

351-353 Barrenjoey Road, Newport

Proposed Mixed Use Development

Traffic and Parking Impact Assessment

Ref: 19164
Date: December 2020
Issue: B

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1.0 Introduction

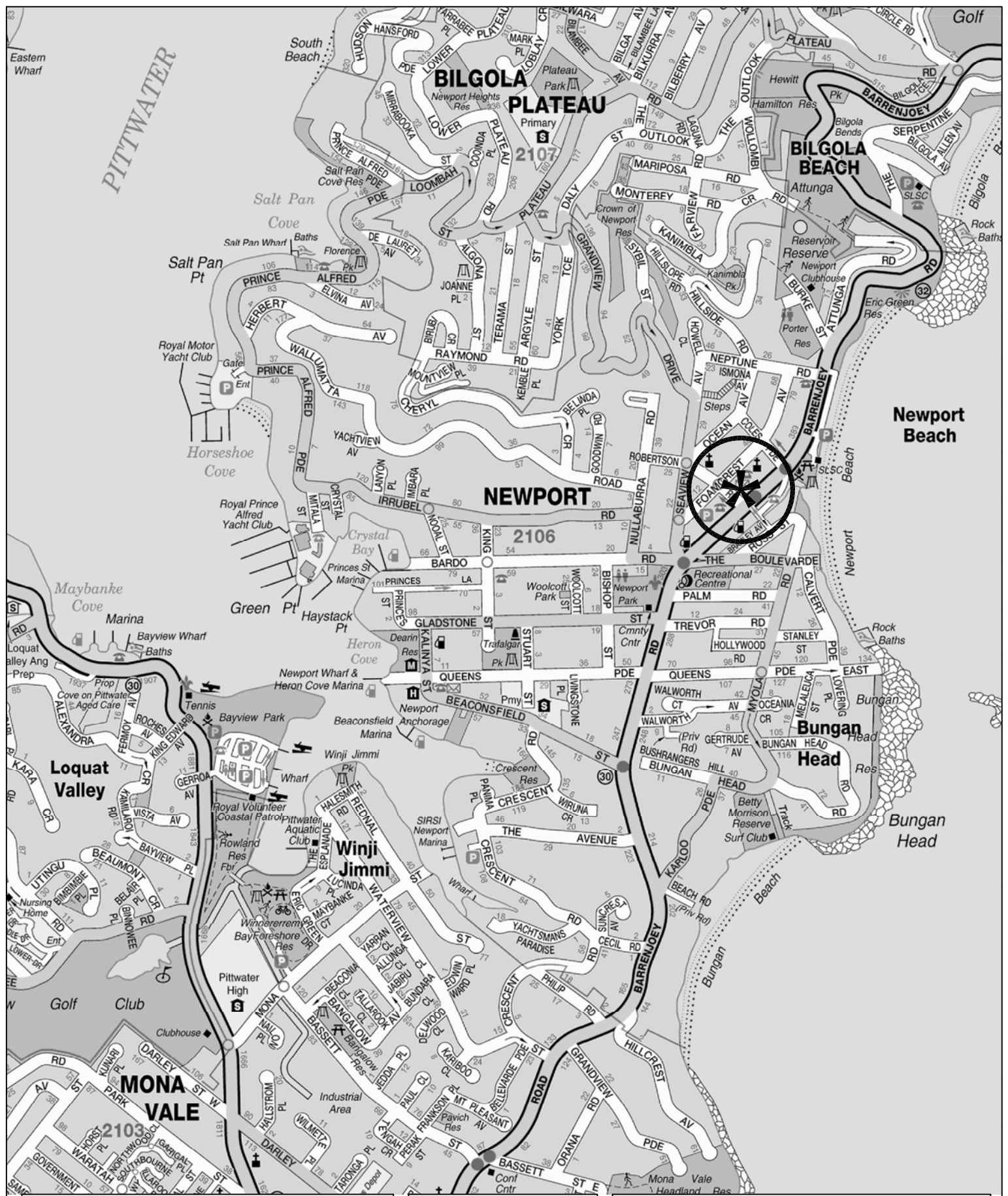
This report has been prepared to accompany a Development Application to Northern Beaches Council for a proposed mixed-use development scheme on a consolidated site at 351-353 Barrenjoey Road, Newport (Figure 1).

Newport is a consolidating seaboard suburb that has significant retail and entertainment facilities with ready access provided by Barrenjoey Road. Together with the seaside location, these desirable circumstances are acting to encourage and provide for residential apartment development.

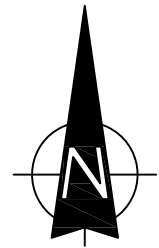
The proposed development scheme involves the demolition of the existing retail and upper-level residences on the site and construction of a 3-storey mixed-use complex comprising ground-level retail and upper-level residential units.

The purpose of this report is to:

- ❖ describe the site and the proposed development scheme
- ❖ describe the existing road network and traffic conditions in the area
- ❖ assess the adequacy of the proposed parking provision
- ❖ assess the potential traffic implications
- ❖ assess the proposed vehicle access, internal circulation and servicing arrangements.



LEGEND



LOCATION

FIG 1

2.0 Proposed Development

2.1 Site, Context and Existing Use

The site (Figure 2) is a consolidation of Lots 64, 65 and 66 in DP 1090224, occupying a total area of some 1,323m² with a frontage of 27m to Barrenjoey Road.

The site is located within the Newport commercial centre, which contains retail, commercial, and restaurant uses etc. extending along both sides of Barrenjoey Road. The site, situated at the northwestern corner of Barrenjoey Road and Robertson Road, has long-standing retail and light industrial uses (including food premises), with residences provided on the upper levels. Immediately surrounding the site are similar nature one and two-storey commercial buildings.

Vehicle access for the site is located on the southern boundary, and there are some 9 parking spaces along the rear boundary for use by the art studio business.

2.2 Proposed Development

It is proposed to demolish the existing buildings on the site and undertake excavation to provide a basement carpark and level building platform on which a two-storey mixed-use complex comprising:

Residential

1 x one-bedroom

13 x two-bedroom

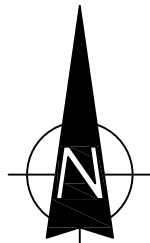
Total 14 apartments

Retail 641m²

Vehicle access to the basement carpark will be provided at Robertson Road, and there will be 54 parking spaces available for residents, visitors and retail tenants.



LEGEND



SITE

FIG 2

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Details of the proposed development are provided on the architectural drawings prepared by Crawford Architects, which accompany the development application and are reproduced in part in Appendix A.

