Terraffic Pty Ltd

Traffic and Parking Consultants

ABN 83 078 415 871

2nd October 2024
Ref 23080

The General Manager
Northern Beaches Council
59A Old Barrenjoey Road
Avalon Beach NSW 2107

Dear Sir/Madam,

PROPOSED MODIFICATION TO OFF-STREET CARPARKING
29 CALVERT STREET, NEWPORT

Terraffic Pty Ltd has been engaged by Andy Lehman Design to assess the proposed off-street carparking and vehicular access arrangements for the abovementioned development site.

The existing dwelling on the site is served by a single car garage and carport that gains vehicular access to Calvert Parade via a 23m long single lane access ramp with an average grade of approximately 16% (1 in 6.5). The existing development does not provide a turn bay for vehicles to depart the site in a forward direction. A site survey is reproduced in Appendix A.

Photograph of the existing parking arrangements

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PO Box 563 Sylvania Southgate NSW 2224 Mob: 0411 129 346
Email: logan@terraffic.com.au Web: www.terraffic.com.au

The proposed development comprises the provision of 2 external parking spaces and modifications to the ramp to enable vehicles to enter and exit the site in a forward direction. The existing garage is to be converted to usable indoor living space while the carport is to be converted to a porch.

The existing ramp for the first 6.0m into the site will be retained and has a grade of 19.5% (1 in 5.1). The proposed section of the access driveway will be 3.0m wide and have a maximum gradient of 18.2% (1 in 5.5). Ramp transitions do not exceed 12.5% (1 in 8) over a distance of 2.0m. The maximum gradient within the parking spaces and manoeuvring area does not exceed 5% (1 in 20).

The 2 car parking area has an overall width of 5.9m and length of 5.4m. The manoeuvring area has a width of 6.9m to facilitate forward egress from the site. The manoeuvring area matches into the new 3.0m wide ramp.

A plan of the proposed access ramp and parking area is reproduced in Appendix B.

Section B6.2 of the Pittwater 21 DCP notes the following with regard to Internal Driveways:

> *For Internal Driveways on steeply sloping or difficult sites, gradients may be increased up to 1:4 (V:H) over a maximum 20 metre length.*
>
> *Provision is to be made for vehicles to enter and leave the site in a forward direction, where:*
> - *the internal driveway grade exceeds 1:4 (V:H);*
> - *the land abuts a roadway subject to high pedestrian use (e.g. School, Commercial Centre);*
> - *driveways are more than 30m in length; and*
> - *the driveway enters onto a classified road.*
>
> ***Variations***
> *For existing Internal Driveways on steeply sloping or difficult sites proposing dual occupancies, dwelling houses, secondary dwellings, exhibition homes, rural works dwellings and tourist and visitor accommodation,* ***gradients up to a maximum of 1:3 (V:H) may be maintained*** *subject to demonstration through a Traffic Assessment Report and the relevant certification that the Internal Driveway including surface finish is safe for its intended use.*
>
> *Any alternate design of the Internal Driveway (based on turning paths for a B85 vehicle) is to be in accordance with the current edition of Australian Standard AS/NZS 2890.1 "Parking Facilities Part 1" Off-Street Car Parking.*
>
> *A variation may be considered subject to demonstration through a Traffic Assessment Report and the relevant certification that an alternate vehicular access arrangement to the site is safe for all pedestrian and vehicular traffic.*

The Internal Driveway shall be contained within the driveway corridor. The minimum width of the driveway corridor (i.e. impervious pavements together with grassed shoulder area) shall be as follows:

- *Single Dwelling: 3.0 metres minimum.*

As per the requirements of AS/NZS2890.1:2004 and the DCP, the proposed access ramp incorporates 2.0m long transitions with a maximum change in grade of 12.5% (1 in 8) and a maximum grade of the ramp is 18.2% over a distance of 8.0m. Furthermore, the 3.0m wide driveway satisfies the minimum requirements of the DCP.

The swept paths of the Australian Standard B85 Vehicle (Ford Falcon) entering and exiting the proposed parking spaces are reproduced in Appendix C. As can be seen, this vehicle can enter and exit the site with a maximum of 5 manoeuvres.

In the circumstances, the proposed access driveway and parking arrangements are considered acceptable and will improve safety as vehicles will be able to enter and exit in a forward direction.

