



PROPOSED RESIDENTIAL DEVELOPMENT

30 FAIRLIGHT STREET, FAIRLIGHT

Traffic and Parking Assessment Report

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Ref: 19056

Prepared by

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1. INTRODUCTION

This report has been prepared to accompany a Development Application to the Northern Beaches Council for a proposed residential flat building development located at 30 Fairlight Street, Fairlight (Figures 1 and 2).

The subject site is located on the northern side of Fairlight Street opposite Margaret Street. It has a site area of 861.7m² with a frontage of 16.01m to Fairlight Street. The existing site development comprises a single residential dwelling served by a 3 car garage with each space having direct vehicular access to Fairlight Street via an 11m wide driveway.

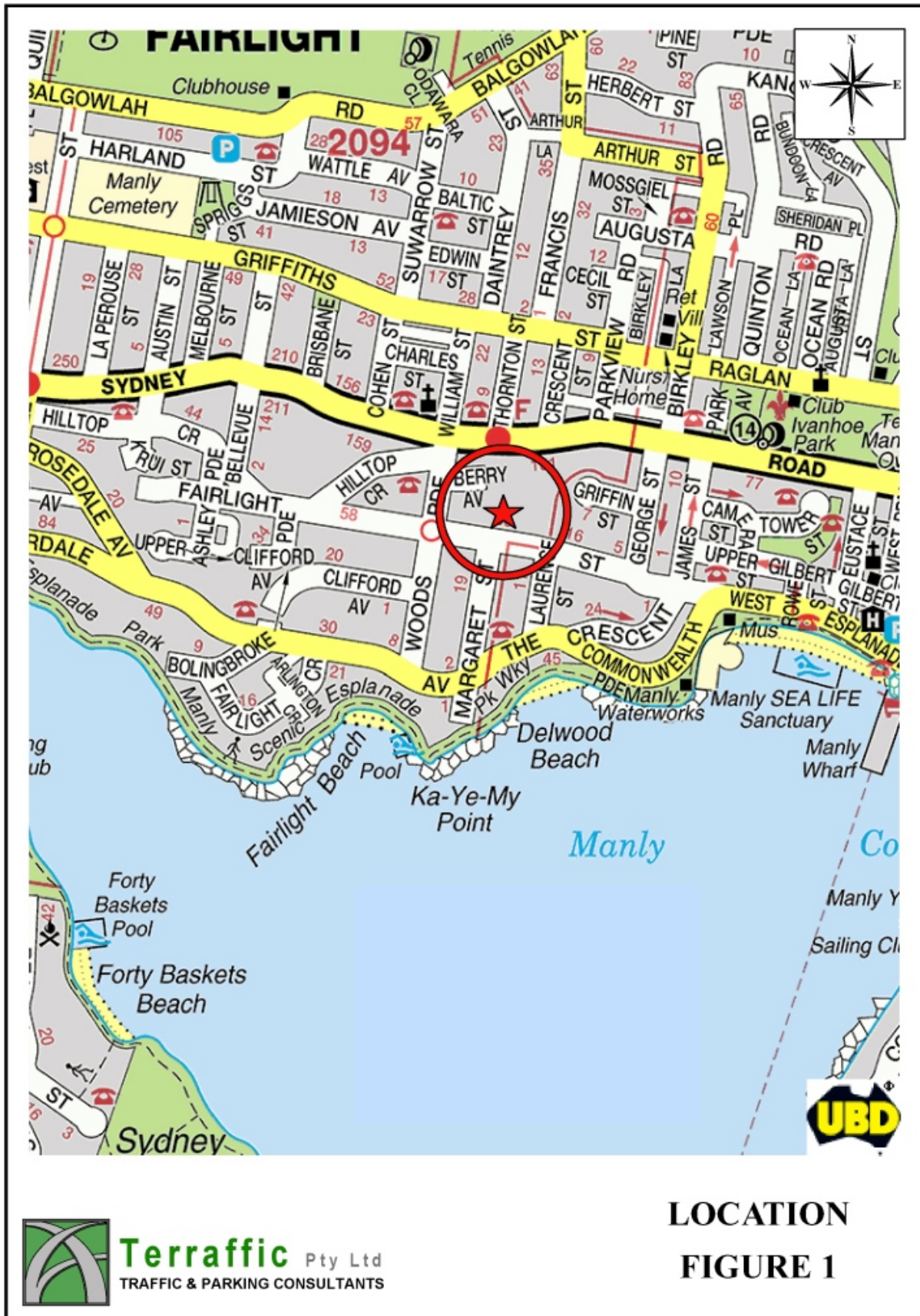
The proposed development involves the demolition of the existing dwelling and construction of a new residential flat building containing a total of 7 dwellings (6 x 2 bedroom units and 1 x 3 bedroom unit).

