



UPDATED TRAFFIC IMPACT ASSESSMENT

Proposed Seniors Housing Development

27-29 North Avalon Road, Avalon Beach

Prepared for: Armada Avalon Pty Ltd

Reference: 0138r01v06

Date: 22/09/2020

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Table of Contents

1. Introduction	3
1.1. Overview	3
1.2. Structure of this Report	3
1.3. References	4
2. Existing Conditions	5
2.1. Location and Site	5
2.2. Road Network	5
2.3. Public and Active Transport	8
2.4. Existing Traffic Generation	12
3. Proposed Development	13
4. Parking Requirements	14
4.1. Car Parking	14
4.2. Accessible Car Parking	15
4.3. Motorcycle and Bicycle Parking	16
4.4. Service Vehicle Parking & Waste Collection	16
5. Traffic Impacts	17
5.1. Trip Generation	17
5.2. Traffic Impacts	17
6. Design Aspects	18
6.1. Access	18
6.2. Internal Design	18
7. Conclusions	20



List of Figures

Figure 1: Location & Road Hierarchy	6
Figure 2: Site Plan	7
Figure 3: Public and Active Transport Services	10
Figure 4: Keoride Northern Beaches Service Area	11

List of Tables

Table 1: Bus Services	8
Table 2: Car Parking Requirement & Provision	15

Appendices

Appendix A:	Architectural Drawings
Appendix B:	Swept Path Analysis Drawings



1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Armada Avalon Pty Ltd to undertake a traffic impact assessment of a Development Application (DA) relating to a proposed seniors housing development at 27-29 North Avalon Road, Avalon Beach. Specifically, the DA proposes the demolition of the existing dwellings and the construction of a two-storey seniors housing development having the following attributes:

- 10 seniors independent living units (ILUs);
- Basement level parking with a total of 22 car spaces;
- A 5.5 metre wide combined entry / exit driveway onto North Avalon Road.

Having regard for the above, it is evident that the development is not of a use or scale that requires referral of the DA to Transport for New South Wales (TfNSW), under the provisions of the State Environmental Planning Policy (Infrastructure) 2007.

The site is located in the Northern Beaches local government area (LGA) and accordingly, the proposed development has been assessed in accordance with the Pittwater Development Control Plan 2004 and Pittwater Local Environmental Plan 2014. In addition to Council's planning controls, the proposed development has been assessed in accordance with the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004.

1.2. Structure of this Report

This report documents the findings of our investigations in relation to the anticipated traffic and parking impacts of the proposed development and should be read in the context of the Statement of Environmental Effects (SEE), prepared separately by Sutherland & Associates. The remainder of this report is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality;
- Section 3: Describes the proposed development;
- Section 4: Assesses the parking requirements of the development;
- Section 5: Assesses the traffic impacts of the development;
- Section 6: Discusses the proposed access and internal design arrangements;
- Section 7: Presents the overall study conclusions.



1.3. References

In preparing this report, reference has been made to the following guidelines / standards:

- Pittwater Local Environmental Plan 2014 (PLEP 2014);
- Pittwater Development Control Plan 2004 (PDCP 2004);
- State Environmental Planning Policy (Infrastructure) 2007 (SEPP Infrastructure 2007);
- State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Seniors SEPP 2004);
- Australian Standard AS 2890.1-2004, Part 1: Off-Street Car Parking (AS 2890.1);
- Australian Standard AS 2890.6-2009, Part 6: Off-Street Parking for People with Disabilities (AS 2890.6);
- RMS¹ Guide to Traffic Generating Development 2002 (RMS Guide);
- RMS¹ Technical Direction TDT 2013/04a - Guide to Traffic Generating Developments, Updated Traffic Surveys (RMS Guide Update).

¹ Roads and Maritime Services (RMS) has joined with TfNSW, with reference to Roads and Maritime now taken legally to automatically mean TfNSW.

2. Existing Conditions

2.1. Location and Site

The subject site is located at 27-29 North Avalon Road, Avalon Beach, being approximately 600 metres north of the Avalon Beach esplanade and 300 metres north-east of Barrenjoey High School. More specifically, it is located on the southern side of North Avalon Road between its intersection with Tasman Road to the west and Watkins Road to the east.

The site is comprised of two (2) separate lots, formally identified as Lot 32, DP8394 and Lot 33, DP 8394. The site is rectangular in configuration with a total area of 2,250m². It has a single street frontage being North Avalon Road to the north having a length of approximately 37 metres. The eastern and western boundaries border neighbouring residential dwellings both having lengths of 61 metres. The southern boundary borders neighbouring residential dwellings having a total length of 37 metres.

The site currently accommodates two (2) separate residential dwellings with a single dwelling located on each lot. Vehicle access to each lot is provided in the form of a 3.5 metre wide informal (gravel) driveway onto North Avalon Road.

Figures 1 and 2 overleaf provide an appreciation of the subject site in a broad and local context respectively.

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 1** overleaf, with the following roads considered noteworthy:

- Barrenjoey Road: forms part of a TfNSW Main Road, MR 164. Barrenjoey Road generally runs in a north-south direction between Governor Phillip Park in the north and Pittwater Road to the south. Near the site, it is subject to 60km/h speed zoning restrictions and carries a single lane of traffic in both directions within an 11 metre wide undivided carriageway. Unrestricted parallel parking is permitted along both kerbsides.
- Whale Beach Road: a local road that generally runs in a north-south direction between Palm Beach in the north and Barrenjoey Road in the south. Near the site, it is subject to 50km/h speed zoning restrictions and carries a single lane of traffic in both directions within a 10 metre wide undivided carriageway. Unrestricted parallel parking is permitted along both kerbsides.
- North Avalon Road: a local road that runs in an east-west direction between Marine Parade in the east and Barrenjoey Road in the west. North Avalon Road Street is subject to 50km/h speed zoning restrictions and carries a single lane of traffic in both directions within a 10 metre wide undivided carriageway. Unrestricted parallel parking is permitted along both kerbsides.



Figure 1: Location & Road Hierarchy



Figure 2: Site Plan

2.3. Public and Active Transport

2.3.1. Bus Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, states that the walking catchment for metropolitan bus services includes all areas within a 400 metre radius of a bus stop. It can be seen from **Figure 3** that the site is situated within 400 metres of bus stops located along Barrenjoey Road and Coonanga Road which are serviced by multiple bus routes. The site therefore falls within the walking catchment area, and residents and visitors are expected to utilise these services for journeys to / from the proposed development.

