



TRAFFIC IMPACT ASSESSMENT

Residential Subdivision and Housing Development

96 to 104 Cabarita Rd Avalon Beach

Meraki Developments Pty Ltd

c/o MARK HURCUM DESIGN PRACTICE PTY LTD
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Revision Register

Rev	Date	Amended By	Approved By	Remarks
0	18/09/18	David Pavey	Kam Tara	Draft for client review
1	24/10/18	David Pavey	Kam Tara	Number of lots reduced Final for DA Submission
2	2/11/18	David Pavey	Kam Tara	Minor updates
3	23/11/18	David Pavey	Kam Tara	Minor updates
4	28/11/18	David Pavey	Kam Tara	Minor updates and changes to lot numbering

1.0 INTRODUCTION

Urban Research and Planning Pty Ltd has been commissioned to assess the proposed traffic arrangements associated with parking and access for of a development consisting of 10 lot residential subdivision and the construction of nine dwelling houses with the existing house on lot 11 to remain.

The subject DA proposes the subdivision of the land into 10 Community Title lots (9 residential and one community lot) and 1 torrens title lot. Lodged concurrently are 9 DA's for individual dwelling houses on the Community Title residential lots. However, this report only relates to the subdivision as this DA results in the potential generation of traffic and parking requirements for the proposed lots.

The report will provide an opinion on any effect the proposed development may have on the surrounding area.

This report includes an assessment of the physical layout of the site, including consideration of the following traffic elements:

- Vehicular Access,
- On-site car parking provision, and
- Traffic generation and effect (if any) on the adjacent road network.

The results of the above analyses are outlined in the following sections.

2.0 LIMITS OF REPORT

This report takes into account the particular instructions and requirements of our client. Urban Research and Planning has taken care in the preparation of this report, however it neither accepts liability nor responsibility whatsoever in respect of:

- Any use of this report by any third party;
- Any third party whose interests may be affected by any decision made regarding the contents of this report; and/or
- Any conclusion drawn resulting from omission or lack of full disclosure by the client, or the clients' consultants.

3.0 SITE LOCATION

This proposal is located at 96 to 104 Cabarita Rd Avalon Beach,

The subject site is located on the north eastern side of Cabarita Rd approx. 300 m northwest of Careel Bay Cres.

The site currently has a single dwelling located on the site. There is an existing vehicular access to Cabarita Rd which will be retained and enhanced.

4.0 PROPOSAL

The proposed development consists of a total of 10 lots each containing a single dwelling

5.0 PARKING

5.1 On-site Parking Provisions

Northern Beaches Council requires that off street parking is to be provided to each allotment in accordance with Clause B6.3 of P21 DCP. This Development Control Plan requires minimum of 2 parking spaces per dwelling, for dwelling with two or more bedrooms. The DCP does not require visitor parking for this type of development.

The development as proposed complies with these requirements with a 2-car garage being provided for each of the allotments. In addition to the garages there is provision for 2 cars (in a stacked parking arrangement on each of the proposed allotments which essentially provides an additional two visitors spaces for each allotment reducing the likelihood of visitor parking on the common driveway portion of the development.

With respect to the existing lot (lot 11) parking arrangements will remain unchanged. The existing house has one car garage and a large paved area within the lot (near Lot 10) which can accommodate at least one additional car, therefore ensuring that there are at least 2 parking spaces remaining for existing lot 11

6.0 VEHICLE ACCESS OFF CABARITA RD

Northern Beaches Council requires that the driveway off Cabarita Rd is a maximum of 6m wide at the kerb and is to be constructed in accordance with Council's normal low-level profile

The proposed development utilises the existing crossing which is proposed to 6.5 m wide, with a 3m level section immediately behind the layback to facilitate pedestrian access. This provides a level location for cars to occupy prior accessing onto to Cabarita Rd.

The proposed configuration improves sight lines for vehicles to wait after driving up the driveway to check for oncoming vehicles with Cabarita Rd.

Therefore, the access onto Cabarita Rd complies with Council requirements.

7.0 VEHICLE ACCESS INTERNALLY WITHIN SUBDIVISION

7.1 Internal Access Road

Northern Beaches Council requires that "internal driveway" are a minimum width of 5m to permit adequate passing of all vehicles and to provide a turning head or cul de sac and the end of the road to ensure a small rigid truck can turn and exit in a forward direction. It also requires the longitudinal grades not to exceed 1:4.

