

6	15/11/2019	ISSUED FOR INFORMATION	XDH	XDH	IP
5	23/08/2019	ISSUED FOR INFORMATION	XDH	HC	PM
4	31/07/2019	ISSUED FOR INFORMATION	XDH	XDH	IP
3	14/05/2019	ISSUED FOR INFORMATION	XDH		
2	2/04/2019	ISSUED FOR INFORMATION	XDH		
1	18/02/2019	ISSUED FOR INFORMATION	XDH		
Rev.	Date	Description	Des.	Verif.	Appd.

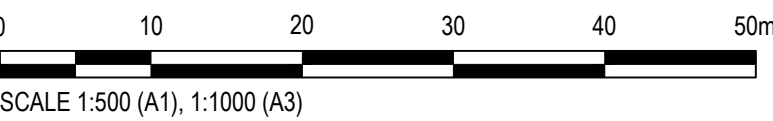
DATE PLOTTED: 15 November 2019 1:54 PM BY: JACK WINWOOD-SMITH



CALDERWOOD ROAD / TRIPOLI WAY CONCEPT LAYOUT
SCALE 1:500

NOTE:
1. IMAGERY SOURCED FROM NEARMAP MARCH, 2019

LEGEND
— EXISTING PROPERTY BOUNDARY



XR-82015040-54-G-LEGEND; XR-82015040-54-D3-BASE; XR-820161261-01-D1-VECH; PATH; XR-820161261-01-D1-H1-CONT; XR-820161261-01-D2-SIGNS & LINES; XR-820161261-01-D2-BASE; XR-820161261-01-D2-CONT; XR-82015040-54-E-CADASTRE
CAD File: \\AUWOLCF319\Projects\FY15\040-54_Calderwood Road Upgrade\Drawings\82015040-54-SK035.dwg



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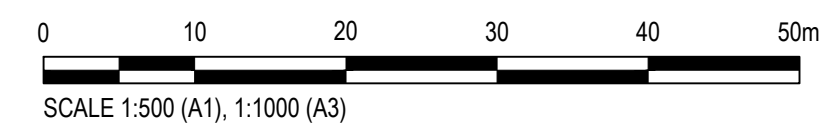


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Ground Floor, 16 Burrell Street
Wollongong NSW 2500
Tel: 02 4231 9600 Fax: 02 4228 6811
Web: www.cardno.com.au

Drawn	EKM	Date	31/07/2019
Checked	MPR	Date	31/07/2019
Designed	XDH	Date	31/07/2019
Verified	XDH	Date	31/07/2019
Approved			
IP		Date	31/07/2019

Client	LENLEASE
Project	CALDERWOOD ROAD / TRIPOLI WAY INTERSECTION CONCEPT DESIGN
Title	CALDERWOOD ROAD / TRIPOLI WAY INTERSECTION CONCEPT LAYOUT PLAN

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
DATUM	AHD	Scale	1:500
Size	A1	Drawing Number	82015040-54-SK035
Revision	6		

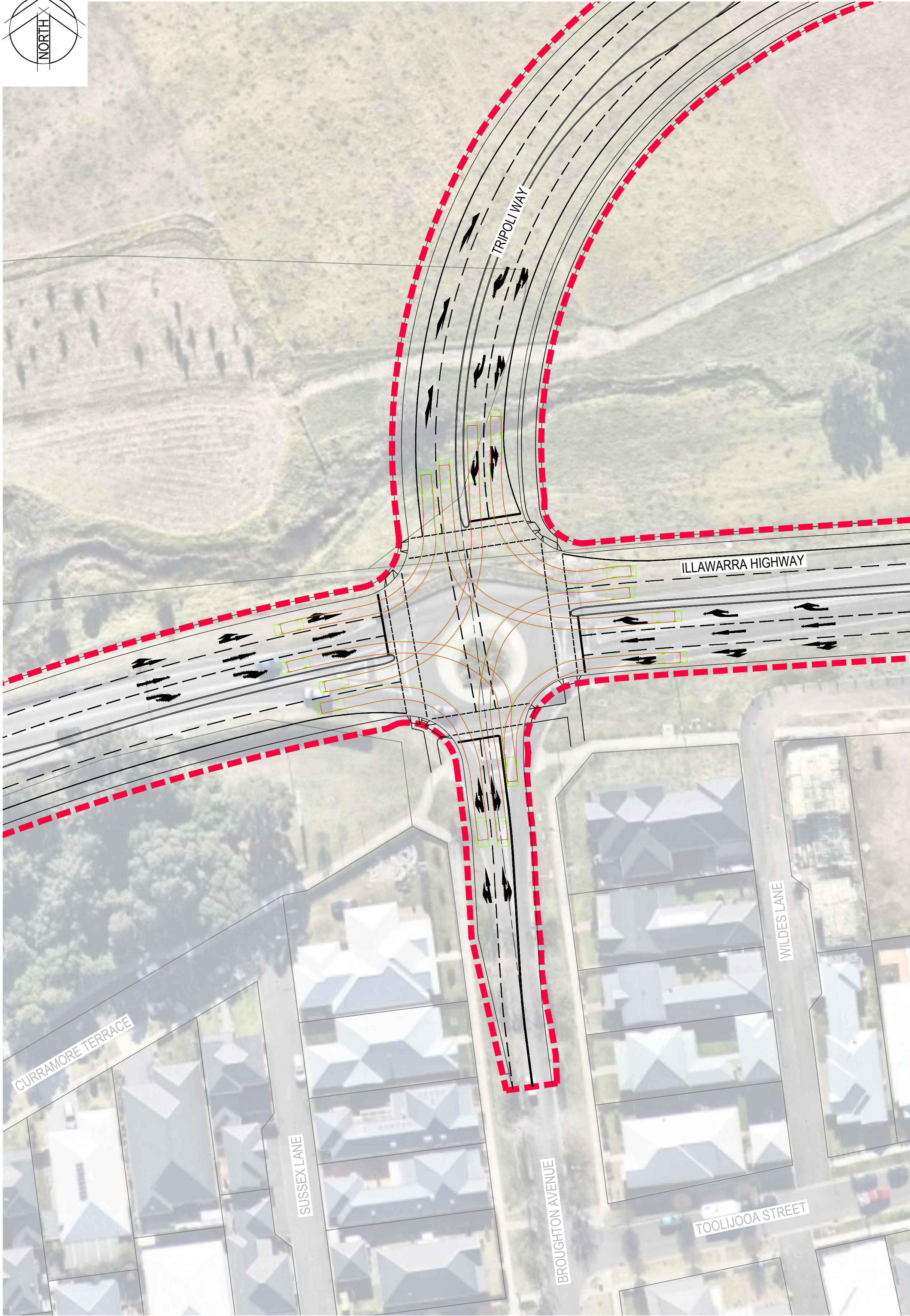
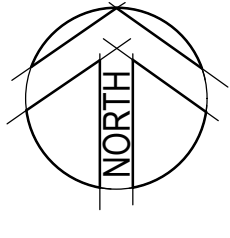


