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Job Number: **20NL103-T2**

Date: **3rd September, 2020**

Traffic Management Report for

54 Bardo Road, Newport NSW

Prepared by

LOKA CONSULTING ENGINEERS PTY LTD

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1. Introduction

Loka Consulting Engineers Pty Ltd has been engaged by Giles Tribe Pty Ltd to provide a Traffic Management Report for the site at 54 Bardo Road, Newport NSW (refer to Figure 1-1 and Figure 1-2).

A Traffic Management Plan and Report is required for the proposed development to identify the impacts of the proposal on the local street network and mitigation measures required to ameliorate any impacts. This includes:

- A description of the site and details of the development proposal;
- A review of the road network in the vicinity of the site, and traffic conditions on that road network;
- A review of the geometric design features of the proposed car parking facilities for compliance with the relevant codes and standards; and
- An assessment of the adequacy and suitability of the quantum of off-street car parking provided on site.

Figure 1-1 Subject site (from SIX maps)

Figure 1-2 Site location (from SIX maps)

2. Proposed Development

The proposed development will facilitate the construction of a seniors housing development within a site area of approximately 1226.32m^2.

The proposed development is bounded by

- 52 Bardo Road on the East,
- 56 Bardo Road on the West,
- 41 Irrubel Road on the North, and
- Bardo Road on the South.

2.1.Public Transportations

The area is well connected to public transport, with bus stations located in close proximity to the site.

1. It takes 4 minutes walking (280m) from the site to Gladstone Rd at King St bus stop (refer to figure 2-1).
2. It takes 4 minutes walking (290m) from the site to Trafalgar Park at Gladstone St bus stop (refer to figure 2-2).

Table 2-1 shows the bus line name; routes and the time between two successive trips. Refer to Transport NSW for accurate details.

Bus stop	Line Name	Route	Service interval
1	188	City QVB to Avalon Beach	30 min
	190X	City Wynyard to Palm Beach	1 hr
	199	Manly to Palm Beach	1 hr
2	190X	Palm Beach to City Wynyard	1 hr
	199	Palm Beach to Manly	1 hr

