

Elanora Country Club 154-156 Elanora Road, Elanora Heights Traffic Impact Assessment

Prepared for: Elanora Country Club

The Transport Planning Partnership ACN 607 079 005

Elanora Country Club 154-156 Elanora Road, Elanora Heights Traffic Impact Assessment

Client: Elanora Country

Club Version: V03

Date: 18/07/2017

TTPP Reference: 16251

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V03	18/07/17	Jessica Szeto	Ken Hollyoak	Ken Hollyoak	KIMAL

The Transport Planning Partnership (TTPP) has prepared this report in accordance with the instructions of Elanora Country Club for their sole and specific use. Any other persons who use any information contained herein do so at their own risk.

Table of Contents

1	Introd	duction	1
2	Existir	ng Conditions	2
	2.1	Site Description	2
	2.2	Abutting Road Network	2
	2.3	Traffic Volumes	3
	2.4	Car Parking	4
	2.5	Public Transport	5
	2.6	Pedestrian and Cycle Infrastructure	6
3	Prop	osed Development	8
	3.1	Proposal Description	8
	3.2	Vehicle Access	8
4	Car F	Parking	10
	4.1	WLEP 2000	10
	4.2	SEPP (Housing for Seniors or People with a Disability) 2004	10
5	Traffie	c Impact	12
	5.1	Traffic Generation	12
	5.2	Environmental Capacity	12
6	Cond	clusion	14

Tables

Table 2.1:	Summary of Traffic Volumes4
Table 5.1:	Environmental Capacity Performance Standards on Residential Streets12

Figures

2
3
4
4
5
6
6
•

The Transport Planning Partnership (TTPP) has prepared this report in accordance with the instructions of Elanora Country Club for their sole and specific use. Any other persons who use any information contained herein do so at their own risk.

Figure 2.8:	Existing Cycle Network	. 6
Figure 2.9:	Pedestrian Crossing 1	. 7
Figure 2.10:	Pedestrian Crossing 2	. 7
Figure 3.1:	Proposed Development	. 8
Figure 3.2:	Existing Vehicle Access	.9

APPENDICES

- A. TRAFFIC SURVEYS
- B. MASTERPLAN

The Transport Planning Partnership (TTPP) has prepared this report in accordance with the instructions of Elanora Country Club for their sole and specific use. Any other persons who use any information contained herein do so at their own risk.

1 Introduction

This report relates to the traffic and parking implications for the proposed addition of 46 seniors housing apartments within the existing Elanora Country Club at 154-156 Elanora Road, Elanora Heights.

The Transport Planning Partnership (TTPP) have prepared this report on behalf of the Elanora Country Club to accompany the Site Compatibility Certificate application with Northern Beaches Council seeking approval of the proposed development.

The remainder of the report is set out as follows:

- Chapter 2 discusses the existing road network conditions surrounding the site
- Chapter 3 describes the proposed development
- Chapter 4 assesses the parking demand
- Chapter 5 examines the traffic impacts arising from the proposed development
- Chapter 6 presents the summary and conclusion of the investigation.

2 Existing Conditions

2.1 Site Description

The subject site (site) is located at 154-156 Elanora Road, Elanora Heights and is occupied by the Elanora Country Club (Club). The Club is currently comprised of various recreational uses such as sporting facilities, function rooms, food and dining services and casual accommodation uses.

The Club fronts Elanora Road to the west and adjoins Ku-Ring-Gai and Garigal National Parks to the east of the site, as shown in Figure 2.1.



Figure 2.1: Site Location

Basemap Source: Sixmaps

Land in the vicinity of the site is predominately comprised of low density residential uses, with some mixed retail and commercial tenancies further east of the site. Notably, a local shopping strip is located within a ten-minute walk from the site, along Kalang Road off Powder Works Road.