In assessing these requirements, the internal access road needs to be examined in two parts,

Firstly, the width of the road and secondly the need for a turning head or cul-de-sac to facilitate small rigid trucks. It should be noted that URaP has defined a small rigid truck as being an Austroads 8.8 m rigid vehicle, travelling at 5 km per hour which we interpret as the largest truck likely to enter into this

residential subdivision.

7.1.1 Width of access road

To assess the access road, it needs to be looked at in two distinct parts due to the topography and ecology of the area.

This first part is the steep section coming off Cabarita Rd and passing the large stand of "Pittwater Spotted Gums". This section of private road way varies between 6 m and 3.5 meters wide and is an adequate width for all intended vehicles that would utilise this development. Widening to a minimum of 5 m would result in the significant loss of endangered vegetation and is in conflict with other Council requirements.

However, the distance that the access road is narrower than 5 meters is less than 25 meters and sight distance and holding areas are provided that would ensure that vehicles approaching this area have excellent views of approaching vehicles and will wait for an oncoming vehicle to pass. This section has been designed to utilise an existing road (which is 3.5 m wide) to avoid unnecessary excavation and compaction in the root zone of the adjacent stand of trees

The second part of the access road is the section running roughly parallel with Cabarita Rd and has been designed to fit into the natural contours of the land as best as possible and to achieve the required driveway slopes set out by Council. This section of road meets the minimum requirements of Council and complies with both width and gradients guidelines

Therefore, considering the ecological constraints and requirement of Council the access road as proposed generally complies with the intent of Council requirements.

7.1.2 Need for a turning head

Due to the terrain and need to avoid excess cut and fills the provision of a turning head or cul de sac at the north-western end of the internal access road is problematic. Whilst there is sufficient room to construct these facilities (in plan view) the vertical alignment would compromise other aspects of the design that Council is hoping to retaining. (i.e. visual amenity, grades into driveways, preservation of vegetation etc). Consequently, it is proposed that the turning facility would be located at the south-eastern end of the access way at its junction with the driveway leading to Cabarita Rd. Truck turning templates are provided for these movements are shown in appendix B and demonstrate that the design vehicle can reverse back up the driveway into the short section of common land east of the access to Cabarita Rd and then in one movement exit the property in a forward direction. The widths of the access way have been designed to accommodate these moments, as has the provision of a mountable median at this junction. This reversing manoeuvre is not uncommon in town house developments or in accessing loading docks in retail/commercial developments. Sufficient sight distance is available to ensure that users are aware of these movements.

Therefore, considering the topographical and ecological constraints on the site the access road generally complies with intent of Council of ensuring that delivery vehicles will be able to access and leave the development in a forward direction

7.2 Driveways to individual allotments

Northern Beaches Council requires that driveways to garages should have a maximum gradient 1:4 (V:H) and access points to the proposed garages are recommended not to exceed 1:20(V:H).

The location of the proposed vehicle crossings provides adequate sight distance from the access road all achieve the minimum requirements stated by Council.

In addition, many of the driveways have turning areas within each allotment that enable vehicles to turn on site and proceed onto the access road in a forward direction.

Therefore, the driveways to each individual allotment, as proposed, comply with Council requirements.

8.0 TRAFFIC GENERATION AND EFFECT ON ADJACENT ROADWAY

This Traffic Impact Assessment has utilised peak hour and daily traffic generation rates from – RMS Guide to Traffic Generating Developments 2002 and its 2013 Supplement.

Section 3.3.2 provides traffic generation rates for medium density residential buildings. The proposed development has been classified as larger houses as they contain 3 or more bedrooms. Consequently, the vehicle generation rate is as follows:

- Daily vehicle trips 5 to 6.5 per dwelling
- Peak hour vehicle trips 0.5 to 0.65

Therefore, in the case of ten (10) allotments the total daily trips would amount to 65 and the peak hour trips to 7.

However as there is one existing dwellings on the site (section 3.3.1 Dwelling houses) the peak hour trip is 0.65 per dwelling. The cumulative effect of the additional dwellings would then be:

- Daily 60
- Peak hour 6

Consequently, it is considered that the development will not adversely add to the traffic movements around the site.

9.0 CONCLUSIONS

Based on the findings of this report, Urban Research and Planning Pty Ltd is of the opinion considering the balance in the design to preserve the amenity and ecology of the site that there are no traffic engineering related matters that should preclude approval of this development application.