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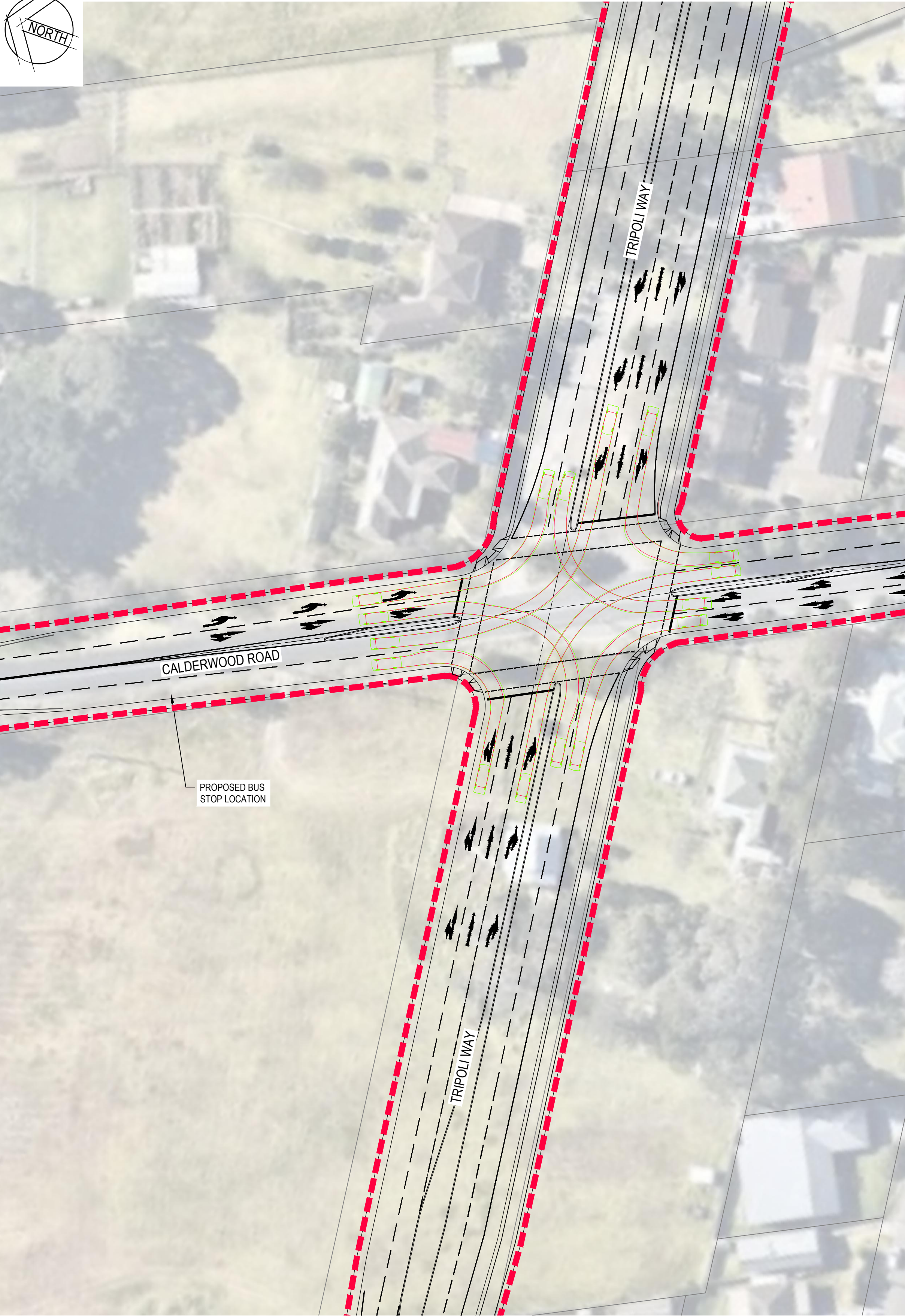
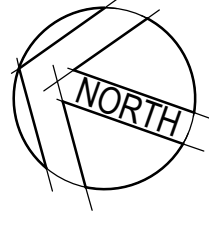
Cardno (NSW/ACT) Pty Ltd | ABN 95 001 145 035
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Drawn EKM	Date 31/07/2019	Client LENDEASE	<div><div><div><div><div><div></div><div>PRELIMINARY</div></div></div><div><div><div>NOT TO BE USED FOR CONSTRUCTION PURPOSES</div></div></div></div></div></div>					
Checked MPR	Date 31/07/2019	Project CALDERWOOD ROAD / TRIPOLI WAY INTERSECTION					Status	
Designed XDH	Date 31/07/2019	CONCEPT DESIGN					DATUM	
Verified XDH	Date 31/07/2019	ROAD CONCEPT					AHD	
Approved		Title TRIPOLI WAY / ILLAWARRA HIGHWAY INTERSECTION					Drawing Number	
IP	31/07/2019	CONCEPT LAYOUT PLAN	82015040-54-SK036			Revision 6		

Rev.	Date	Description	Des.	Verif.	Appd.
6	15/11/2019	ISSUED FOR INFORMATION	XDH	XDH	IP
5	23/08/2019	ISSUED FOR INFORMATION	XDH	HC	PM
4	31/07/2019	ISSUED FOR INFORMATION	XDH	XDH	IP
3	14/05/2019	ISSUED FOR INFORMATION	XDH		
2	2/04/2019	ISSUED FOR INFORMATION	XDH		
1	18/02/2019	ISSUED FOR INFORMATION	XDH		