Table 2-1 Bus line, route, and time

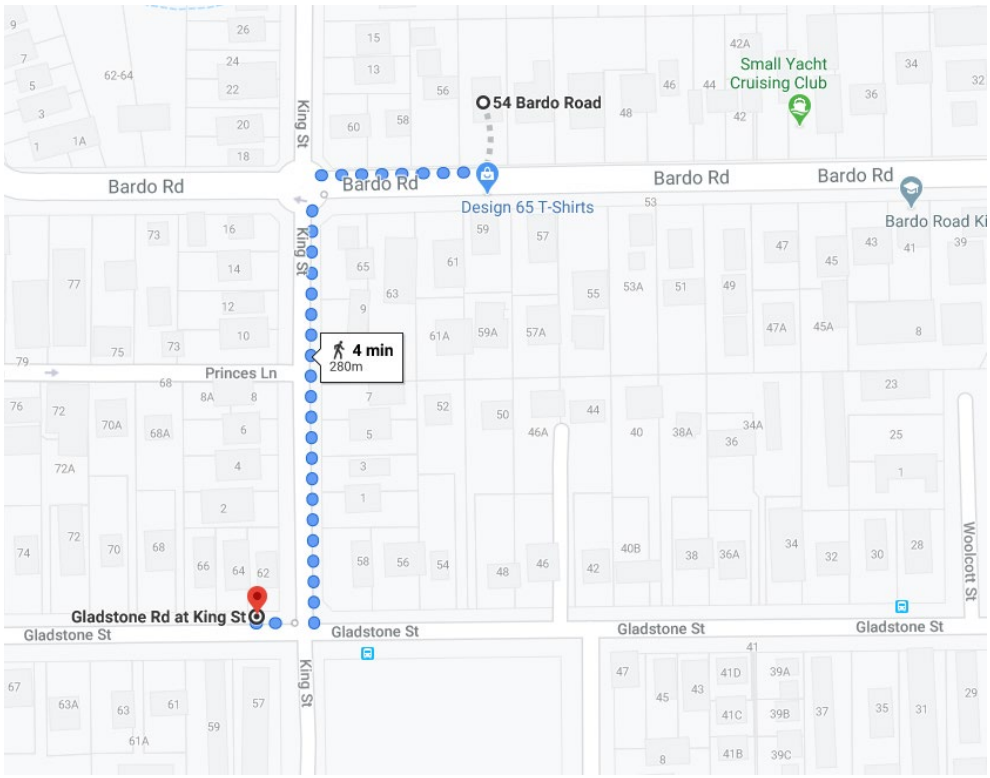


Figure 2-1 Subject Site to bus stop 1

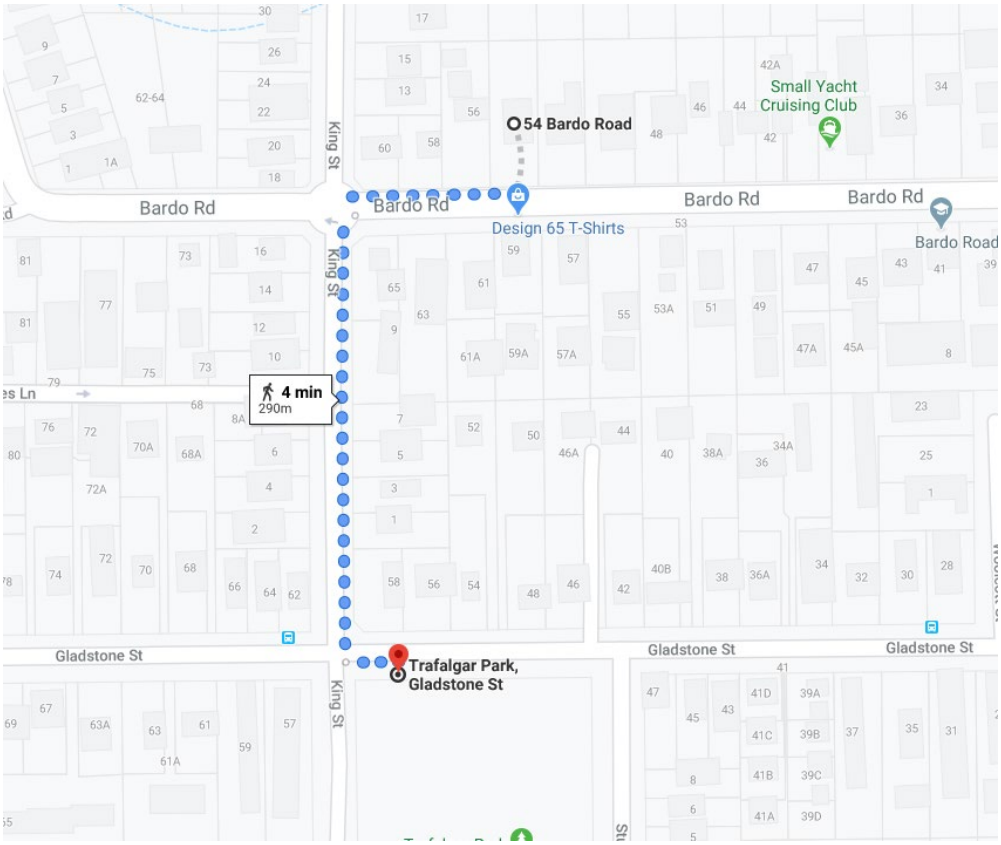


Figure 2-2 Subject Site to bus stop 2

3. Off Street Parking Provision

3.1. Car parking

According to State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004, the car parking requirement and summary are shown in Table 3-1 to 3-3.

Land use	Minimum number of car parking spaces
Self-contained dwellings	0.5 car space for each bedroom if made by a person other than a social housing provider 1 space for each 5 dwellings if made by a person jointly with, a social housing provider

Table 3-1 Off-street car parking space provision rate

Units and bedrooms provided are summarized in Table 3-2.

Bedroom	Number of units
2-bed	3
3-bed	3
Total bedroom	15

Table 3-2 Bedroom summary

Required minimum parking spaces for the proposed development is shown in Table 3-3.

Parking type	Amount	Parking rate	Required	Proposed
Residential	15	0.5	**8**	**8**
Total			**8**	**8**

Table 3-3 Required minimum car parking spaces

The design complies with the requirement from HSPD 2004.

The architectural plan of the proposed development has been prepared by Giles Tribe and is attached in Appendix A.

4. Car Park and Driveway Layout

4.1.Driveway and Ramp Design

The design of the driveway, internal roadways & ramps, and car parking spaces must comply with relevant Australian Standards; details are shown in the architectural plan. Table 4-1 and Table 4-2 assess the compliance of the site to Australian Standard and HSPD 2004.