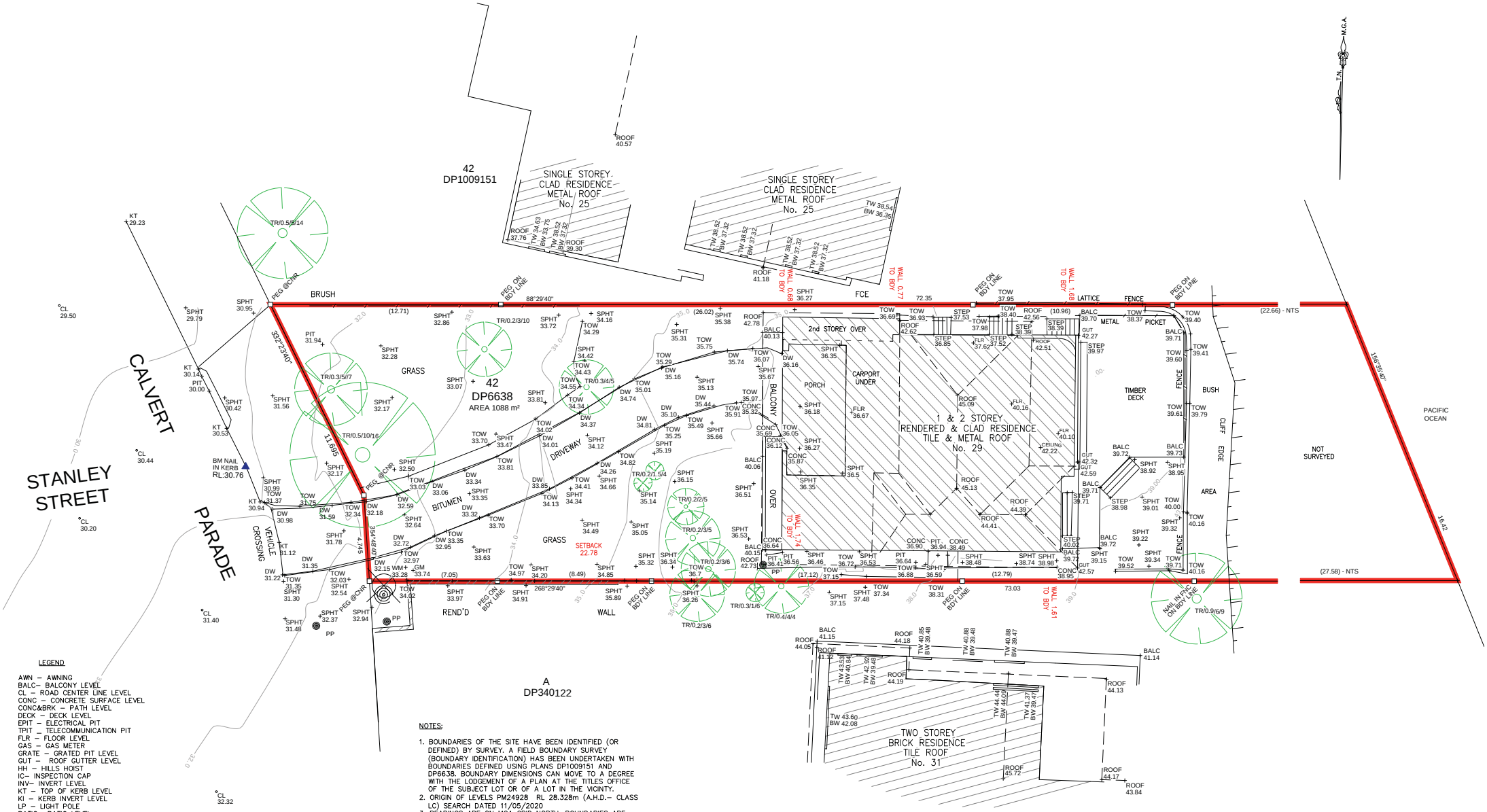
Should you require any further information, please do not hesitate to contact Michael Logan on 0411 129 346 during business hours.

Yours faithfully

Michael Logan *MTraff (Monash University)*
Director
Terraffic Pty Ltd

APPENDIX A

SITE SURVEY



LEGEND

AWN – AWNING
BALC– BALCONY LEVEL
CL – ROAD CENTER LINE LEVEL
CONC – CONCRETE SURFACE LEVEL
CONC&BRK – PATH LEVEL
DECK – DECK LEVEL
EPIT – ELECTRICAL PIT
TPIT – TELECOMMUNICATION PIT
FLR – FLOOR LEVEL
GAS – GAS METER
GRATE – GRATED PIT LEVEL
GUT – ROOF GUTTER LEVEL
HH – HILLS HOIST
IC– INSPECTION CAP
INV– INVERT LEVEL
KT – TOP OF KERB LEVEL
KI – KERB INVERT LEVEL
LP – LIGHT POLE
PATIO– PATIO LEVEL
PP – POWER POLE
ROOF – ROOF LEVEL
ROOF – ROOF LEVEL
SIC – SEWER INSPECTION CAP
SMH – SEWER MAINTENANCE HOLE
SPHT – SPOT HEIGHT / NATURAL SURFACE LEVEL
STEP – STEP LEVEL
WALL – WALL LEVEL (TOW– TOP OF WALL, BOW– BOTTOM OF WALL)
WM – WATER METER