Table 1 below shows the notable town centres that are accessible via the abovementioned bus services and the average service headways during peak and off-peak periods.

Table 1: Bus Services

ROUTE NO.	ROUTE (TO / FROM)	ROUTE DESCRIPTION	AVERAGE HEADWAY
188X	North Avalon Beach to City Wynyard	Via Avalon, Bigola Beach, Newport, Mona Vale, Warriewood, North Narrabeen, Narrabeen, Mosman, Neutral Bay & Sydney	Weekdays: 10 - 15 minutes Weekends: No services
190X	Palm Beach to City Wynyard	Via Avalon, Bigola Beach, Newport, Mona Vale, Warriewood, North Narrabeen, Narrabeen, Collaroy, Dee Why, Brookvale, Mosman, Neutral Bay & Sydney	Weekdays: 1 hour until 5pm Weekends: 1 hour
192	Avalon Beach to Stokes Point (Loop Service)	Via Dunbar Park	Weekdays: 30 minutes Weekends: 30 minutes
199	Palm Beach to Manly	Via Avalon, Bigola Beach, Newport, Mona Vale, Warriewood, North Narrabeen, Narrabeen, Collaroy, Dee Why, Brookvale, North Manly & Queenscliff	Weekdays: 10 - 15 minutes Weekends: 15 - 30 minutes

2.3.2. On-Demand Shuttle Bus Service – Keoride

The Northern Beaches area is part of an initiative by Keoride and TfNSW to introduce flexible alternative transport services for residents and visitors, and improve the connectivity within the Northern Beaches area. The initiative enables persons within the service area, shown by **Figure 4**, to book a shuttle bus via the Keoride App or the Keoride website. Persons are able to be picked up near their home, a designated location within the service area or the nearest bus stop, and be taken to the closest transport hub or local centre. The on-demand service operates during the following times:

- Monday to Wednesday 6am – 10pm;
- Thursday and Friday 6am – 11.30pm;
- Saturday 7am – 11.30pm;
- Sunday 7am – 9pm, and;
- Public Holidays 7am to 9pm.



The Keoride service is one (1) of the most successful on-demand shuttle bus services in NSW, transporting an average of 500 persons per day. The initiative is currently part of the NSW Government's On Demand Public Transport Pilot Program which runs until June 2021, and after which, the bus service may become franchised.

2.3.3. Rail Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, states that the walking catchment for metropolitan railway stations includes all areas within an 800 metre radius of a station. Indeed, the subject site is situated well outside the walking catchment area, with the nearest railway station being Pymble Railway Station located some 23 kilometres south-west of the site. With this in mind, there is expected to be limited reliance on the use of rail services by residents and visitors of the proposed development, although these services may be used for journeys to / from the Greater Sydney Area.

2.3.4. Cycle Network

Figure 3 shows that the subject site has reasonable access to the local cycle network. On-road cycle paths are provided along Barrenjoey Road, Binburra Avenue and North Avalon Road (between its intersections with both Barrenjoey Road and Binburra Avenue) which provide connections to the wider cycle path network.