FEATURE	AS 2890.1:2004	Architectural Plan	Compliance
Driveway width	• 3.0 to 5.5 for Category 1 • 6.0 to 9.0 for Category 2	5.7m entry allowing two-way 300mm kerb/distance adjacent garbage bin rooms provided	The design is complied with AS2890.1
Internal driveway width	• One-way – 3.0m minimum between kerbs • Two- way – 5.5m minimum between kerbs • Note: 300mm clearance on both side when there is a high kerb or barrier on both sides.	<u>Internal driveway ramp</u> 3 metres wide + 300mm kerbs on both sides	The design is complied with AS2890.1
Ramp grade	Longer than 20m – 1:5 maximum. Up to 20m long – 1:4 maximum. Transition grade no more than 1:8. First 6m no more than 1:20.	First 6.0m 1:20 2m transition with 1:8 grade 5.8m with 1:5 2m transition with 1:8 grade	The design is complied with AS2890.1

	Changes of grade no more than 1:8.		
Headroom	2.2m min between the floor and an overhead obstruction. Headroom above each dedicated space and adjacent shared area should be a minimum of 2.5m.	Ensure the internal head clearance is min. 2.2m. Ensure the garages' doors head clearance are min. 2.5m to accommodate disabled parking spaces	The design is complied with AS2890.1 and AS2890.6

Table 4-1 Driveway and ramp design

4.2.Dimensions of Parking Spaces

The design of the car parking spaces should be in compliance with AS 2890.1, 3 & 6.

FEATURE	**AS/NZS 2890.1, 2890.3, 2890.6, 4299**	**Architectural Plan**	**Compliance**
Parking space	5.4m X 2.4m car space. Additional 300mm when adjacent a wall	Min. 5.4m x 2.7m Additional 300mm when adjacent a wall	The design is complied with AS2890.1
Disabled parking space	6.0m x 3.8m (AS4299)	Minimum 5.4m x 3.8m hard surfaced level outside space 5.4m x 2.4m parking space adjacent 5.4m x 2.4m shared space	The design is complied with AS4299 & AS2890.6
Blind Aisle	1000mm	1000mm	The design is complied with AS2890.1
Aisle Widths	5.8m minimum	5.8m	The design is complied with AS2890.1

Table 4-2 Dimensions of parking spaces

As required in AS 2890.1:2004, a triangular area with 2.5m (face to driveway) by 2.0m (face to street) will be kept clear of obstructions to visibility (Refer to Figure 4-1).

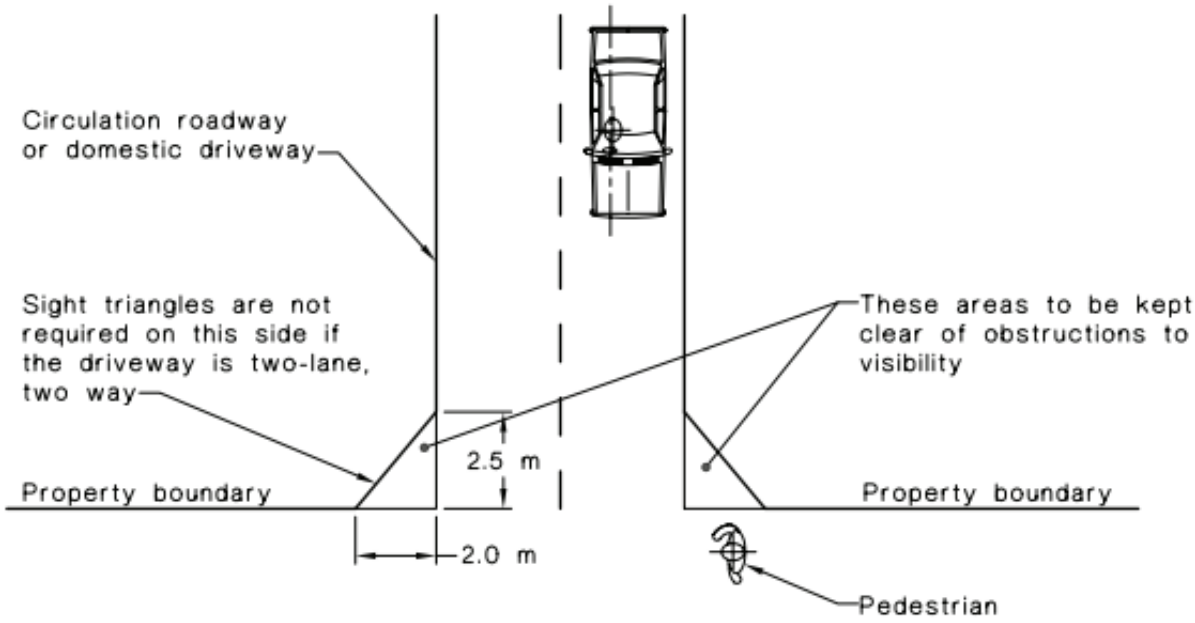


Figure 4-1 AS 2890.1:2004 requirement

In accordance with AS 2890.1:2004, sight triangle is hatched in red and shown in the following Figure 4-2.