TRIPOLI WAY / ILLAWARRA HIGHWAY TURNING PATHS
SCALE 1:500



CALDERWOOD ROAD / TRIPOLI WAY TURNING PATHS
SCALE 1:500

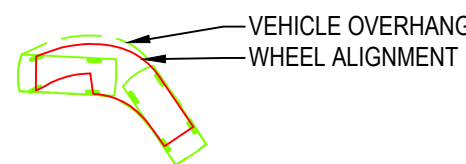
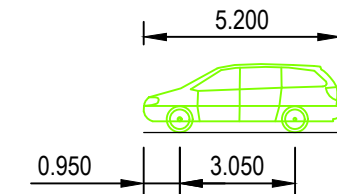
NOTE:

1. IMAGERY SOURCED FROM NEARMAP MARCH, 2019

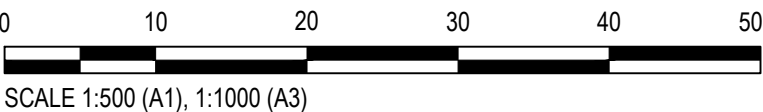
LEGEND

— EXISTING BOUNDARY (CADASTRE)
- - - PROPOSED SITE BOUNDARY

PASSENGER VEHICLE (5.2 m)



PASSENGER VEHICLE (5.2 m)
OVERALL LENGTH 5.200m
OVERALL WIDTH 1.940m
OVERALL BODY HEIGHT 1.804m
MIN BODY GROUND CLEARANCE 0.295m
TRACK WIDTH 1.840m
LOCK-TO-LOCK TIME 4.00s
CURB TO CURB TURNING RADIUS 6.300m



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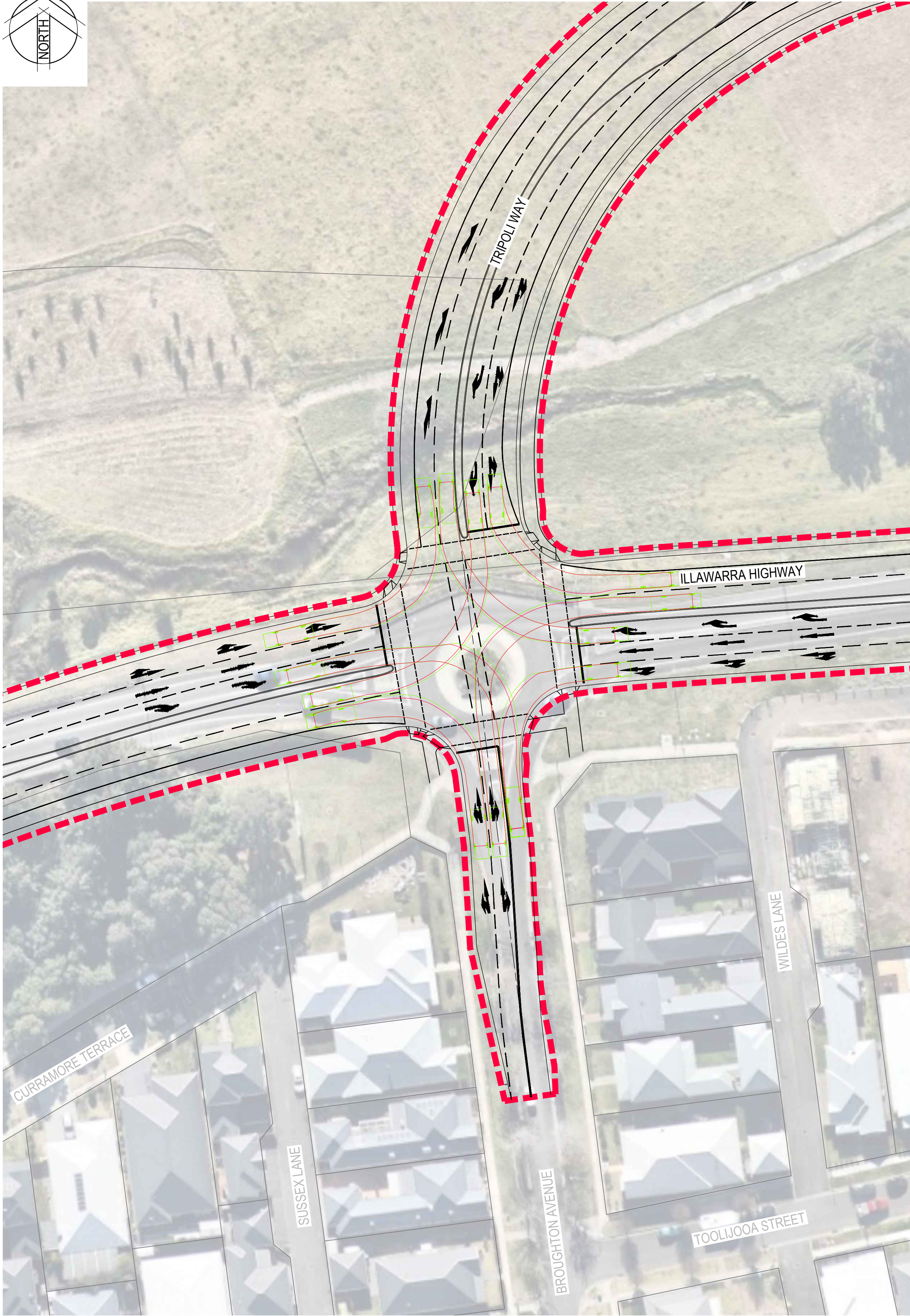
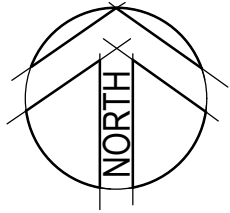


Drawn	EKM	Date	31/07/2019
Checked	MPR	Date	31/07/2019
Designed	XDH	Date	31/07/2019
Verified	XDH	Date	31/07/2019
Approved	IP	Date	31/07/2019