TR/6/0.2/5 – TREE (CANOPY SPREAD 6m, TRUNK Dia. 0.2m, HEIGHT 5m) DIMENSIONS ARE APPROXIMATE

WINDOW
TW– WINDOW TOP
BW– WINDOW BOTTOM

CONTOUR INTERVAL – 1.00m

WM – WATER METER

TR/6/0.2/5 – TREE (CANOPY SPREAD 6m, TRUNK Dia. 0.2m, HEIGHT 5m) DIMENSIONS ARE APPROXIMATE

NOTES:

1. BOUNDARIES OF THE SITE HAVE BEEN IDENTIFIED (OR DEFINED) BY SURVEY. A FIELD BOUNDARY SURVEY (BOUNDARY IDENTIFICATION) HAS BEEN UNDERTAKEN WITH BOUNDARIES DEFINED USING PLANS DP1009151 AND DP6638. BOUNDARY DIMENSIONS CAN MOVE TO A DEGREE WITH THE LODGEMENT OF A PLAN AT THE TITLES OFFICE OF THE SUBJECT LOT OR OF A LOT IN THE VICINITY.
2. ORIGIN OF LEVELS PM24928 RL 28.328m (A.H.D.– CLASS LC) SEARCH DATED 11/05/2020
3. BEARINGS ARE ON MGA GRID NORTH. BOUNDARIES ARE APPROXIMATE ONLY WITH DIMENSIONS AND AREAS COMPILED USING DP6638.
4. RELATIONSHIP OF IMPROVEMENTS AND DETAIL TO BOUNDARIES IS DIAGRAMMATIC ONLY AND SPECIFIC DETAILS, IF CRITICAL, WILL REQUIRE FURTHER SURVEY.
5. SERVICES SHOWN ARE BASED ON VISIBLE SURFACE INDICATORS EVIDENT AT THE DATE OF SURVEY ONLY. DIAL BEFORE YOU DIG AND ALL SERVICE AUTHORITIES SHOULD BE CONTACTED PRIOR TO ANY DEVELOPMENT.
6. ROOF AND EAVE & GUTTER HEIGHTS HAVE BEEN OBTAINED BY AN INDIRECT METHOD AND ARE ACCURATE FOR PLANNING PURPOSES ONLY.
7. ADJOINING BUILDINGS AND DWELLINGS HAVE BEEN PLOTTED FOR DIAGRAMMATIC PURPOSES ONLY AND SPECIFIC DETAILS, IF CRITICAL, WILL REQUIRE FURTHER SURVEY.

WALL TO BOUNDARIES AS SHOWN IN RED

ANDREW KOROMPAY ID No.114
Surveyor Registered under The Surveying Act, 2002.

2	AK	ADDITIONAL LEVELS	05/02/24
1	AK	SITE CHECK FOR CHANGES – MINOR CHANGES	9/01/24
0	AK	INITIAL ISSUE	30/06/20
REVISION	BY	REVISION DESCRIPTION	DATE