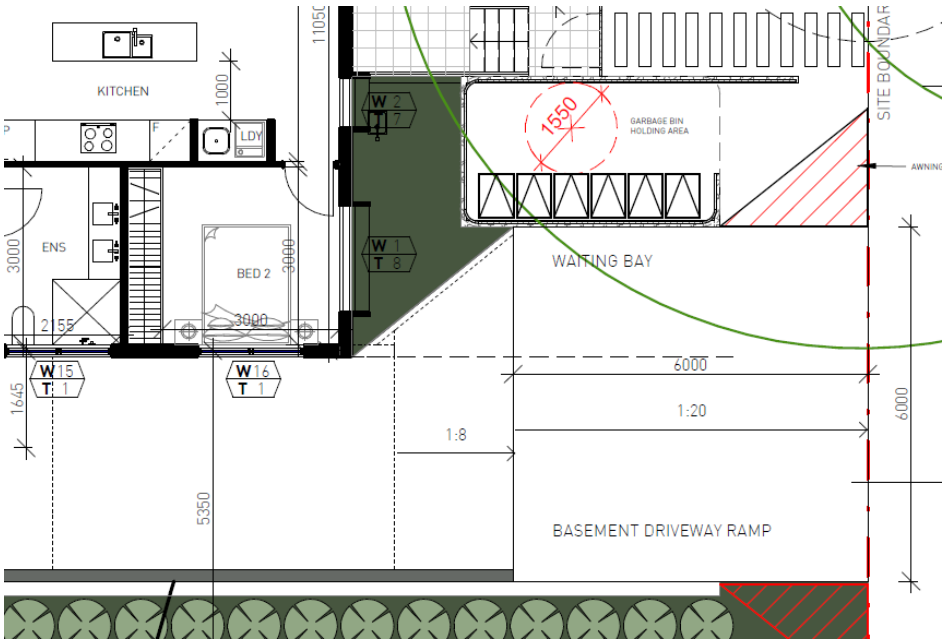


Figure 4-2 Sight triangle

Ensure any object within the sight triangle is max. 1.15m high or 50% transparent above 0.9m if higher than 1.15m.

The design complies with sight triangle requirement.

5. Traffic Generation

An indication of the traffic generation potential of the development proposal is provided in accordance with Roads and Maritime Services (RMS) publication 'Guide to Traffic Generating Developments – Updated traffic surveys (August 2013)'.

RMS guidelines are based on an extensive survey of a wide range of land uses.

The existing site is identified as dwelling house.

Rates

Daily vehicle trips = 9.0 per dwelling

Weekday peak hour vehicle trips = 0.85 per dwelling = 0.85x1 = 0.85

The subject site is identified as a medium density.

Rates.

Large units and town houses (three or more bedrooms)

Daily vehicle trips = 5.0-6.5 per dwelling

Weekday peak hour vehicle trips = 0.5-0.65 per dwelling = 0.65 x 6 = 3.9

The future trips should be discounted by the existing trips, which is shown in Table 5-1 below

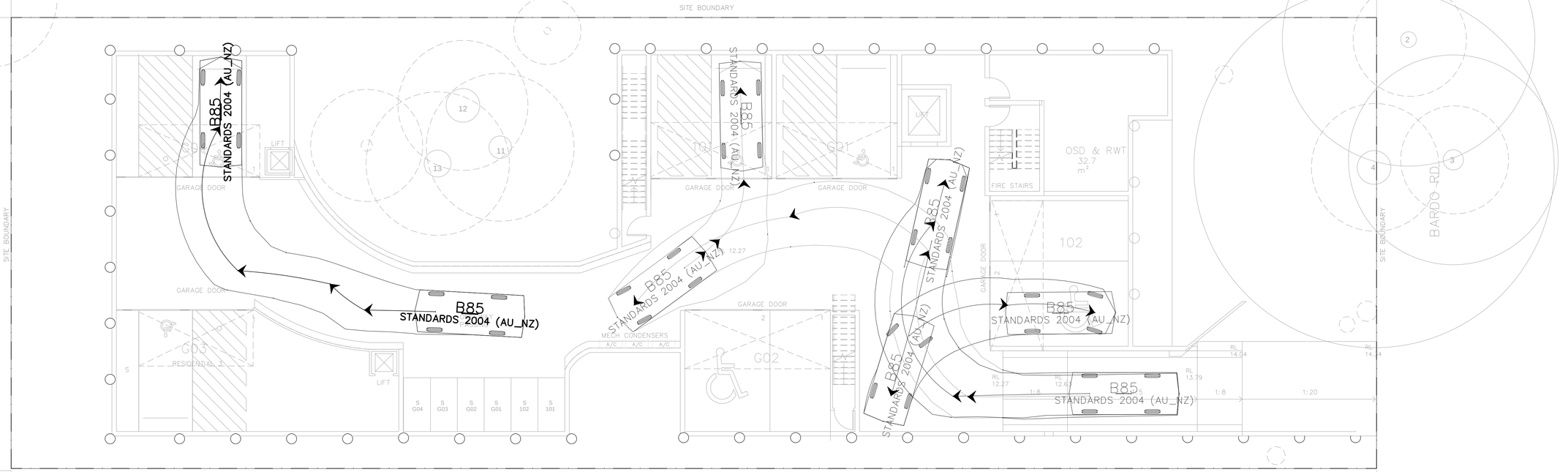
Traffic Generation Potential	Land Use	Peak hour vehicle trips
Future	Residential	3.9
Existing	Residential	0.85
Net increase		**+3**