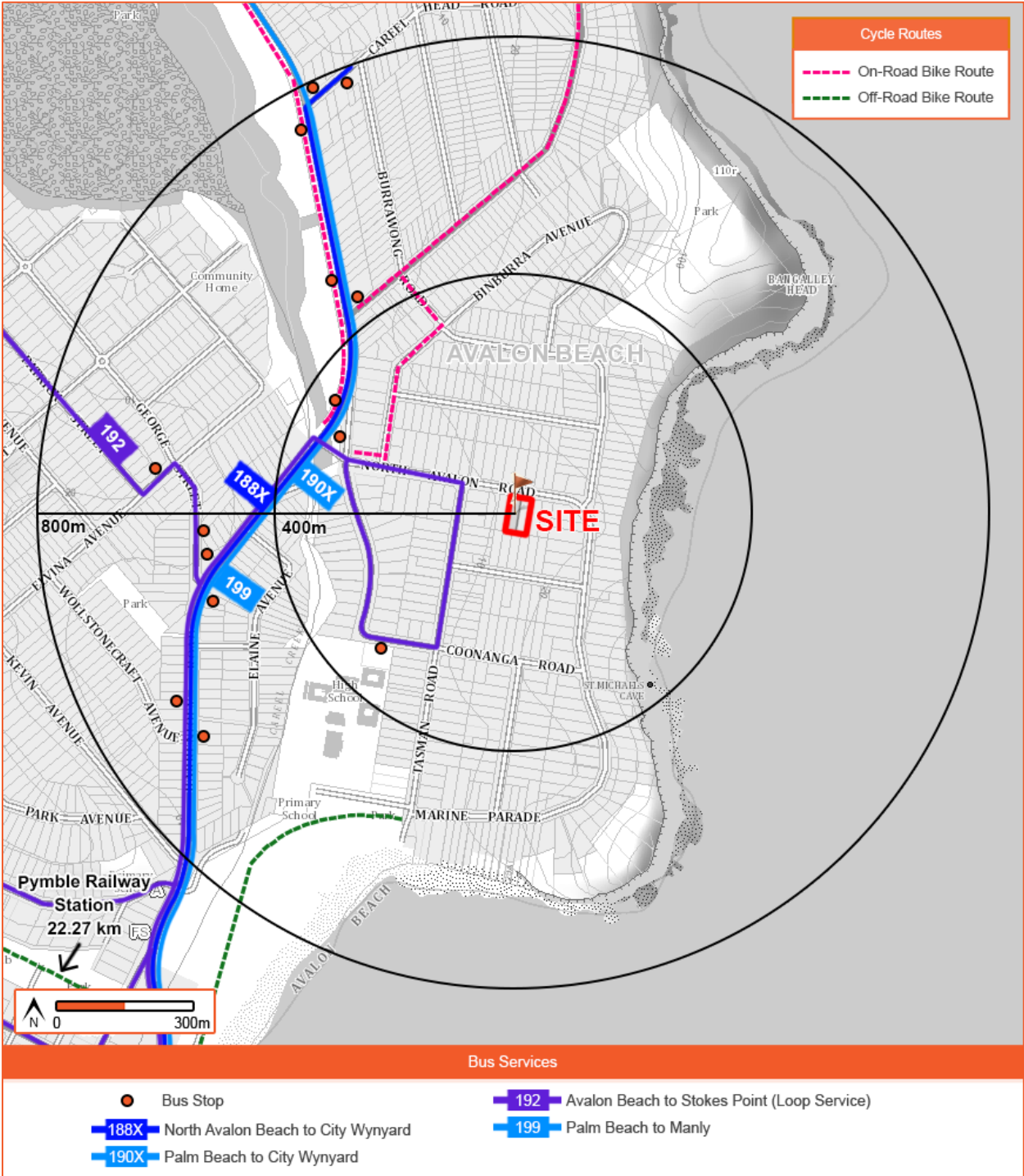


Figure 3: Public and Active Transport Services



Figure 4: Keoride Northern Beaches Service Area



2.4. Existing Traffic Generation

As discussed in Section 2.1 of this report, the site currently accommodates two (2) residential dwellings which attract a trip rate of 0.95 trips / hour / dwelling during the 7-9am (AM) peak period and 0.99 trips / hour / dwelling during the 4-6 (PM) peak period, under the RMS Guide Update. Application of these rates to the two (2) existing residential dwellings results in the following traffic generation:

- 2 vehicle trips / hour (0 in, 2 out), during the AM peak period;
- 2 vehicle trips / hour (2 in, 0 out), during the PM peak period.

The above assumes a 20% inbound and 80% outbound split during the AM peak period noting there is a higher likelihood that residents would depart the site in the weekday morning, and vice versa for the weekday PM peak period. Notwithstanding, it is considered that the most relevant use of the above is to determine the net change in traffic generation as a result of the proposed development, as is discussed in Section 5.1 of this report.

3. Proposed Development

A detailed description of the proposed development for which approval is now sought, is outlined in the Statement of Environmental Effects prepared separately by Sutherland & Associates. In summary, the DA proposes the demolition of the existing dwellings and the construction of a seniors housing development, incorporating:

- 10 x ILUs comprising:
 - Six (6) x two-bedroom ILUs;
 - Four (4) x three-bedroom ILUs;
- Basement level parking with a total of 22 car spaces, including:
 - 20 resident car spaces within 10 enclosed garages;
 - Two (2) visitor car spaces.
- A 5.5 metre wide entry / exit driveway onto North Avalon Road.

The parking and traffic implications arising from the proposed development are discussed in Sections 4 and 5 respectively. A copy of the relevant architectural drawings, prepared by Environa Studio, are also included in **Appendix A**.

4. Parking Requirements

4.1. Car Parking

Clause 50(h) of the Seniors SEPP 2004 outlines the following car parking rates for senior's living developments:

A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a self-contained dwelling (including in-fill self-care housing and serviced self-care housing) on any of the following grounds:

(h) parking

if:

- (i) 0.5 car spaces for each bedroom where the development application is made by a person other than a social housing provider, or*
- (ii) 1 car space for each 5 dwellings where the development application is made by, or is made by a person jointly with, a social housing provider.*

The DA has not been made by a social housing provider and accordingly, the parking provisions are required to be assessed in accordance with the rate outlined under Clause 50(h)(i) of the Seniors SEPP 2004.

The PDCP 2004 does not stipulate a car parking rate for seniors housing developments and instead, states the following under Clause B6.3:

Development not included in the above table

The minimum number of vehicle parking requirements must be determined using the appropriate guidelines for parking generation and servicing facilities based on development type comparison based on the Roads and Maritime Services Guide to Traffic Generating Development or analysis drawn from surveyed data for similar development uses. Provision must be made within the development site for access and parking of all service vehicles servicing the site, visitor parking and parking for people with disabilities.

Having regard for Clause B6.3 of the PDCP 2004, reference was made to the RMS Guide to further assess the car parking requirements of the proposed development. This review found that the RMS Guide recommends application of the below rates for resident funded seniors living developments with self-contained units:

- Two (2) spaces per three (3) units for residents; and
- One (1) space per five (5) units for visitors.



An assessment against both the Seniors SEPP 2004 and PDCP 2004 (RMS Guide) controls was therefore undertaken to determine the minimum parking requirement for the development. The applicable parking rates and requirements are shown by **Table 2** below.

Table 2: Car Parking Requirement & Provision

TYPE	NO.	SEPP PARKING RATE	DCP PARKING RATE	SEPP REQUIREMENT	DCP REQUIREMENT	PARKING PROVISION
Residents	24 bedrooms / 10 units	0.5 spaces / bedroom	0.67 spaces / unit	12	7	20
Visitors	10 units	-	0.2 spaces / unit	-	2	2
TOTAL				12	9	22

It is evident from **Table 2** that under the Seniors SEPP 2004, the development requires a minimum of 12 car parking spaces, whilst the PDCP 2004 requires a minimum of nine (9) car parking spaces. In response, the development provides a total of 22 car parking spaces comprising of 20 resident spaces and two (2) visitor spaces, and this complies with the minimum provision and allocation requirements of both the PDCP 2004 and the Seniors SEPP 2004.

The proposed resident and visitor car parking provision is therefore considered acceptable and will ensure that all parking demands are wholly accommodated on-site, with no reliance on on-street parking.

4.2. Accessible Car Parking

Clause 5(b) of the Seniors SEPP 2004 - Schedule 3 stipulates that *"5% of the total number of car parking spaces (or at least one space if there are fewer than 20 spaces) must be designed to enable the width of the spaces to be increased to 3.8 metres."* Application of this rate to the 22 car parking spaces provided for the proposed development, equates to a requirement for one (1) car parking space that is able to be increased in width to 3.8 metres.

Consultation with the access consultant has confirmed that the development complies with the above requirement, as it is able to readily provide one (1) 3.8 metre wide parking space within one (1) of the enclosed garages. This would be achieved by converting two (2) of the 2.4 metre wide car space spaces into one (1) 3.8 metre wide parking space. Whilst this would result in a reduction of one (1) parking space, the resultant provision of 21 car parking spaces in total would still comply with the minimum requirements of both the SEPP 2004 and the PDCP 2004. The proposed arrangements are therefore considered acceptable and comply with Clause 5(b) of the Seniors SEPP 2004 - Schedule 3.



4.3. Motorcycle and Bicycle Parking

Neither of the Seniors SEPP 2004 or PDCP 2004 policies stipulate a rate for the provision of motorcycle or bicycle parking and in any event, it is considered that the seniors housing development would generate a negligible demand for motorcycle and bicycle parking. As such, it is considered acceptable that the development does not provide any on-site motorcycle or bicycle parking.

