

Traffic Engineering Report

To	Huong Thuy C/ - Willowtree Planning	Date	6 August 2026
Prepared by	Afaf El Harda, Modus Traffic and Transport Engineer	Approved by	Harj Singh, Modus Executive Director (RPEQ 22364)
Location	29 Greentree Crescent, Forest Lake		
Subject	Proposed Subdivision Development - Traffic Engineering Report		
Status	Final	Attachments	Appendix A: Development Plans Appendix B: Traffic Concept Plan Appendix C: Swept Path Assessment

1 Introduction

1.1 Overview

Modus has been commissioned by Huong Thuy, care of Willowtree Planning, to provide traffic and transport advice in relation to the proposed Subdivision development located at 29 Greentree Crescent, Forest Lake.

This Traffic Engineering Report has been produced by Modus to assess the traffic and transport engineering items in support of the proposed development. A copy of the proposed development plans is provided at **Appendix A**.

Modus has completed this Traffic Engineering Report in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted traffic engineering practices and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or road conditions that may occur after completion of the assessment.

2 Existing Conditions

2.1 Site Location

The development site is located at 29 Greentree Crescent, Forest Lake and is bounded by Roxwell Street to the north, Greentree Crescent to the south and Residential uses in to the east and west.

Furthermore, the development site is currently zoned Rural Residential within the Brisbane City Council (BCC) Local Government Area.

Additionally, the development site is currently a vacant land with no vehicular access.

Figure 2-1 on the subsequent report page illustrates the development site location.

Figure 2-1 Development Site Location



2.2 Existing Road Network

Table 2-1 outlines characteristics of the existing road network in proximity to the development site.

Table 2-1 Key Road Characteristics

Road	Authority	Hierarchy	Speed Limit	Typical Form
Greentree Crescent	Council	Neighbourhood road	50 km/hr	Two lanes, undivided
Roxwell Street	Council	District road	50 km/hr	Two lanes, undivided
Woodvale Crescent	Council	Neighbourhood road	50 km/hr	Two lanes, undivided

2.3 Active and Public Transport Facilities

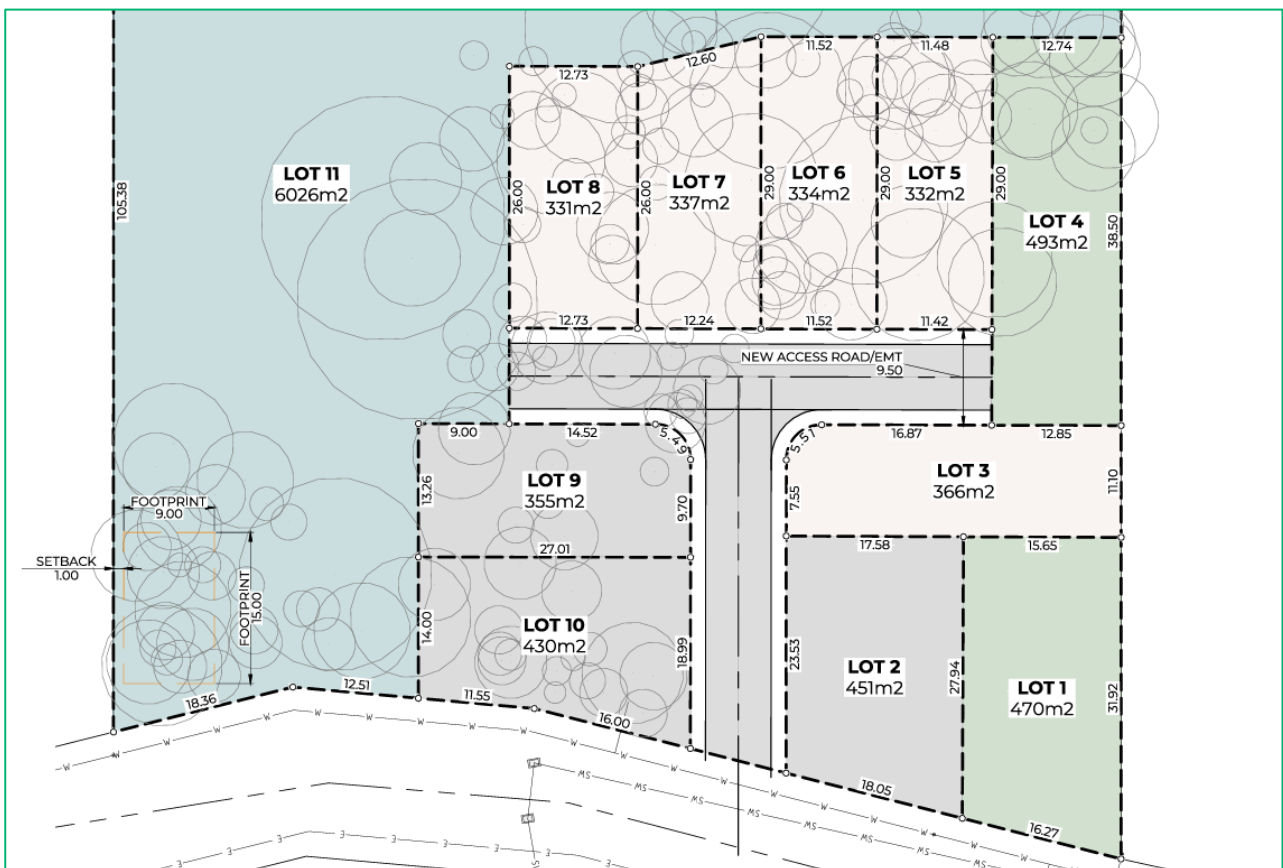
A dedicated pedestrian footpath is not provided along the frontage of the site, however, verges are wide enough to accommodate pedestrian movement to connect to the wider pedestrian network. Additionally, there are no dedicated bicycle lanes provided along the frontage of the site.