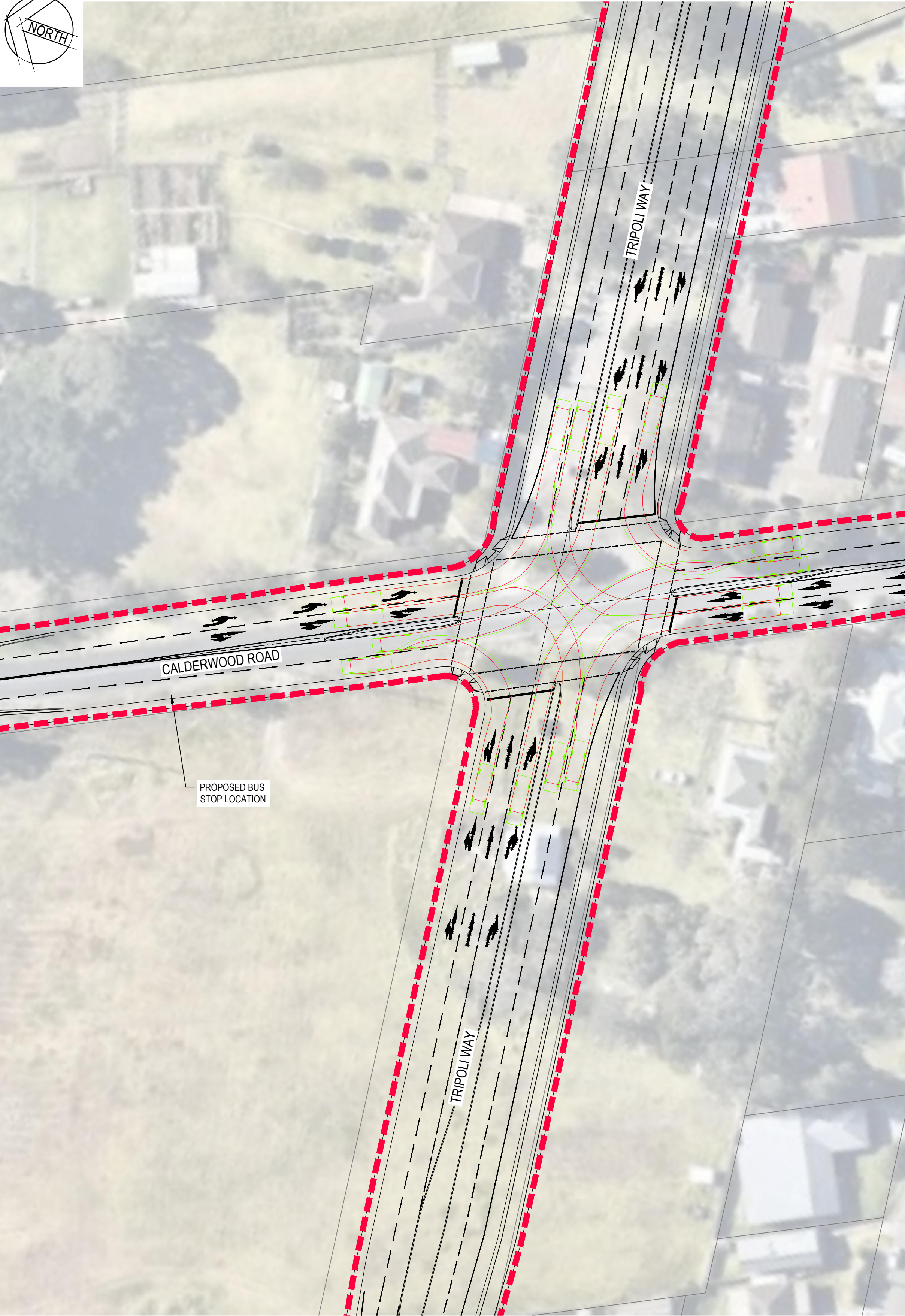
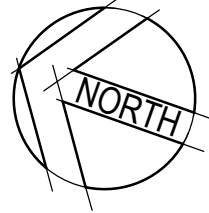
Client LENDLEASE

Project CALDERWOOD ROAD UPGRADE
CONCEPT DESIGN
ROAD CONCEPT
TURNING PATHS
SHEET 1 OF 4

Status	PRELIMINARY		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
DATUM		Scale	Size
AHD		1:500	A1
Drawing Number			Revision
82015040-54-SK042			2



TRIPOLI WAY / ILLAWARRA HIGHWAY TURNING PATHS
SCALE 1:500



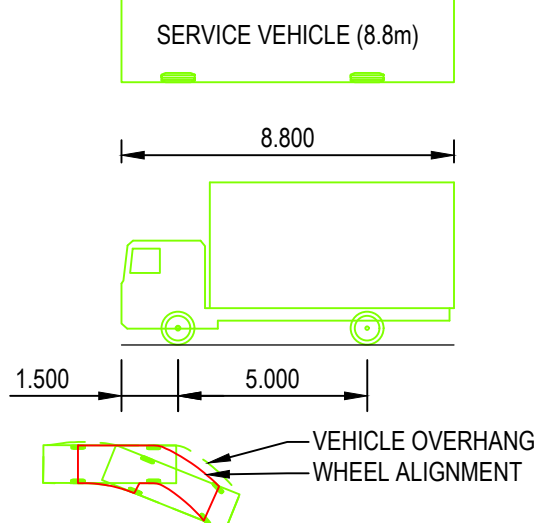
CALDERWOOD ROAD / TRIPOLI WAY TURNING PATHS
SCALE 1:500

NOTE:

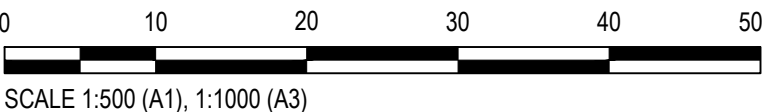
1. IMAGERY SOURCED FROM NEARMAP MARCH, 2019

LEGEND

— EXISTING BOUNDARY (CADASTRE)
- - - PROPOSED SITE BOUNDARY



SERVICE VEHICLE (8.8m)	
OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.427m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
CURB TO CURB TURNING RADIUS	12.500m