4.4. Service Vehicle Parking & Waste Collection

Neither of the Seniors SEPP 2004 or PDCP 2004 policies stipulate a rate for the provision of service vehicle parking. In any event, given the use and moderate scale of the proposed development, it is expected that it would generate a minimal demand for service vehicle parking. Accordingly, it is considered acceptable that the development does not provide any dedicated on-site service vehicle parking and instead, proposes that any service vehicle demands such as tradesman utes / vans be accommodated within the available on-site visitor parking spaces. This is considered an acceptable outcome given the service vehicle demands will be minor and infrequent. Any demands associated with larger vehicles including trucks would need to be accommodated within the unrestricted parking spaces available along the North Avalon Road frontage.

Given the site constraints, it is considered appropriate that waste collection of the development be undertaken on-street along North Avalon Road. To facilitate this, a caretaker will be responsible for transferring bins from the basement holding room to the waste collection area located next to the driveway, prior to collection being undertaken by Council's contractors, and for promptly returning the bins to the basement holding room following collection. This arrangement is considered acceptable and will ensure that waste can be collected safely and efficiently, whilst also being consistent with numerous other comparable developments in the area.

5. Traffic Impacts

5.1. Trip Generation

The updated trip generation rate for senior's living developments included in the RMS Guide Update was derived from surveys of 10 seniors living developments across the Sydney metropolitan area and regional areas of NSW. Taking into consideration that the proposed development is located on the edge of the Sydney Metropolitan area and for the purposes of a conservative estimate, it was considered appropriate to derive an average trip rate from the developments surveyed in regional NSW, being 0.45 vehicle trips / dwelling / hour. Application of this rate to the proposed 10 ILUs, results in the following peak period traffic generation:

- 5 vehicle trips / hour (1 in, 4 out), during the AM peak period;
- 5 vehicle trips / hour (4 in, 1 out), during the PM peak period.

The above is not a net increase as it does not take into consideration the traffic generation of the existing development as is discussed under Section 2.4 of this report. In this regard, the net increase in traffic generation as a result of the proposed development is expected to be as follows:

- 3 vehicle trips / hour (1 in, 2 out), during the AM peak period;
- 3 vehicle trips / hour (2 in, 1 out), during the PM peak period.

5.2. Traffic Impacts

As discussed above, the proposed development will result in a net increase of three (3) vehicle trips / hour during the AM and PM peak periods, or one (1) additional vehicle trip every 20 minutes. This is a negligible increase that will have no material impact on the performance of the external road network or key intersections in the locality and accordingly, no external improvements will be required to facilitate the development.

Furthermore, computer modelling techniques available to analyse intersection performances are not sensitive to such small changes in traffic volumes and hence, such an assessment is not considered to be required. The traffic impacts of the proposed development are therefore considered acceptable.

6. Design Aspects

6.1. Access

With 22 car parking spaces of User Class 1A, the proposed development requires a Category 1 Driveway under Table 3.1 of AS 2890.1, being a combined entry / exit driveway of width 3.0 metres to 5.5 metres. In response, the development proposes a combined entry / exit access driveway width of 5.5 metres onto North Avalon Road and therefore satisfies the requirements of AS 2890.1. The proposed arrangements have also been assessed using swept path analysis which confirms compliance with AS 2890.1, and demonstrates that the proposed access arrangements will operate safely and efficiently. The results of this analysis are included in **Appendix B** for reference.

The proposed design of the access is therefore considered acceptable and complies with the relevant requirements of AS 2890.1.

6.2. Internal Design

The proposed internal parking arrangements comply with the relevant requirements of AS 2890.1, with the following design aspects considered noteworthy:

6.2.1. Internal Roadway / Ramp

- The driveway has an upgrade of 2.5% (1 in 40) for the first 8.0 metres inside the property boundary and therefore satisfies Clause 3.3(a) of AS 2890.1.
- The vehicular ramps have a maximum grade of 25% (1 in 4) with 2.0 metre transitions of 12.5% (1 in 8) provided at both ends, thereby satisfying Clause 2.5.3 of AS 2890.1.
- The vehicular access has a minimum width of 5.5 metres between kerbs for the first 6.0 metres inside the property boundary and narrows to 3.4 metres internally. The ramp will therefore accommodate one-lane, two-way traffic flow, as demonstrated by the swept path analysis results included in **Appendix B**. This arrangement complies with AS 2890.1 and is considered acceptable given the low traffic generation and tidal nature (i.e. most vehicles departing the site in the morning and arriving at the site in the evening) of the site.

6.2.2. Parking Modules

- All resident car spaces are provided in the form of enclosed double-vehicle garages and comply with the relevant requirements of Clause 5.4 of AS 2890.1.
- All car parking spaces are provided in accordance with the User Class 1A requirements of AS 2890.1, having a minimum space width of 2.4 metres and length of 5.4 metres, with an aisle width of 6.1 metres.



- Car spaces within Garages 4 and 10 are provided in a tandem arrangement. This is compliant with AS 2890.1 and is considered acceptable given that each set of tandem spaces will be allocated to one (1) residential dwelling.
- All walls / columns are located outside of the space design envelope, as required under Figure 5.2 of AS 2890.1.
- Dead-end aisles are provided with the required one (1) metre aisle extension in accordance with Figure 2.3 of AS 2890.1.

6.2.3. Head Heights

- A minimum clear head height of 2.2 metres is required above all traffic circulation and car parking areas in accordance with Clause 5.3.1 of AS 2890.1.
- A minimum clear head height of 2.5 metres is required above all double garages which have the ability to be converted to an adaptable parking space , in accordance with AS 4299.

6.2.4. Other Considerations

- A 2.5m by 2.0m visual splay is provided on the egress side of the driveway, at the property boundary, in accordance with Figure 3.3 of AS 2890.1.