3.0 Existing Road Network and Traffic Conditions

3.1 Road Network

The road network serving the site (Figure 3) comprises:

- ❖ *Barrenjoey Road* – a State Road and arterial route providing the major link between Palm Beach and Mona Vale then to the City
- ❖ *The Boulevarde, Seaview Avenue and Bardo Road etc* – a system of minor collector routes serving the Newport area
- ❖ *Foamcrest Avenue* – a local road running parallel and to the west of Barrenjoey Road providing access to the western side of the Newport shopping strip
- ❖ *Coles Parade* – a local access road connecting between Barrenjoey Road and Foamcrest Avenue
- ❖ *Robertson Road* – a local access road connecting between Barrenjoey Road and Formcrest Avenue

3.2 Traffic Controls

The traffic controls in the vicinity of the site comprise (Figure 4):

- ❖ the pedestrian signals on Barrenjoey Road located just to the north of Robertson Road.
- ❖ the marked foot crossing on Robertson Road at the intersection with Barrenjoey Road
- ❖ the traffic control signals at the intersection of Barrenjoey Road, Bardo Road, The

Boulevard and Seaview Avenue

- ❖ the central median island along Barrenjoey Road
- ❖ the STOP sign control of Coles Parade at Foamcrest Avenue
- ❖ the roundabout at the intersection of Foamcrest Avenue and Robertson Road
- ❖ Barrenjoey Road, Coles Parade and Robertson Road between Barrenjoey Road and Foamcrest Avenue has 1 hour parking during business hours every day
- ❖ 'one-way' westbound traffic movement in Coles Parade and Robertson Road between Barrenjoey Road and Foamcrest Avenue
- ❖ BUS ZONES are currently located on the east and west side of Barrenjoey Road north and south of the pedestrian signals within easy walking distance of the development site.

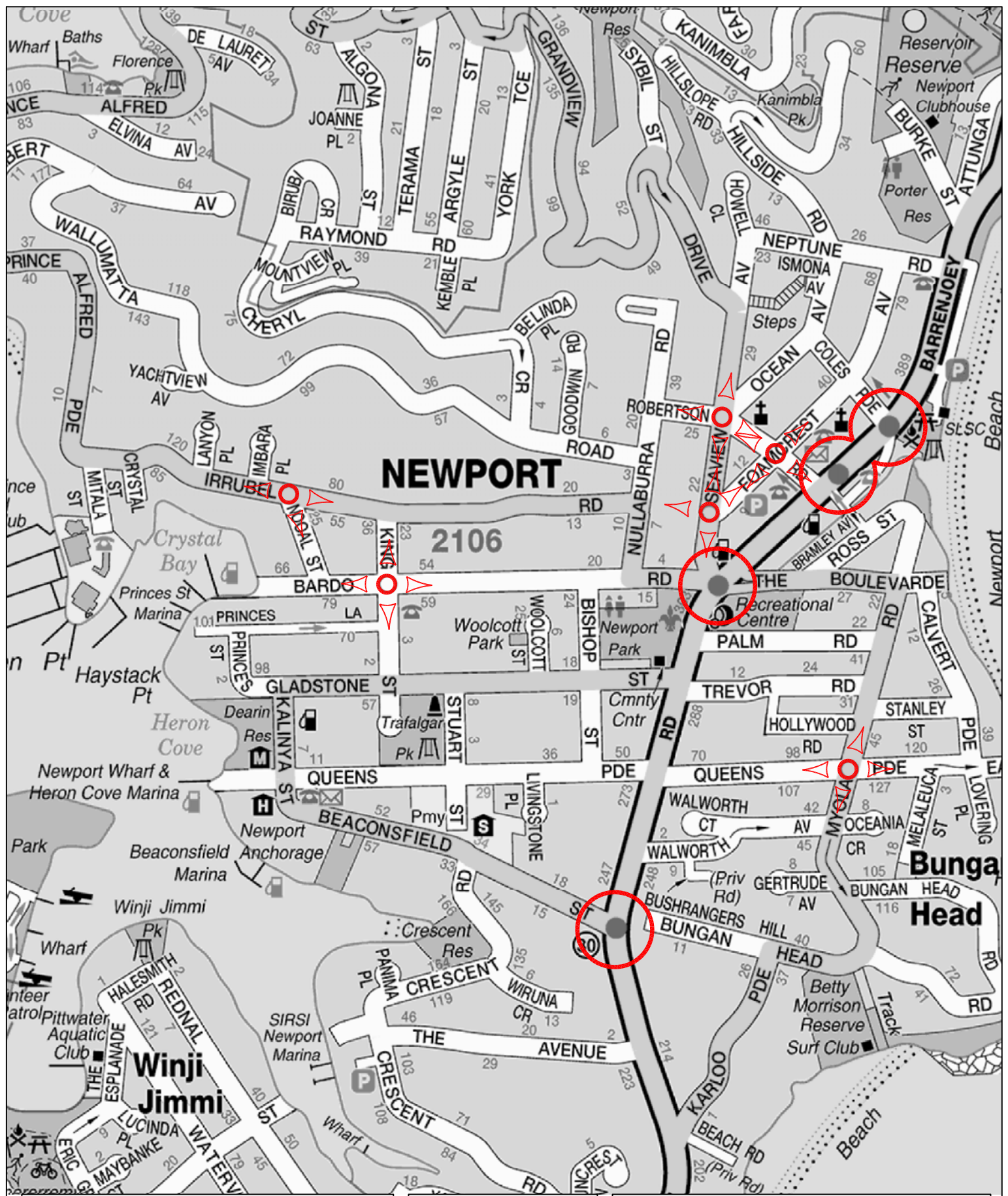
3.3 Traffic Conditions

An indication of traffic conditions on the road network serving the site is provided by data published by the Roads and Maritime Services (RMS). The RMS data¹ is expressed in terms of average annual daily traffic (AADT) and the most recent relevant data is provided in the following while the peak period movement data is provided in Figure 5:




	AADT
Barrenjoey Road, Newport	44,348 vpd

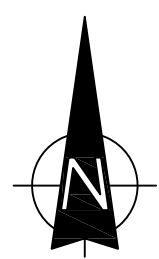
The average peak hourly flows on Barrenjoey Road (2019) are summarised as follows:

¹ *Traffic Volume Data for Sydney Region
Roads and Maritime Services*



LEGEND

-  TRAFFIC SIGNAL CONTROL
-  ROUNDABOUT
-  RESTRICTED TURNING MOVEMENT



**TRAFFIC
CONTROLS**

FIG 4

	AM	PM
Eastbound	1,256 vph	2,111 vph
Westbound	1,954 vph	1,443 vph

Observations of traffic activity adjacent to the development site during morning, business and afternoon peak periods reveal relatively free flowing conditions in both Barrenjoey Road and Robertson Road except for minor stoppages due to pedestrian activity and turning/parking manoeuvres.

3.4 Transport Services

Sydney Buses operate high frequency local and line haul services along Barrenjoey Road. Routes 88, 199, E88, E89 and L90 which are accessible via the bus stops located some 50m west of Robertson Street on Barrenjoey Road provide interconnecting services with other major centres i.e. Palm Beach and Avalon.

In this regard the site is assessed to be well served by public transport.

4.0 Parking

A guide to an appropriate parking provision can be established with reference to Council's Pittwater 21 DCP which states the following requirement for the proposed uses:

Residential

- 1 per one-bedroom unit
- 2 per two or more bedroom unit
- 1 per three units for visitors

Retail

- 1 per 30m² GLA

Car wash bay is to be provided at a rate of 1 space for developments exceeding 10 or more dwellings.

Application of the above criteria would indicate the following requirement:

Residential

1 x one-bedroom @ 1 space	1 space
13 x two-bedroom @ 2 spaces	26 spaces
Visitors @ 1 per 3 units	5 spaces

Retail

641m ² @ 1 per 30m ²	21 spaces
Total	53 spaces

Accordingly, it is proposed to provide 54 spaces in the carpark in the following composition to comply with the DCP requirements:

Residents	27 spaces
Visitors	5 spaces
Retail	22 spaces

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In addition, provision will also be made in the car park for a loading bay/shared car wash and 2 motorcycles.