The proposal will be served by a 10 space basement carpark containing 8 resident spaces and 2 visitor spaces. In addition to the vehicle parking provision, the basement carpark contains a dedicated bicycle parking area capable of accommodating at least 7 bicycles.

Vehicular access to the basement carpark will be via 3.0m wide combined entry/exit driveway off Fairlight Street located adjacent to the eastern site boundary. The 11m wide vehicle crossing serving the existing dwelling will be removed and replaced by standard kerb and gutter to Council's specifications. The replacement of the existing crossing will result in a net increase of 1 on-street car parking space.

A plan of the proposed Basement carpark prepared by Bianchino Associates is reproduced in the following pages.

The purpose of this report is to assess the traffic and parking implications of the development proposal.









2. PARKING ASSESSMENT

Council DCP Off-Street Car Parking Requirements

The off-street parking requirements applicable to the proposed development are specified in Schedule 3 – Part A1 of the Manly Development Control Plan 2013 (amended 1 December 2019) as follows:

In LEP Residential Zones and all other Zones except LEP Business Zones

- 1 resident parking space for each dwelling (irrespective of number of bedrooms), plus
- 0.2 resident parking spaces for each 2 bedroom dwelling, plus
- 0.5 resident parking space for each 3 (or more) bedroom dwelling, and plus
- 0.25 visitor parking space for each dwelling (irrespective of number of bedrooms)

Application of the Council's parking requirement to the proposed development yields a minimum parking requirement of 11 spaces calculated as follows:

6 x 2 bedroom units @ 1.2 spaces per unit	7.2 spaces
1 x 3 bedroom unit @ 1.5 spaces per unit	1.5 spaces
<i>Total Resident</i>	<i>8.7 spaces (rounded to 9 spaces)</i>
7 units @ 1 space per 4 units for visitors	1.8 spaces (rounded to 2 spaces)
Total	10.5 spaces (rounded to 11 spaces)

The proposed development makes provision for 10 parking spaces comprising 8 resident spaces and 2 visitor spaces. Each 2 bedroom residence will be allocated 1 parking space while the 3 bedroom unit will be served by 2 spaces in the basement carpark.

While the proposed parking provision represents a shortfall when calculated in accordance with the DCP, this shortfall is considered acceptable in this case as:

- The shortfall is only 0.5 of a space
- The replacement of the existing 11m wide crossing will result in a net increase of 1 on-street car parking space
- Each dwelling is served by at least 1 parking space



Car Park Compliance

The basement carpark and vehicular access has been designed to generally satisfy the following requirements of the Australian Standard AS/NZS2890.1-2004 – “*Off-Street Car Parking*”:

- Parking spaces have a minimum length of 5.4m and width of 2.4m
- An additional 0.3m has been provided for spaces adjacent to a wall or obstruction
- The access/manoeuvring aisles satisfy the minimum requirement of 5.8m
- A 1.0m wide dead-end aisle complies with the Standard
- Pavement cross-falls at parking spaces do not exceed 5% (1 in 20) in any direction
- Columns have been located in accordance with Clause 5.2 of the Standard
- The first 6.0m of the access ramp from the property boundary has a maximum grade of 5% (1 in 20)
- Ramp transitions do not exceed 12.5% (1 in 8) over a distance of 2.0m
- Maximum ramp grade does not exceed 25% (1 in 4)
- The single lane section of the access ramp has a minimum width of 3.6m wall to wall
- A minimum headroom clearance of 2.2m has been provided throughout the basement carpark
- Pedestrian sight lines in accordance with Figure 3.3 of the Standard have been provided

The disabled parking space has also been designed in accordance with the Australian Standard AS/NZS2890.6:2009 – “*Off-street parking for people with disabilities*” as follows:

- A 5.4m long x 2.4m wide dedicated (*non-shared*) parking space
- An adjacent *shared* area that is also 5.4m long x 2.4m wide
- A 2.4m long x 2.4m wide *shared* area that is located within the access aisle (not marked)
- A minimum headroom of 2.5m above the disabled spaces
- Pavement cross-falls in disabled spaces do not exceed 2.5% (1 in 40) in any direction

The ability of the Australian Standard B85 Vehicle (Ford Falcon) to access the basement was tested using the Autodesk Vehicle Tracking software. The swept path of the B85 vehicle accessing Space 1 closest to the ramp is reproduced in Appendix A and confirms that this vehicle can adequately access the basement with only 3 manoeuvres.



