

# Woollahra Traffic Committee

**Agenda:** *Woollahra Local Traffic Committee  
Extraordinary Meeting 6a/08*

**Date:** *Tuesday 9 July 2008*



## Meeting Agenda

<b>Item</b>	<b>Subject</b>	<b>Pages</b>
1	<b>SEPP11 Development Referrals for Assessment</b>	
X2	DA 813/2007/1 – 2 Laguna Street, Vaucluse	1

**Item No:** X2 SEPP11 Development Referrals for Assessment  
**Subject:** DA 813/2007/1 – 2 LAGUNA STREET, VAUCLUSE  
**Author:** Frank Rotta – Traffic Engineer  
**File No:** DA 813/2007/1  
**Reason for Report:** Traffic and Parking Report for a Seniors Living Development at No. 2 Laguna Street, Vaucluse.

**Recommendation:**

- A. That there are no objections to DA 813/2007/1, the proposal to construct a Seniors Living Development comprising 78 self-contained units at No.2 Laguna Street, Vaucluse, on the basis of either traffic generation or car parking subject to the conditions recommended by the RTA in their letter dated 20 March, 2008 (Annexure 2) forming part of any consent for this development.
- 

**Background:**

Development Application 813/2007/1 for the Seniors Living Development at No. 2 Laguna Street, Vaucluse has been referred to Council's Traffic Committee as a Development Referral under SEP 11. Although SEP 11 has since been rescinded, this development must still be considered under this legislation because of the date of the application. This referral is required as the development proposes the construction of 78 self-contained dwellings on this site.

The proposed development incorporates the demolition of the existing buildings on the site formerly occupied by Vaucluse High School, and the construction of 78 self-contained dwellings (comprising 68 two bedroom dwellings, 9 two bedroom plus study dwellings, and 1 three bedroom dwelling) as well as 2 basement carparks comprising a total of 102 spaces.

As the development originally proposed vehicular access to both basement carparks from Old South Head Road, which is a State Road, the RTA has already provided a number of comments and conditions in respect this site. (Copies of the Developer's Traffic and Parking Report and the RTA's latest comments dated 20 March, 2008 are attached as Annexures 1 & 2 respectively)

**Issues:**

The RTA's comments are comprehensive and refer among other issues to the vehicular access to the carparks from Old South Head Road and Laguna Street, the construction standards for the crossings, the drainage for the site, the bus stop on Old South Head Road, existing signposted restrictions in Old South Head Road, and design issues for the development with regard to road traffic noises. The RTA comments also advise that Council should ensure that there is adequate provision for carparking requirements including facilities for handicapped drivers and unloading facilities on the site and that a Construction Management Plan (CMP) be provided to Council to ensure that all construction vehicles are accommodated on-site during the construction period.

As all of the above RTA conditions are to be included as conditions of consent should the application be approved, the traffic generation and carparking requirements for the site must be assessed as indicated above. It should be noted that Council's development engineers have assessed the proposed vehicular crossings, drainage requirements and the Construction Management Plan for the site.

Parking:

The RTA Guide to Traffic Generating Developments recommends a rate of 2 spaces per 3 units with 1 space per 5 units for visitors. Based on these rates the development requires 68 spaces. The developer's parking report also refers to the Seniors Living SEPP which has a recommended minimum parking rate of 0.5 spaces per bedroom and there is no requirement for employee parking. Based on this SEPP the development would require 79 spaces. As the proposed development proposes 102 off-street carparking spaces it complies with both of the above development standards.

The proposed resident and visitor parking spaces have minimum dimensions of 3.2m x 5.5m which is in excess of the minimum dimensions for disabled parking under AS 2890.1 – 1993. The aisle widths also exceed the minimum required under the above Australian Standard. A satisfactory Loading Bay has been provided near the entrance to the proposed carpark.

There are therefore no objections to the proposed carparking numbers or layout for this development.

Traffic Generation:

The RTA Guide to Traffic Generating Developments suggests that traffic generation for aged and disabled persons is as follows:

Daily vehicle trips	1-2 per dwelling.
Evening peak hour vehicle trips	0.1-0.2 per dwelling.

Based on the RTA Guide, the above rates translate to a traffic generation of 78-156 daily vehicle trips including 8-16 pear hour trips.

The developer's assessment report indicates that the previous school had an enrolment of 750 students prior to its closure. The assessment reasonably assumes that even if only 10% of students were picked up and dropped off by car, this would translate to 150 daily vehicle trips with the morning and afternoon peak hour trips each being 75. These routes do not include teachers, administration or cleaning staff who would be expected to drive to the site. Based on the nature of the proposed development and the more uniform spread of hours involved, it is considered that the traffic generation of the proposed development will have less impact on the neighbouring streets than the previous development operating on this site.

There are there no objections to this development on the grounds of traffic generation

**Summary:**

As the carparking layout and numbers of spaces provided exceeds the current development standards for this type of development and the proposed development is considered to have a comparable traffic generation to the previous school site, there are no objections to the development with respect to parking and traffic generation.

---

**Identification of Income & Expenditure:**

Nil.

**Annexures:**

1. GSA Planning – Traffic & Parking Report (separate PDF file)
2. Letter from RTA (separate PDF file)



# **TRAFFIC AND PARKING REPORT**

For a Seniors Living Development  
at

**No. 2 Laguna Street,  
Vaucluse**

Prepared for:  
The Zig Inge Group  
Box 395 MDC  
DEEPDENE VIC 3103

Prepared by:  
**GSA PLANNING**  
Urban Design, Heritage, Environmental & Traffic Planners  
(A.B.N 18 003 667 963)

JOB NO. 07108 TRA  
December 2007

# CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>SITE ANALYSIS .....</b>	<b>2</b>
2.1	The Site .....	2
2.2	Existing Built Form.....	3
2.3	The Surrounds.....	5
<b>3.0</b>	<b>THE SURROUNDING ROAD NETWORK.....</b>	<b>6</b>
3.1	Description of the Existing Road Network .....	6
3.2	Description of the Existing Key Intersections .....	7
3.3	Traffic Counts .....	7
3.4	The Existing On-Street Car Parking Situation .....	7
3.5	The Public Transport Services .....	8
<b>4.0</b>	<b>THE PROPOSAL.....</b>	<b>9</b>
4.1	Background to the Proposal .....	9
4.2	Details of the Proposed Development.....	9
4.3	Details of Proposed Parking and Loading Facilities .....	10
<b>5.0</b>	<b>TRAFFIC ASSESSMENT .....</b>	<b>12</b>
5.1	Traffic Generation.....	13
5.2	Proposed Ingress and Egress .....	14
<b>6.0</b>	<b>PARKING ASSESSMENT.....</b>	<b>16</b>
6.1	Car Parking Requirements .....	17
6.2	Circulation and Parking Geometry.....	17
<b>7.0</b>	<b>CONCLUSION .....</b>	<b>19</b>

## LIST OF FIGURES

1. Location Plan
2. Site Plan
3. Bus Services Surrounding the Site
4. The Northernmost Car Park
5. The Southernmost Car Park
6. Prohibited Locations of Driveways
7. Minimum Sightlines for Pedestrian Safety

## LIST OF TABLES

TABLE 1: DETAILS OF THE PROPOSAL .....**Error! Bookmark not defined.**

## PHOTOGRAPHS

Photograph 1: New South Head Road, looking south.....6  
 Photograph 2: Laguna Street, looking west ..... 7

## ANNEXURES

- A. Correspondence from the RTA

## 1.0 INTRODUCTION

This Traffic & Parking Report has been prepared for The Zig Inge Group by Gary Shiels & Associates Pty Ltd – (hereafter referred to as GSA Planning). GSA Planning has expertise in Urban Design, Heritage, Environmental & Traffic Planning.

