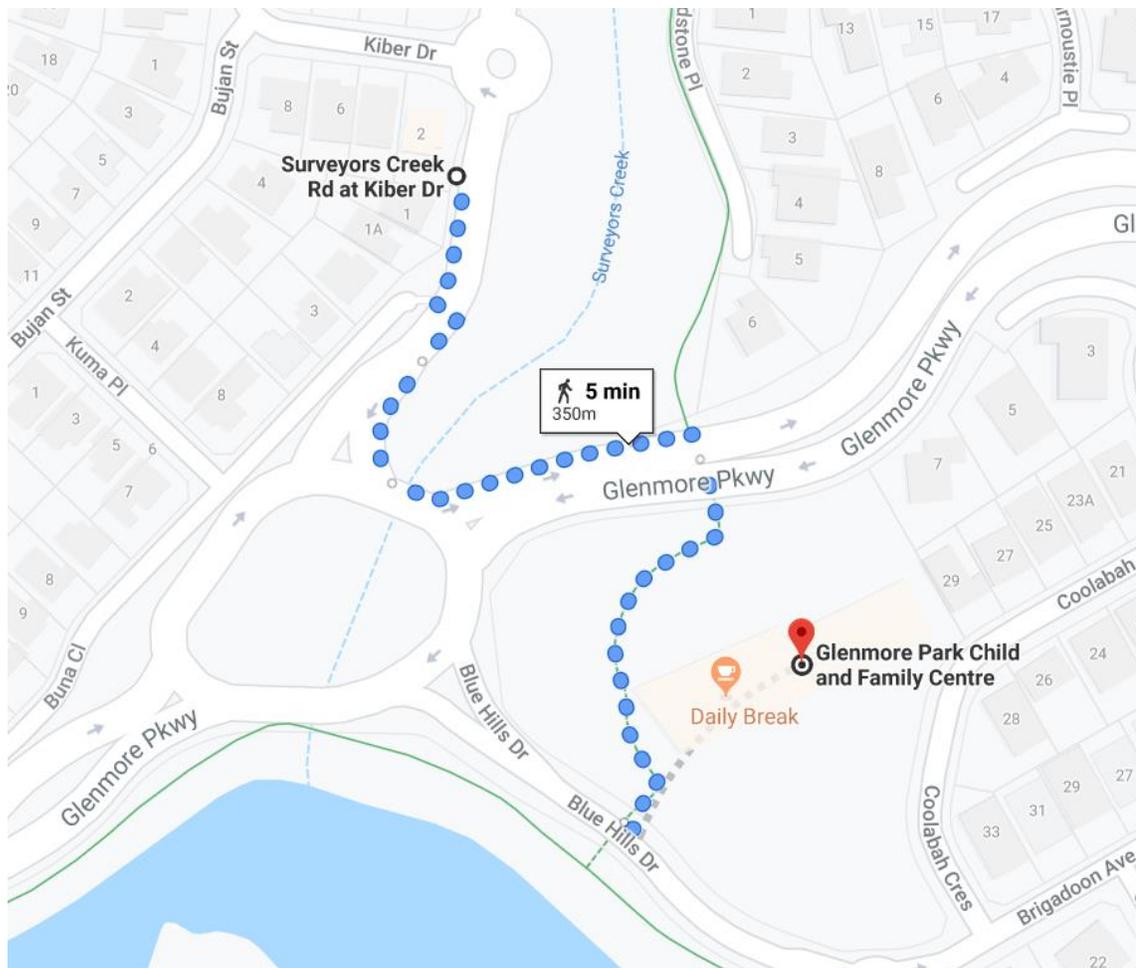


Figure 2-1 Subject Site to nearest bus stop

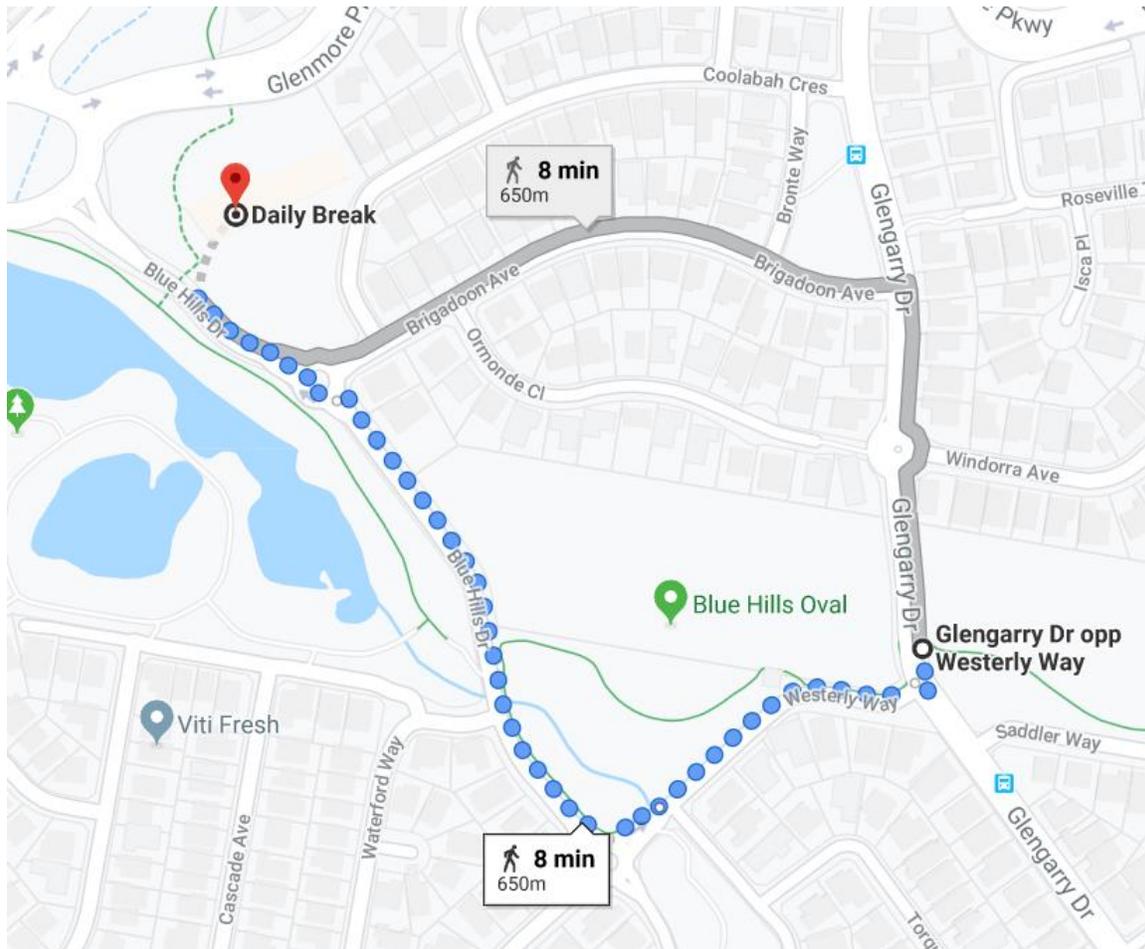


Figure 2-2 Subject Site to nearest bus stop

The site is accessible to bus transportation, shops and restaurants. This would decrease the need for staff and visitors of the proposed development to use private transportation to and from their various activities.

### 3. Existing Development

#### 3.1. Development Description

The development consists of childcare & Café. In addition to carparking serving both.

##### 3.1.1. Café

The gross floor area of the café is 125m<sup>2</sup>. the café has 80 seats with approximately 120m<sup>2</sup> seated area (complying with traffic generating developments section 5.8.2 parking requirements for Restaurants/café. the mean eating floor space per seat was 1.5 m<sup>2</sup>). the café is open all week & during weekends & public holidays. the staff number is varying between 3 at week days to 8 at weekends & public holidays.

### 3.1.2. Childcare

the childcare consists of 3 indoor playrooms and 1 outdoor play area which can accommodate 60 children. table 3-1 shows the minimum staff required for different children year stages

according to NSW education qualification and ratio for child care centre

to age groups is as below table

Age of Children	No of Kids	Educator to child ratio	No. of staff
0 - 24 months	15	1: 4	4
24 months – 36 months	15	1: 5	3
Over 36 months	30	1: 10	3
Total number	<b>60</b>		<b>10</b>

Table 3-1 the staff required for different children's year stages

note there will be no clash between café & childcare working hours as the busiest time for the Café is the weekend when the childcare is not working.

### 3.2. Access

The proposed entry/exit to the carparking is available from Blue Hills Drive.

By walking and bicycling, residents also have four (4) accesses to the building: three from Blue Hills Drive & one from Glenmore Parkway.