Bicycle Parking Requirements

Schedule 3 – Part A2 of the Manly Development Control Plan 2013 (amended 1 December 2019) specifies the following bicycle parking requirement:

Other development which generates requirements for vehicular parking:

Bicycle parking stands are required at a minimum rate of one stand for every three car parking spaces with a minimum provision of one stand for each premise.

Application of the Council’s bicycle parking requirement to the proposed development yields a minimum parking requirement of 7 bicycle spaces calculated as follows:

7 units @ 1 bike space per unit	7 bike spaces
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The proposal satisfies the DCP requirement with the provision of a dedicated bicycle parking area in the basement capable of accommodating at least 7 bicycles.

Access Driveway Width

As noted above, vehicular access to the proposed basement is off Fairlight Street via a 3.0m wide driveway. This width complies with the following criteria for a “*Category 1*” driveway as described Tables 3.1 and 3.2 of AS/NZS2890.1:2004:

1. The development is a “Class 1A” residential development (refer to Table 1.1)
2. The site has less than 25 spaces
3. The site is located on a Local Road

A copy of Tables 3.1 and 3.2 of the Standard are reproduced below for convenience. As can be seen, reference to Table 3.2 reveals that “*Category 1*” access driveways can have a combined entry and exit width of between 3.0m and 5.5m. To that end, the proposed driveway width of 3.0m satisfies the Australian Standard.

In the circumstances, it can be concluded that the proposed development has no unacceptable parking or vehicular access implications.



TABLE 3.1
SELECTION OF ACCESS FACILITY CATEGORY

Class of parking facility (see Table 1.1)	Frontage road type	Access facility category				
		Number of parking spaces (Note 1)				
		<25	25 to 100	101 to 300	301 to 600	>600
1,1A	Arterial	1	2	3	4	5
	Local	1	1	2	3	4
2	Arterial	2	2	3	4	5
	Local	1	2	3	4	4
3,3A	Arterial	2	3	4	4	5
	Local	1	2	3	4	4

NOTES:

- 1 When a car park has multiple access points, each access should be designed for the number of parking spaces effectively served by that access.
- 2 This Table does not imply that certain types of development are necessarily suitable for location on any particular frontage road type. In particular, access to arterial roads should be limited as far as practicable, and in some circumstances it may be preferable to allow left-turn-only movements into and out of the access driveway.

TABLE 3.2
ACCESS DRIVEWAY WIDTHS

metres			
Category	Entry width	Exit width	Separation of driveways
1	3.0 to 5.5	(Combined) (see Note)	N/A
2	6.0 to 9.0	(Combined) (see Note)	N/A
3	6.0	4.0 to 6.0	1 to 3
4	6.0 to 8.0	6.0 to 8.0	1 to 3
5	To be provided as an intersection, not an access driveway, see Clause 3.1.1.		

NOTE: Driveways are normally combined, but if separate, both entry and exit widths should be 3.0 m min.



3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Sydney Road is classified by the RMS as a *State Road* and provides a key east-west road link in the area. It typically carries 2 traffic lanes in each direction in the vicinity of the site, with kerbside parking generally permitted outside of peak periods.

To the south of the site is the Hill Street-Rosedale Avenue-Lauderdale Avenue-The Crescent-Commonwealth Parade-West Esplanade road link that is a classified *Regional Road* under the care and control of Council. The roads provide an alternate road link between Manly Wharf to the east and Sydney Road to the west.

Fairlight Street is an unclassified *Local Road* with a pavement width of approximately 12.5m. Kerbside parking permitted along both sides of the road however parking is restricted to a 2 HOUR limit between 8.00am and 10.00pm.

The existing traffic controls in the vicinity of the site are illustrated on Figure 4.