This report is to accompany a Development Application to Woollahra Council for a Seniors and Disabled Persons Development at No. 2 Laguna Street Vaocluse. The proposed development, which has been designed by Fredman Malina Architecture Pty Ltd, incorporates the demolition of the existing buildings on the site formerly occupied by Vaocluse High School, and the construction of part three (3) and part four (4) storey building with basement car parking, comprising 102 spaces.

The proposed Seniors Living Development will contain a total of seventy-eight (78) self contained dwellings, comprising 68 x two bedroom dwellings, 9 x two bedroom plus study dwellings and 1 x three bedroom dwelling.

The proposal has been formulated following consultation with Council officers and representatives from the Roads and Traffic Authority (RTA).

In accordance with the consultation process, this report has been prepared to assess the proposed development in terms of traffic, access and parking. In order to assess the likely traffic generation and parking demand, this report includes an estimated traffic generation based on the Roads and Traffic Authority (RTA) Guide to Traffic Generation Developments, access assessment based on Australian/New Zealand Standard (AS/NZS) 2890.1 and a parking analysis based on Council's car parking requirements.

The remainder of this document is divided into seven (7) sections, which include a description of the site and surrounds, a description of the surrounding road network, a description of the proposal, a traffic analysis, parking assessment and a conclusion.

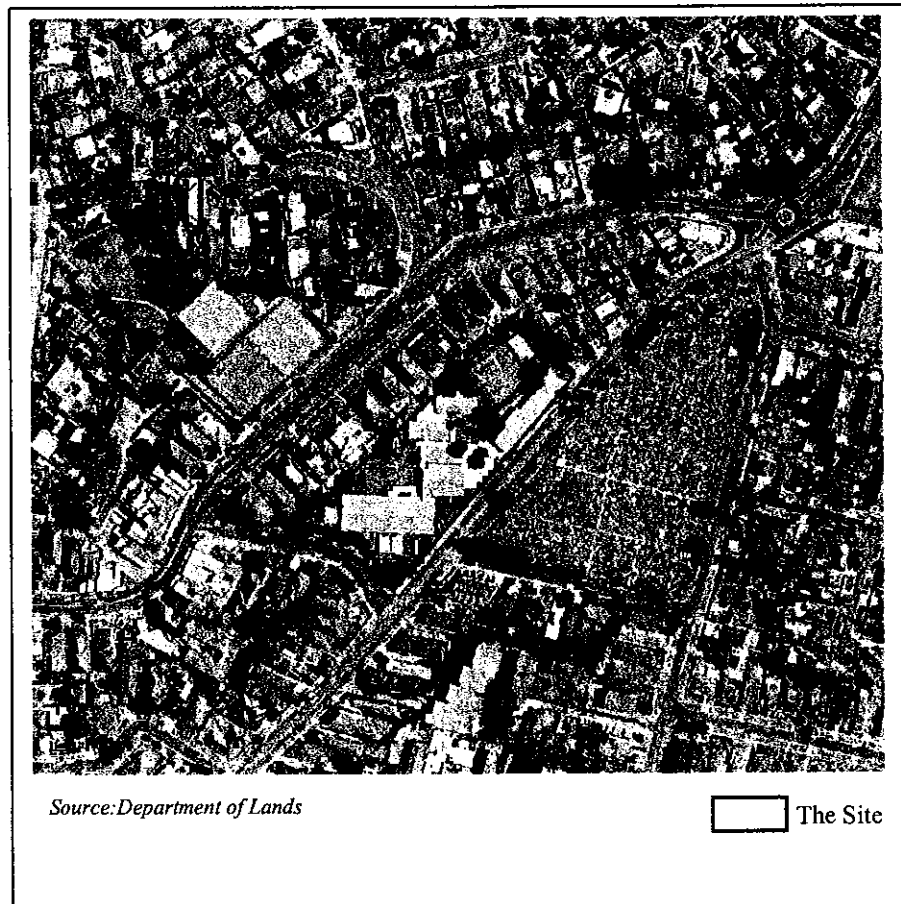
## 2.0 SITE ANALYSIS

This section contains a description of the Site; the Existing Built Form and the Surrounds.

### 2.1 The Site

The subject site is located approximately 7km east of the Sydney GPO, 1.5km from Rose Bay and is located within the local Government Area (LGA) of Woollahra (see Figure 1).

The subject site is located on the northern side of Laguna Street and the western side of Old South Head Road and is known as No. 2 Laguna Street, Vaucluse, described as Lot 1554 in DP 820600 (see Figure 2 and survey submitted separately).



### Figure 1: Location Plan

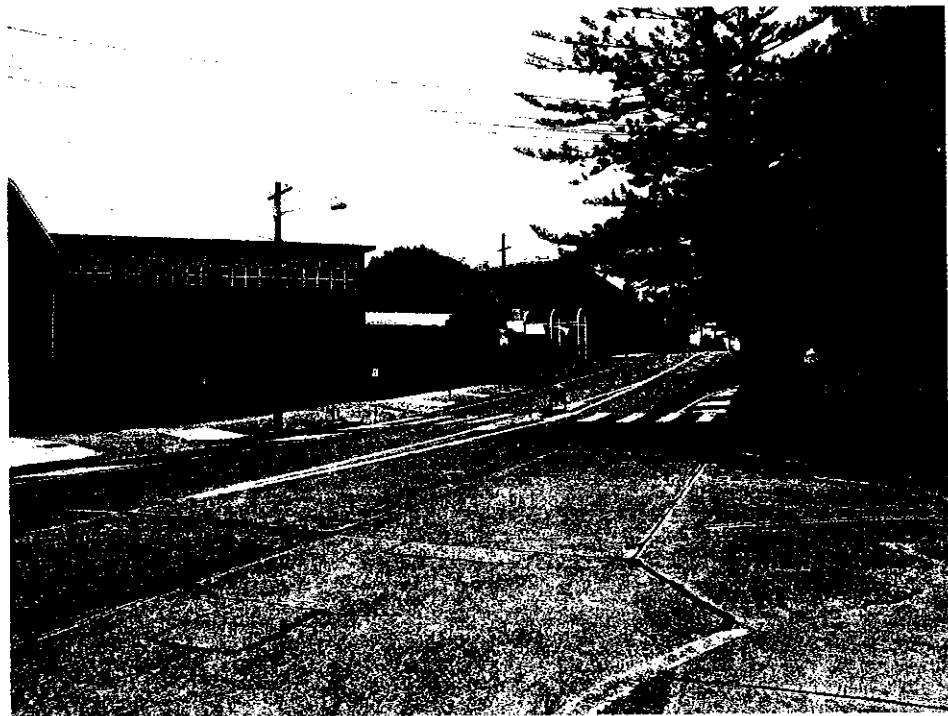
Seniors Living - No. 2 Laguna Street, Vaucluse  
Traffic and Parking Report