In summary, the internal parking arrangements have been designed in accordance with AS 2890.1. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate

7. Conclusions

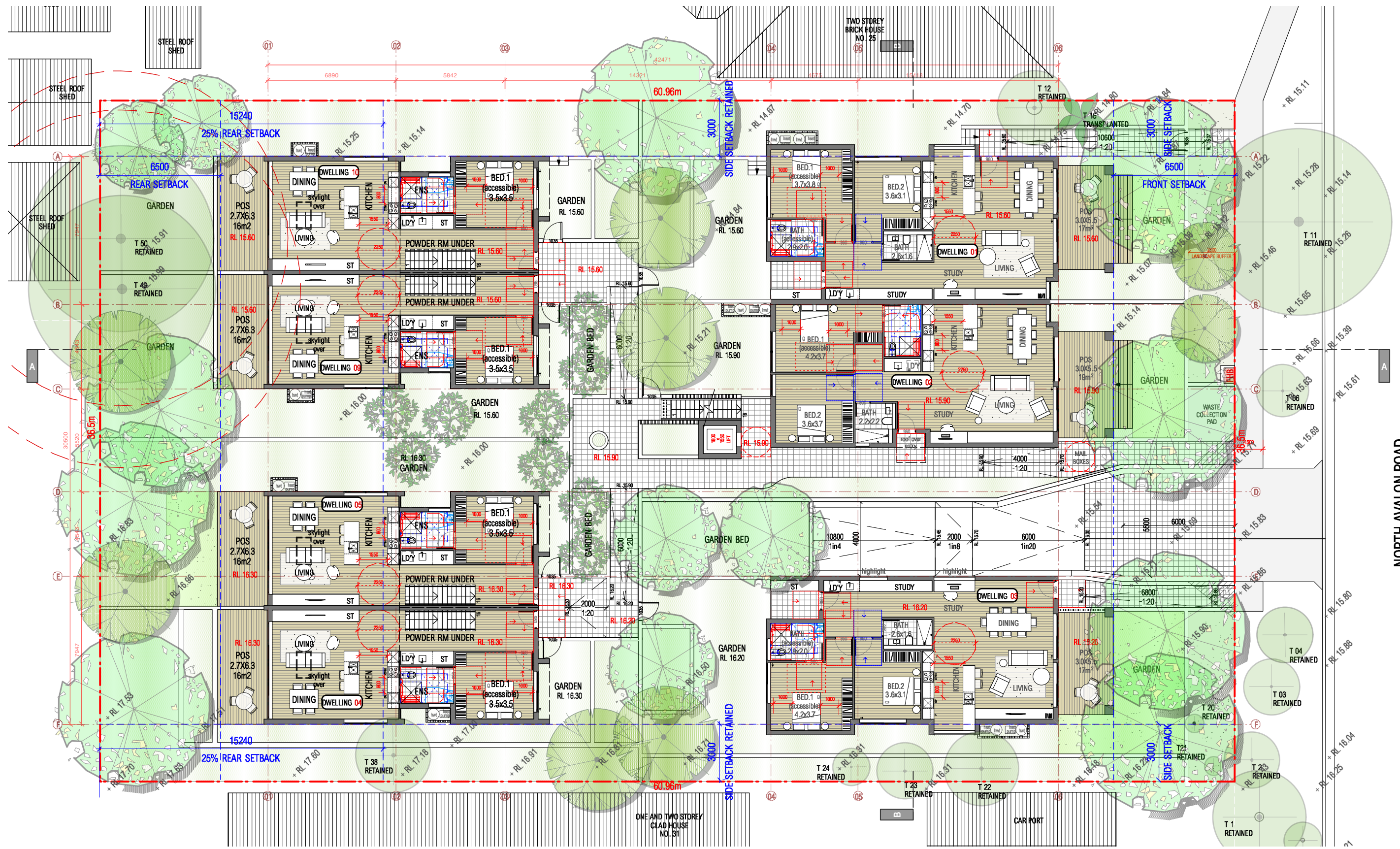
In summary:

- PDC Consultants has been commissioned by Armada Avalon Pty Ltd to undertake a traffic impact assessment of a DA relating to a proposed seniors housing development at 27-29 North Avalon Road, Avalon Beach. Specifically, the DA proposes the demolition of the existing dwellings and the construction of a two-storey seniors housing development having the following attributes:
 - 10 seniors independent living units;
 - Basement level parking accommodating a total of 22 car spaces;
 - A 5.5 metre wide entry / exit driveway onto North Avalon Road.
- The traffic assessment confirms that the proposed development will generate a total of five (5) vehicle trips / hour during both the weekday 7-9am (AM) and 4-6pm (PM) peak periods. The net increase will however be only three (3) vehicle trips / hour during the weekday AM and PM peak periods. This equates to one (1) additional vehicle trip every 20 minutes during peak periods which will have no material impact on the performance of the external road network or on key intersections in the locality and accordingly, no external improvements will be required to facilitate the development. The traffic impacts of the proposed development are therefore considered acceptable.
- The Seniors SEPP 2004 requires the development to provide a minimum of 12 car parking spaces, whilst the PDCP 2004 requires a minimum of nine (9) car parking spaces. In response, the development provides a total of 22 car parking spaces, comprising of 20 resident spaces and two (2) visitor spaces, and this complies with the total provision and allocation requirements of both the PDCP 2004 and the Seniors SEPP 2004. The proposed car parking provision is considered acceptable and will ensure that all parking demands are wholly accommodated on-site, with no reliance on on-street parking.
- The proposed access and internal parking arrangements comply with AS 2890.1, and will operate safely and efficiently. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

It is therefore concluded that the proposed development is supportable on traffic planning grounds.