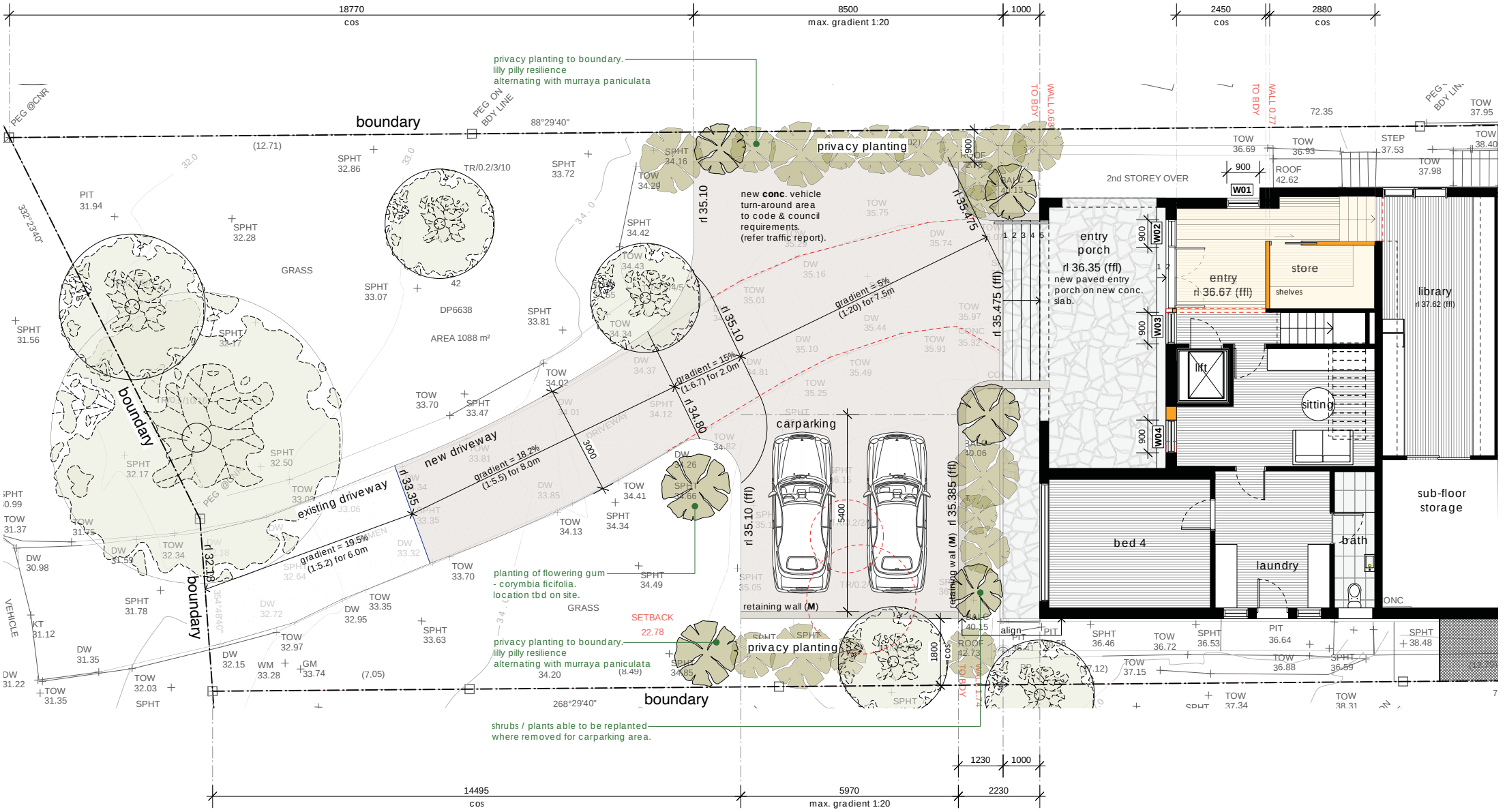
PLAN OF DETAIL OVER No. 29 CALVERT PARADE NEWPORT NSW 2106.

TRUE NORTH SURVEYS
16/9 Narabang Way
Belrose NSW 2085
phone: 02 9450 0868
mobile: 0409 658 747
email: enquiry@truenorthsurveys.com.au

SCALE: 1:100 @ A1 : 1:200 @ A3		DATE: 06/02/2024
CLIENT: ANNE SAWTSCHUK		DATUM: AHD
1978TN		
DRAWN	CHECKED	APPROVED
NC	AK	AK
DRAWING No. 1978TN		REVISION 1

APPENDIX B

PLAN OF THE PROPOSED ACCESS DRIVEWAY AND GARAGE



Proposed Lower Floor Plan
Landscape Plan
Driveway Plan

LEGEND:

BAL	balustrade
CONC	concrete
LC	lightweight cladding
M	masonry
NGL	NATURAL GROUND LEVEL
RT	ROOF TILES
TIM	TIMBER

EXISTING WALL
WALL TO BE REMOVED
NEW WALL

Anne Sawtschuk
29 Calvert Parade Newport NSW 2106 LOT 42 DP 6638 SITE AREA = 1088m²