## 2.2 Existing Built Form

The site is currently unoccupied, and comprises a collection of one, two and three storey face brick buildings with reinforced concrete floors and steel framed roof, and interconnected with covered walkways. The site also contains sports courts, an assembly area, landscaped areas and a car park.

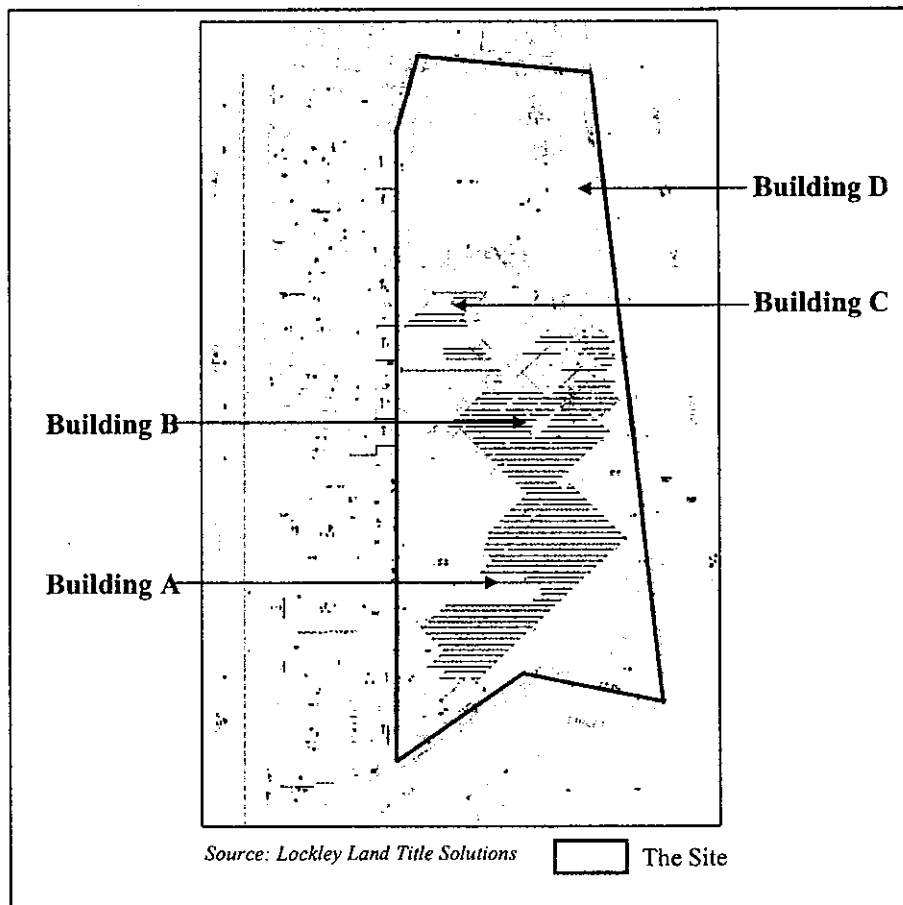
The buildings are marked Blocks A, B C and D on the Survey Plan, formerly housing the classrooms, staff rooms and administration offices of Vacluse High School and constructed circa 1960. The demountable classrooms noted on the Survey have since been removed from the site.

There are two main vehicular access points to the site, both of which are located along the Old South Head Road frontage. The first is at the north-eastern corner of the site, which leads to the bitumen playground and tennis court. A second access is into an on-site car parking area previously used in association with the School. Two additional driveway crossings are located along the south eastern portion of the site in Old South Head Road.





The main pedestrian entry is located near the centre of the Old South Head Road frontage, with a secondary entrance available at the north-eastern corner of the site.



**Figure 2:  
Site Plan**

Seniors Living - No. 2 Laguna Street, Vaucluse  
Traffic and Parking Report

## 2.3 The Surrounds

To the north are two storey face brick and rendered semi-detached dwellings and three storey rendered dwellings with frontage to Old South Head Road. Further to the north are two storey single residences and mixed use development leading to Christison Park.

To the east is Waverley Cemetery, bounded by Old South Head Road, Burge Street and Young Street. Further to the east are two storey dwellings and residential flat buildings.

To the south are three storey residential flat buildings of varying styles and character. Directly to the south of the site are two storey free standing dwellings in Laguna Street. Further to the south are two and three storey dwellings houses and three storey residential flat buildings.

To the west of the site is a two storey face brick dwelling. The development adjacent the western boundary of the site comprises predominantly two storey face brick or rendered dwellings and residential flat buildings with frontage to New South Head Road. Further to the west are mixed use buildings, a park and bowling green.

### 3.0 THE SURROUNDING ROAD NETWORK

This Section contains a Description of the Existing Road Network; Description of the Existing Key Intersections; the Existing On-Street Car Parking Situation; and Public Transport Services.

#### 3.1 Description of the Existing Road Network

The site has frontage to Old South Head Road and Laguna Street. The site is also in the proximity of New South Head Road.

According to the Roads and Traffic Authority's (RTA) established road hierarchy, in the vicinity of the site, both Old South Head Road and New South Head Road are classified as RTA State Roads, while the part of Old South Head Road north of its intersection with New South Head Road is classified as an RTA Regional Road.

Laguna Street and the surrounding residential streets in the vicinity of the site are classified as local roads.

Old South Head Road, in front of the site comprises a four lane undivided carriageway, with two kerbside parking lanes and two traffic lanes with a speed limit of 60km/h (see Photograph 1).



*Photograph 1: New South Head Road, looking south*

Similarly, New South Head Road, in the vicinity of the site comprises a four lane undivided carriageway, with two kerbside parking lanes and two traffic lanes with a speed limit of 50km/h.