The proposed car parking arrangement complies with the DCP criteria.

5.0 Traffic

The RMS Guidelines specify a peak traffic generation rate for high-density residential dwellings of 0.29 vtpd per dwelling, while retail uses are largely dictated by the arrival and departure movements of tenants (i.e. business owners). The typical arrival/departure rates during the peak periods are 0.6 to 0.7 vtpd per space.

Application of these criteria to the proposal would indicate the following peak traffic generation outcome:

Residential	4 vtpd
Retail (21 spaces)	15 vtpd
Total	19 vtpd

Traffic generation of this order of magnitude being equivalent to some 1 vehicle movements every 3 minutes during the peak hour is assessed to be relatively minor in the context of the local road network circumstance, particularly as the projected traffic will be somewhat offset by traffic movements which are associated with the existing uses on the site and currently exist within the road network.

On the basis of the above, it is assessed that the proposal will have no undue traffic implications on the surrounding road operation.

6.0 Access, Internal Circulation and Servicing

6.1 Access

The proposed access will involve a 5.5m wide two-way ramp at the Robertson Road frontage. The access driveway has been designed to be consistent with the design requirements of AS2890.1, particularly concerning the availability of sightlines.

6.2 Internal Circulation

The provisions made for the carpark, aisle, ramp circulation, and grades in the carpark are consistent with the relevant AS2890.1 design principle. Convex mirrors are provided where necessary to enhance sightlines within the car parking area.

Details of vehicle swept path assessment indicating a satisfactory arrangement are provided in Appendix B.

6.3 Servicing

A loading area will be provided at Basement 1 in the carpark to accommodate privately contracted refuse vehicles (i.e. small rigid vehicles with an operating height clearance of 2.2m). Access requirements for larger service vehicles will rely upon the existing kerb frontage. Occasional access needs of service personnel/tradespersons can depend upon the available visitors' parking spaces in the carpark.

7.0 Conclusion

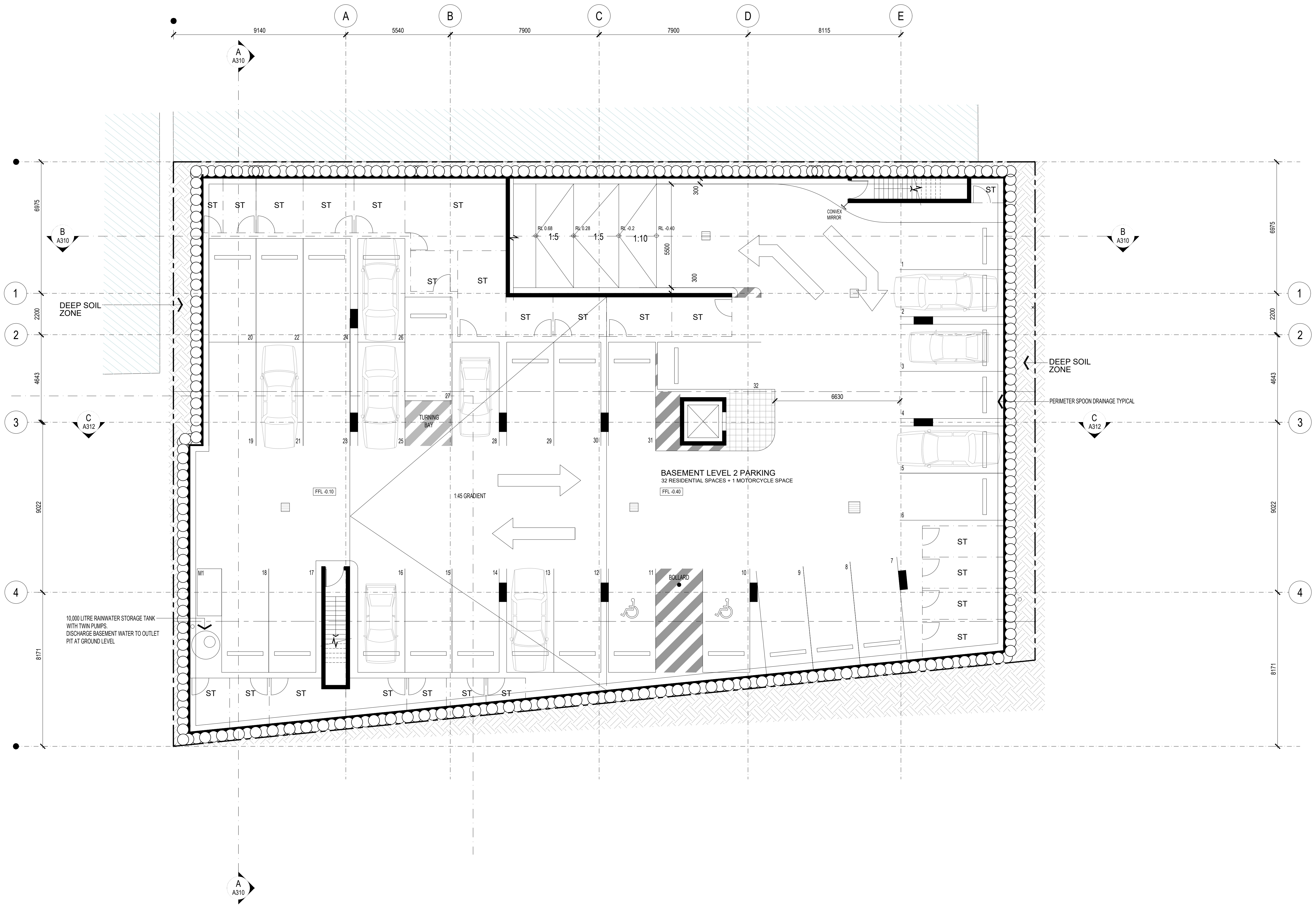
A Development Application is to be lodged with Northern Beaches Council for a proposed residential-based mixed-use development scheme on a consolidated site at 351-353 Barrenjoey Road, Newport.

The traffic, transport and parking assessment provided in this report confirm that:

- ❖ the traffic generation of the proposed development will not present any adverse traffic implications and traffic-related environmental impacts in the context of the local road network
- ❖ the proposed parking provision will be adequate and will accord with the Council's DCP requirements
- ❖ the proposed access, internal circulation and servicing arrangements will be appropriate to current AS2890.1 design standards.