Furthermore, there are two (2) bus stops within a 400.0m radius (a comfortable 5-minute walk) of the development site. The nearest bus stop is located along Roxwell Street south of the site.

3.1 Overview

As part of the proposed development, vehicular access will be provided via a 6.7m wide crossover onto Greentree Crescent.

Figure 3-1 Proposed Development Layout



4 Traffic and Transport Review

4.1 Development Access

In accordance with the BCC City Plan, the proposed development is required to accommodate the following access provisions:

- ▶ Minimum 6.5m wide crossover,
- ▶ Type B2 design crossover.

The proposed development provides a 6.7m crossover. Therefore, the proposed access width is compliant with BCC City Plan.

Additionally, Modus recommends implementing a B2 crossover design with splays in accordance with the BCC Standard drawings as illustrated on the Traffic Concept Plan attached in **Appendix B**.

4.1.1 Driveway Location

In accordance with Australian Standards 2890.1, development accesses with a Class 1 and 2 Access Facility Category are to achieve a 6.0m separation to any formal intersections. Provided that the proposed access location is not located within a 6.0m distance to any formal intersections, the proposed access location is considered acceptable.

Additionally, the driveway location accommodates the following separation requirements as per the BCC City Plan:

- ▶ A minimum 10.0m separation to any minor road intersection,
- ▶ A minimum 20.0m separation to any major road intersection,
- ▶ A minimum 3.0m separation to any adjacent driveway.

Therefore, the proposed driveway location is considered acceptable.

4.1.2 Pedestrian Sight Splays

In accordance with Australian Standards 2890.1, pedestrian sight splays should be provided at the egress point of a driveway and measure 2.5m in depth and 2.0m in width from the property boundary.

The proposed development plans show that a pedestrian sight splay provision can be accommodated in accordance with Australian Standards 2890.1.

Therefore, the proposed pedestrian sight provisions are considered acceptable.

4.1.3 Vehicle Sight Distance

In accordance with Australian Standards 2890.1, the minimum vehicle sight distance for an access driveway fronting a 50 km/hr road is 45.0m.