Table 5-1 Project Net Increase in Peak Hour Traffic Generation Potential

According to the Table above, it is likely that the proposed development will result in a change in the traffic generation by approximately **3 additional** peak hour vehicle trips.

6. Swept Path Analysis

To ensure all vehicles enter and exit the site in a forward direction, swept path analysis has been conducted in the Appendix B.



SWEPT PATH ANALYSIS ENTRY 1

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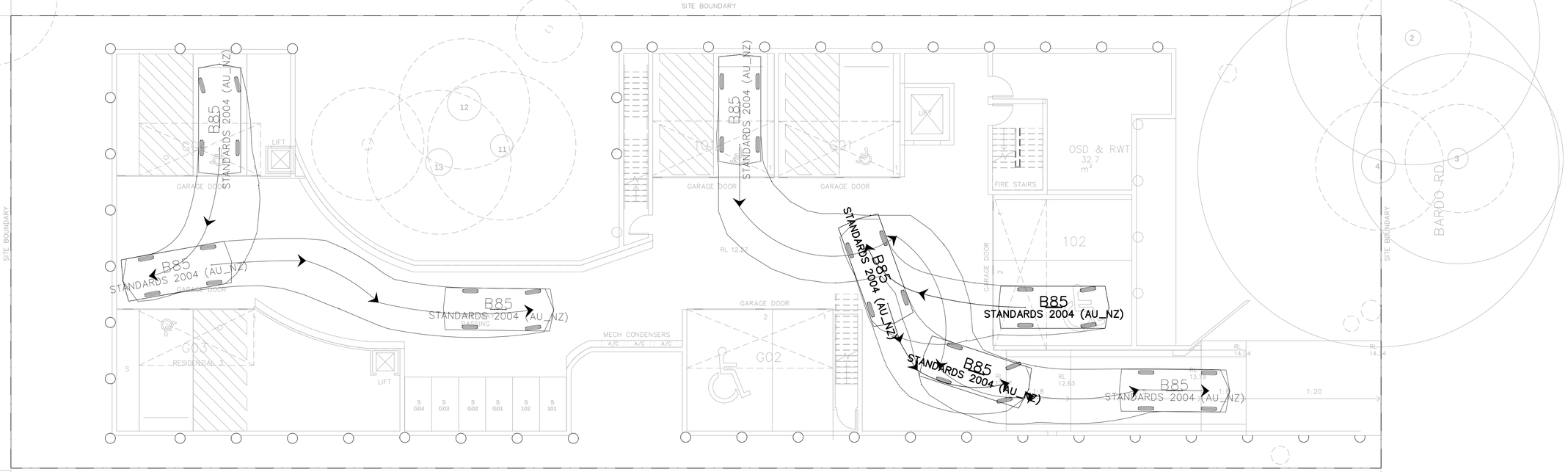

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B	FOR D.A. APPROVAL	A.E.	A.E.	27-08-2020					
A	FOR D.A. APPROVAL	A.E.	A.E.	25-08-2020					