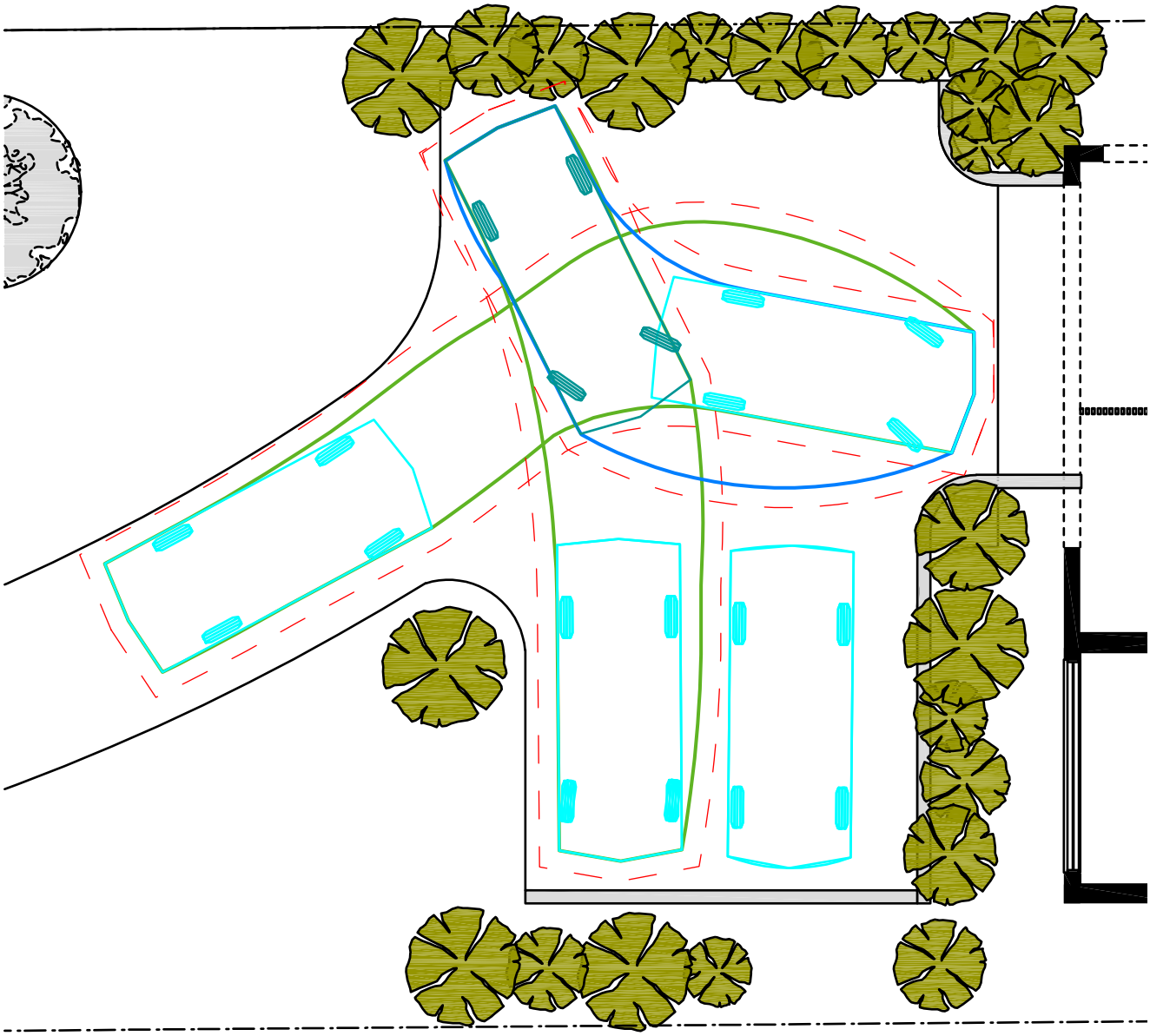
PROJECT	Alterations & Additions	ANDY LEHMAN DESIGN	
DRAWING	**Proposed Lower Floor Plan**	DWG. NO.	DA. **09**
NOTES	Please print in A3 or A1. This drawing is copyright and is for Development Application purposes only. Do not measure off drawings.	Tel. 0414 466 665	SCALE **1:100@A3**
		Email: andy@andylehman.com.au	DATE September 2024
		If in doubt ask.	ISSUE

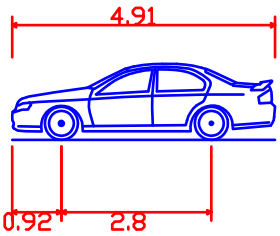
APPENDIX C

SWEPT PATH ANALYSIS

Path prepared using
Autodesk Vehicle Tracking

0 1 2 3 4 5 10
METRES
SCALE 1:100





Forward Vehicle Path
Reverse Vehicle Path
300mm Clearance 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