The straight horizontal and vertical road alignment of Greentree Crescent allows a minimum vehicle sight distance of 45.0m to be accommodated.

Therefore, the minimum vehicle sight distance provisions are considered acceptable.

4.2 Internal Road

4.2.4 CTS Road Design

The proposed development comprises a CTS roadway design on the following basis:

- ▶ 9.5m reserve width,
- ▶ 6.5m carriageway width,
- ▶ 1.5m verges on each side.

The proposed CTS roadway largely complies with Council requirements, with the exception of the overall reserve width. While the BCC City Plan specifies a minimum reserve width of 10.0m, the proposed development provides a 9.5m reserve width, resulting in a shortfall of 0.5m.

The reduced reserve width is not expected to impact the functionality of the roadway, as the proposed design is capable of accommodating a 6.5m carriageway, a 1.5m verge, and a 1.5m footpath, consistent with the minimum CTS road requirements outlined in Table 9.4.10.3.C of the Subdivision Code.

Therefore, the proposed CTS roadway design is considered acceptable from a traffic engineering perspective.

4.2.5 Speed Control

In accordance with the IPWEA Street Design Manual (2020), it is recommended that the speed control devices (such as road humps, chicanes etc.) are to be implemented at an approximate 120.0m spacings.

The proposed internal road design does not accommodate road segments exceeding 48.0m in length and hence no speed control devices are considered necessary.

4.2.6 Emergency Access

In accordance with Queensland Streets, alternative routes for emergency use are required when a development provides more than 100 lots. The proposed development provides a total of 10 lots, and therefore, a secondary emergency vehicle access is not required.

4.3 Individual Lot Vehicular Access

4.3.1 Access Design

Modus recommends a minimum width 3.0m for each individual lot driveway, with splays designed in accordance with IPWEA / Council Standard Drawings.

4.3.2 Access Location

Modus recommends a minimum 6.0m separation from individual lot driveways to any intersection tangent points as well as a minimum separation of 3.0m to any adjacent driveway, in accordance with Australian Standards 2890.1 and BCC City Plan.

4.4 Bin Presentation Areas

Noting the layout of the internal road network, it is not feasible for various Lots to achieve kerbside refuse collection where bins are presented in front of each Lot.

On this basis, it is proposed that two (2) shared bin presentation areas are accommodated for Lot 7 and 8, and Lots 5 and 6 as illustrated in full at **Appendix B**.

Additionally, it is proposed that Lot 1 will achieve kerbside refuse collection along Greentree Crescent.

4.5 Servicing Requirements

In accordance with the BCC, the minimum service vehicle requirement for the proposed development is a BCC Side Loader Refuse Collection Vehicle (RCV).

The proposed development accommodates on-site servicing for the RCV.

Furthermore, Modus has undertaken a swept path assessment (provided at **Appendix C**) which confirms a Side Loader RCV is able to safely and efficiently manoeuvre to, within and from the site ensuring a minimum 0.5m to any permanent obstructions, ensuring a forward-in / forward-out arrangement occurs.

Therefore, the proposed development servicing arrangements are considered acceptable.

4.6 Development Traffic Generation

In accordance with the tfNSW Guide to Transport Impact Assessment, 2024, the peak hour traffic generating potential of the proposed development is outlined in Table 4-1.

Table 4-1 Proposed Development Traffic Generation Volumes

Land Use	Yield	Peak Hour Traffic Generation Rates	Peak Hour Traffic Generation Volumes
Low Density Residential Development	10 dwellings	0.84 vehicle trips / dwelling	9 vehicles per hour

Therefore, the proposed development will accommodate up to nine (9) vehicles per hour.

On average across the peak hour period, this corresponds to one (1) new vehicle on the external road network every six (6) minutes and 40 seconds.

On this basis, the proposed development traffic generation will not compromise the safety nor efficiency of the external road network.

5 Summary

Therefore, Modus is of the opinion that the proposed development is acceptable from a traffic engineering perspective and will not have a substantial impact on the safety or efficiency of the external road network.

Should there be any issue with the above, please contact the undersigned.