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CONSENT AUTHORITY:
NORTHERN BEACHES COUNCIL

SHEET SUBJECT
SWEPT PATH ANALYSIS ENTRY AND EXITS 1

PROJECT	54 BARDO ROAD, NEWPORT NSW		
DATE	DRAWN	DESIGNED	CHECKED
AUG 20	J.P.	A.E.	N.L.
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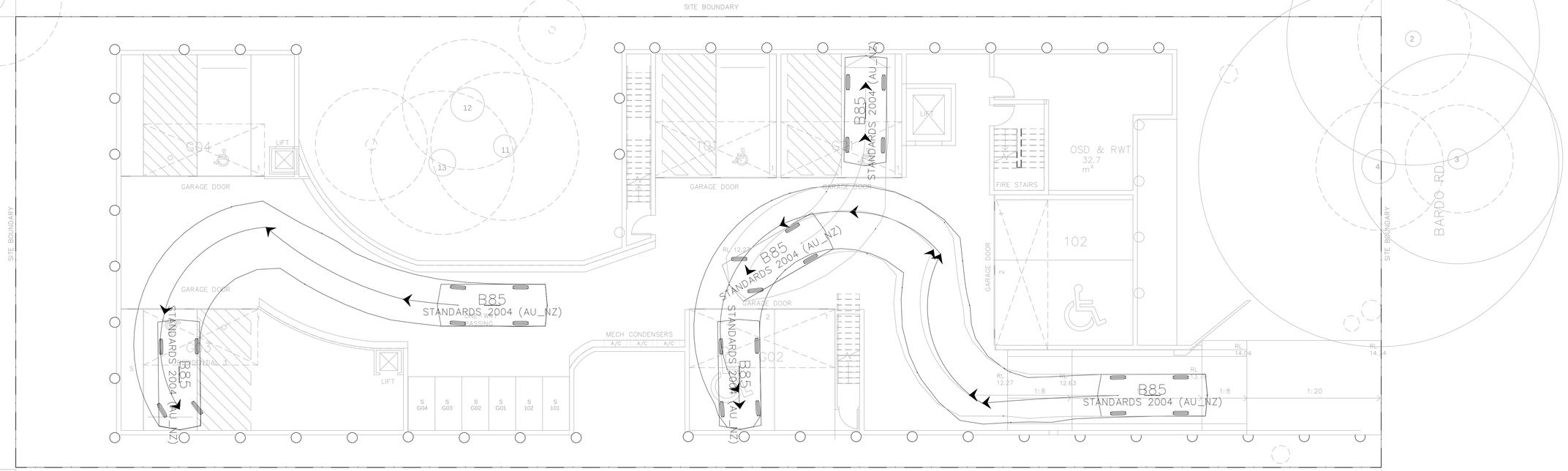

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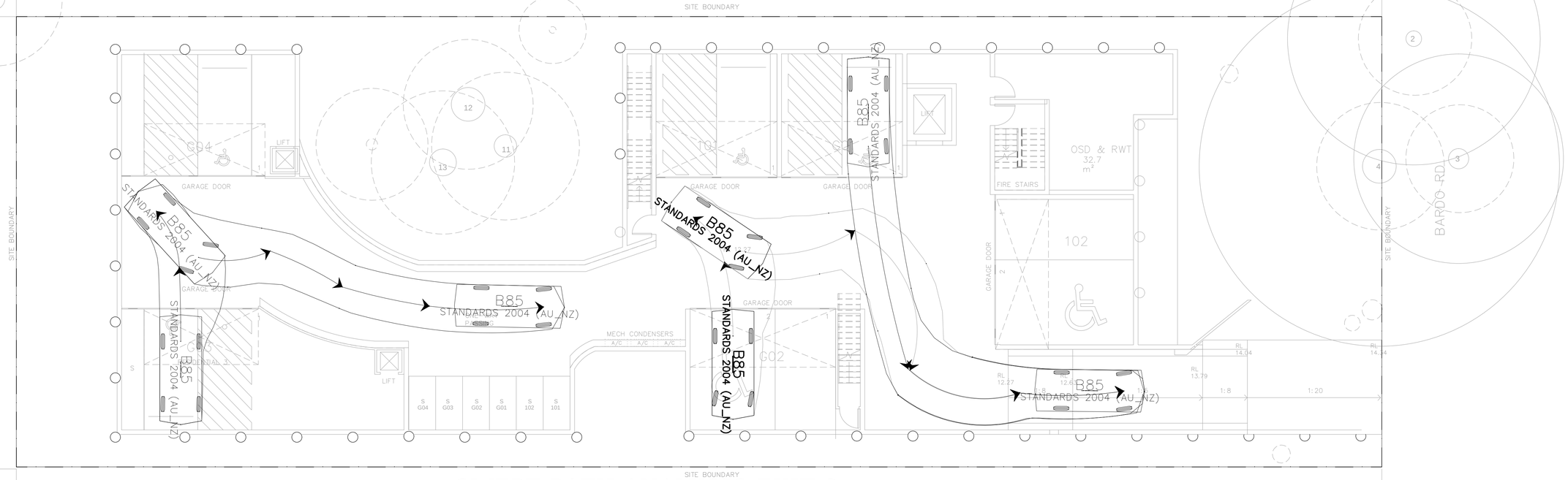