2.2 Abutting Road Network

As noted previously, the site fronts Elanora Road to the west and is otherwise bound by Ku-Ring-Gai and Garigal National Parks to the east perimeter of the site. Vehicle access is provided directly off Elanora Road via a single two-way driveway providing connectivity to the site's internal access road to the Club.

Elanora Road

Elanora Road functions as a two-way collector road across a 9m wide road carriageway, predominately providing vehicle access to neighbouring residential properties in Elanora Heights. The road is generally aligned in a north-south direction, providing linkage between Powder Works Road and Wakehurst Parkway. Unrestricted kerbside parking is generally permitted on both sides of the road.

Illuka Road

Illuka Road functions as a two-way local road across a 7.3m wide road carriageway. The road is generally aligned in an east-west direction, connecting to Elanora Road and Allawah Avenue at the west and east ends, respectively. Unrestricted kerbside parking is permitted on both sides of the road and is predominately used by residents and visitors to the surrounding residential properties along Iluka Road.

2.3 Traffic Volumes

TTPP have commissioned tube counts to be undertaken between Friday, 14 October 2016 and Friday, 21 October 2016 (total period of seven days). The tube counts were installed at the vehicle access off Elanora Road and along lluka Avenue to record the total volume of traffic experienced at and near the site, respectively.

The locations of the tube counts are shown in Figure 2.2.



Figure 2.2: Location of tube counts

The results of the traffic survey are summarised in Table 2.1 below, with full results enclosed in Appendix A.

	Two-Way Traffic Volumes					
Location	Daily Average (Weekday)	Morning Peak (10am-11am)	Evening Peak (3pm-4pm)			
Illuka Road	470 veh	83 veh	79 veh			
Vehicle Access off Elanora Road	201 veh	14 veh	22 veh			

Table 2.1:Summary of Traffic Volumes

Table 2.1 indicates that traffic volumes at the vehicle access and along Iluka Road are generally low, with a daily weekday average of 470 and 201 vehicles per day, respectively.

During the peak hour, up to 83 vehicles were recorded along Iluka Road and 22 vehicles at the vehicle access off Elanora Road. In addition to this, on-site observations indicate that traffic volumes along Elanora Road were observed to generally be in the order of 200 vehicles per hour (two-way movements) during the evening peak.

Notwithstanding this, the existing Club generates up to 22 vehicle movements in any given hour, equating to approximately one vehicle every two to three minutes, which is considered low. Notably, the existing vehicle access off Elanora Road was observed to perform well, with minimal delays.

2.4 Car Parking

Unrestricted kerbside parking is generally provided along both sides of Elanora Road and surrounding roads in the vicinity. Parking was observed to be in low demand with a parking occupancy rate observed to be in the order of 25-50% of the total car parking supply.

It is noted that off-street car parking is provided within the Club and accommodates some 150 spaces. On-site observations showed that parking within the Club currently operate well within capacity, as shown in Figure 2.3 and Figure 2.4.









2.5 Public Transport

The Club is located within 15-minute walking distance (approximately 800 metres) to several bus stops along Kalang Road to the east. The existing bus network is shown in Figure 2.5.

Figure 2.5: **Existing Bus Network** Scotland Island Church Point Bilgola Bilgola Plateau 87 E88 E Mona Vale 7 L87 188 L88 190 Ba E87 E88 E89 PRE 0 TASM Subject Site SE/ 187 L88 156 L87 6 E87 E88 E8 Legend 😨 Police Station (P) Park and Ride Hospital Shopping Centres North 🕕 Railway Station **Elanora Heights** Narrabeen Educational Institutions Sporting Facility Services continue on Main Map Place of Interest Bus Route Bus Route Terminus

Source: Northern Beaches and Lower North Shore, STA Sydney Buses

Pedestrian and Cycle Infrastructure 2.6

Sealed pedestrian 1.2m wide paths are provided along the west side of Elanora Road, with no pedestrian path provided along the east side. as shown in Figure 2.6 and Figure 2.7.