Yours sincerely,



MODUS TRANSPORT AND TRAFFIC ENGINEERING

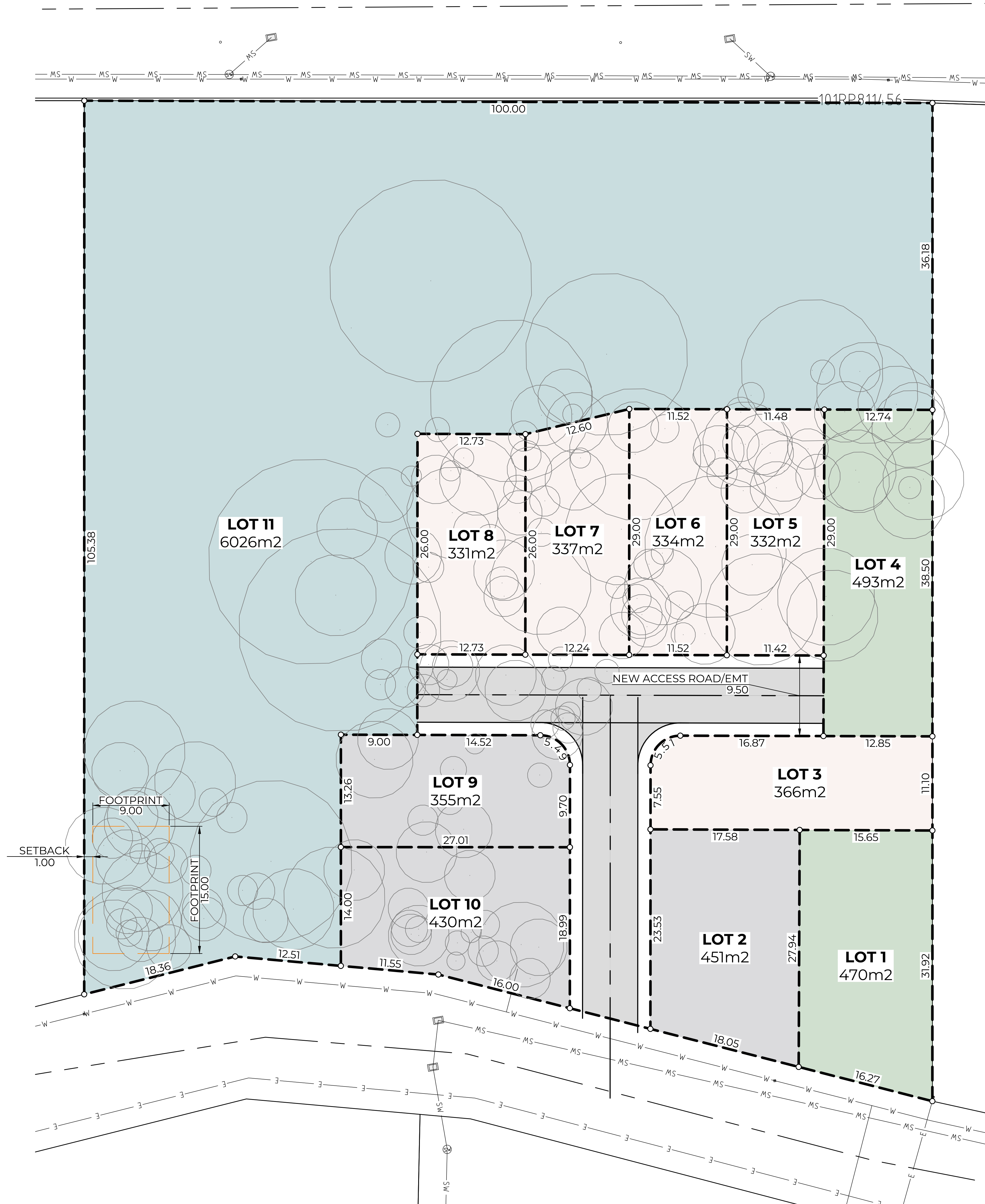
Harj Singh
Executive Director (RPEQ 22364)