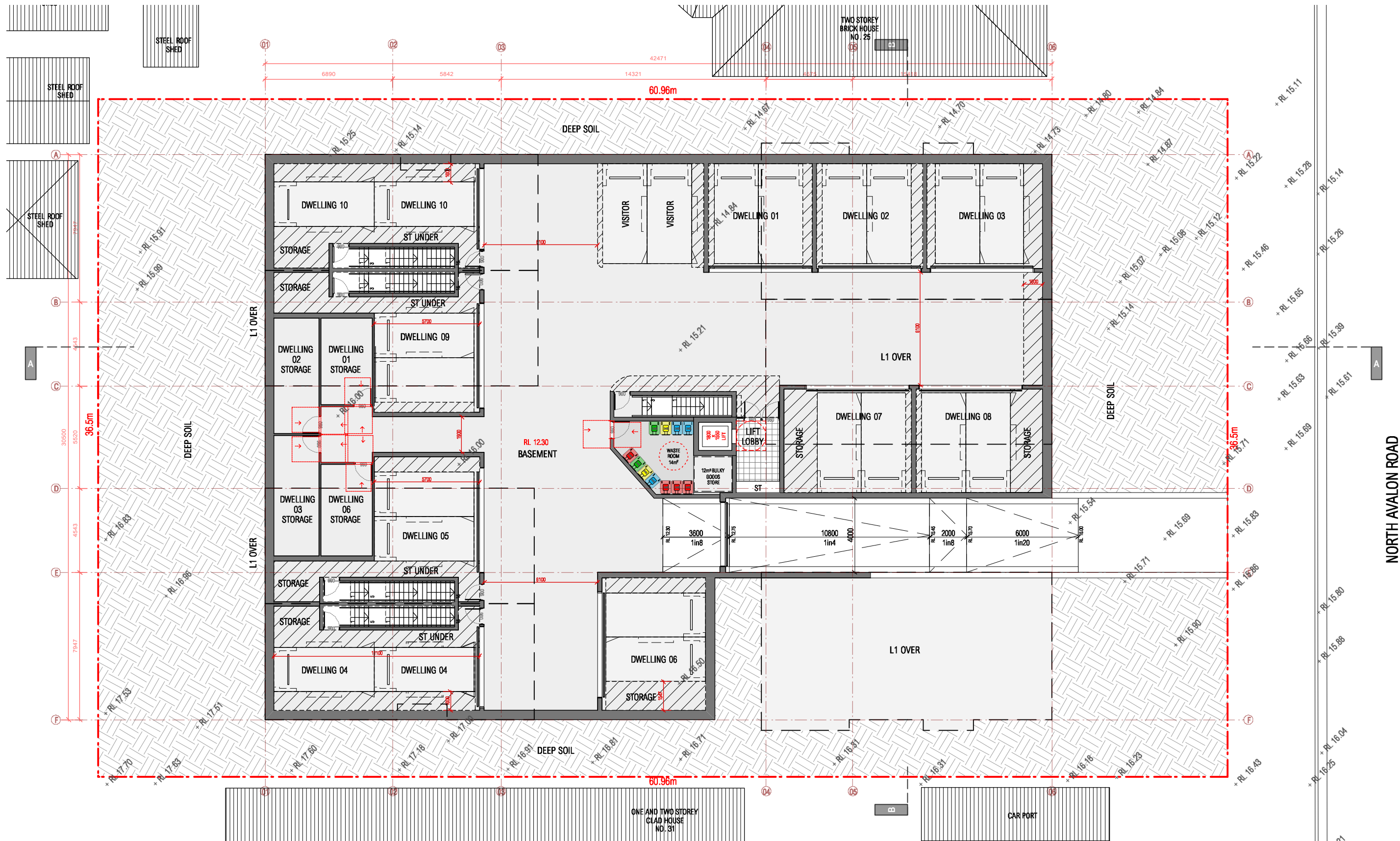


Appendix A



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	notes	rev	date	amendment	rev	date	amendment	rev	date	amendment	environa studio 224 riley st surry hills 2010 t: 02 9211 0000 w: www.environastudiacom.au architects registration number 6239	project	location	drawing	stage	project no.	dwg no.
	all work to be carried out in accordance with bca, saa codes and conditions of council. measurements in mm's unless noted. use figured dimensions. do not scale drawings. site measure before starting work. refer all discrepancies to the architect.	A 23/01/19 issued for information B 25/02/19 issued to council for information C 08/03/19 issued for information D 16/04/19 issued for information E 30/04/19 issued for information F 03/05/19 issued to consultants G 10/05/19 issued to consultants H 30/05/19 issued to consultants	F 14/06/19 issued to consultants G 19/06/19 issued to consultants + client H 21/06/19 issued to consultants + client I 02/07/19 issued to consultants + client J 31/07/19 issued to client for comment K 19/08/19 issued to client for comment L 27/08/19 issued to client for comment M 30/09/19 issued to client for information	M 09/10/19 issued to council - da submission N 23/03/20 issued to information O 08/04/20 issued to client P 11/05/20 issued to client Q 13/05/20 issued to client R 28/05/20 without prejudice submission S 18/09/20 issued to mills oakley T 21/09/20 issued to mills oakley - minor corrections	SENIORS LIVING ARMADA AVALON PTY LTD	27-29 NORTH AVALON ROAD AVALON BEACH	LEVEL 1 FLOOR PLAN	DA TW MB	991	102		21/09/20	R				