Appendix A

Architectural Plans



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15	20.12.01	ISSUED TO CONSULTANTS
14	20.11.23	ISSUED TO COUNCIL
13	20.11.04	DSAP ISSUE
ISSUE	DATE	AMENDMENTS

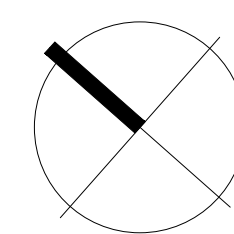
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DEVELOPMENT LINK

PROJECT
MIXED USE DEVELOPMENT

351-353 BARRENJOEY ROAD, NEWPORT NSW 2106

LOT 65 & 66 SEC 5 DP 6248

TITLE
BASEMENT 2 FLOOR PLAN



SCALE
1:100 @ A1

APPROVED
DRAWN
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DATE
STATUS

MT LH
PG
JAN 2019
DA

PROJECT NUMBER
DRAWING NUMBER

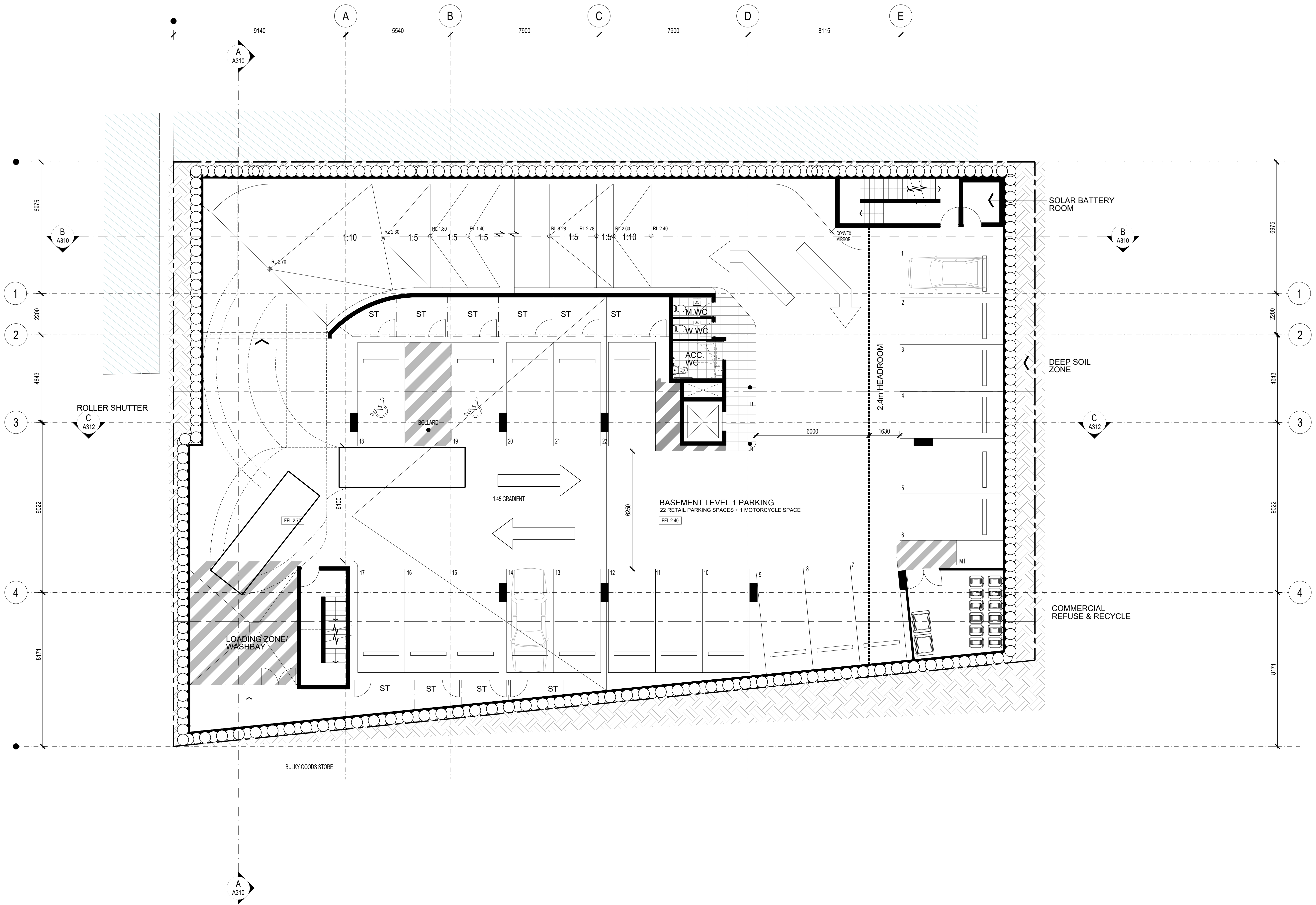
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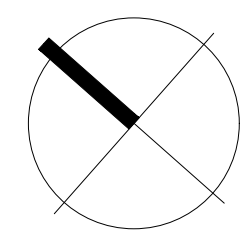
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PROJECT
MIXED USE DEVELOPMENT

351-353 BARRENJOEY ROAD, NEWPORT NSW 2106
LOT 65 & 66 SEC 5 DP 6248

TITLE
BASEMENT 1 FLOOR PLAN



SCALE
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APPROVED
DRAWN MT LH
CHECKED PG
DATE JAN 2019
STATUS DA

PROJECT NUMBER
DRAWING NUMBER

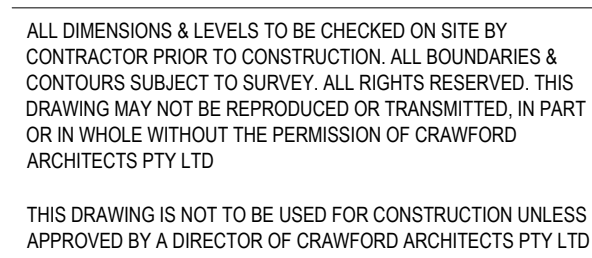
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LOT 65 & 66 SEC 5 DP 6248