## 4. Off Street Car Parking Provision

### 4.1. Car parking

According to the latest architectural plan, containing 5 indoor playrooms and 2 outdoor play & one parking facility located on ground floor and other secondary function rooms, kitchen, staff room, toilets, laundry, foyer and office. Table 4-1 shows the minimum space required according to Penrith Development Control Plan 2014.

Type of Building	Minimum spaces required
Child Care Centres	1 space per 10 children plus 1 per employee
Café	1 space per 6m <sup>2</sup> of seating area, plus 1 space per employee

Table 4-1 minimum space required according to Penrith DCP 2014

According to NSW education qualification and ratio for child care centre table 4-2 shows the minimum staff required for different year stages

Age of Children	Educator to child ratio
0 – 24 months	1: 4
24 months – 36 months	1: 5
Over 36 months	1: 10

Table 4-2 minimum staff required for different year stages

Accordingly, the staffs required for the child care centre is shown in table 4-3

Age of children	Number of children	rate	Total Educator	
0 - 24 months	16	0.25	4	13
24 months – 36 months	20	0.2	4	
Over 36 months	44	0.1	5	

Table 4-3 total number for staff required

Type of Parking spaces	Children / Area	Staff No.	Rate	Parking required	Total
Child Care Centres	80	13	1 space per 10 children 1 space per staff	21	44
Cafe	120	3	1 space per 6m <sup>2</sup> of seating area 1 space per staff	23	

Table 4-4 - Minimum number of off-street parking spaces

According to the table 4-4 Minimum number of off-street parking spaces, there are 44 car parking space existing on site: which complies with Penrith Council DCP; the location details have been shown on the architectural plans (Appendix “A”).

## 5. Car Park and Driveway Layout

The Car Park and Driveway (driveway, internal roadways & car parking spaces) are already existing, working, complying with Australian Standard 2890. and approved by Penrith Council.

## 6. Traffic Generation

An indication of the traffic generation potential of the development proposal is provided in accordance with Roads and Maritime Services (RMS) publication ‘Guide to Traffic Generating Developments – Updated traffic surveys (August 2013)’.

RMS guidelines are based on an extensive survey of a wide range of land uses.

The existing development is identified as a café & a childcare serving 60 children while the proposed development is identified as a café (with no changes) & a childcare serving 80 children.

### Child care centre

Centre type	Peak Vehicle Trips / Child		
	7:00 – 9:00 AM	2:30 – 4:00 PM	4:00 – 6:00 PM
Pre-school	1.4	0.8	-
Long-day care	0.8	0.3	0.7
Before/after care	0.5	0.2	0.7

### The existing childcare centre

For the subject site, the total number of children accommodated is 60, consists of 30 children from 3 to 5 years old and 30 children from 0 to 3 years old. The expected traffic generation is shown as following:

Centre type	Peak Vehicle Trips		
	7:00 – 9:00 AM	2:30 – 4:00 PM	4:00 – 6:00 PM
Pre-school	42	24	-
Long-day care	24	9	21
Before/after care	-	-	-

### The proposed childcare centre

For the subject site, the total number of children accommodated is 60, consists of 44 children from 3 to 5 years old and 36 children from 0 to 3 years old. The expected traffic generation is shown as following:

Centre type	Peak Vehicle Trips		
	7:00 – 9:00 AM	2:30 – 4:00 PM	4:00 – 6:00 PM
Pre-school	61.6	35.2	-
Long-day care	28.8	10.8	25.2
Before/after care	-	-	-

This value should be discounted by the expected existing volume of traffic, to determine the net increase (or decrease) in future expected traffic. This is shown in Table 7-1 below.

Traffic Generation Potential	Land Use	7:00 – 9:00 AM	2:30 – 4:00 PM	4:00 – 6:00 PM
Future	Child care	90.4	46	25.2
Existing	Child care	66	33	21
<b>Net increase</b>		<b>+25</b>	<b>+13</b>	<b>+5</b>

Table 7-1 Project Net Increase in Peak Hour Traffic Generation Potential

According to the Table above, it is likely that the proposed development will result in a change in the traffic generation by approximately **25 additional** vehicle trips during 7:00 – 9:00 AM, **13 additional** vehicle trips during 4:00 – 6:00 PM & **5 additional** vehicle trips during 4:00 – 6:00 PM

## 7. Conclusion

This report concludes that the proposed child care centre is suitable for the subject location in relation to the impact of traffic and it also complies with relevant parts of AS289.1