Further, no dedicated cycleways are provided in the immediate vicinity of the Club. It is noted that the closest dedicated cycle path is provided approximately 2km east of the site along Pittwater Road, as shown in Figure 2.8.



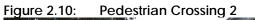
Existing Cycle Network

Source: Sydney Cycleways <<u>http://www.sydneycycleways.net/map/></u>

It is noted that pedestrian and cycling activity was observed to be predominately from residential traffic movements of surrounding properties. Pedestrian volumes were recorded to be in the order of 10 pedestrians during the evening peak, equating to one pedestrian movement every six minutes, which is considered low. Therefore, whilst there are limited pedestrian and cycle infrastructure provided within the immediate vicinity of the site, the existing pedestrian and cycle infrastructure is considered satisfactory for the surrounding land uses (i.e. mainly residential).

Notwithstanding, it is noted that pedestrian crossings have been installed within the Club at key pedestrian crossing locations, as shown in Figure 2.9 and Figure 2.10. Pedestrian infrastructure is considered appropriate within the Club for its anticipated use.







3 Proposed Development

3.1 Proposal Description

As part of the overall masterplan for the site, it is proposed to introduce a residential apartment complex, comprised of 46 seniors housing apartments. It is noted that this report only seeks to assess the proposed introduction of the 46 seniors housing apartments.

The overall masterplan of the site is shown in Figure 3.1.



Figure 3.1: Proposed Development

3.2 Vehicle Access

It is noted that the existing driveway off Elanora Road will continue to serve as the Club's main vehicle access. As part of the proposed works, it is not expected that any modifications to the existing driveway will be carried out.

The existing vehicle access is shown in Figure 3.2.

Figure 3.2: Existing Vehicle Access



In addition to the above, it is proposed to provide a secondary driveway off Iluka Avenue to serve the proposed development and for bushfire safety reasons (refer to Figure 3.1). This is not expected to result in adverse traffic impact on the surrounding road network. The likely traffic implications associated with the proposed development traffic on the surrounding road network, in particular along Iluka Avenue and Elanora Road, is further discussed in Section 5.

The masterplan of the proposed development is provided in Appendix B.

4 Car Parking

4.1 WLEP 2000

The Warringah Local Environmental Plan (WLEP) 2000 provides different car parking rates for various development uses as set out in WLEP2000, Schedule 17. Based on the proposed development, the minimum car parking rates applicable for housing for older people or people with a disability are as follows:

- Hostel or residential care facility:
 - 1 space per 10 beds plus
 - 1 space per 2 employees on duty at any one time plus
 - 1 ambulance space

AND

 0.5 spaces per bedroom, where the application is made by a person other than the Department of Housing or a local government or community housing provider

In addition, it is noted that such developments comprised of eight or more dwellings, visitor parking is required.

4.2 SEPP (Housing for Seniors or People with a Disability) 2004

The State Environmental Planning Policy (SEPP), Housing for Seniors or People with a Disability, 2004 states that:

"A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a residential care facility, hostels or self-contained dwellings on any of the following grounds"

- Residential care facilities
 - (d) parking: at least
 - 1 parking space for each 10 beds in the residential care facility (or 1 parking space for each 15 beds if the facility provides care only for persons with dementia), and
 - 1 parking space for each 2 persons to be employed in connection with the development and on duty at any one time, and
 - 1 parking space suitable for an ambulance

- Hostels
 - (d) parking: at least
 - 1 parking space for each 5 dwellings in the hostel, and
 - 1 parking space for each 2 persons to be employed in connection with the development and on duty at any one time, and
 - 1 parking space suitable for an ambulance
- Self-contained dwellings
 - (h) parking: at least
 - 0.5 car spaces for each bedroom where the development application is made by a person other than a social housing provider, or
 - 1 car space for each 5 dwellings where the development application is made by, or is made by a person jointly with, a social housing provider

Notwithstanding, it is noted that the proposed development will satisfactorily comply with the minimum car parking requirements as set out above.

