

# Terraffic Pty Ltd

Traffic and Parking Consultants

ABN 83 078 415 871

5<sup>th</sup> November 2018

Ref 18065

Shahe Simonian  
Zanazan Pty Ltd  
Studio 4.08  
56 Bowman Street  
Pymont NSW 2009

Dear Shahe,

**189 FOX VALLEY ROAD, WAHROONGA  
PROPOSED CHILD CARE CENTRE**

This assessment has been prepared to accompany a Development Application (DA) to Kuring-gai Council for a proposed Child Care Centre at 189 Fox Valley Road, Wahroonga (Figure 1).

The development site is located on the north-western corner of the Fox Valley Road/The Comenarra Parkway intersection and forms part of the Sydney Adventist Hospital site. The existing site development comprises a former primary school that accommodated 225 children and approximately 18 staff/teachers. The school relocated to another location on the Hospital site and has been vacant since Easter 2017.

### ***Public Transport Accessibility***

The subject site has convenient access to the following bus service operated by Transdev:

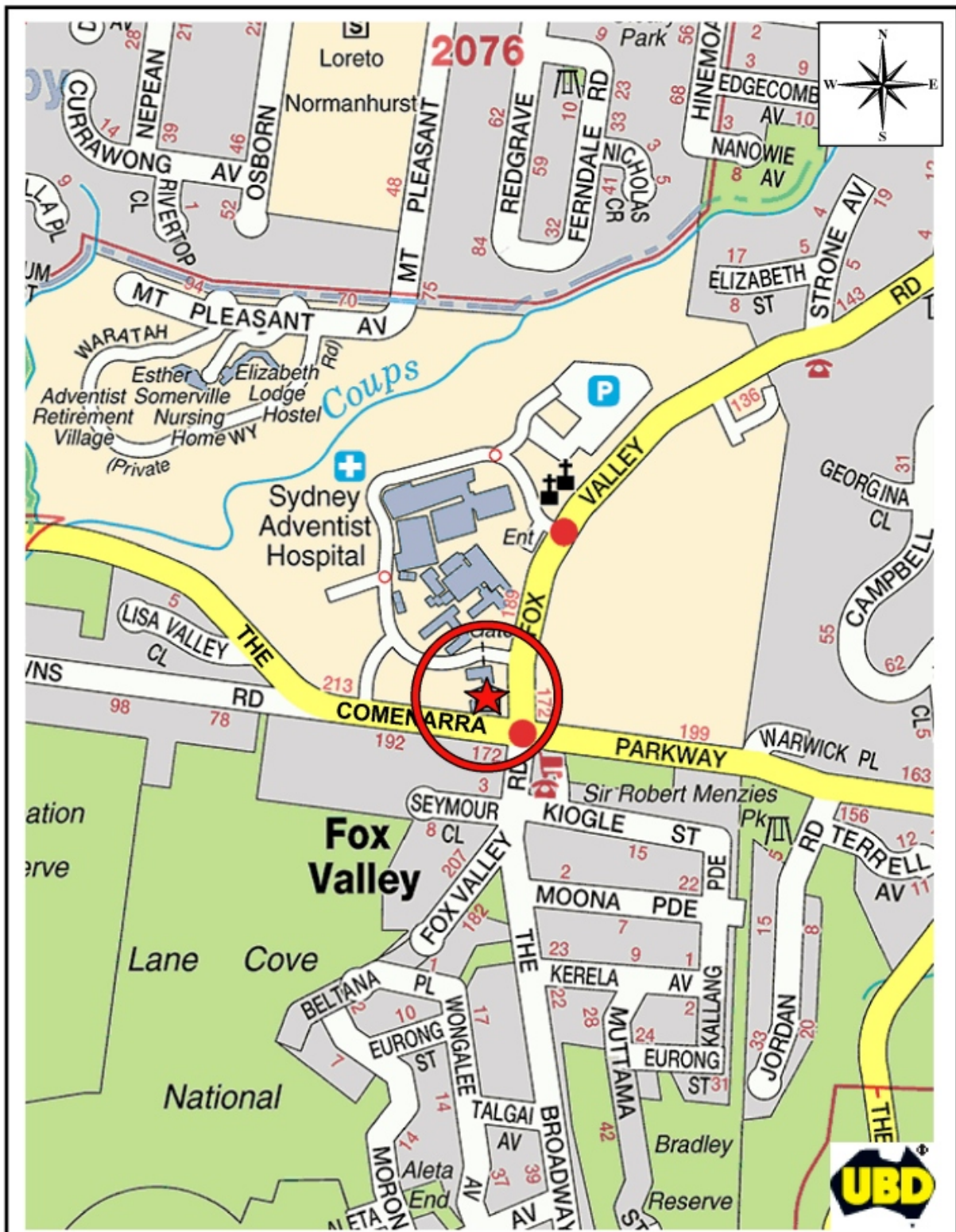
**Route 573**     Turramurra to Sydney Adventist Hospital via Fox Valley Rd (Loop Service)

**Route 589**     Sydney Adventist Hospital to Hornsby

### ***Proposed Development***

The proposal seeks to transform the former school building into a 180 space Child Care Centre. The Centre is proposed to operate between 7am and 7pm on weekdays only and will be staffed by approximately 30 staff.