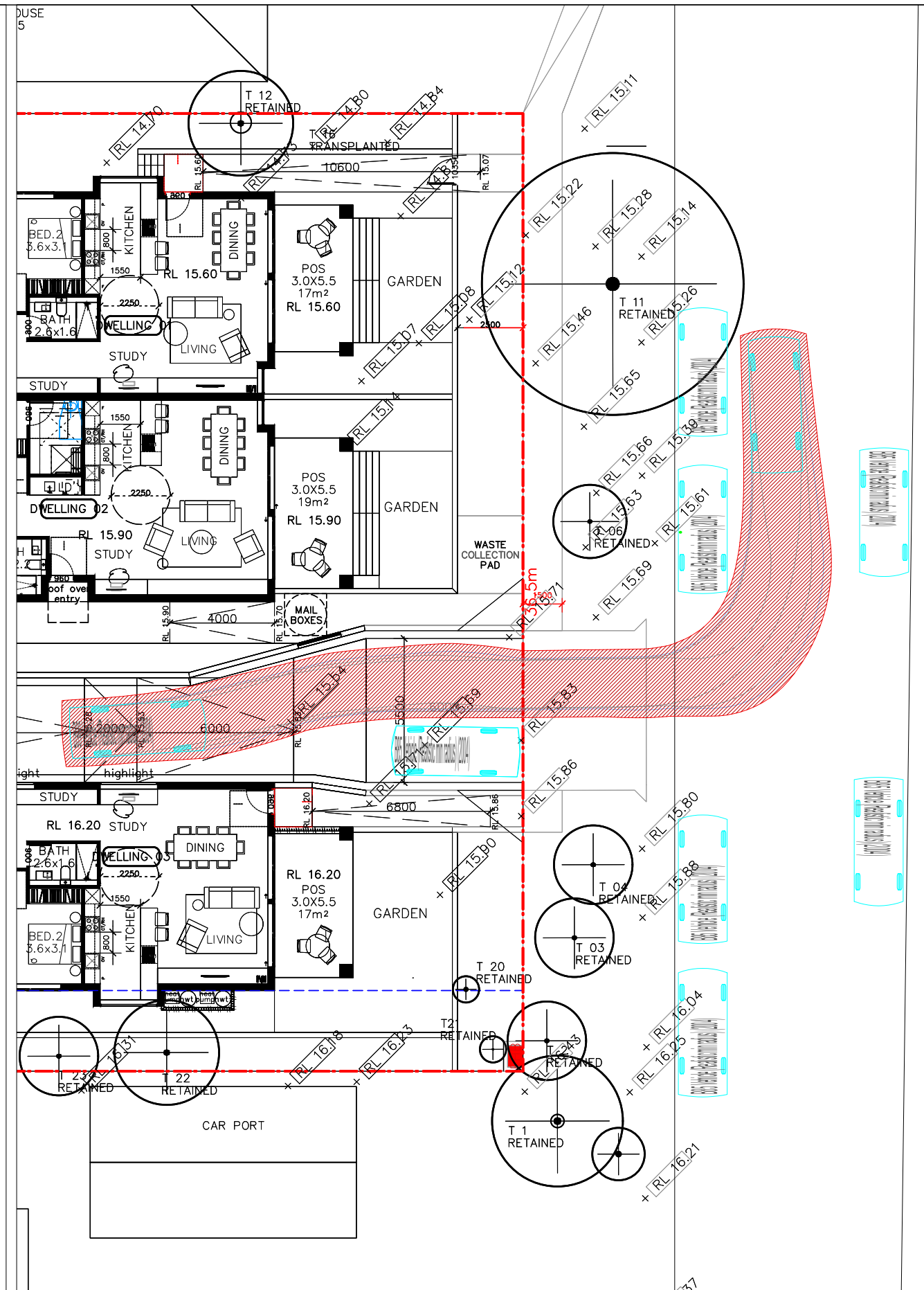
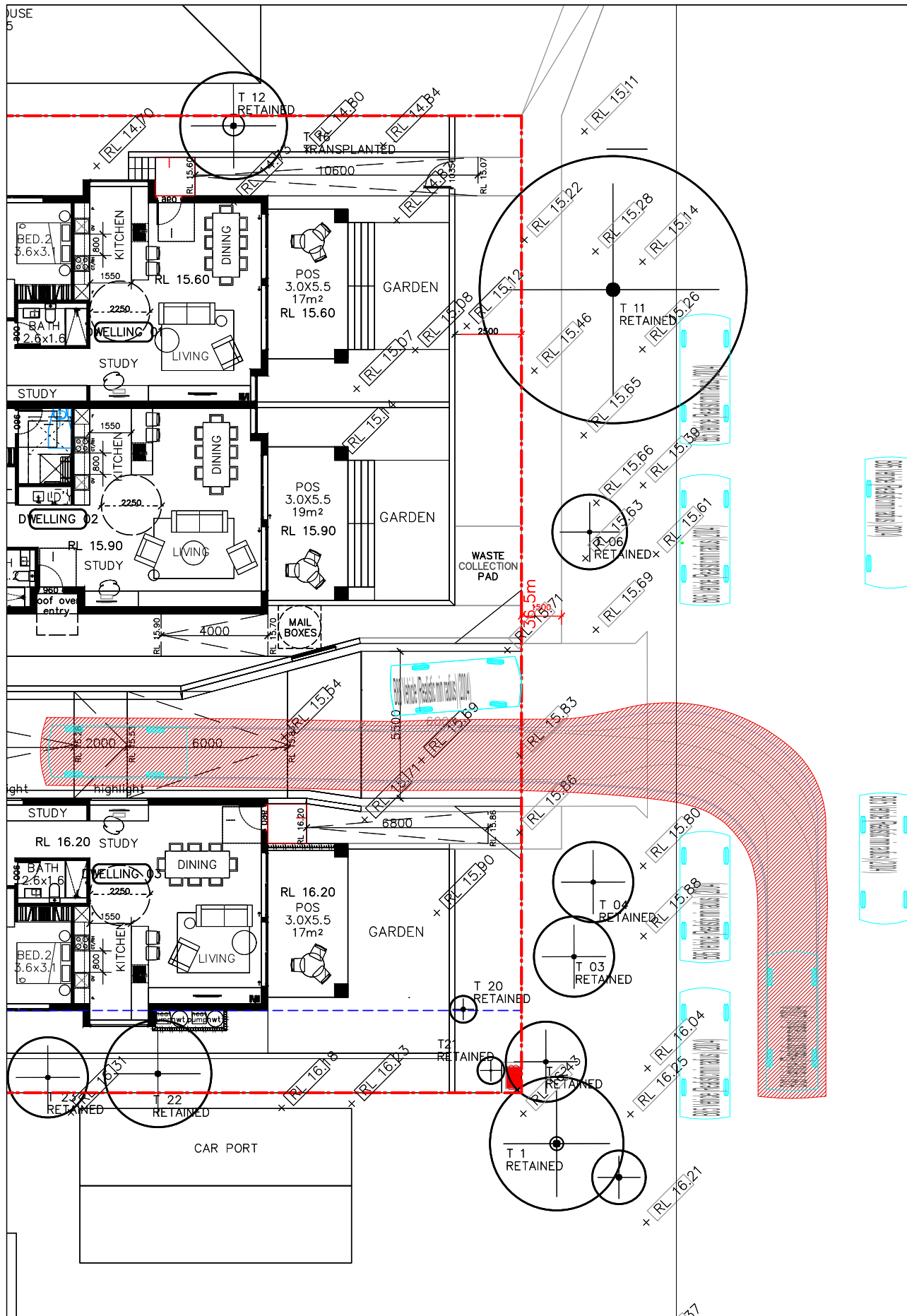