Laguna Street comprises an unmarked carriageway with four lanes, two of which are kerbside parking lanes and the other two are traffic lanes with a speed limit of 50km/h (see Photograph 2).



Photograph 2: Laguna Street, looking west

### 3.2 Description of the Existing Key Intersections

The key intersections surrounding the subject site and their characteristics are summarised below:

- New South Head Road / Old South Head Road - Roundabout
- New South Head Road / Laguna Street - Unsignalised
- Old South Head Road / Laguna Street - Unsignalised
- New South Head Road / Towns Road - Signalised

### 3.3 Traffic Counts

The RTA publication, *Traffic Volume Data for the Sydney Region, 2004* contains average annual daily traffic (AADT) volumes for most major roads in the Sydney metropolitan area.

The AADT figure at a given point represents the average number of axle pairs passing in both directions during a 24 hour period, estimated over a period of one year. The RTA figures indicate the following AADTs:

- New South Head Road 11,888 vehicles in 2002
- Old South Head Road 6,372 vehicles in 1987 (this is the most recent recorded figure, however is unlikely to have significantly changed over time)

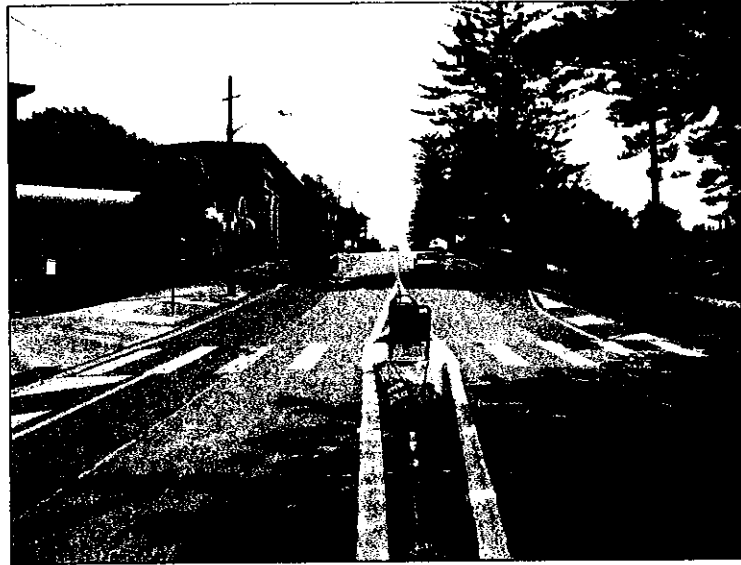
### 3.4 The Existing On-Street Car Parking Situation

The on-street car parking situation in the immediate vicinity of the subject site comprises parallel kerb side car parking.

The kerbside along Old South Head Road also comprises bus zones on either side of the street. The bus zone on the side of the site (the western side of Old South Head Road) previously served the Vaucluse High School. Similarly, the pedestrian crossing and pedestrian refuge on Old South Head Road also primarily served the School, as well as the residents in the surrounding area.

### 3.5 Existing Pedestrian Facilities

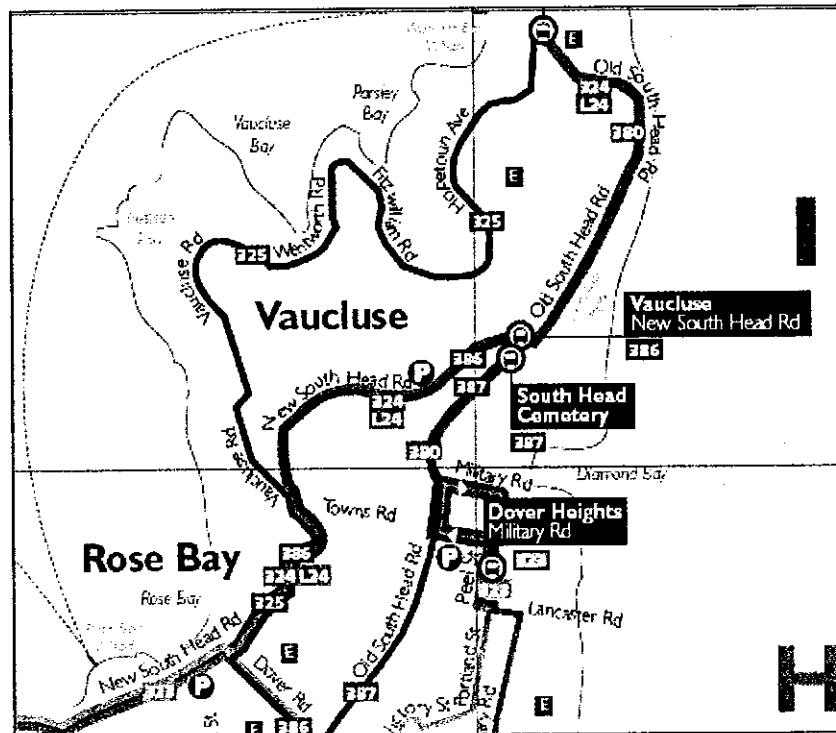
The pedestrian facilities in the vicinity of the site include a pedestrian crossing and refuge island on Old South Head Road (see Photograph 3).



*Photograph 3: Pedestrian crossing and refuge island on old South Head Road*

### 3.6 The Public Transport Services

The site is well served by public transport, with bus services running along Old South Head Road and New South Head Road, linking the site to the remainder of the eastern suburbs and the City (see Figure 3). In addition, there is a bus stop in front of and on the opposite side of the site.



**Figure 3: Bus Services Surrounding the Site**

## 4.0 THE PROPOSAL

This section will contain the Background to the Proposal; Details of the Proposed Development; Details of Proposed Parking and Loading Facilities.

### 4.1 Background to the Proposal

A number of meetings have been held with Council officers to address the design issues of the proposed development. The proposal has been designed in accordance with the advice from Council officers.

Consultation has also been undertaken with officers from the RTA. The comments from the RTA advised as follows (see also Annexure A):

"I have reviewed the sketch that you submitted and provide the following comments for your information.

- The RTA raises no objections in principle to the proposed driveway locations however detailed design will be required to ensure that the safety at the existing pedestrian crossing is not compromised
- The detailed design is to show the proposed driveway widths, location and existing pedestrian crossing on the plan
- The driveways may need to be restricted to left in left out movements, this may require either a central median or the driveways to be self enforcing
- The existing bus stop may need to be relocated/adjusted. STA concurrence will be required
- A detailed traffic report is to be submitted to the RTA for assessment."

### 4.2 Details of the Proposed Development

The proposal is for a Seniors Living building comprising a part three (3) and four(4) storey building containing two and three bedroom units, providing a total of seventy eight (78) self contained dwellings. The proposal will provide one (1) level of basement car parking, providing off street car parking for 102 vehicles, accessible via one of two car park entrances on Old South Head Road.

