DUKOR 24 PTY LIMITED

TRAFFIC REPORT FOR PROPOSED SENIORS LIVING DEVELOPMENT, 1113 OXFORD FALLS ROAD, FRENCHS FOREST.

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1. INTRODUCTION

1.1 Colston Budd Hunt and Kafes Pty Ltd has been commissioned by Dukor 24 Pty Limited to prepare a report on the traffic implications of a proposed residential aged care facility at 1113 Oxford Falls Road, Frenchs Forest. The site location is shown in Figure 1.

1.2 The site has consent for a 10 bed residential aged care facility, with vehicular access from Barnes Road. We prepared a report[1] in support of the approved development.

1.3 This proposal involves expanding the capacity of the approved residential aged care facility on the site from 10 beds within the existing dwelling house, to a 45 bed facility contained within the existing building and proposed additional buildings on the site.

1.4 The traffic implications of the proposed development are assessed in the following chapter.

[1] Traffic Report for Proposed Residential Aged Care Facility, 1113 Oxford Falls Road, Frenchs Forest, May 2013.

2. IMPLICATIONS OF PROPOSED DEVELOPMENT

2.1 Our assessment of the traffic implications of the proposed development is set down through the following sections:

- site location and road network;
- approved development;
- proposed development;
- parking provision;
- access, servicing and internal layout;
- traffic generation and effects; and
- summary.

Site Location and Road Network

2.2 The site is at 1113 Oxford Falls Road, Frenchs Forest, as shown in Figure 1. It is occupied by a residential dwelling. Vehicular access is provided via a driveway from Barnes Road.

2.3 Barnes Road links with Oxford Falls Road, although it is largely unconstructed between Oxford Falls Road and Leagay Crescent. It provides for two-way traffic with parking permitted. Barnes Road is linked to Iris Street via Myra Street. It provides access to residential properties.

Approved Development

2.4 The site has consent for a 10 bed residential aged care facility, with vehicular access from Barnes Road.

Proposed Development

2.5 This proposal involves expanding the capacity of the approved residential aged care facility on the site from 10 beds within the existing dwelling house, to a 45 bed facility contained within the existing building and proposed additional buildings on the site.

Parking Provision

2.6 Warringah LEP 2000 (which applies to the site) indicates that the development can not be refused on parking grounds if parking is provided at the following rates:

- one space per 10 beds; plus
- one space per two employees on duty at one time; and
- one parking space for an ambulance.

2.7 The proposed development includes 45 hostel beds. Based on a maximum of 10 employees on duty at one time, the parking requirement is some 10 spaces. It is proposed to provide 28 on-site parking spaces, which satisfies the LEP.

2.8 Provision will also be made to accommodate a mini-bus on the site, which will operate from the site to cater for residents of the proposed development.

2.9 Provision has been included for an ambulance to enter the site and reach the front of the facility, in accordance with the requirements of the LEP.

Access, Servicing and Internal Layout

2.10 Vehicular access is proposed to be provided from Barnes Road, using the existing driveway to the site. The driveway will provide for two-way traffic and vehicles will be able to enter and exit the site in a forward direction.

2.11 A pick-up/set down area will be provided at the main entrance to the building, including for an ambulance. The on-site parking area will provide for vans and small service vehicles up to 6.4 metre rigid trucks, in accordance with the Australian Standard for Parking Facilities (Part 2: Off-street commercial vehicle facilities), AS 2890.2 – 2002. Service vehicles will include garbage collection, linen, food and other deliveries and maintenance vehicles. Service vehicles will be able to enter and exit the site in a forward direction.

2.12 On-site parking spaces will be a minimum of 2.5 metres wide by 5.4 metres long, with 5.8 metre wide access aisles. Disabled spaces will be 2.4 metres wide, with an additional 2.4 metre wide adjacent area for wheelchairs. These dimensions are considered appropriate, being in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 6: Off-street parking for people with a disability), AS 2890.1:2004 and AS 2890.6:2009.

2.13 An internal road will be provided for access to the lower part of the site for maintenance vehicles.

Traffic Generation and Effects

2.14 Traffic generated by the proposed development will have its greatest effects during weekday peak periods when it combines with commuter traffic. In order to gauge traffic conditions, counts were undertaken during weekday morning and afternoon peak periods at the intersection of Barnes Road with Myra Street.

2.15 The results of the surveys are shown in Figures 2 and 3, and summarised in Table 2.1.

Table 2.1: Existing two-way (sum of both directions) peak hour traffic flows

Road	Location	AM peak hour	PM peak hour
Barnes Road	East of Myra Street	20	20
	West of Myra Street	10	15
Myra Street	South of Barnes Road	30	35

2.16 Table 2.1 shows that Barnes Road and Myra Street carried traffic flows of less than 50 vehicles per hour two-way.

2.17 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersections shown in Figures 2 and 3 have been analysed using the SIDRA computer program.