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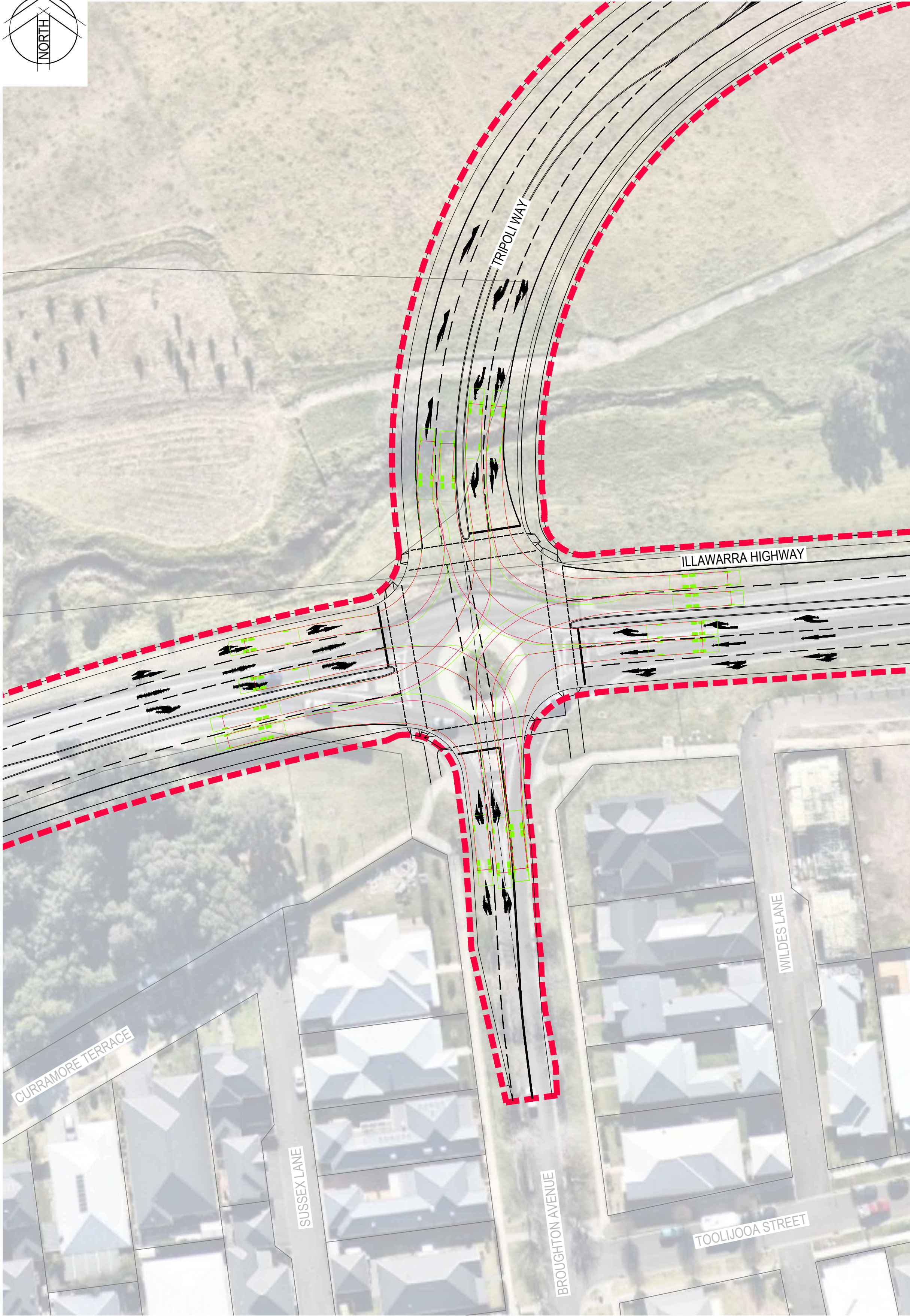
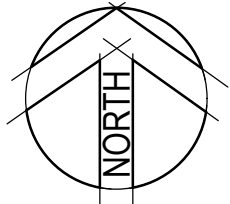


Drawn	EKM	Date	31/07/2019
Checked	MPR	Date	31/07/2019
Designed	XDH	Date	31/07/2019
Verified	XDH	Date	31/07/2019
Approved	IP	Date	31/07/2019

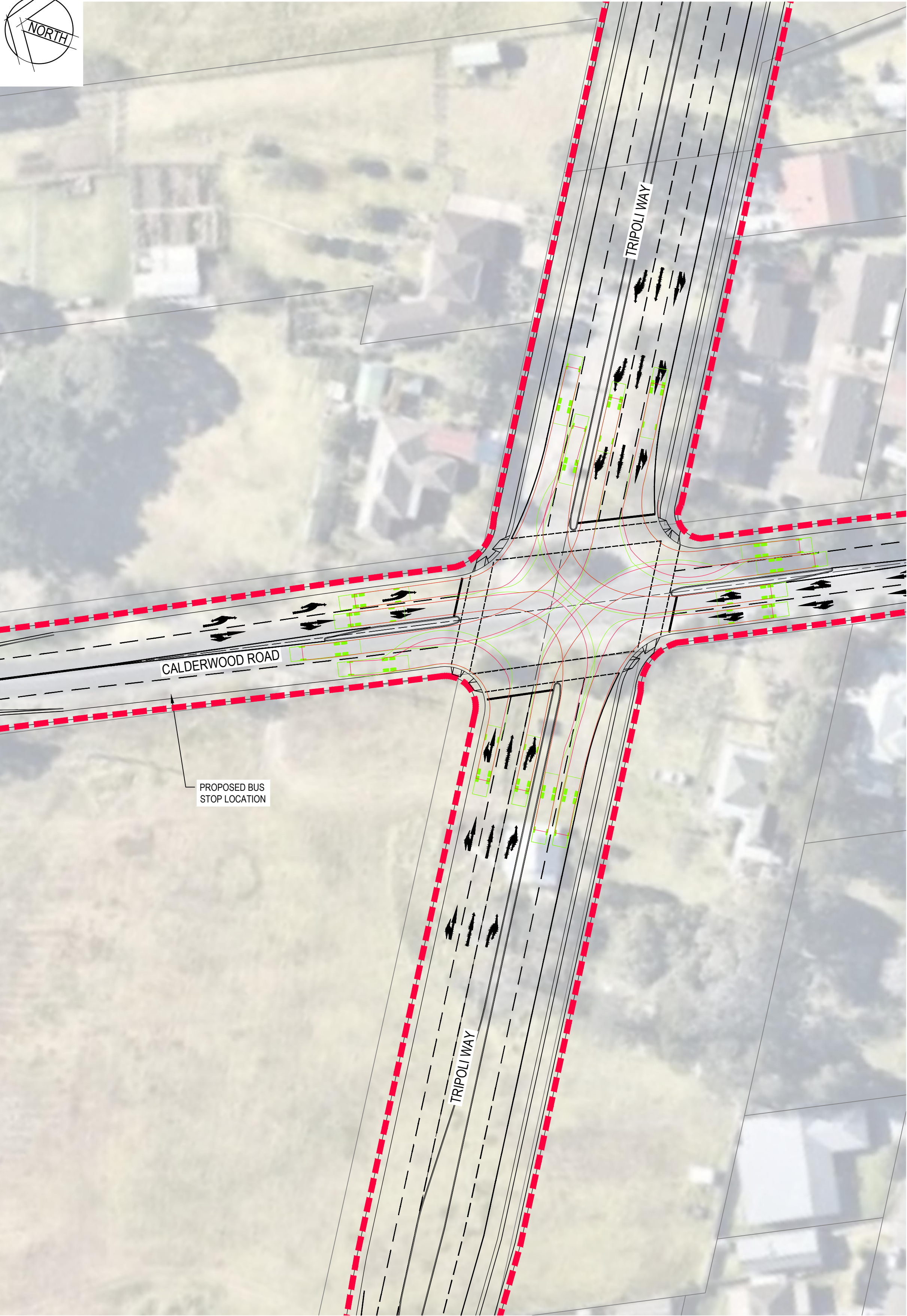
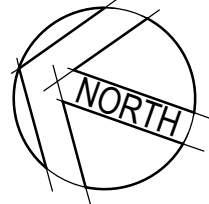
Client **LENDELEASE**