Based on Councils current definition, the proposed development contains a gross floor area (GFA) of 16, 035m<sup>2</sup>. Details of the floor areas of the respective units are included in the following table (see Table 1).

TABLE 1: DETAILS OF THE PROPOSAL		
Building No.	AHD	Details By Level
<b>Building 1</b>		
Basement	70.00	42 car spaces comprising 34 resident plus 8 visitor spaces. Individual storage spaces for residents, plant rooms and lift lobby
Ground	73.00	Laguna Street pedestrian entry, 10 x 2 bedroom units
First	76.50	10 x 2 bedroom units
Second	80.00	10 x 2 bedroom units

Third	83.50	1 x 2 bedroom penthouse and 3 x 3 bedroom penthouses
<b>Building 2</b>		
Basement	73.00	60 car spaces comprising 44 resident, 6 staff and 10 visitor spaces. Loading bay and bin area are located near car park entry. Individual storage spaces for residents, plant rooms and lift lobby.
Ground	76.50	Main pedestrian entry from Old South Head Road and access to common facilities such as a swimming pool, gym, lounge and dining areas, a library, theatre, salon and a Wellness Centre, which provides various health services ranging from nutrition, massage, physiotherapy and other related activities. Manager's residence and staff areas are located at this level, along with additional plant rooms.
First	80.00	8 x 2 bedroom units and communal sitting areas.
Second	83.50	8 x 2 bedroom units and communal sitting areas.
Third	87.00	2 x 3 bedroom + study penthouses
<b>Building 3</b>		
Ground	80.00	Secondary pedestrian entry from Old South Head Road, 8 x 2 bedroom units and common sitting areas
First	83.50	8 x 2 bedroom units and communal sitting areas.
Second	87.00	8 x 2 bedroom units and communal sitting areas.
Third	90.50	2 x 2 bedroom + study penthouses
<b>TOTAL</b>		<b>Seventy-eight (78) seniors units, one (1) managers unit &amp; 102 car parking spaces</b>

Source: Fredman Malina Architecture Pty Ltd

### 4.3 Details of Proposed Parking and Loading Facilities

As indicated, the proposal provides a total of 102 car parking spaces, within two separate basement car parking areas.

The northernmost car park comprises a total of 60 car spaces and includes 44 resident, 6 staff and 10 visitor spaces (see Figure 4). The southernmost car park comprises a total of 42 car spaces and includes 34 resident and 8 visitor spaces (see Figure 5).

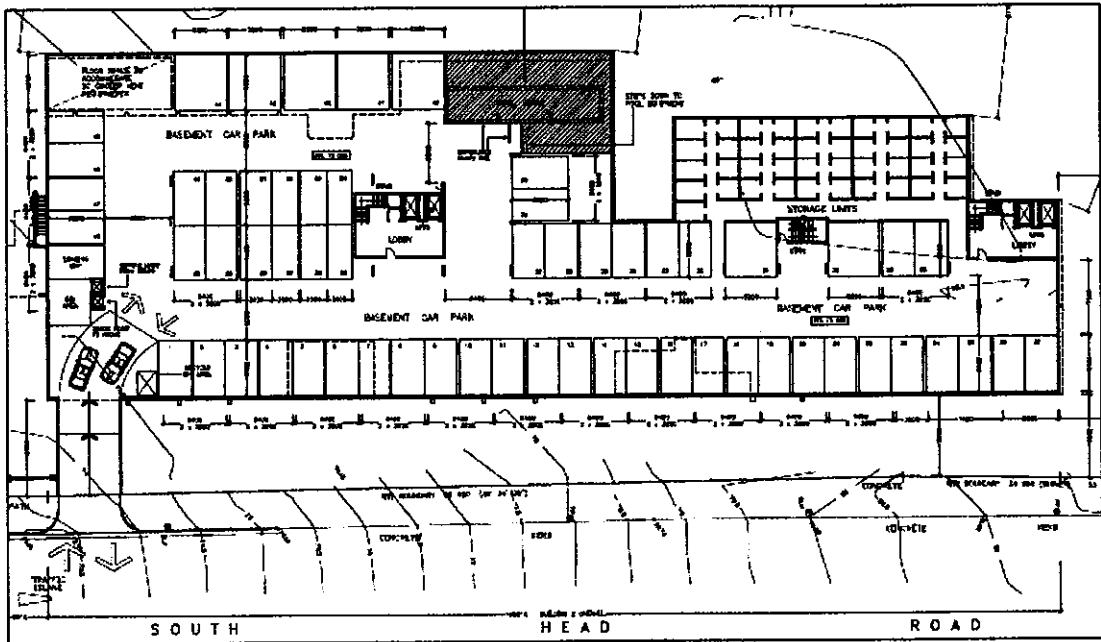
All resident and visitor car spaces have minimum dimensions of 3.2m by 5.5m, whilst the staff car spaces have dimensions of 2.6m by 5.5m. The aisle widths are a minimum of 6m.

Access to the car parking areas is directly off Old South Head Road. The northernmost car park is served by a 6m wide combined ingress and egress driveway, which is some 65m north of the Laguna Street intersection. The southernmost car park is also served by a 6m wide combined ingress and egress driveway, which is 16.25m north of the Laguna Street intersection.

The proposed development will have pedestrian access for residents and visitors to

the main lobby from Old South Head Road, with one additional entrance at the northern end of Old South Head Road and two entry points along Laguna Street.

Internal access between ground floor and the above levels is available from two lifts located in the foyer or staircase. The proposed twin lifts also provide access to the basement level of parking.