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**Terraffic** Pty Ltd  
TRAFFIC & PARKING CONSULTANTS

**LOCATION  
FIGURE 1**

The proposal will be served by 45 off-street parking spaces comprising 21 visitor drop-off/pick-up spaces and 24 staff spaces. The former vehicular access arrangements serving the school will be utilised and comprise the following:

- Entry via the 9.0m wide combined entry and exit driveway off Fox Valley Road located approximately 100m north of The Comenarra Parkway. This driveway serves the entire hospital site and has a separate single lane entry driveway into the proposed development site.
- All vehicles will exit the site via the existing combined entry and exit driveway off Fox Valley Road located approximately 60m north of The Comenarra Parkway. At non-peak times, all vehicles will enter and exit the proposed Child Care Centre via this driveway.



### *Parking Assessment*

Part 10 in Section A of the Ku-ring-gai Development Control Plan specifies the following parking requirement for Child Care Centres:

- 2 One parking space per four children in care is to be provided, of which at least one space is to be accessible for people with a disability. Refer to Section C Part 23.2.

**Note:** This figure includes staff parking.

**Note:** If the number of children were to increase after approval, additional car parking space will be required.

Application of this rate to the proposed development yields a parking requirement of 45 spaces calculated as follows:

180 children @ 1 space per 4 children      45 spaces

The proposed development satisfies this requirement with the provision of 45 spaces comprising 21 visitor drop-off/pick-up spaces and 24 staff spaces.

The proposed carpark and access has been designed to generally satisfy the following requirements of the Australian Standard AS/NZS2890.1:2004 – “Off-street Car Parking”:

- Staff parking spaces have a minimum length of 5.4m and width of 2.4m
- Visitor parking spaces have a minimum length of 5.4m and width of 2.6m
- An additional 0.3m has been provided for spaces adjacent to a wall or obstruction
- The access/manoeuvring aisles satisfy the requirements of Figure 2.2 for the respective angled spaces
- The access arrangements satisfy Table 3.2 of the Standard
- A 1.0m wide dead-end aisle extension has been provided
- Pedestrian sight lines in accordance with Figure 3.3 are provided at the exit driveway

Detailed parking plans will be submitted to Council during the development process for further analysis.

### ***Projected Traffic Generation***

The Roads and Maritime Services publication “*Guide to Traffic Generating Developments*” (October 2002) specifies the following traffic generation rates for child care centres:

Morning Peak Period	0.8vtph per child
Evening Peak Period	0.7vtph per child

Application of these traffic generation rates to the proposed child care centre yields a traffic generation potential of 144 vehicle trips per hour (vtph) during the morning peak period and 126vtph during the evening peak period as follows:

Morning Peak Period	180 children @ 0.8vtph per child	144vtph
Evening Peak Period	180 children @ 0.7vtph per child	126vtph

The traffic generation of the proposed development should be discounted by the traffic generation of the former primary school on the site that accommodated 225 students and approximately 18 staff/teachers. As surveys cannot be carried out to determine the traffic generating potential of the former school, this assessment has assumed the following:

- 60% of students arrive by car, the remaining 40% catch public transport or walk
- Each vehicle accommodating students had a car occupancy rate of 1.2 students per vehicle
- 75% of staff drove to school, the remaining staff were car passengers (car pooling), caught public transport, walked or cycled

Based on these assumptions, the former primary school generated in the order of 234 vehicle movements calculated as follows:

student drop-off/pick-up traffic generation

225 students @ 60% by car = 135 students by car

135 students by car @ 1.2 children per car = 110 cars with students

110 cars = 220vtph (110 cars entering + 110 cars exiting during both peaks)

Staff traffic generation

18 staff @ 75% car drivers = 14 staff cars

14 cars = 14vtph entering in the AM and 14 cars exiting in the PM peak period

Total Traffic Generation

220vtph (student cars) + 14vtph (staff cars) = 234vtph

Based on these conservative assumptions, it would appear that the proposed development would generate substantially less traffic than the previous primary school on the site as follows:

	<b>AM Peak</b>	<b>PM Peak</b>
<b>Former Development</b>	234vtph	234vtph
<b>Proposed Development</b>	144vtph	126vtph
<b>Approximate Reduction in Traffic</b>	<b>90vtph</b>	<b>108vtph</b>

In conditions where the proposed development is expected to generate less traffic than a former use on a site, it will be readily appreciated that the proposal will not have any noticeable or unacceptable effect on the road network serving the site in terms of road network capacity or traffic-related environmental effect. Notwithstanding, a thorough traffic analysis can be carried out during the DA process when lodged with Ku-ring-gai Council.

In the circumstances, it can be concluded that the proposed development has no unacceptable traffic, parking or access implications.

Should you require any further information, please do not hesitate to contact Michael Logan on 0411 129 346 during business hours.

Yours faithfully

A handwritten signature in black ink, appearing to read 'M Logan', with a long horizontal stroke extending to the right.

Michael Logan *M Traffic (Monash University)*  
Director  
Terraffic Pty Ltd