5 Traffic Impact

5.1 Traffic Generation

Traffic generation rates for seniors housing developments have been estimated based from the RMS Guide to Traffic Generating Developments (Guide), updated traffic surveys (TDT 2013/04a). The RMS Guide suggests that seniors housing developments typically generate traffic at the following rates:

•	Weekday daily vehicle trips	2.1 vehicle trips per dwelling
---	-----------------------------	--------------------------------

Weekday peak hour vehicle trips
0.4 trips per dwelling

On that basis, the proposed provision of 46 seniors living apartments would likely generate a total trip generation of 97 vehicle trips per day and 18 vehicle trips in the peak hour. This equates to a frequency of one vehicle every three minutes in the peak hour, which is relatively low and is considered negligible. Notwithstanding this, it is noted that existing traffic volumes surrounding the site is considered low to moderate as indicated in Section 2.3, which recorded 83 vehicles in the peak hour along Iluka Avenue and approximately 200 vehicles along Elanora Road.

Thus, the traffic impacts associated with the seniors housing development (i.e. 18 vehicle volumes in the peak hour) is expected to be minimal and could not be expected to result in any operational or safety issues in the surrounding road network.

5.2 Environmental Capacity

The RMS Guidelines provides some guidance on typical environmental capacity of local residential streets. This information has been reproduced in Table 5.1.

Road Class	Road Class Road Type		Maximum Peak Hour Volume (vph)	
	Access Way	25	100	
Local	Stroot	40	200 environmental goal	
	Street	40	300 maximum	
Qalla star	Chr.o. a t	50	300 environmental goal	
Collector	Street	50	500 maximum	

Table 5.1:	Environmental Capacity Performance	Standards on Residential Streets
	Environmental oupdoily renormalies	

Note: Maximum speed relates to the appropriate design maximum speeds in new residential developments. In existing areas maximum speed relates to 85th percentile speed. Taking into consideration the above, Table 5.1 indicates that the environmental capacity of Elanora Road is 300 vph (environmental goal) with a maximum of 500 vph in the peak hour. In addition, Iluka Road would have an environmental capacity of 200 vph (environmental goal) with a maximum of 300 vph.

As noted previously, the existing traffic flows along Elanora Road and Iluka Road are generally in the order of 200 vph and 83 vph, respectively. With the additional 18 vph generated by the proposed development, it is noted that both Elanora Road and Iluka Road would continue to operate well within their environmental capacities.

Thus, the proposed development is not expected to have any adverse traffic implications relating to residential amenity.

6 Conclusion

The findings of the report outline the following key findings:

- The proposed development involves the introduction of 46 seniors housing apartments within the existing Club.
- Car parking requirements for housing for seniors or people with disabilities are set out in the WLEP2000 and SEPP (Housing for seniors and people with disabilities). The proposed seniors housing development will comply with the minimum car parking requirements as set out in the relevant planning policy documents.
- Existing traffic volumes within the vicinity of the site were found to be in the order of 200 vehicles in the peak hour along Elanora Road and 83 vehicles per hour along Iluka Road.
- The traffic associated with the proposed seniors housing development is expected to generate approximately 97 vehicles per day and 18 vehicles in the peak hour, which is considered low, with negligible impacts.

Overall, the proposed development of 46 seniors housing apartments is not expected to result in any significant impacts to the operation or the environmental capacity of the surrounding road network, nor result in any operational or safety issues.

Consequently, the proposed development is considered broadly compatible with the adjacent road network.