**Figure 4: The Northernmost Car Park**

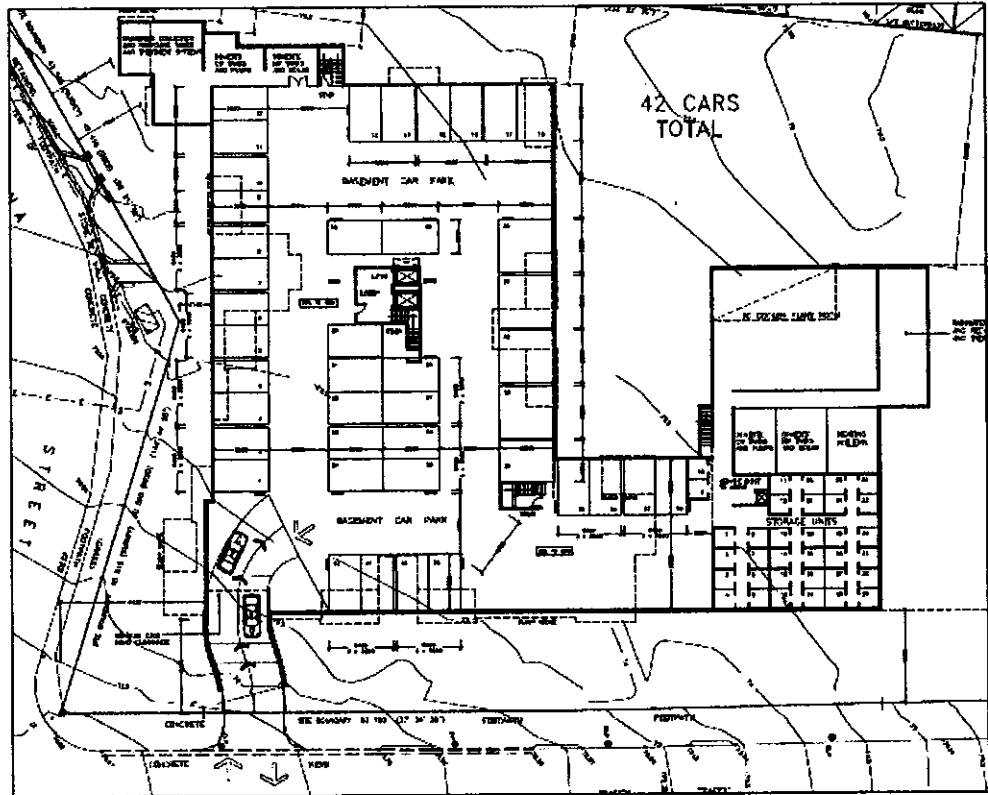


Figure 5: The Southernmost Car Park

## 5.0 TRAFFIC ASSESSMENT

This section will contain the Traffic Generation Rates and the Proposed Ingress and Egress.

### 5.1 Traffic Generation

The *RTA Guide to Traffic Generating Developments (2002)* has been used to calculate the traffic likely to be generated by the proposed development.

The Guide contains daily generation rates and peak generation rates for various uses. According to the Guide, the traffic generation for housing of aged and disabled persons is as follows:

- Daily vehicle trips = 1 - 2 per dwelling
- Evening peak hour vehicle trips = 0.1 - 0.2 per dwelling.

The RTA Guide states that the figures at the lower end of the above rates are based on research conducted by the Authority. The research concentrates on *subsidised* developments (often run by religious organisations) and generation rates of *resident funded* developments are often greater, as indicated at the higher end of the range. Accordingly, the higher end of the range has been used for the purposes of this report.

As the proposed development includes a total of 78 dwellings, according to the RTA Guide rates, the proposal generates in the order of 78-156 DVTs, which includes 8-16 peak hour trips.

However, although the site is currently vacant, it was previously occupied by a fully operational school. Based on school enrolment data, there were some 750 students enrolled at the Vaucluse High School in 2001 and 2002-03. It is recognised that a substantial proportion of students would have travelled to the school by either bus or on foot. On this basis, even assuming a very conservative figure of 10% being dropped off/picked up by car, this would generate 75 peak hour trips in the morning and 75 peak hour trips in the afternoon, resulting in some 150 DVTs.

Based on the above figures, the proposed development is likely to have a similar traffic generation throughout the entire day however, with a significantly reduced peak hour traffic generation.

Even if the proposal was to be developed on a vacant site, without a prior traffic generation, the traffic generation is not, in our opinion, high particularly given the size of the site. The 156 DVTs will be distributed throughout an entire day and the 8-16 peak trips merely represent 1 additional trip per 4-8 minutes in the peak hour.

Accordingly, the traffic generation of the proposal is not likely to result in a significant impact on the local traffic situation. The proposal is unlikely to affect the capacity, operation or level of service of surrounding streets and intersections.

*In summary, the proposal is not, in our opinion, a high traffic generating use and is unlikely to have a significant impact on the surrounding roads and intersections. Taking into consideration the previous use of the site as a High School, the proposal is likely to result in a similar daily traffic generation and a considerably lower peak hour traffic generation.*

## 5.2 Proposed Ingress and Egress

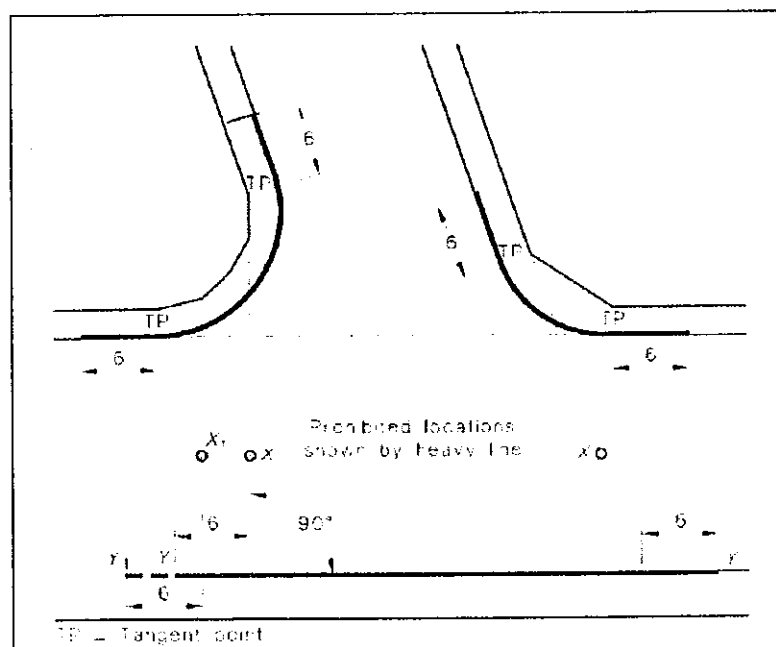
The type of access arrangements necessary for the proposed driveway has been designed using the Australian/New Zealand Standards for Parking Facilities AS 2890.1 (2004) and the RTA Guide to Traffic Generating Developments.

The Australian Standards and the RTA Guide indicate that driveways should be located with due consideration to the distance from surrounding intersections. The driveway width is based on the type of fronting road, the proposed use and the number of car spaces serviced.

As the proposed development is a low land use generation category, and is proposed to have access fronting a major road with 60 car spaces in the northern carpark and 42 spaces in the southern carpark, the means of access should contain Category 2 driveways. A Category 2 driveway incorporates a combined ingress/egress driveway with a width of 6m to 9m.

The proposal contains two (2) combined ingress/egress driveways off New South Head Road. These driveways will have a width of 6m each. The width and design of these driveways complies with the recommended geometry for a Category 2 driveway and is considered to be appropriate in terms of size and design.

The prohibited location of driveways under the Australian/New Zealand Standards is contained in Figure 6.