Projected Traffic Generation Potential

An indication of the traffic generation potential of the proposed development is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)*. The RMS Guidelines are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates for medium density residential flat buildings:

Smaller units and flats (up to 2 bedrooms)	0.4-0.5 peak hour vehicle trips per unit
Larger units and Townhouses (3 or more bedrooms)	0.5-0.65 peak hour vehicle trips per unit



Application of the above traffic generation rates to the proposed development yields a traffic generation potential of approximately 4vtph during commuter peak periods as set out below:

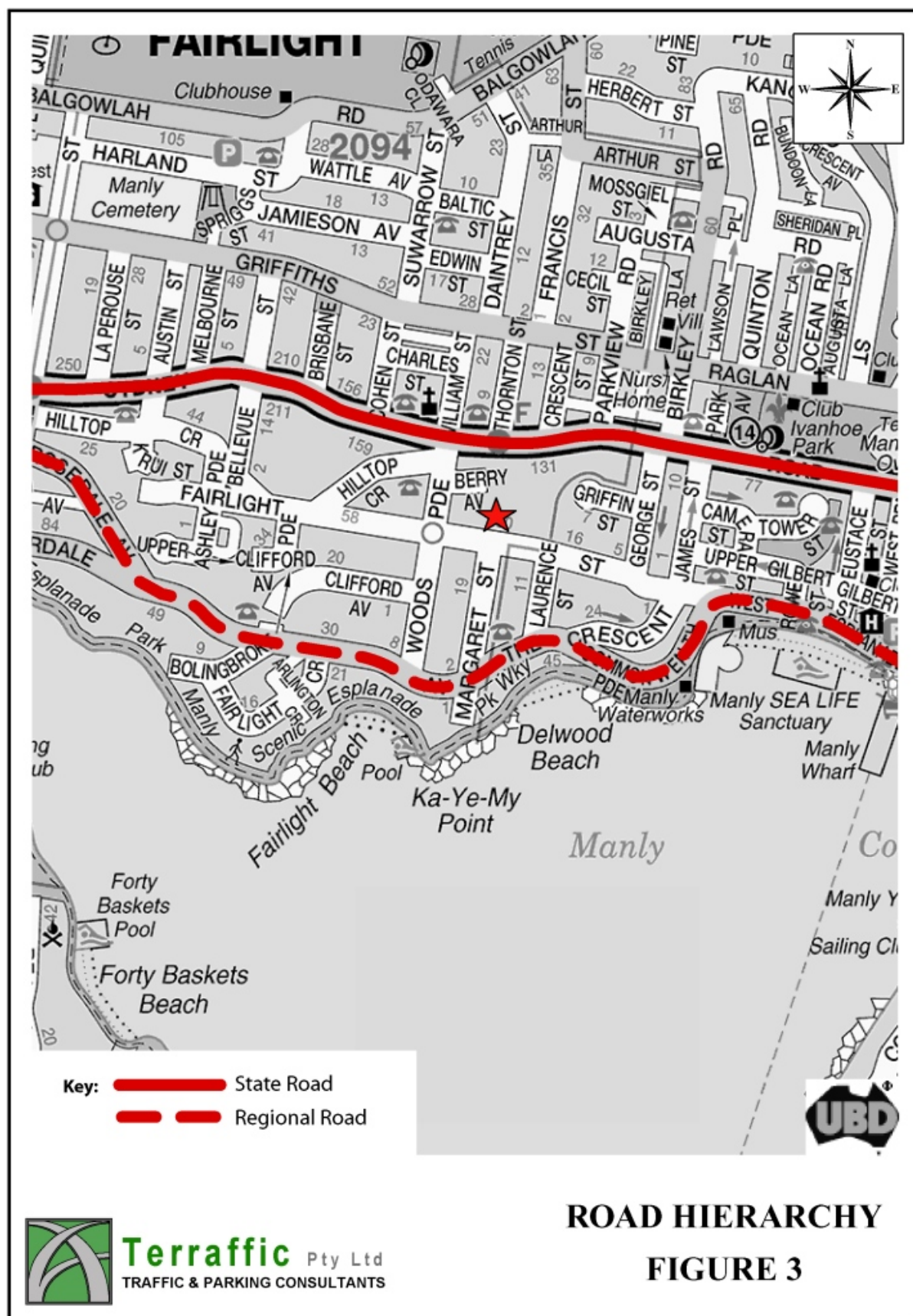
6 x 2 bedroom units @ 0.5vtph per dwelling	3vtph (AM 0 in/3 out; PM 3 in/0 out)
1 x 3 bedroom unit @ 0.65vtph per dwelling	1vtph (AM 0 in/1 out; PM 1 in/0 out)
Total Traffic Generation	4vtph (AM 0 in/4 out; PM 4 in/0 out)