Project **CALDERWOOD ROAD UPGRADE**
CONCEPT DESIGN
ROAD CONCEPT
Title **TURNING PATHS**
SHEET 2 OF 4

Status	PRELIMINARY		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
DATUM		Scale	Size
AHD		1:500	A1
Drawing Number			Revision
82015040-54-SK043			2



TRIPOLI WAY / ILLAWARRA HIGHWAY TURNING PATHS
SCALE 1:500

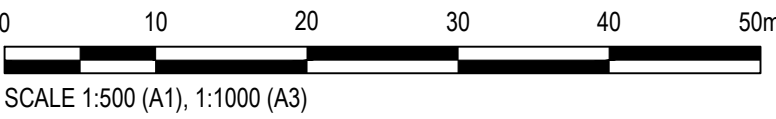
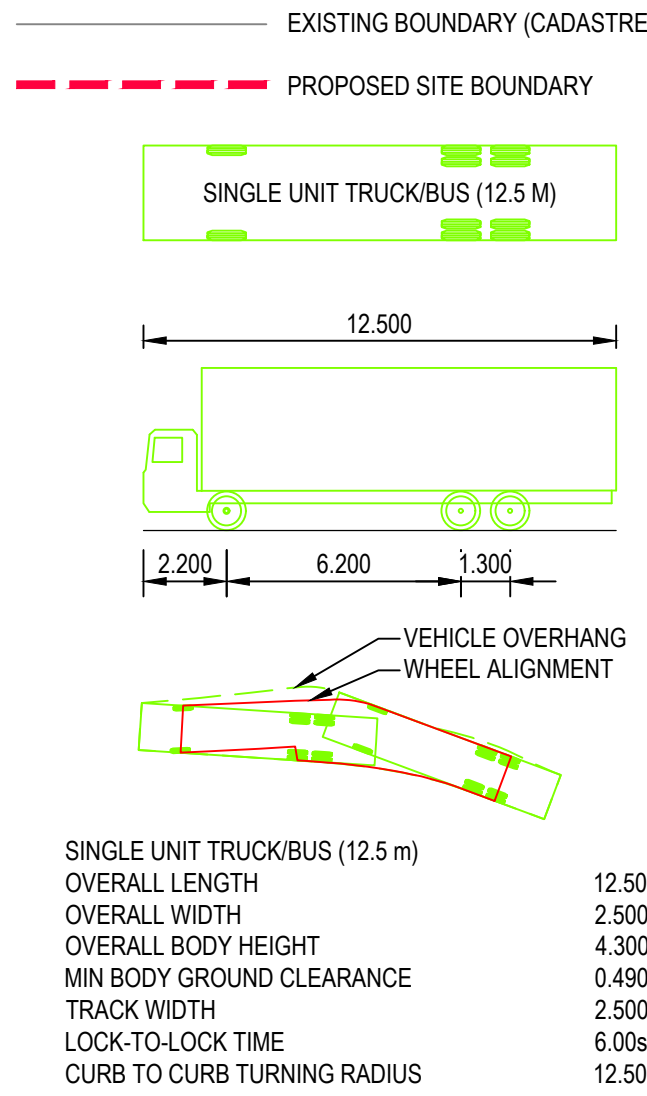


CALDERWOOD ROAD / TRIPOLI WAY TURNING PATHS
SCALE 1:500

NOTE:

1. IMAGERY SOURCED FROM NEARMAP MARCH, 2019

LEGEND



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Checked	MPR	Date	31/07/2019
Designed	XDH	Date	31/07/2019
Verified	XDH	Date	31/07/2019
Approved			
IP			31/07/2019

Client LENDLEASE

Project CALDERWOOD ROAD UPGRADE
CONCEPT DESIGN
ROAD CONCEPT
TURNING PATHS
SHEET 3 OF 4

Status	PRELIMINARY		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
DATUM	Scale	Size	
AHD	1:500	A1	
Drawing Number			Revision
82015040-54-SK044			2



1. IMAGERY SOURCED FROM NEARMAP MARCH, 2019

EXISTING BOUNDARY (CADASTRE)

PROPOSED SITE BOUNDARY

PRIME MOVER AND SEMI-TRAILER (19 m)

19,000

8,110

13,700

4,650

1,300

8,200

1,300

6,700

1,300

Max 72° Horiz

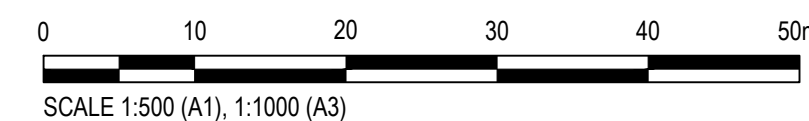
Max 6° Vert

VEHICLE OVERHANG

WHEEL ALIGNMENT

PRIME MOVER AND SEMI-TRAILER (19 m)

OVERALL LENGTH	19,000m
OVERALL WIDTH	2,500m
OVERALL BODY HEIGHT	4,300m
MIN BODY GROUND CLEARANCE	0,540m
TRACK WIDTH	2,500m
LOCK-TO LOCK TIME	6,00s
CURB TO CURB TURNING RADIUS	12,500m