Manoeuvring Path of Australian Standard AS/NZS2890.1:2004 B85 Vehicle Entering Space A

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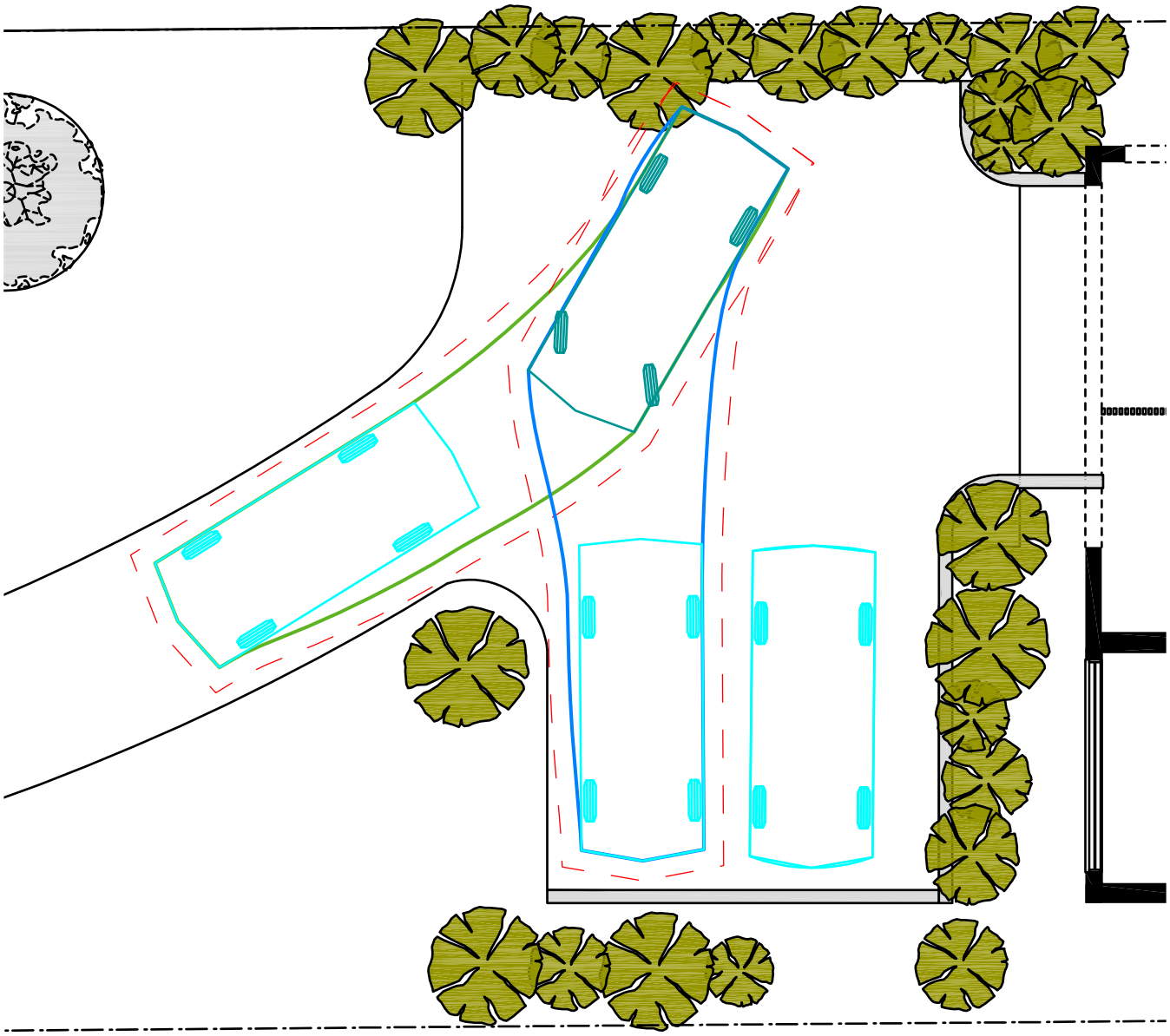
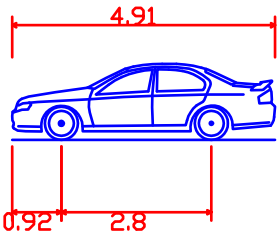
Path prepared using
Autodesk Vehicle Tracking