SCALE 1:100 @ A1

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DATE JAN 2019

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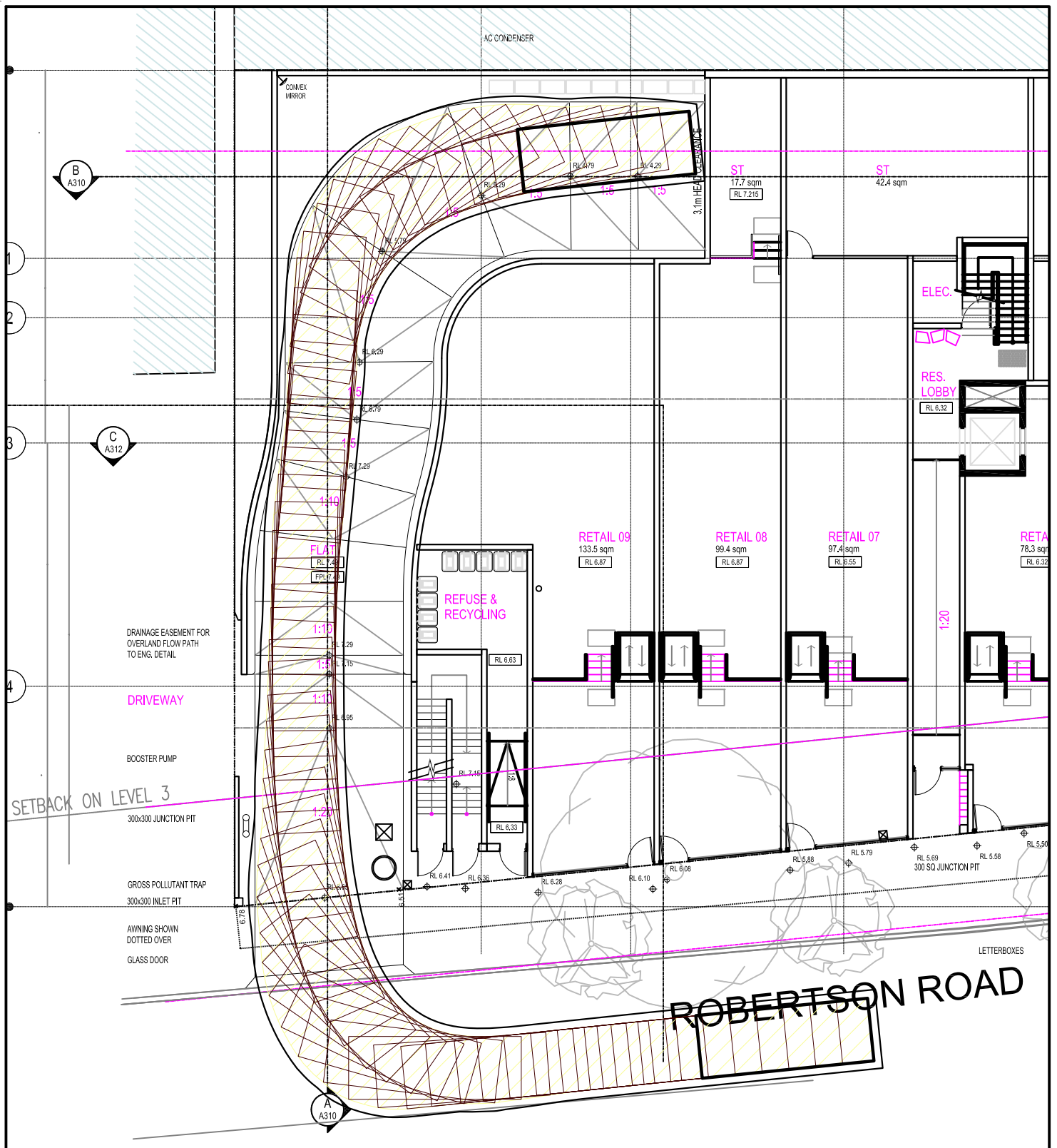
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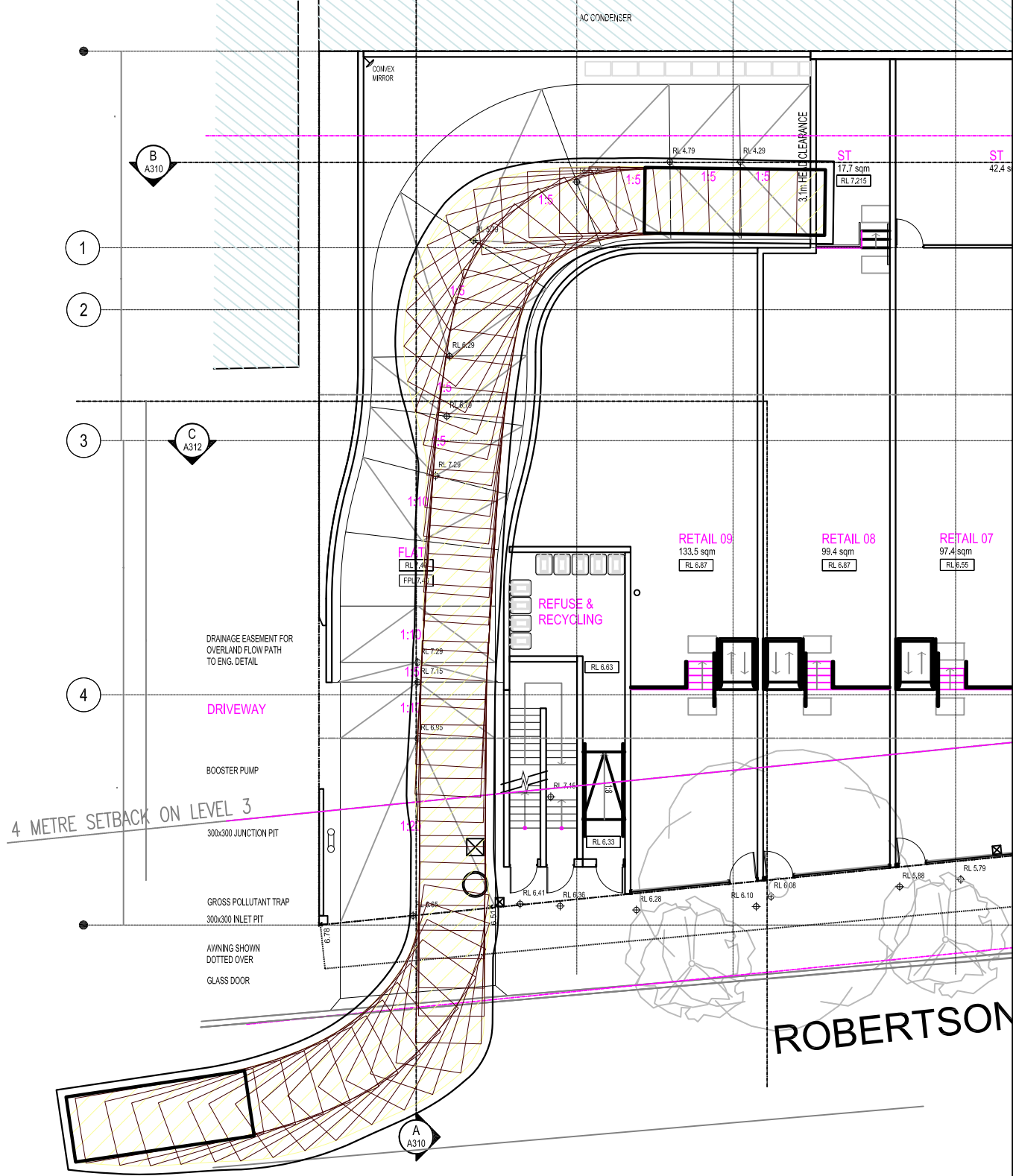
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Appendix B

Swept Path Diagrams





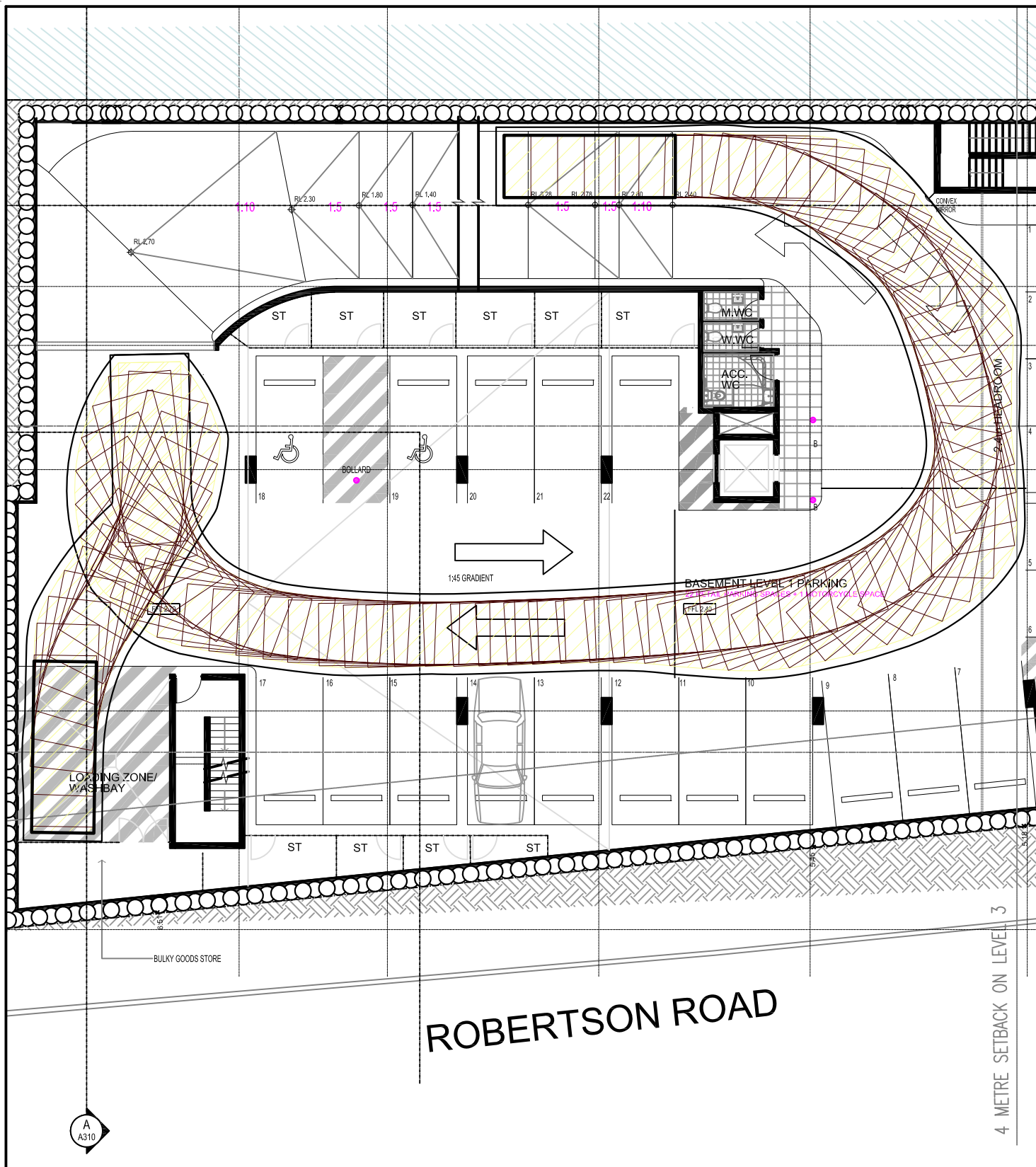
LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