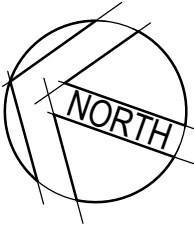


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Client	LENLELEASE
Project	CALDERWOOD ROAD UPGRADE CONCEPT DESIGN ROAD CONCEPT
Title	TURNING PATHS SHEET 4 OF 4

Status		PRELIMINARY	
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
DATUM		Scale	Size
AHD		1:500	A1
Drawing Number			Revision
82015040-54-SK045			2

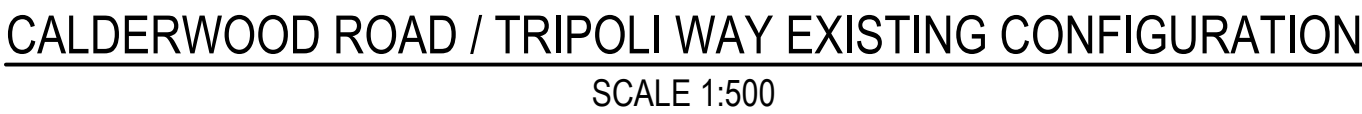


LEGEND:

— — — — — EXISTING ROAD CENTRELINE

————— EXISTING BOUNDARY (CADASTRE)

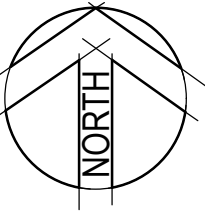
————— 10.0 ————— EXISTING SURFACE CONTOURS



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Drawn XDH	Date 1/08/2019	Client LENLEASE			
Checked XDH	Date 1/08/2019	Project CALDERWOOD ROAD UPGRADE CONCEPT DESIGN	Status <div>PRELIMINARY</div> <div>NOT TO BE USED FOR CONSTRUCTION PURPOSES</div>		
Designed XDH	Date 1/08/2019				
Verified XDH	Date 1/08/2019	Title CALDERWOOD ROAD / TRIPOLI WAY INTERSECTION EXISTING CONFIGURATION LAYOUT PLAN	DATUM AHD	Scale 1:500	Size A1
Approved			Drawing Number 82015040-54-SK046	Revision 2	
IP	1/08/2019				

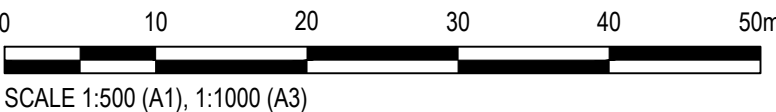


LEGEND:

— — — — — EXISTING ROAD CENTRELINE

————— EXISTING BOUNDARY (CADASTRE)

—— 10.0 —— EXISTING SURFACE CONTOURS



BROUGHTON AVE / ILLAWARRA HIGHWAY EXISTING CONFIGURATION

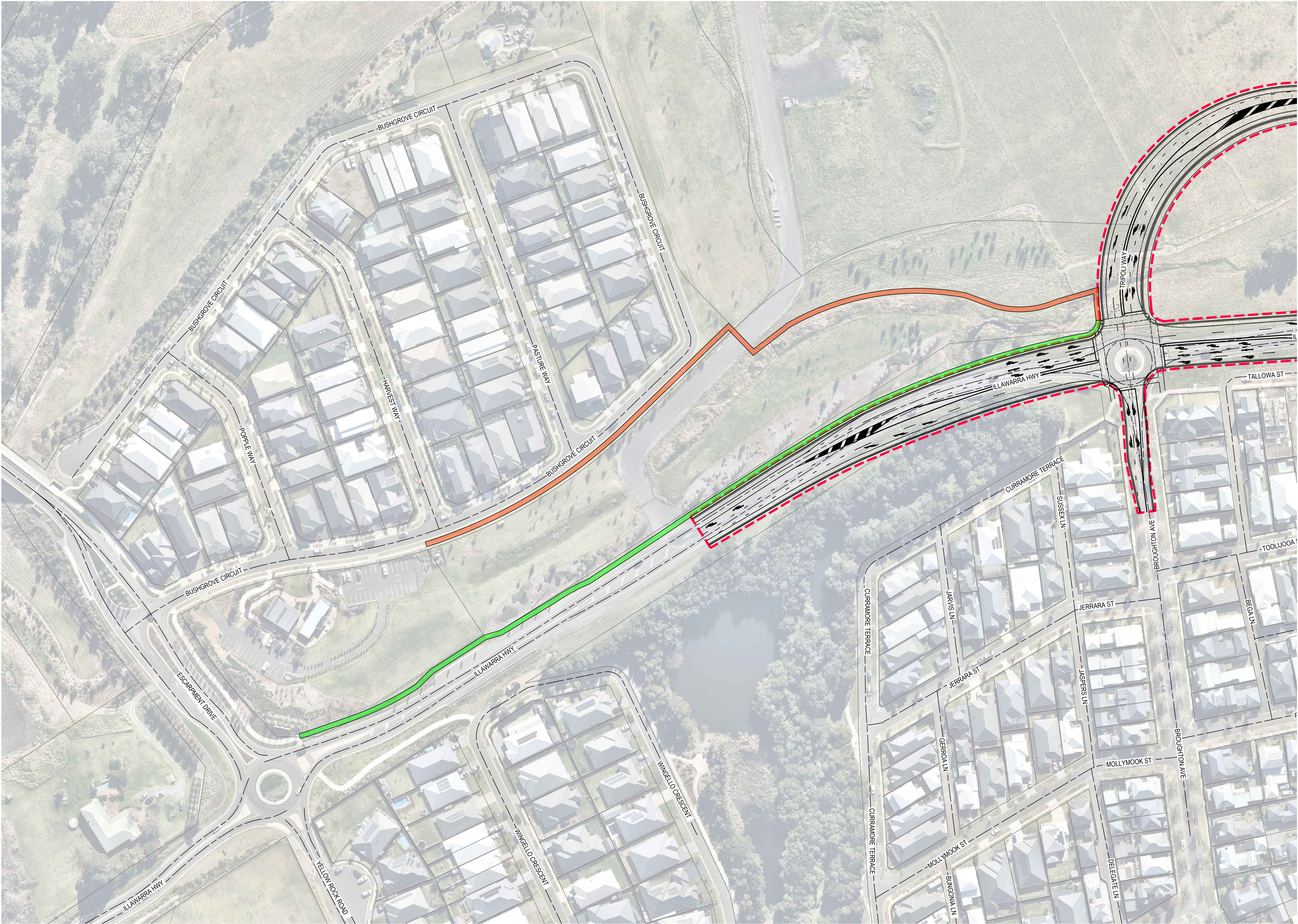
2	23/08/2019	ISSUED FOR INFORMATION	XDH	HC	PM
1	1/08/2019	ISSUED FOR INFORMATION	XDH	XDH	IP
Rev.	Date	Description	Des.	Verif.	Appd.