0 1 2 3 4 5 10
METRES
SCALE 1:100





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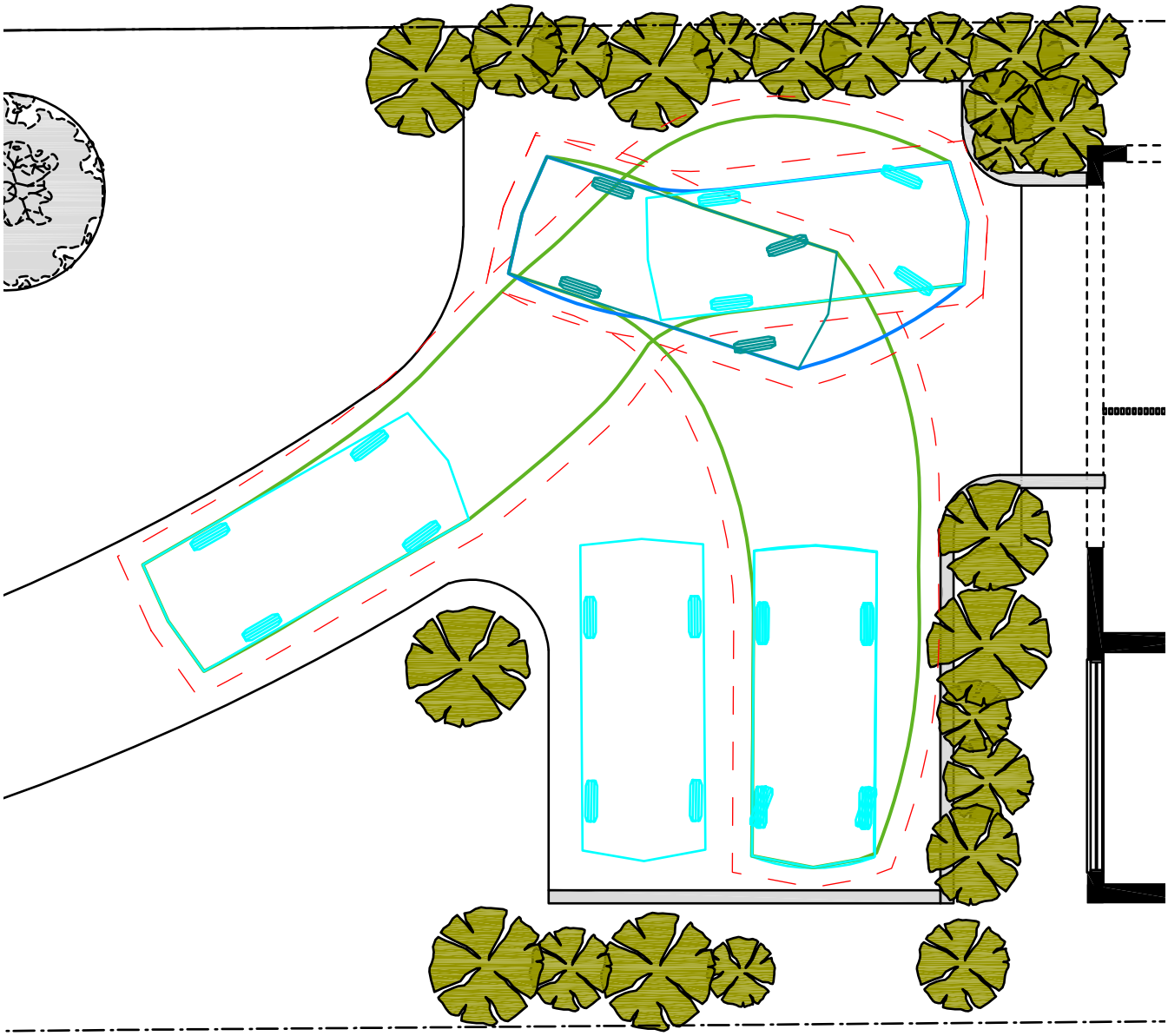
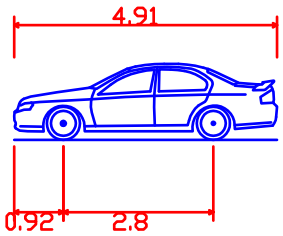
Manoeuvring Path of Australian Standard AS/NZS2890.1:2004 B85 Vehicle Exiting Space A

Path prepared using
Autodesk Vehicle Tracking

0 1 2 3 4 5 10
METRES
SCALE 1:100





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Reverse Vehicle Path
300mm Clearance Path

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Min Body Ground Clearance	0.159m
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Lock to Lock Time	4.00s
Curb to Curb Turning Radius	5.750m