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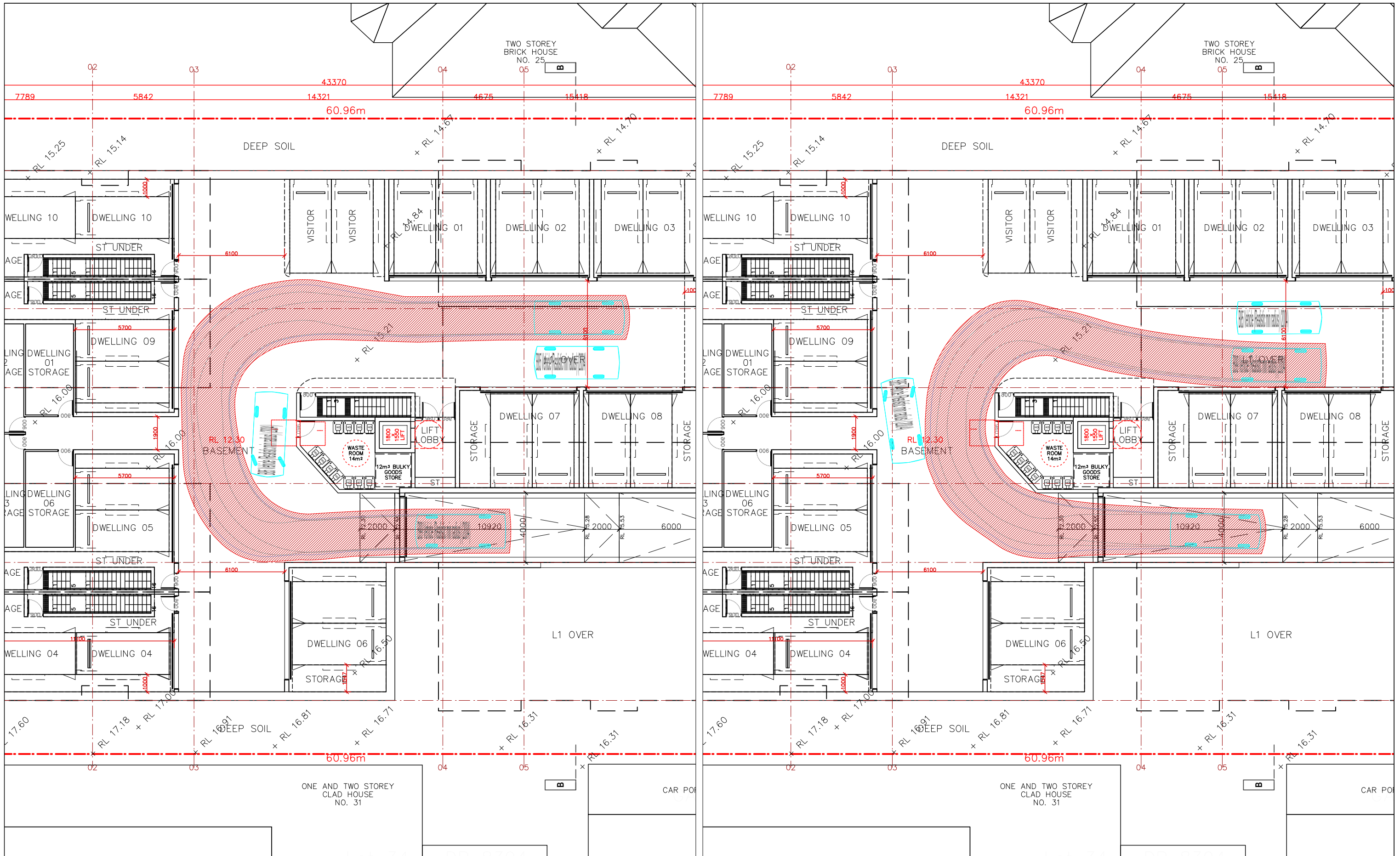
	<p>notes</p> <p>all work to be carried out in accordance with bca, saa codes and conditions of council. measurements in mm's unless noted. use figured dimensions. do not scale drawings. site measure before starting work. refer all discrepancies to the architect.</p>	<p>rev date amendment</p> <p>A 23/01/19 issued for information</p>	<p>rev date amendment</p> <p>F 14/06/19 issued to consultants</p>	<p>rev date amendment</p> <p>M 09/10/19 issued to council - da submission</p>	<p>project</p> <p>SENIORS LIVING</p>	<p>location</p> <p>27-29 NORTH AVALON ROAD</p>	<p>drawing</p> <p>BASEMENT</p>	<p>stage</p> <p>DA</p>	<p>project no.</p> <p>991</p>	<p>dwg no.</p> <p>101</p>
		<p>A 25/02/19 issued to council for information</p> <p>B 08/03/19 issued for information</p> <p>C 16/04/19 issued for information</p> <p>D 30/04/19 issued for information</p> <p>E 10/05/19 issued to consultants</p> <p>F 30/05/19 issued to consultants</p>	<p>G 19/06/19 issued to consultants + client</p> <p>H 21/06/19 issued to consultants + client</p> <p>I 02/07/19 issued to consultants + client</p> <p>J 31/07/19 issued to client for comment</p> <p>K 19/08/19 issued to client for comment</p> <p>L 27/08/19 issued to client for comment</p> <p>30/09/19 issued to client for information</p>	<p>N 23/03/20 issued to information</p> <p>O 08/04/20 issued to client</p> <p>P 11/05/20 issued to client</p> <p>Q 13/05/20 issued to client</p> <p>R 28/05/20 issued without prejudice submission</p> <p>18/09/20 issued to mills oakley</p> <p>21/09/20 issued to mills oakley - minor corrections</p>	<p>environa studio</p> <p>224 riley st surry hills 2010 t: 02 9211 0000 w: www.environastudiocom.au architects registration number 6239</p>	<p>for/client</p> <p>ARMADA AVALON PTY LTD</p>	<p>at</p> <p>AVALON BEACH</p>	<p>drawing</p> <p>FLOOR PLAN</p>	<p>chkd drwn</p> <p>TW MB</p>	<p>date</p> <p>21/09/20</p>



Appendix B

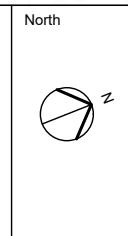


No.	Date	Description	Swept Path Key - - - - - Vehicle Wheel Path - - - - - Vehicle Body Envelope - - - - - 300mm Vehicle Clearance	North 	Drawing Prepared By 	Architect Environa Studio	Project 27-29 North Avalon Road Avalon Beach	Drawing Title Ground Floor Plan B99 Design Vehicle Swept Path Analysis Site Entry / Exit Movements	Drawing No. 001	Revision No. A
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No.	Date	Description

Swept Path Key	
	Vehicle Wheel Path
	Vehicle Body Envelope
	300mm Vehicle Clearance



Drawing Prepared By

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Architect
Environa Studio
 Client
Armada Avalon Pty Ltd

Project
 27-29 North Avalon Road
 Avalon Beach
 Project No
 0138

Drawing Title
 Ground Floor Plan
 B99 Design Vehicle Swept Path Analysis
 Internal Entry / Exit Movements
 Sheet Status
 NOT FOR CONSTRUCTION

Drawing No.
 002
 Drawn By
 MM
 Revision No.
 A
 Date
 22/09/2020
 1:200 @ A3