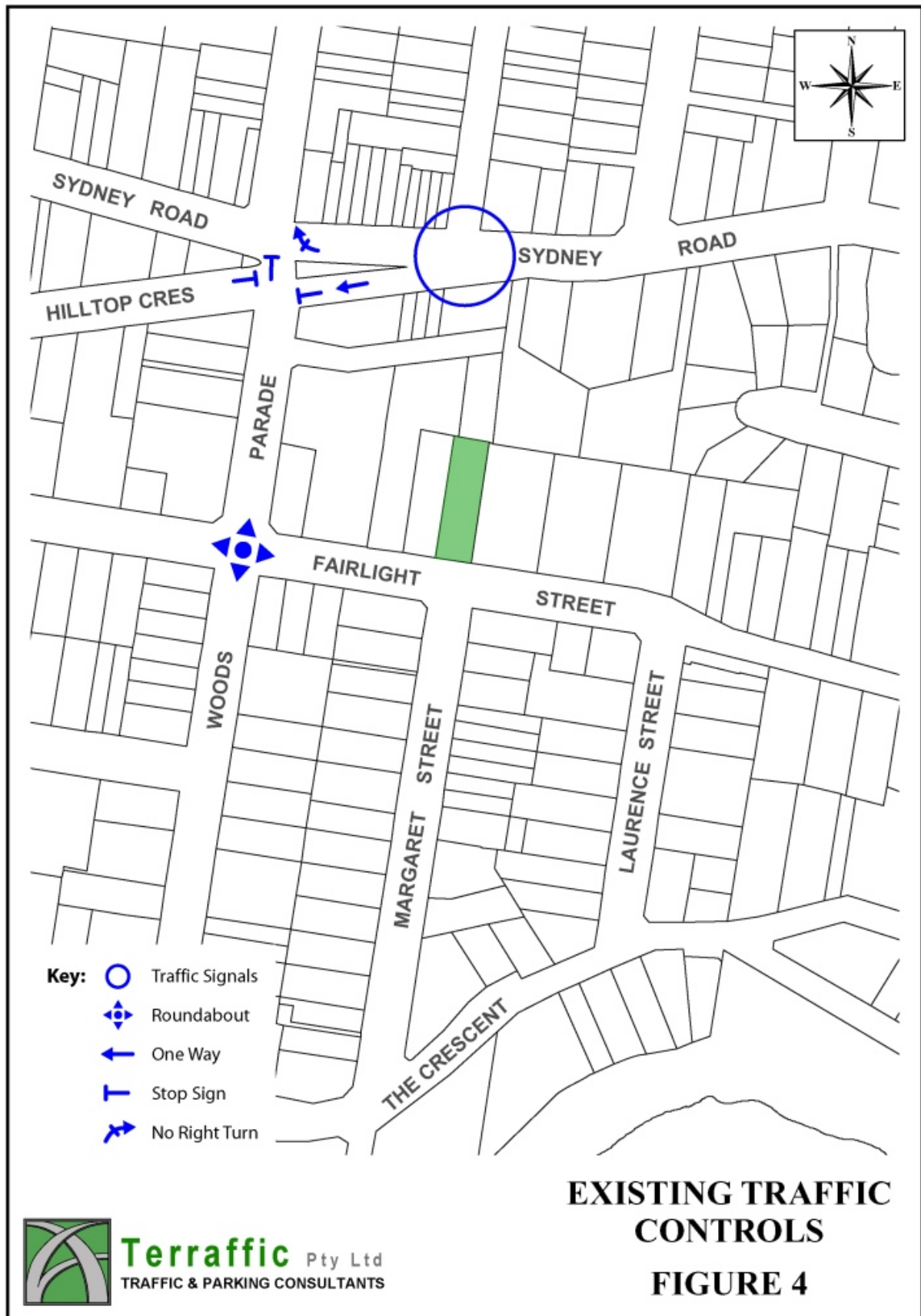
The traffic generation of the proposed development should be discounted by the traffic generation of the existing dwelling on the site. Based on the RMS's traffic generation rate of 1 vehicle trip per dwelling, the existing site development would generate in the order of 1vtph during the peak periods. To that end, the proposed development will only generate 3 additional vehicle trips during the peak periods.

Traffic Impacts of Proposed Development

It will be readily appreciated that the additional traffic generated by the proposed development is relatively minor (3vtph) which will not have any noticeable or unacceptable effect on the road network serving the site in terms of road network capacity or traffic-related environmental effect.

In the circumstances, it can be concluded that the proposed development has no unacceptable traffic implications.