SWEPT PATH ANALYSIS OF A 6.4m RIGID VEHICLE EXITING THE SITE

SP 2



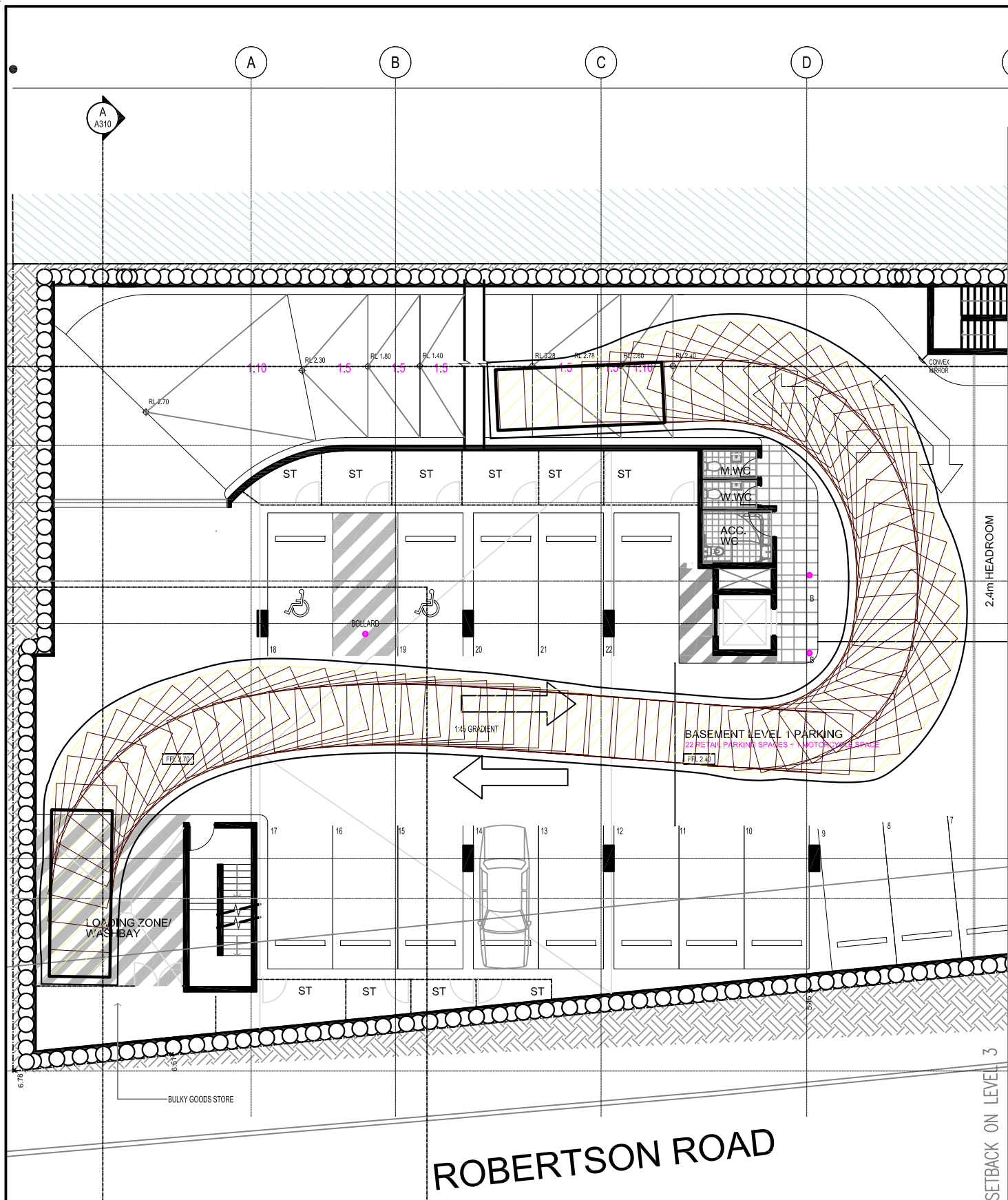
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**SWEPT PATH ANALYSIS
OF A 6.4m RIGID
VEHICLE ENTERING THE SITE**