Appendix A

Traffic surveys

A.1 Iluka Avenue

Job No	N2742
Client	ттрр
Site	Illuka Avenue (adj. no 71)
Location	Elanora Heights
Site No	1
Start Date	14-Oct-16
Description	Volume Summary
Direction	Combined



Menu

	Day of Week								
Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
Starting	17-0ct	18-Oct	19-0ct	20-Oct	14-0ct	15-0ct	16-0ct	W'Day	7 Day
AM Peak	47	43	45	83	47	68	20	Ave	Ave
PM Peak	65	45	79	56	47	75	26	470	439
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	2	1	0	0	1	0
3:00	0	1	0	0	0	0	0	0	0
4:00	6	8	3	6	3	6	1	5	5
5:00	21	23	22	20	20	3	2	21	16
6:00	13	16	19	35	25	34	9	22	22
7:00	24	40	20	59	40	68	18	37	38
8:00	34	43	36	24	47	17	15	37	31
9:00	43	18	28	27	19	27	18	27	26
10:00	38	32	41	83	34	9	20	46	37
11:00	47	15	45	77	25	27	15	42	36
12:00	33	24	33	56	46	59	16	38	38
13:00	44	37	28	50	47	22	26	41	36
14:00	23	44	45	27	47	33	14	37	33
15:00	65	45	79	40	38	75	25	53	52
16:00	14	22	33	36	30	21	20	27	25
17:00	7	12	16	35	16	25	13	17	18
18:00	4	4	11	37	6	57	16	12	19
19:00	0	1	1	1	2	7	1	1	2
20:00	0	5	0	0	13	2	0	4	3
21:00	4	0	4	0	0	1	0	2	1
22:00	0	0	2	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0

<u>Note:</u> Some data for Sunday, 16 October 2016, between 3pm and 8pm, was lost due to the presence of parked vehicles on the tubes.

A.2 Elanora Country Club (Vehicle Access)

Job No	N2742							P	Venu
Client	ттрр								vienu
Site	Elanora	Elanora Country Club (vehicle access off Elanora Rd)							
Location		Elanora Heights							
Site No	2								
Start Date	- 14-Oct-1	6							1
Description							NA A	TD	
			ý				IVL	Traffic and Tra	
Direction	Combine	20						- Inditic and ind	insport Data
			Da	ay of We	ek	-			
Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
Starting	17-0ct	18-0ct	19-0ct	20-Oct	14-0ct	15-0ct	16-Oct	W'Day	7 Day
AM Peak	15	19	19	14	16	19	22	Ave	Ave
PM Peak	21	22	22	22	18	18	13	201	184
0:00	0	0	1	0	0	2	0	0	0
1:00	0	1	0	1	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	1	0	0
4:00	2	2	2	1	2	2	0	2	2
5:00	5	5	3	4	4	1	1	4	3
6:00	15	10	10	8	5	4	2	10	8
7:00	15	19	14	10	13	8	12	14	13
8:00	12	19	19	8	16	11	12	15	14
9:00	11	8	10	14	10	5	15	11	10
10:00	9	14	11	8	6	9	22	10	11
11:00	7	9	10	14	8	19	20	10	12
12:00	17	15	11	9	13	14	10	13	13
13:00	14	15	13	11	10	10	13	13	12
14:00	19	16	17	14	16	18	0	16	14
15:00	21	20	22	18	18	6	0	20	15
16:00	12	17	14	22	10	15	0	15	13
17:00	11	22	19	16	13	16	0	16	14
18:00	16	15	8	19	15	15	0	15	13
19:00	5	8	5	4	14	6	0	7	6
20:00	0	2	4	8	7	4	1	4	4
21:00	1	3	3	2	11	3	3	4	4
22:00	1	0	2	0	7	4	1	2	2
23:00	0	0	0	1	3	1	0	1	1

<u>Note:</u> Some data for Sunday, 16 October 2016, between 3pm and 8pm, was lost due to the presence of parked vehicles on the tubes.

Appendix B

Masterplan



ELANORA COUNTRY CLUB - SENIORS HOUSING, ELANORA HEIGHTS

10:54AM Jul 06, 2017



Scale 1:750 All dimensions in millimeters

The Transport Planning Partnership Suite 402 Level 4, 22 Atchison Street St Leonards NSW 2065

> P.O. Box 368 Summer Hill NSW 2130

> > 02 8437 7800

info@ttpp.net.au

www.ttpp.net.au