APPENDIX A

Development Plans

SITE STATISTICS	
TOTAL SITE AREA	10,702m2
TOTAL LOTS	11
AVERAGE LOT SIZE	351m2 (EXCL. LOT 11) 866m2 (INC. LOT 11)
NET RESIDENTIAL DENSITY (RaL)	21.35 (EXCL. LOT 11)

LOT TYPE		
LOT TYPE	NUMBER OF LOTS	TOTAL (%)
<350m2	5	45.45%
350 - 450m2	3	27.27%
451m2 - 900m2	2	18.18%
> 900m2	1	9.09%



RECONFIGURING A LOT 1 LOT INTO 11 LOTS

CLIENT	
HUONG THUY	
LOCATION	
ADDRESS	29 GREENTREE CRES, FOREST LAKE
LOT/PLAN	25/RP811456
AUTHOURITY	BRISBANE CITY COUNCIL

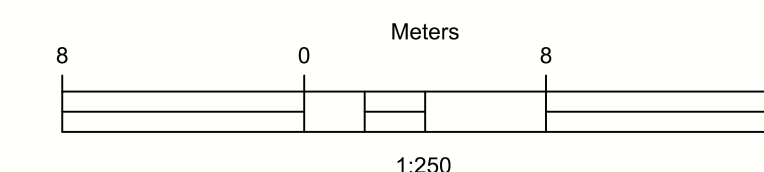
NOTES

1. DESIGN SUBJECT TO LOCAL AUTHORITY APPROVAL & DETAILED ENGINEERING REQUIREMENTS, AREAS AND DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO SURVEY.
2. CONTOURS FROM LIDAR/ELVIS AND ARE APPROXIMATE ONLY.
3. PROPERTY BOUNDARIES FROM QLD SPATIAL AND ARE APPROXIMATE ONLY.
4. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN. THIS PLAN MAY NOT BE REPRODUCED WITHOUT THIS NOTATION BEING INCLUDED.
5. LOCATION OF UTILITIES SUBJECT TO DETAILED DESIGN
6. ALL UNITS ARE METERS U.N.O.