SP 3



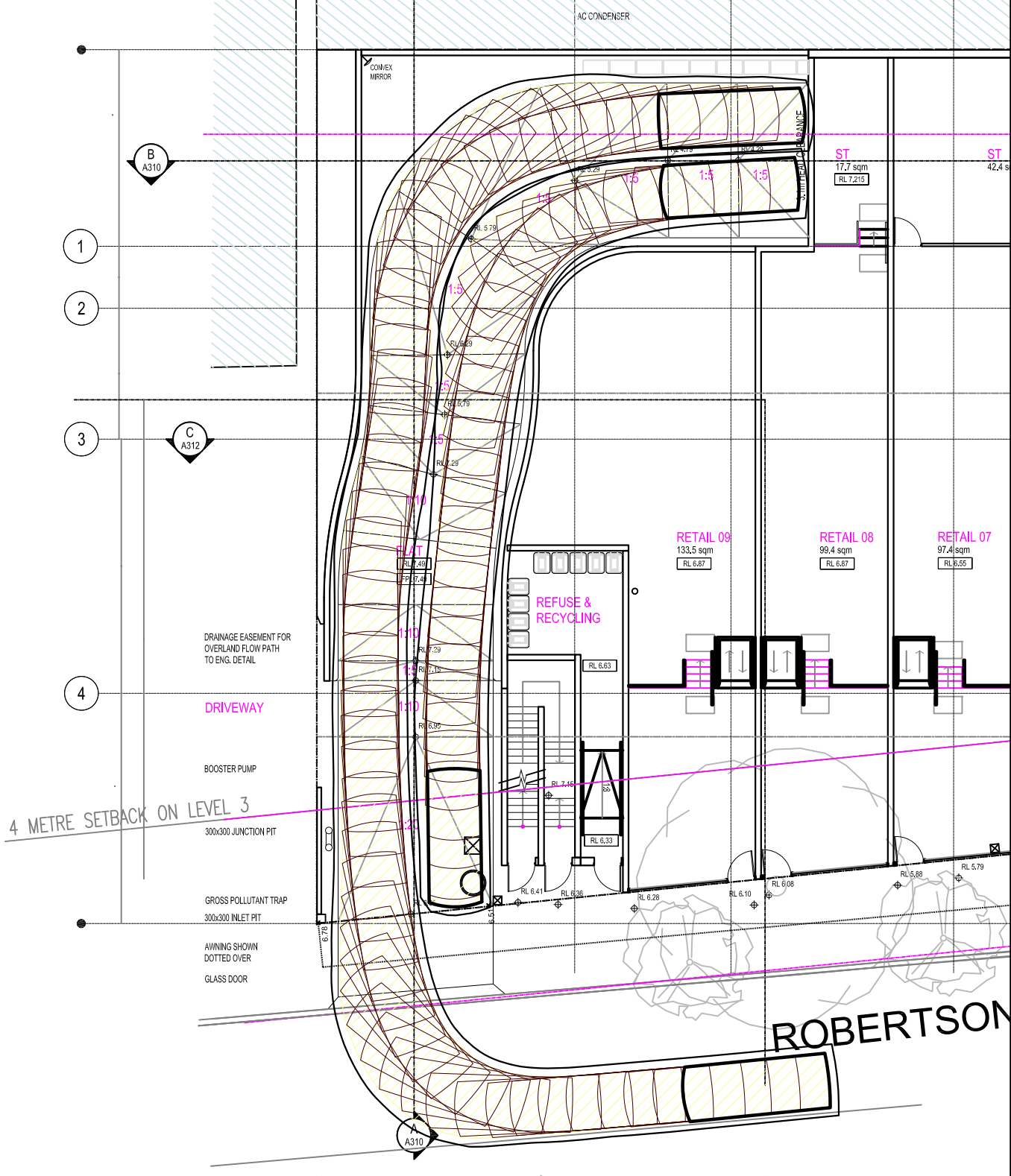
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**SWEPT PATH ANALYSIS
OF A 6.4m RIGID
VEHICLE EXITING THE SITE**

SP 4



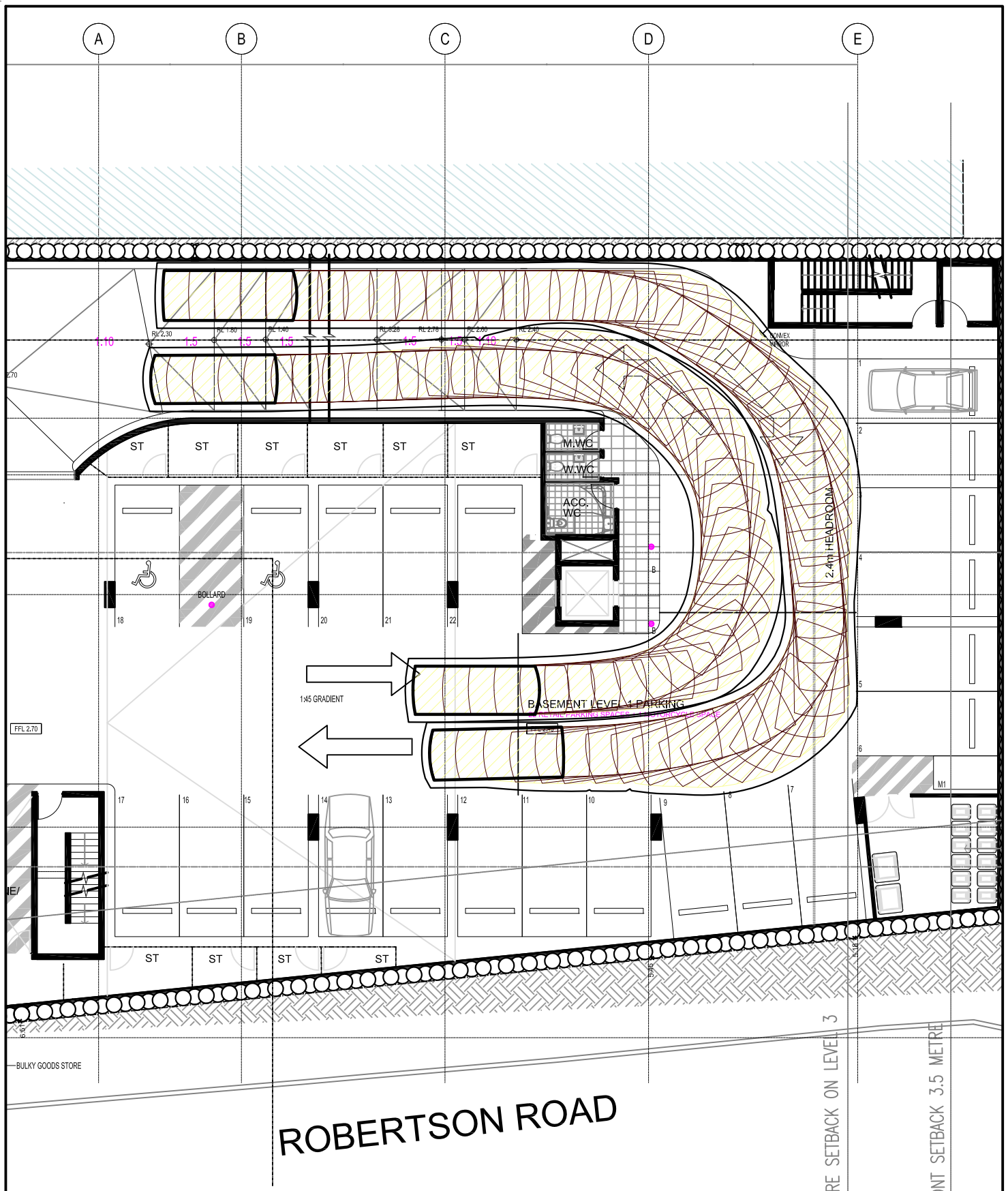
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**SWEPT PATH ANALYSIS
OF A 99th AND AN 85th
PERCENTILE VEHICLE
PASSING**