2.18 SIDRA provides a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

- For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

2.19 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle

should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

2.20 The analysis found that the unsignalised intersection of Barnes Road with Myra Street is operating with average delays of less than 10 seconds per vehicle during weekday morning and afternoon peak periods. This represents LOS A, a good level of service.

2.21 Surveys undertaken by RMS found that housing for aged and disabled persons generates 0.1 to 0.2 vehicles per hour per dwelling during peak periods. Based on 0.2 vehicles per hour per bed, the proposed development would generate some nine vehicles per hour two-way during peak hours. This is a low generation.

2.22 Such a low generation would not have noticeable effects on the operation of the surrounding road network.

Summary

2.23 In summary, the main points relating to the traffic implications of the proposed development are as follows:

i) parking provision is considered appropriate;

ii) access, servicing and internal layout will be provided in accordance with AS 2890.1:2004 and AS 2890.1:2004;

iii) the proposed development would have a low traffic generation; and

iv) such a low generation would not have noticeable effects on the operation of the surrounding road network.

Location Plan

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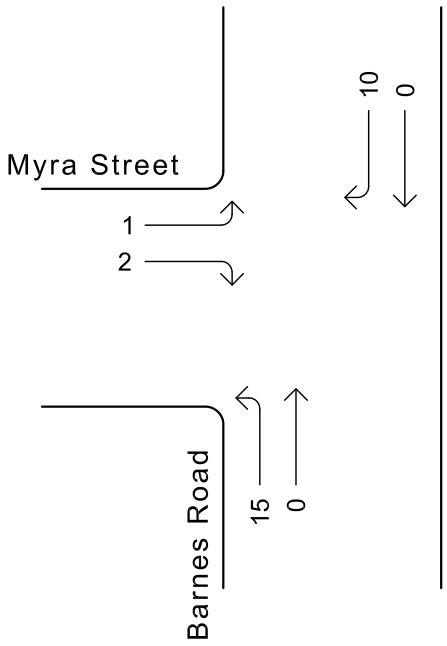
Figure 1



LEGEND

100 - Existing Peak Hour Traffic Flows

Existing weekday morning peak hour traffic flows

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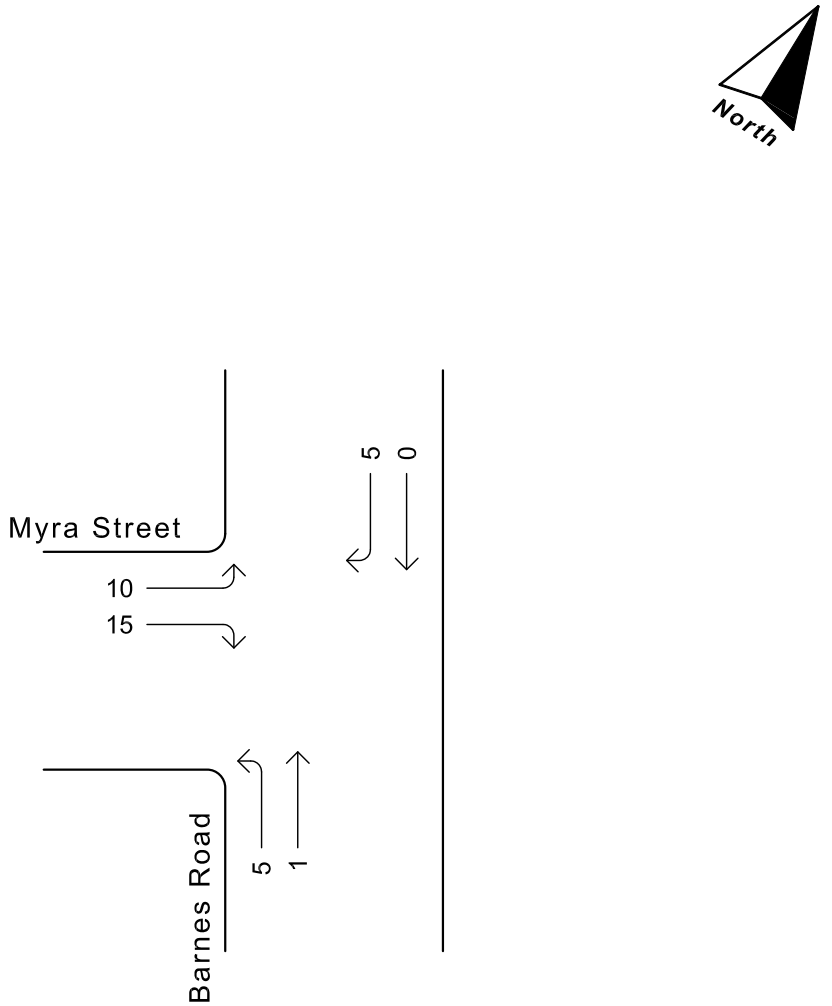
Figure 2



LEGEND

100 - Existing Peak Hour Traffic Flows

Existing weekday afternoon peak hour traffic flows

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Figure 3