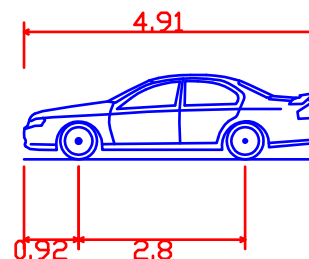
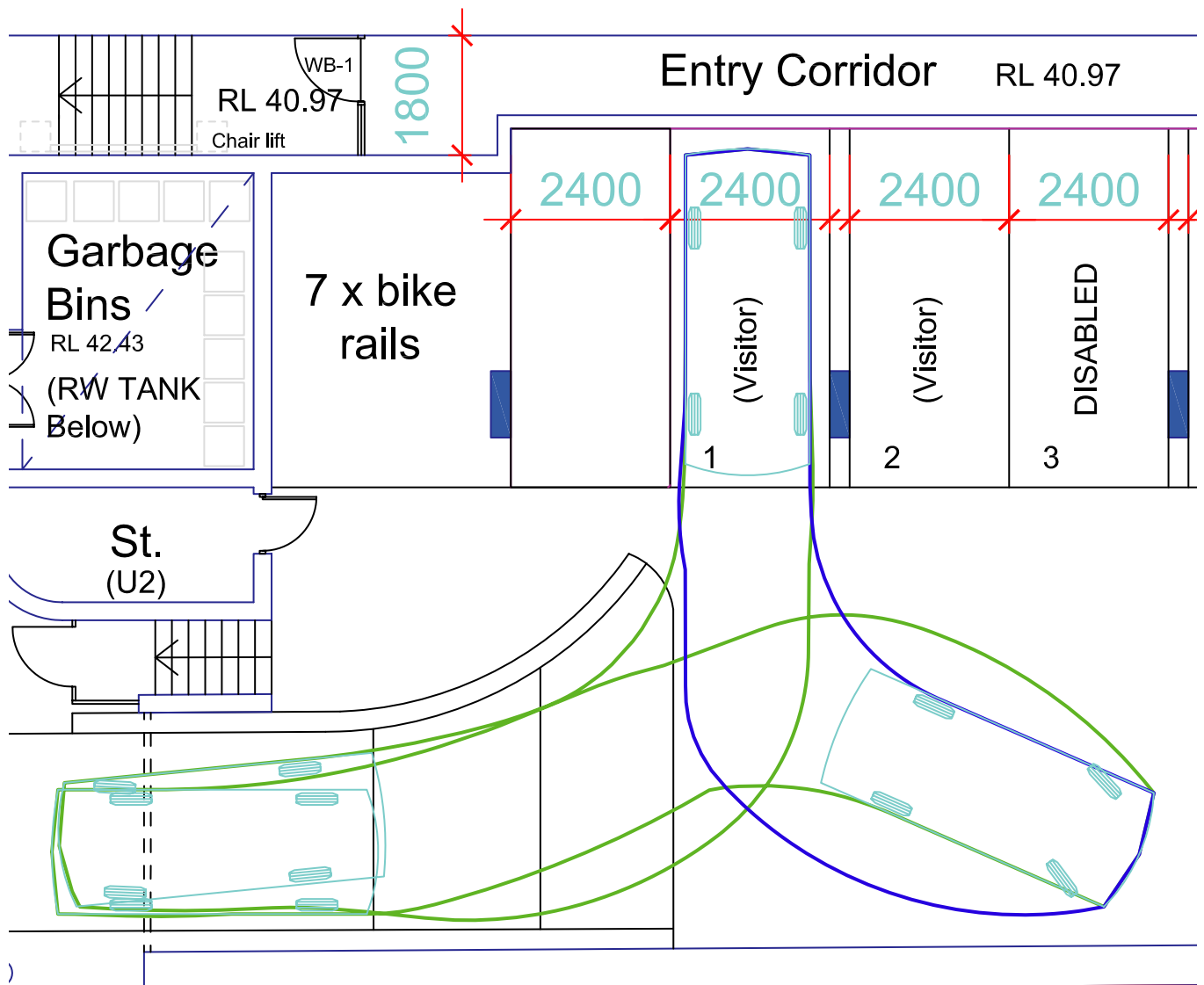






APPENDIX A

B85 VEHICLE SWEPT PATH ANALYSIS



Forward Vehicle Path
Reverse Vehicle Path

B85 Vehicle (Realistic min radius) (2004)
Overall Length 4.910m
Overall Width 1.870m
Overall Body Height 1.421m
Min Body Ground Clearance 0.159m
Track Width 1.770m
Lock to Lock Time 4.00s
Curb to Curb Turning Radius 5.750m



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**Manoeuvring Path of Australian
Standard AS/NZS2890.1:2004
B85 Vehicle Accessing Space 1**