Prepared by:
URaP PTY LTD

Authorised by:

DAVID PAVEY
Principal Consultant

DR KAM TARA
Director

APPENDIX A: SITE LAYOUT

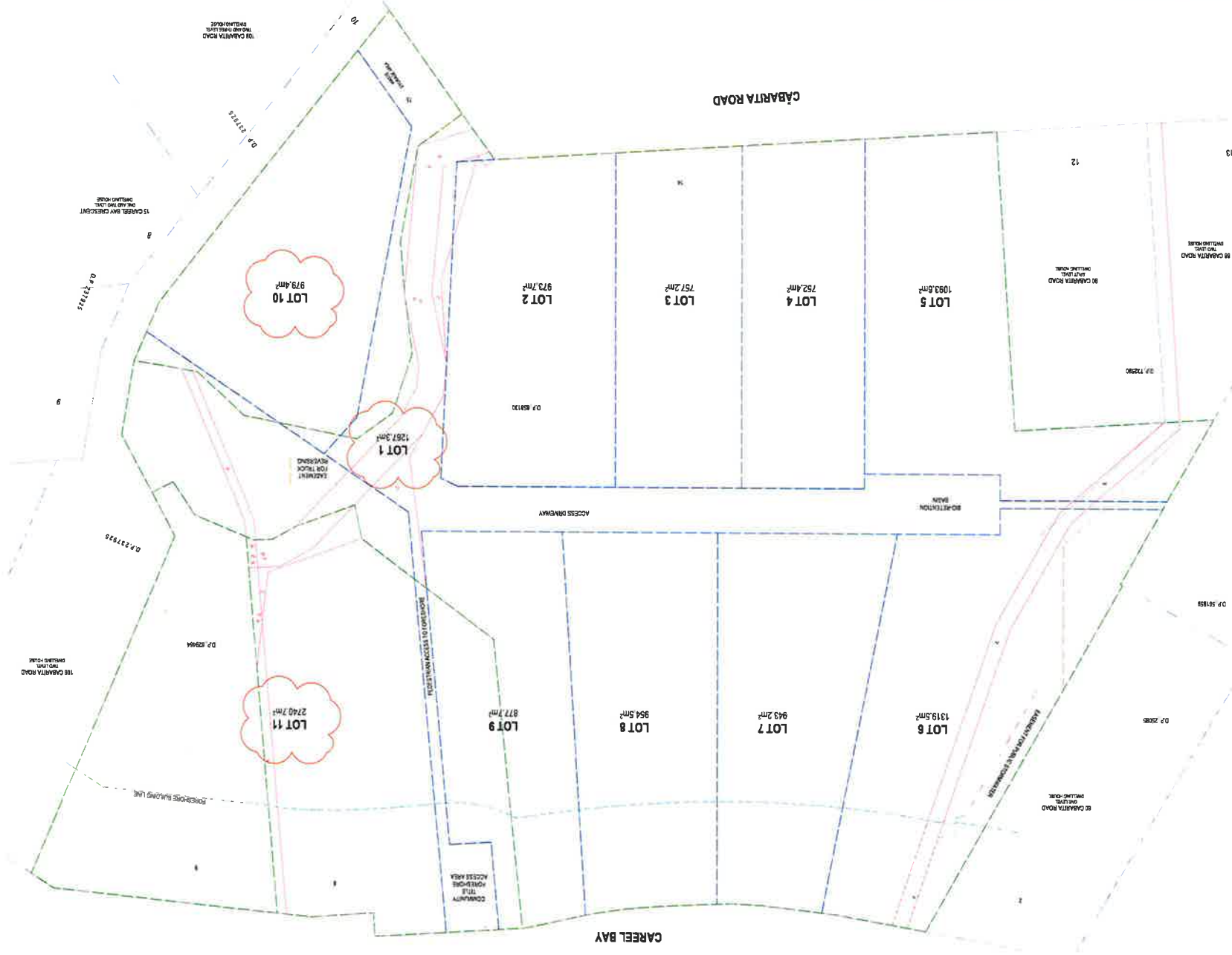
For Development Application Only

96-104 CABARITA ROAD AVALON BEACH

RESIDENTIAL SUBDIVISION

1801 A002A/P5 1:250 @ A1 1:500 @ A3 NOVEMBER 2018

DESIGN



TOTAL SITE AREA: 12,659.2m²

LEGEND

- EXISTING LOT BOUNDARY
- PROPOSED SUBDIVISION
- EXISTING EASEMENTS
- FORESHORE BUILDING LINE (FSL)

APPENDIX B TURNING MOVEMENTS

