

3 February 2017

Director General
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

**RE: 85 BOORALIE ROAD, TERREY HILLS – PROPOSED SEPP (SENIORS LIVING) DEVELOPMENT
INITIAL TRAFFIC INVESTIGATIONS FOR SITE COMPATIBILITY CERTIFICATE
OUR REFERENCE: 1706**

1.0 Introduction and Background

These initial traffic investigations have been commissioned by Tolucy Pty Ltd to accompany an application for a Site Compatibility Certificate for a proposed SEPP (Seniors Living) residential development at 85 Booralie Road, Terrey Hills (Figure 1).

Figure 1 - Site Location



These investigations include an approved SEPP (Seniors Living) development (DA2013/0796) on the abutting site to the east known as 83 Booralie Road, Terrey Hills. That development, which is currently under construction, comprises 50 residential dwellings, parking for 120 cars with vehicle access from Laitoki Road.

2.0 Site Description and Existing Development

The subject site has a legal description of Lot 2 in DP 530145 known as 83 Booralie Road, Terrey Hills and occupies a large parcel of land on the southern side of Booralie Road west of Laitoki Road. The site is generally rectangular in shape having frontages to Booralie Road of 74.19m; a combined eastern boundary of 258.055m; a western boundary of 258.455m; rear southern boundary of 88.315m (along the unformed Tooronga Road) and a site area of 19,296m². The Booralie Road site boundary has a very modest fall from east to west.

Existing improvements on the site comprise a brick and tile roof cottage positioned toward the north western portion of the site with detached sheds to the south and west of the dwelling. A natural watercourse runs through a small portion of the property at the south eastern corner of the site.

A survey plan of the site (5 sheets), including No 83 Booralie Road, prepared by Bee & Lethbridge, Surveyors, is reproduced in Appendix 'A'.

Surrounding development to the west comprises predominately rural properties on similarly large parcels of land. East of Laitoki Road development along Booralie Road is typified by one and two storey detached residential dwellings. As noted earlier abutting the site to the east is a seniors living residential development currently under construction.

The Terrey Hills Shopping Centre is located approximately 900m to the east along Booralie Road.

3.0 Proposed Development

The development scheme proposes demolition and removal of all existing structures on the site to enable construction of a SEPP (Seniors Living) residential development. The concept scheme envisages 37 x 3 bedroom residential dwellings, at-grade parking for some 78 cars with vehicle access from Booralie Road.

A conceptual drawing of the proposal (including the approved development at 83 Booralie Road currently under construction) prepared by Playoust Churcher Architects is reproduced in Figure 2 overleaf.

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4.0 Road Network and Traffic Conditions

The road network serving the site predominately comprises:-

Mona Vale Road – forms part of the Arterial road route (A3) between Mona Vale to the east and Homebush and Hurstville to the south west. The road is a classified Main Road (MR 162) and is subject to a widening scheme east of McCarrs Creek Road by the Roads and Maritime Services (RMS). The RMS provides traffic flow data for Mona Vale Road with the most recent published data¹ being for 2016 expressed in terms of Average Daily Traffic (ADT) flows. Two way weekday ADT flows of 35,273 were recorded 90m east of Addison Road, Ingleside.

Booralie Road – is a Council road classified as a ‘Collector’ road in Council’s Road Hierarchy. East of Laitoki Road the road is kerb and guttered on each side providing for one travelling and one parking lane in each direction with a sign posted speed limit of 50km/h. A bicycle lane is marked for each direction of travel easterly from Laitoki Road. West of Laitoki Road and adjacent to the subject site the road is constructed to a rural standard without kerb and gutter and is subject to a 50km/h speed limit. A 60km/h speed limit is signposted approximately 85m west of the subject site. The road has centreline markings to RMS standards and street lighting is provided to a standard commensurate with the abutting development. Adjacent to the subject site weekday peak hour two way traffic flows are in the order of 720 vehicles per hour (2013 traffic count data²) or approximately 7,000 vehicles per day.

The Roads and Maritime Services has established guidelines for the functional classification of roads according to the role they perform and the volume of traffic they should appropriately carry, as follows:-

<i>Arterial Road</i>	<i>typically a State Road which carry more than 15,000 vehicles per day (over 1,500 veh/h) and perform the role of major inter-regional links</i>
<i>Sub-Arterial Road</i>	<i>typically Regional Road defined as secondary inter-regional links which carry volumes between 5,000 and 20,000 vehicles per day (500 veh/h to 2,000 veh/h)</i>
<i>Collector Road</i>	<i>provides links between local areas and regional roads and typically carries between 2,000 and 10,000 vehicles per day (200 - 1,000 veh/h)</i>
<i>Local Road</i>	<i>provide access to individual allotments and carry low volumes, desirably less than 2,000 vehicles per day (200 veh/h) with a recommended maximum of 300 veh/h proceeding at a speed of about 40 km/h.</i>

Booralie Road is carrying traffic flows below the upper limit for its functional classification.

Observations confirm all intersections in the immediate area operate with minimal delay and spare capacity.