SURVEY

REFERENCE DOC	GIS UTILISED
HORIZ. DATUM	GDA20 (DERIVED)
VERT. DATUM	AHD
PSM	N/A

SCALE



SCALE	SHEET NO.
1:250@A1	1 OF 1
PLANNER	DRAFTER
DARCY THYNNE	RDC
DRAWING NO.	REVISION
R-01	F

CONCEPT ONLY

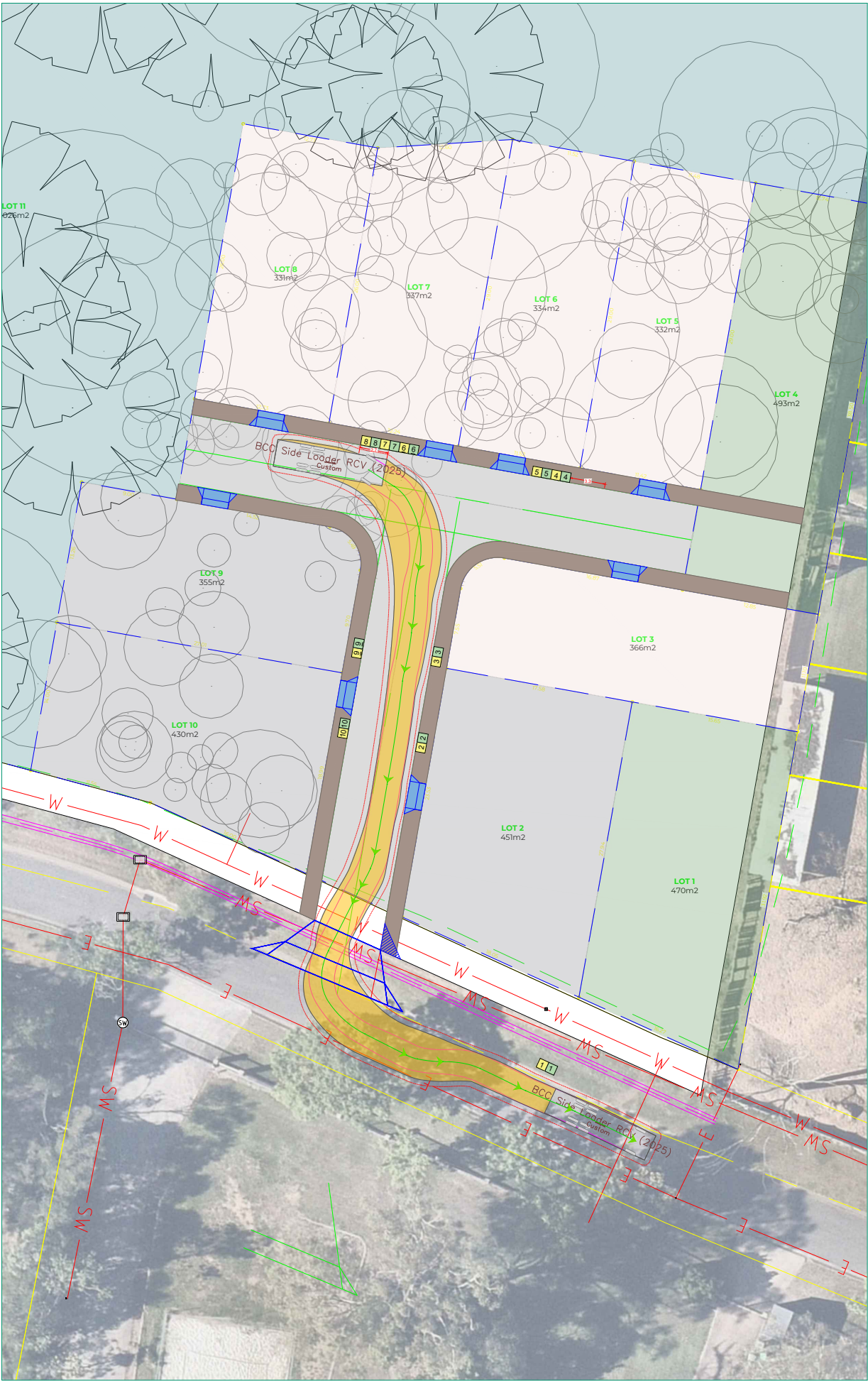
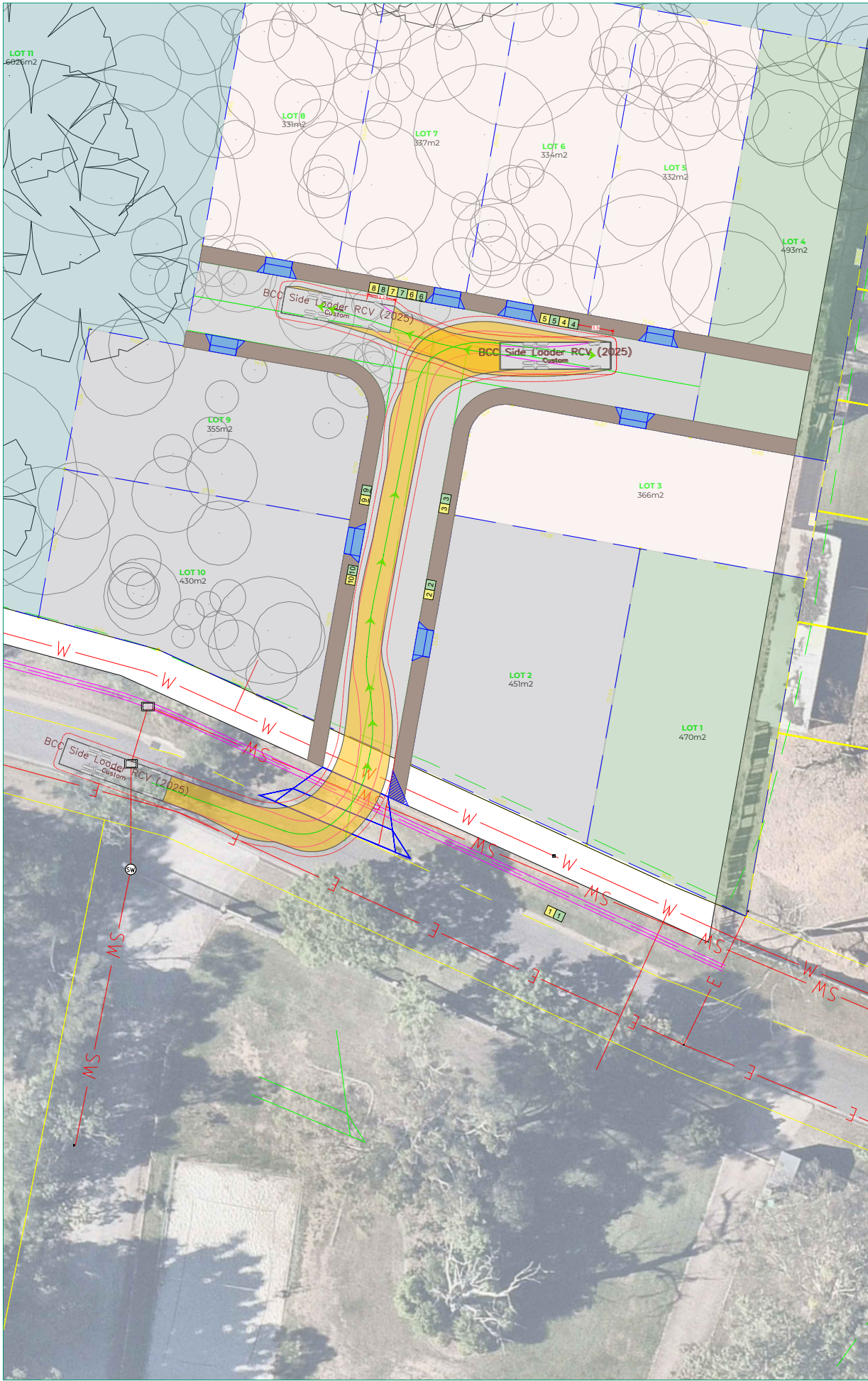
F	FOR APPROVAL	B.R.	13.07.26
E	DRAFT	D.T.	18.06.26
D	DRAFT	D.T.	15.06.26
C	DRAFT	D.T.	02.06.26
B	DRAFT	D.T.	30.04.26
A	DRAFT	D.T.	16.03.26
NO.	REVISION DESCRIPTION	BY	DATE