SP 5



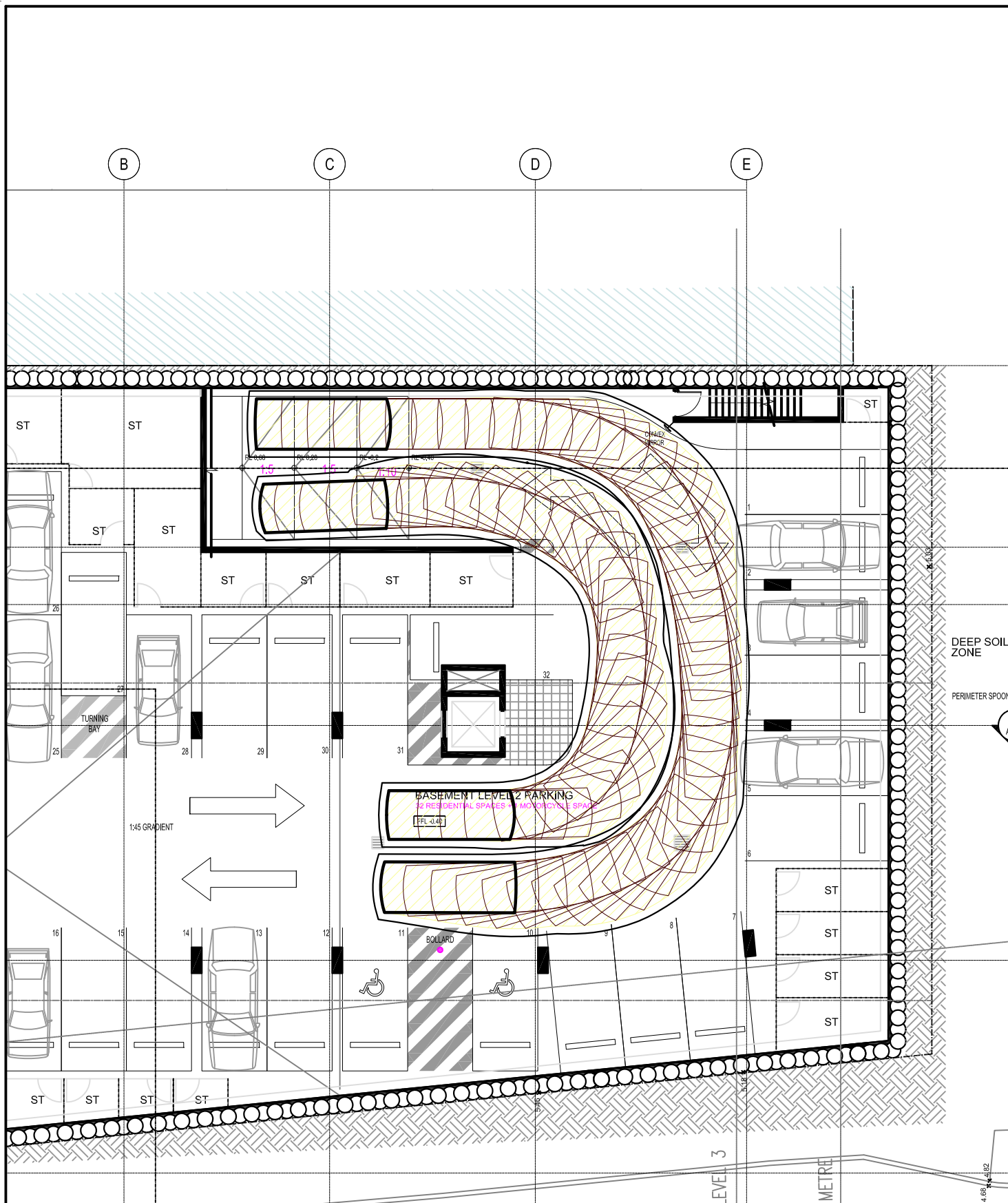
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**SWEPT PATH ANALYSIS
OF A 99th AND AN 85th
PERCENTILE VEHICLE
PASSING**

SP 6



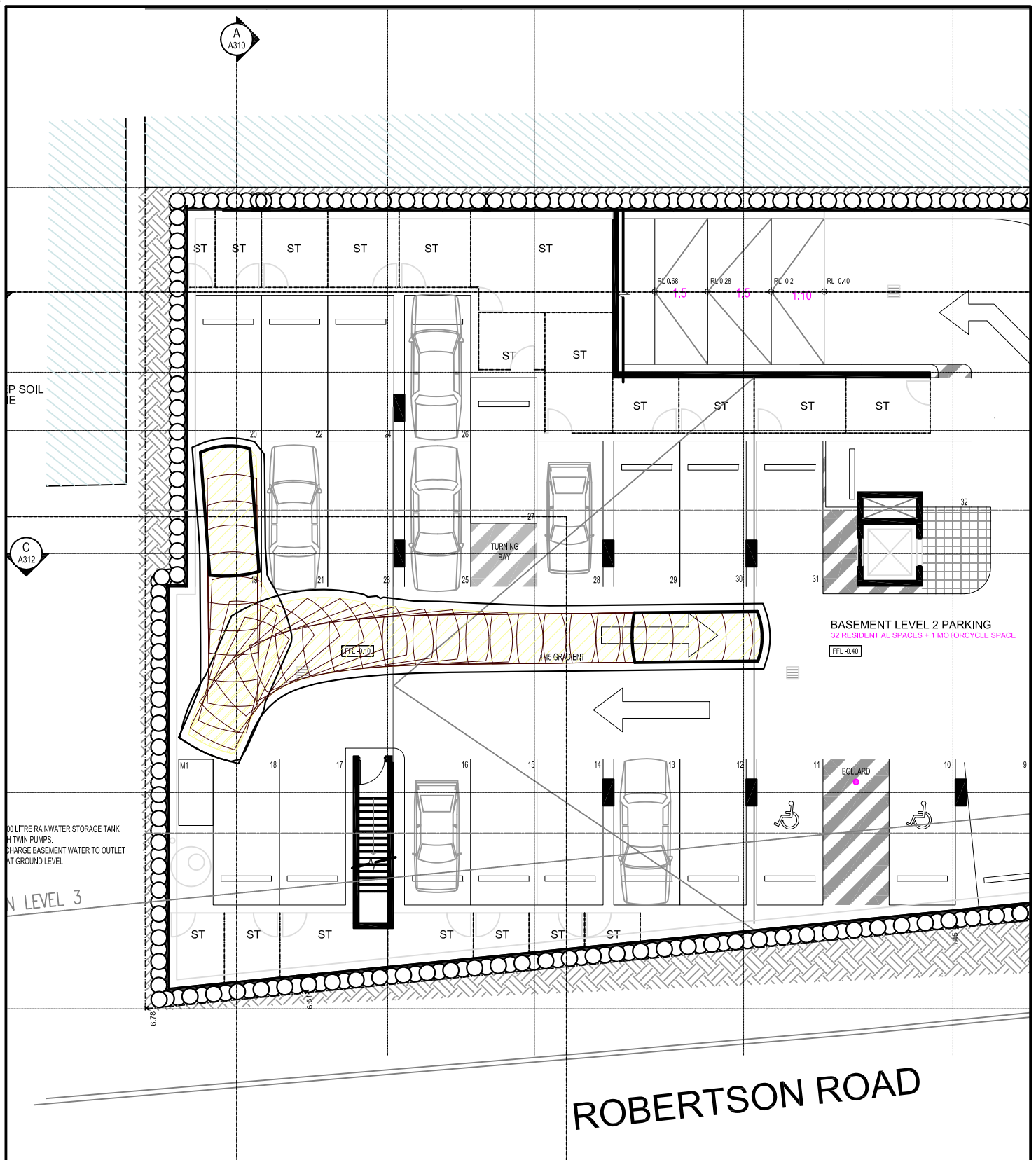
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**SWEPT PATH ANALYSIS
OF A 99th AND AN 85th
PERCENTILE VEHICLE
PASSING**

SP 7



LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS
OF AN 85th PERCENTILE
VEHICLE EXITING THE SITE**

SP 9