¹ Roads and Maritime Services ‘Traffic Volume Viewer 2016’

² R.O.A.R. Data Traffic Count at Laitoki Road – May 2013

5.0 Vehicle Access Arrangements

Vehicle access is proposed from Booralie Road. The concept scheme shows a combined 'entry/exit' access driveway located some 26m west of the eastern site boundary. The driveway will need to be positioned to provide a minimum stopping sight distance of 45m (desirable 69m) to the west for eastbound traffic on Booralie Road in accordance with Figure 3.2 in 'AS/NZS 2890.1:2004' for the posted speed limit of 50km/h. There may be a need to clear some vegetation within the road verge to achieve the required sight distance to the west. Sight distance to the east will be more than adequate.

This matter would be subject to further detailed design and assessment as part of any development application.

6.0 Parking and Servicing Requirements

The concept proposal envisages parking for some 78 cars (i.e. 2 cars per dwelling within a double garage) plus 4 visitor spaces which exceeds the 56 spaces required under the SEPP Seniors Living Policy (i.e. 37 x 3 bedrooms dwellings @ 0.5 spaces/bedroom = 56 spaces). All parking is proposed at-grade and along with servicing requirements, internal access and vehicle manoeuvring would be subject to detail design and assessment at development application stage.

7.0 Traffic Generation and Impact

Seniors living developments are, by their nature, relatively low traffic generators. The Roads and Maritime Services 'Guide to Traffic Generating Developments V2.2' provides data³ on traffic generation rates for various forms of land use. In respect to this type of development the RMS advises the following rates are applicable (**noting that the am peak hour does not generally coincide with the network peak hour**):-

Weekday daily vehicle trips (dvt) = 2.1 per dwelling

Weekday peak hour vehicle trips (pvt) = 0.4 per dwelling

Application of these rates indicates that the concept proposal would generate daily and peak hour traffic flows as follows:-

Weekday Daily Vehicle Trips:-

37 dwellings @ 2.1 dvt/dwelling = 78 dvt

Weekday Peak hour Vehicle Trips:-

37 dwellings @ 0.4 pvt/dwelling = 15 pvt

Traffic flows of the magnitude indicated above, which on average would represent one vehicle every 4 minutes in the weekday peak hour, would not have any unacceptable impact on existing traffic flows in Booralie Road or the surrounding road network nor have any capacity implications for nearby intersections or junctions. It should also be reiterated that, in respect to

³ Roads and Maritime Services 'Guide to Traffic Generating Developments V2.2 - Updated traffic surveys TDT 2013/04'

the am peak period, seniors living am peak flows do not generally coincide with the network peak hour.

Similarly, traffic flows as indicated, would not be expected to present any unacceptable delays on Booralie Road at the access driveway.

In conjunction with the traffic generated by the development under construction at 83 Booralie Road (i.e. 50 dwellings @ 0.4 weekday pvt/dwelling = 20 weekday pvt) an increase of some 35 weekday peak hour vehicle trips would not result in any unacceptable impact on Booralie Road traffic flows with the road continuing to carry flows well within the upper limit for a 'Collector' road.

A more detailed assessment quantifying any impact would form part of any future development application.

8.0 Public Transport Availability

Forest Coach Lines operates a regular bus service along Booralie Road past the site between Duffys Forest and Chatswood via Terrey Hills, Belrose and Davidson utilising its Route 284 service. The site has good access to this service with Bus Stops located on each side of Booralie Road, east of Laitoki Road, involving a relatively short walking distance over very flat grades.

9.0 Conclusions

From these initial traffic investigations into a proposed SEPP (Seniors Living) development at 85 Booralie Road, Terrey Hills it is concluded that:-

1. The site is located in an area of Terrey Hills where the local road system is subject to relatively low traffic flows and are consistent with their functional classifications.
2. All intersections in the vicinity of the site operate with minimal delay and spare capacity.
3. A seniors living development of the scale proposed would generate in the order of 15 weekday peak hour vehicle trips with minimal impact on existing traffic flows in the area and would have no unacceptable impact on the operational efficiency of nearby intersections. Having regard to the seniors living residential development under construction at 83 Booralie Road the combined traffic generated by both developments will not have any unacceptable impact on Booralie Road or nearby intersections.
4. The vehicle access driveway on Booralie Road will need to be positioned to meet the minimum sight distance requirements in accordance with current Australian Standards which may require some clearing of vegetation within the road verge to achieve compliance.
5. The proposed car parking provision exceeds the SEPP's requirements for the development and will be accommodated at-grade on-site.
6. The site has convenient access to public transport providing residents with access to the Terrey Hills neighbourhood shopping centre, Chatswood and the intermediate suburbs of Belrose and Davidson

It is considered that, in respect to traffic impacts, the site would be compatible for use as a seniors living residential development and would not have any unacceptable traffic, parking or traffic related environmental implications resulting from the proposal.

Should clarification of any aspect of this advice be required please do not hesitate to contact the undersigned.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Ray Dowsett', with a stylized flourish at the end.

Ray Dowsett
Director

APPENDIX 'A'

Site Survey Plans (5 sheets)