**Figure 6: Prohibited Locations of Driveways**

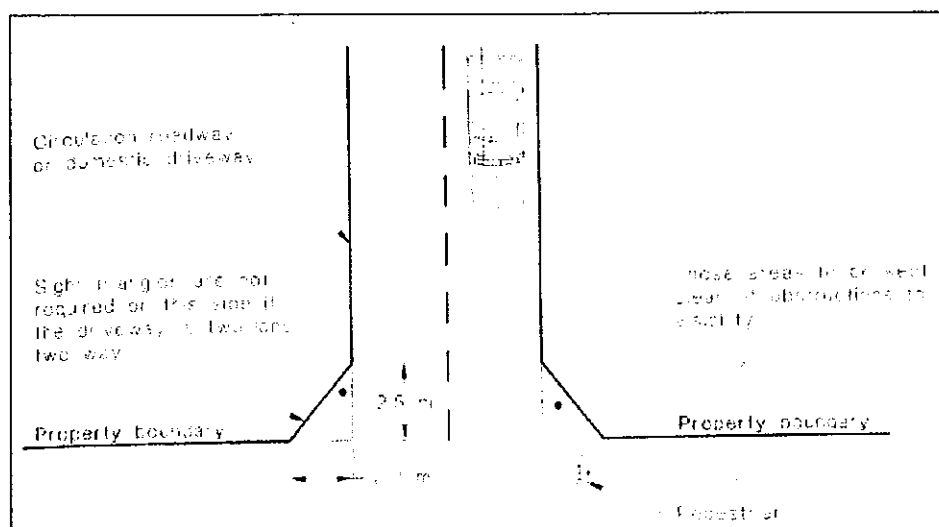
The southern driveway is also located 16.25m from Laguna Street, whilst the northern driveway is located some 56m from Laguna Street. Both driveways are located in accordance with the provision of the Australian/New Zealand Standards which also complies with the Australian Standard.

The southernmost driveway has also been offset from the intersection of Old South Head Road and Burge Street, in accordance with traffic engineering practice. It should be noted that there are two existing driveways within the alignment of this intersection however, these will be closed by the proposal, which will reduce the potential conflict points in this location.

The site is located in a rising segment of Old South Head Road. Sight stopping distances are better towards the southern portion of the site frontage, as the sight stopping distances of the northern portion of the site frontage are affected by the crest of the road. It is for this reason that the site's driveways have been located as far southern the site as possible.

Based on the Australian/New Zealand Standards, the minimum sight stopping distance for driveways with a frontage road speed of 60km/h is 65m with a desirable 5 second acceptance gap of 83m. The southern most driveway has sight distances of approximately 165m (towards the north) and the northern most driveway has sight distances of approximately 115m (to the north). Accordingly, both driveways comply with the minimum sight distanced under the Standards, and left/right in and left/right out movements are acceptable for these driveways. This has also been supported by the RTA (see Annexure A).

For pedestrian safety, the Standard requires unobstructed sight triangles, in accordance with Figure 7 below.



**Figure 7: Minimum Sight Lines for Pedestrian Safety**

The proposed driveways comprise the 2.5m by 2.0m sight line triangles from the property boundary and comply with the requirements of the Standard.

The maximum ramp grade under the Australian/New Zealand Standard for the first 6m of a driveway is 1 in 20 and for straight sections beyond that (under 20m in length) 1 in 4.

The gradient of the proposed ramps is 1 in 20 for the first 6m and gradients of 1 in 8, 1 in 10 and 1 in 20 into the basement for sections less than 20m in length, which complies with the maximum grade required by the Australian/New Zealand Standard.

Accordingly, the type, size, location and design of the proposed access driveways is considered to be appropriate from a traffic engineering point of view.

*In summary, the proposal is likely to generate a volume of traffic that would require Category 2 driveways in accordance with the Australian/New Zealand Standard. The proposed driveways comply with these requirements and the means of access are considered appropriate in this instance. Furthermore, the width, design and location of the proposed driveways are also considered to be appropriate.*

### **5.3 Pedestrian Access**

As indicated, the proposed development comprises pedestrian access for residents and visitors to the main lobby from Old South Head Road, with one additional entrance at the northern end of Old South Head Road and two entry points along Laguna Street. Pedestrians can use the Old South Head Road access points to walk to the north, towards Christison Park, east towards Diamond Bay and to the south. Pedestrians can also use the Laguna Street access points for access to the south and the west towards New South Head Road and the neighbourhood shops.

Safe crossing opportunities along Old South Head Road are provided via the existing pedestrian crossing and refuge island. This is considered to be appropriate for the needs of the future residents of the site. However, following occupation of the proposed building, it would be normal practice for the RTA to monitor the adequacy of the pedestrian facilities and if necessary embellish them further. As Laguna Street is a local road that does not carry a significant traffic volume, pedestrian facilities are not considered necessary for this road.

Internal access between ground floor and the above levels is available from two lifts located in the foyer or staircase. The proposed twin lifts also provide access to the basement level of parking.

*In summary, the proposed pedestrian access points are appropriate for the size of the site and the number of units proposed. The existing crossing facilities on Old South Head Road are considered to be appropriate for the likely future needs of the residents of the site.*

## 6.0 PARKING ASSESSMENT

This Section contains the Council's Car Parking Requirements; Compliance with Requirements; and, Circulation and Parking Geometry.

### 6.1 Car Parking Requirements

Council's Development Control Plan (DCP) for Off-Street Car Parking Provision and Servicing Facilities applies for most types of development in the Woollahra LGA. However, the DCP does not have a car parking rate for seniors living developments.

In the absence of such rates, the rates of the RTA Guide to Traffic Generating Development and the Seniors Living SEPP have been used.

The RTA Guide rates for self-contained units are 2 spaces per 3 units (residents) plus 1 space per 5 units (visitors). Based on the RTA Guide rates, the proposal requires 52 resident car spaces and 16 visitor spaces, comprising total of 68 car spaces.

The Seniors Living SEPP has a minimum rate (development standards that cannot be used as grounds for refusal of consent) of 0.5 spaces per bedroom and there is no requirement for visitor or employee parking. Based on the SEPP Seniors Living, the proposal with 157 bedrooms, requires 79 resident car spaces.

The proposal comprises 102 carparking spaces and complies with both requirements.

*In summary, the proposal complies with the resident and visitor car parking requirements of the RTA Guide and SEPP Seniors Living and is likely to meet the demand of the proposed development.*

### 6.2 Circulation and Parking Geometry

AS/NZS 2890.1 (2004) contains requirements for car parking geometry and states that the minimum dimensions for car spaces are 2.4m x 5.4m. The minimum width of the internal two-way aisle is required to be 5.8m for 2.5m wide spaces.

However, SEPP Seniors Living has different car parking geometry for car parking areas. The required geometry is as follows:

**"Private car accommodation**

If car parking (not being car parking for employees) is provided:

- (a) car parking spaces must comply with the requirements for parking for persons with a disability set out in AS 2890, and
- (b) 5% of the total number of car parking spaces (or at least one space if there are fewer than 20 spaces) must be designed to enable the width of the spaces to be increased to 3.8 metres, and
- (c) any garage must have a power-operated door, or there must be a power point and an area for motor or control rods to enable a power-operated door to be installed at a later date."