APPENDIX B

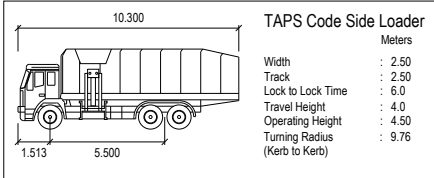
Traffic Concept Plan

APPENDIX C

Swept Path Assessment

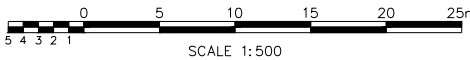


DESIGN VEHICLE ADOPTED



SWEPT PATH LEGEND

- VEHICLE BODY
- FRONT TIRES
- VEHICLE PATH
- VEHICLE CLEARANCE (300mm)
- VEHICLE CLEARANCE (500mm)
- VEHICLE
- 5KM/H DESIGN SPEED



PROJECT

29 GREENTREE CRESCENT, FOREST LAKE

CLIENT

HUONG THUY

DRAWING TITLE

RCV SWEPT PATH ASSESSMENT

DRAWING NUMBER

MOD25905QLD - SK02

DATE

30 07 2026

REVISION

B

REV	DATE	DESIGNER	APPROVED BY
A	29 05 2026	AE	BF
B	30 07 2026	AE	BF
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

MODUS
Transport and Traffic Engineering

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