Manoeuvring Path of Australian Standard AS/NZS2890.1:2004 B85 Vehicle Entering Space B

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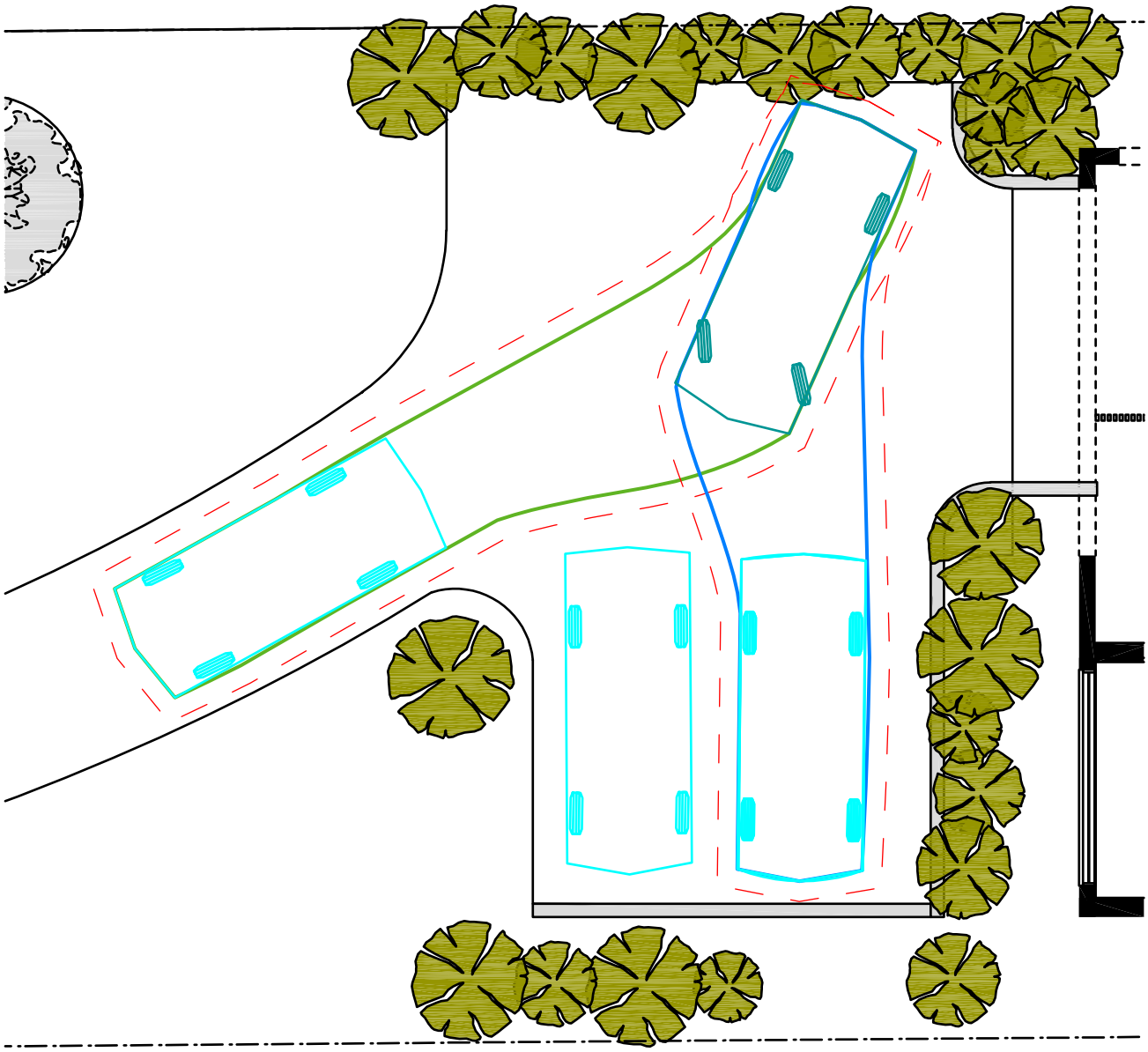
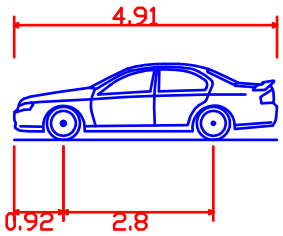
Path prepared using
Autodesk Vehicle Tracking

0 1 2 3 4 5 10
METRES
SCALE 1:100





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Manoeuvring Path of Australian Standard AS/NZS2890.1:2004 B85 Vehicle Exiting Space B

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