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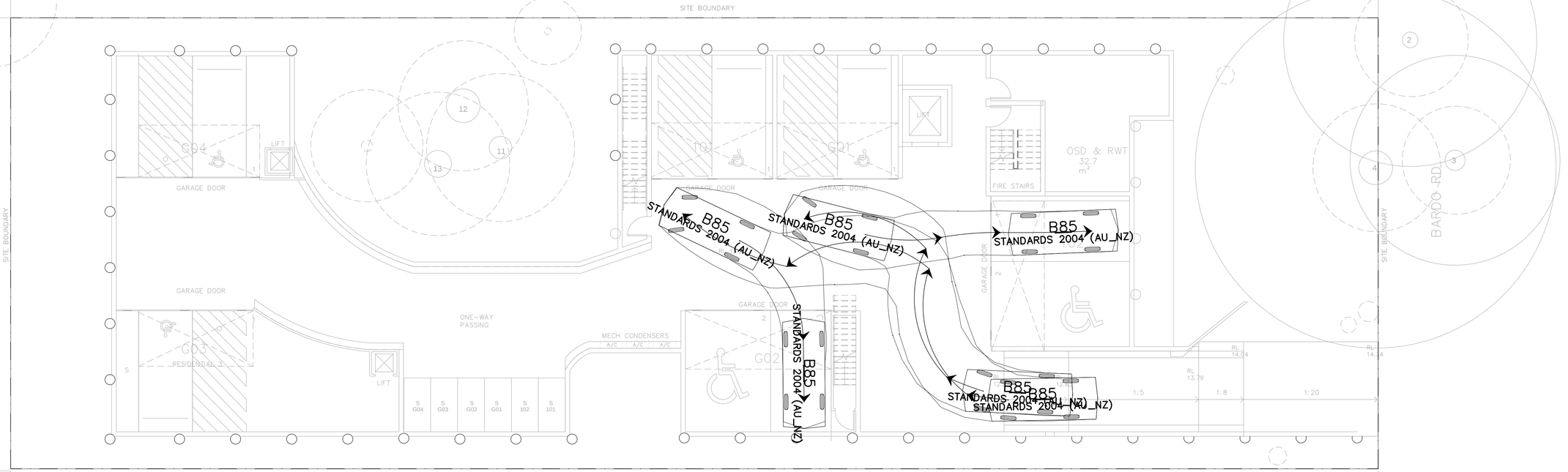

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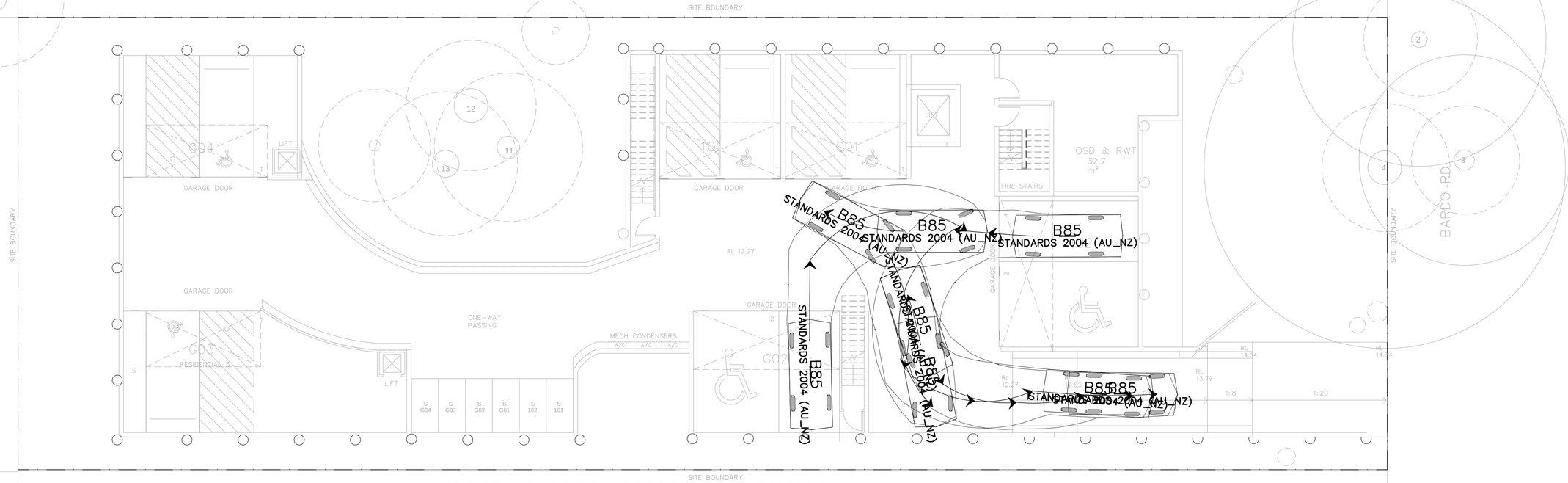