In respect of (a), the current AS 2890 states that the requirements for persons with a disability are specified in AS/NZS 2890.6. However, AS/NZS 2890.6 is still in preparation and pending such a publication, the requirements of AS 2890.1 – 1993 (which has been made "available superseded") should be observed. The requirements for persons with disabilities under 2890.1 – 1993 comprise a parking minimum module of 3.2m by 5.4m and a minimum aisle width of 5m.

The proposal resident and visitor parking spaces comprise minimum dimensions of 3.2m by 5.5m and comply with the relevant requirements.

In respect of (b), 5% of the proposed resident and visitor spaces is equivalent to 5 spaces. The proposal comprises 8 "oversized" spaces with a width of 4m and 5.2m, which easily complies with the relevant requirements.

In respect of (c), garages will have power operated doors or be capable of installation of a power operated door in the future.

Accordingly, the proposal complies with the required geometry under SEPP Seniors Living and AS 2890.1 and is considered to be appropriate from a parking point of view.

*The proposed car parking geometry has been designed in accordance with SEPP Seniors Living and AS 2890.1 and is considered to be appropriate in terms of turning templates for the 85th percentile vehicle.*

## 7.0 CONCLUSION

The proposed development has been assessed in light of the likely traffic generation and the proposed number, size and design of car parking areas.

According to the School Education data, the existing development comprised some 750 students which would have conservatively generated in the order of 150 DVTs, including 75 peak trips. The proposed use is likely to generate 78-156DVTs, including 8-16 peak trips based on the RTA Guide. The proposal is likely to have a similar traffic generation throughout the entire day however, with a significantly reduced peak hour traffic generation. Even if the proposal was to be developed on a vacant site, the estimated traffic generation is not, in our opinion, high particularly given the size of the site. Accordingly, the traffic generation of the proposal is not likely to result in a significant impact on the local traffic situation.

The proposal is likely to generate a volume of traffic that would require Category 2 driveways in accordance with AS/NZS 2890.1. The proposed driveways comply with these requirements and the means of access are considered appropriate in this instance. Furthermore, the width, design and location of the proposed driveways are also considered to be appropriate.

The proposal provides 102 carparking spaces. This number of spaces easily complies with the RTA Guide and SEPP Seniors Living car parking requirements.

The proposed car parking geometry has been designed in accordance with SEPP Seniors Living and AS 2890.1 and is considered to be appropriate in terms of turning templates for the 85th percentile vehicle.

The proposed pedestrian access points are appropriate for the size of the site and the number of units proposed. The existing pedestrian crossing facilities on Old South Head Road is considered to be appropriate for the likely future needs of the residents of the site.

Having regard to the above considerations, the proposed development of the subject site is appropriate in terms of traffic generation pedestrian and vehicular access and car parking provision.



ID 07M3755.2 (SM)

20 March 2008

WOOLLAHRA COUNCIL  
RECORDS DEPT.

27 MAR 2008

Team Leader - Development Control  
Woollahra Municipal Council  
DX 3607  
DOUBLE BAY

Doc No 03283-08  
File DA07/0813  
Action D. BOOTH

Attention: Mr D Booth

### PROPOSED SENIOR LIVING DEVELOPMENT AT 2 LAGUNA STREET VAUCLUSE

Dear Mr Booth

Further to our correspondence dated 21 December 2007 (Council Ref: 755/2005) with regard to the subject development application, I advise that the RTA had further discussions with the Developer's traffic consultant Gary Shiels and Associates regarding the proposed access to the development off Old South Head Road.

The RTA has reviewed the revised proposal and would, under Section 138 of the Roads Act 1993, provide consent to **one** access point off Old South Head Road at a distance not less than 70 meters from Laguna Street provided Council approves the development application and taking into consideration of the following comments:

1. The developer is required to prepare a revised development plan indicating the agreed access point on Old South Head Road and how this access can service the proposed development requirements.
2. The RTA has no objection to an additional access point on Laguna Street provided that a median island is to be installed at no cost to the RTA across the entire driveway to prevent right turn movements to/from the site. Council to ensure the design of the traffic island meets relevant standards.
3. The design and construction of any new gutter crossing shall be in accordance with RTA requirements. Details of these requirements should be obtained from RTA's Project Services Manager, Traffic Projects Section, Parramatta (Ph 02 8849 2144). A certified copy of the design plan shall be submitted to the RTA for consideration and approval prior to the release of the construction certificate by Council and commencement of road works.

The car park and driveway design shall be in accordance with the RTA's Road Design Guide and other AS 2890.1 2004 and 2890.2 – 2002 for heavy vehicles.



4. Any redundant driveway on New South Head Road must be removed and replaced with kerb and gutter to match existing.
5. Council should ensure adequate provision for car parking requirements including facilities for handicapped drives and loading and unloading facilities on site.
6. Existing NO STOPPING restriction along Old South Head Road must be maintained.
7. Council should ensure that post development storm water discharge from the subject site into the RTA drainage system on Old South Head Road does not exceed the pre-development discharge.

Detailed design plans and hydraulic calculations of any changes to the RTA's stormwater drainage system are to be submitted to the RTA for approval, prior to the commencement of any works.

Details should be forwarded to:-

Sydney Asset Management  
Roads and Traffic Authority  
27-31 Argyle Street  
Parramatta NSW 2150

8. Approval/concurrence from State Transit Authority must be required for any proposed relocation of existing bus zone.
9. A construction traffic management plan is to be provided to Council to ensure that all construction vehicles are accommodated on site during the construction period.
10. The proposed development should be designed such that the road traffic noise from Old South Head Road is mitigated by durable materials, in accordance with EPA criteria for new land use developments (The Environmental Criteria for Road Traffic Noise, May 1999). The RTA's Environmental Noise Management Manual provides practical advice in selecting noise mitigation treatments.

Where the EPA external noise criteria would not feasibly or reasonably be met, the RTA recommends that Council apply the following internal noise objectives for all habitable rooms under ventilated conditions complying with the requirements of the Building Code of Australia:

- All habitable rooms other than sleeping rooms: 45 dB(A)  $L_{eq(15hr)}$  and 40 dB(A)  $L_{eq(9hr)}$ , and
  - Sleeping rooms: 35 dB(A)  $L_{eq(9hr)}$ .
11. All works associated with the proposed development will be at no cost to the RTA.

Please refer any further inquiries in relation to this matter to Stan Mack on 02 8849 2584.

Yours sincerely,



Salih Suleiman  
**Senior Land Use Planner**  
**Transport Planning Section**  
**Sydney Region**