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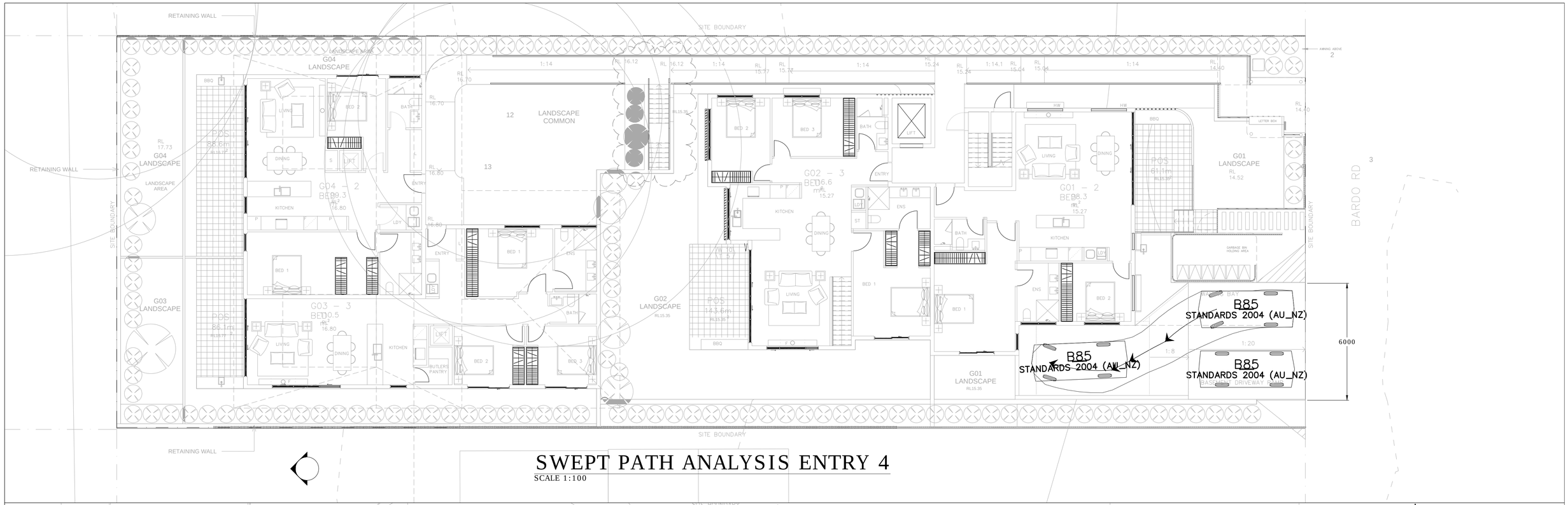

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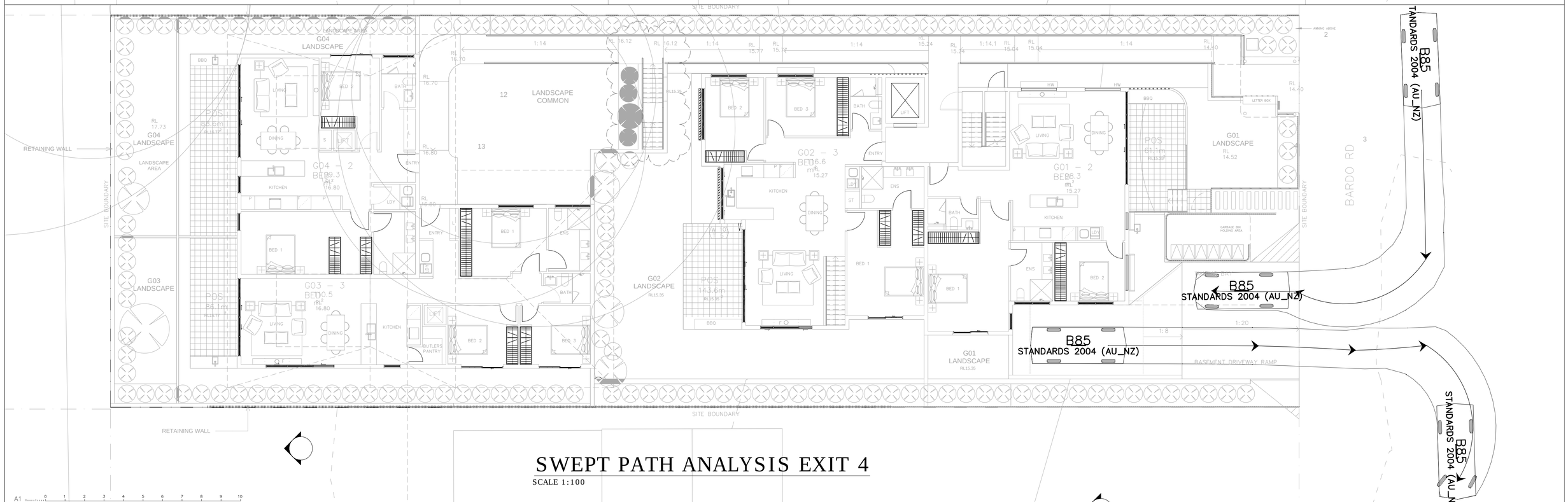

SWEPT PATH ANALYSIS EXIT 4

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