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Drawn XDH	Date 1/08/2019	Client LENLEASE			
Checked ADP	Date 1/08/2019	Project CALDERWOOD ROAD UPGRADE CONCEPT DESIGN	Status	PRELIMINARY	
Designed XDH	Date 1/08/2019		NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Verified XDH	Date 1/08/2019		Title	BROUGHTON AVE / ILLAWARRA HWAY INTERSECTION EXISTING CONFIGURATION LAYOUT PLAN	
Approved	Date 1/08/2019		DATUM AHD		Scale 1:500
IP	Date 1/08/2019	Drawing Number 82015040-54-SK047		Revision 2	



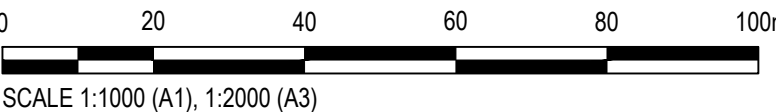
EXISTING FOOTPATH CONNECTION LAYOUT PLAN
SCALE 1:1000

NOTE:

1. IMAGERY SOURCED FROM NEARMAP AUGUST, 2019
2. EXISTING ROAD ALIGNMENT HAS BEEN DEVELOPED USING AERIAL IMAGERY. NOT TO BE USED FOR DESIGN PURPOSES, INTENDED TO PROVIDE AN INDICATIVE LAYOUT OF EXISTING CONDITIONS

LEGEND:

- EXISTING BOUNDARY (CADASTRE)
- EXISTING ROAD CENTRELINE
- PROPOSED SITE BOUNDARY
- PROPOSED FOOTPATH OPTION 1
- PROPOSED FOOTPATH OPTION 2



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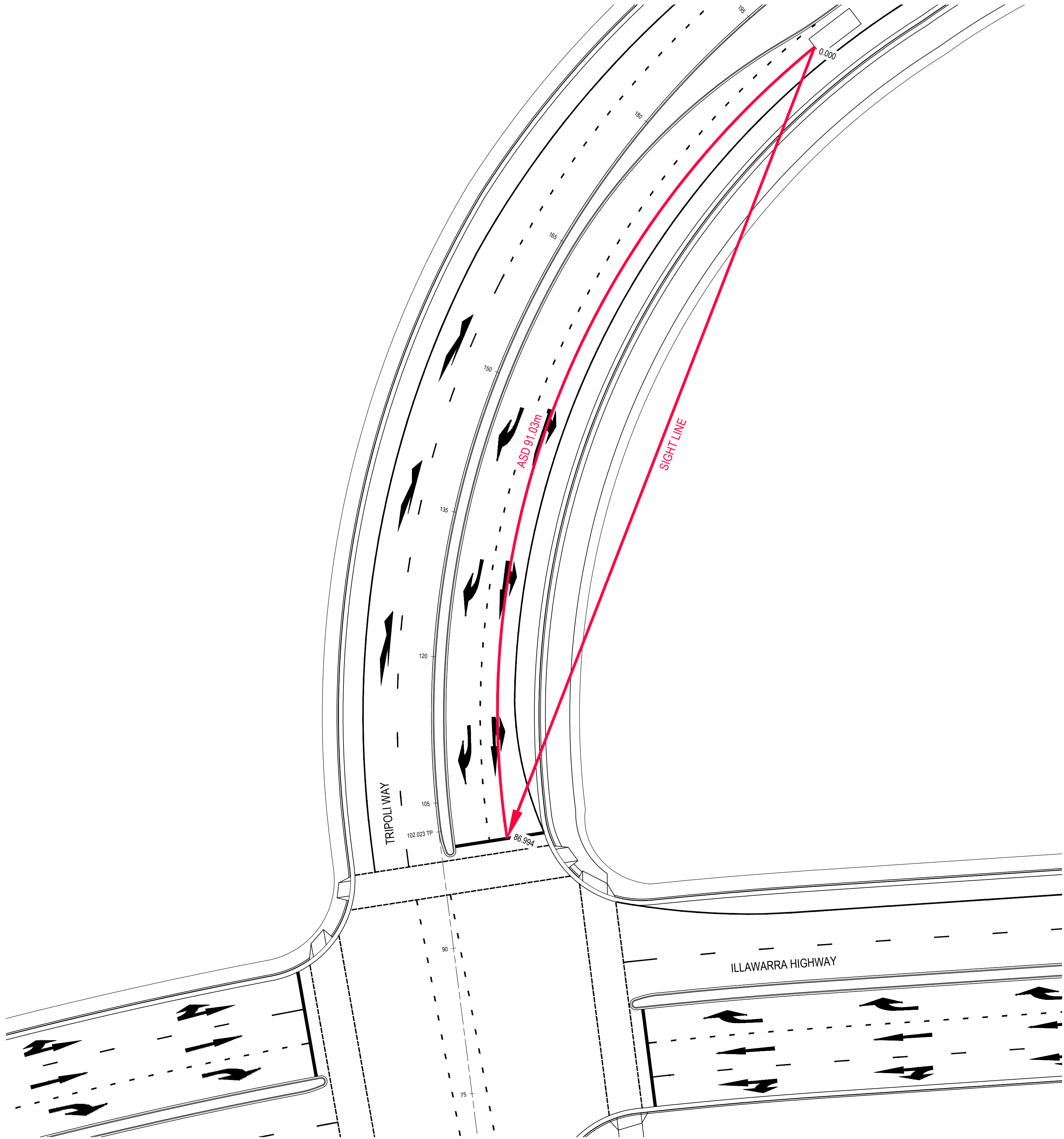
Drawn	23/08/2019	Date	Client
Checked	23/08/2019	Date	Project
Designed	23/08/2019	Date	EXISTING FOOTPATH CONNECTION LAYOUT PLAN
Verified	23/08/2019	Date	Title
Approved	23/08/2019	Date	

Client	LENLEASE
Project	CALDERWOOD ROAD UPGRADE CONCEPT DESIGN
Title	EXISTING FOOTPATH CONNECTION LAYOUT PLAN

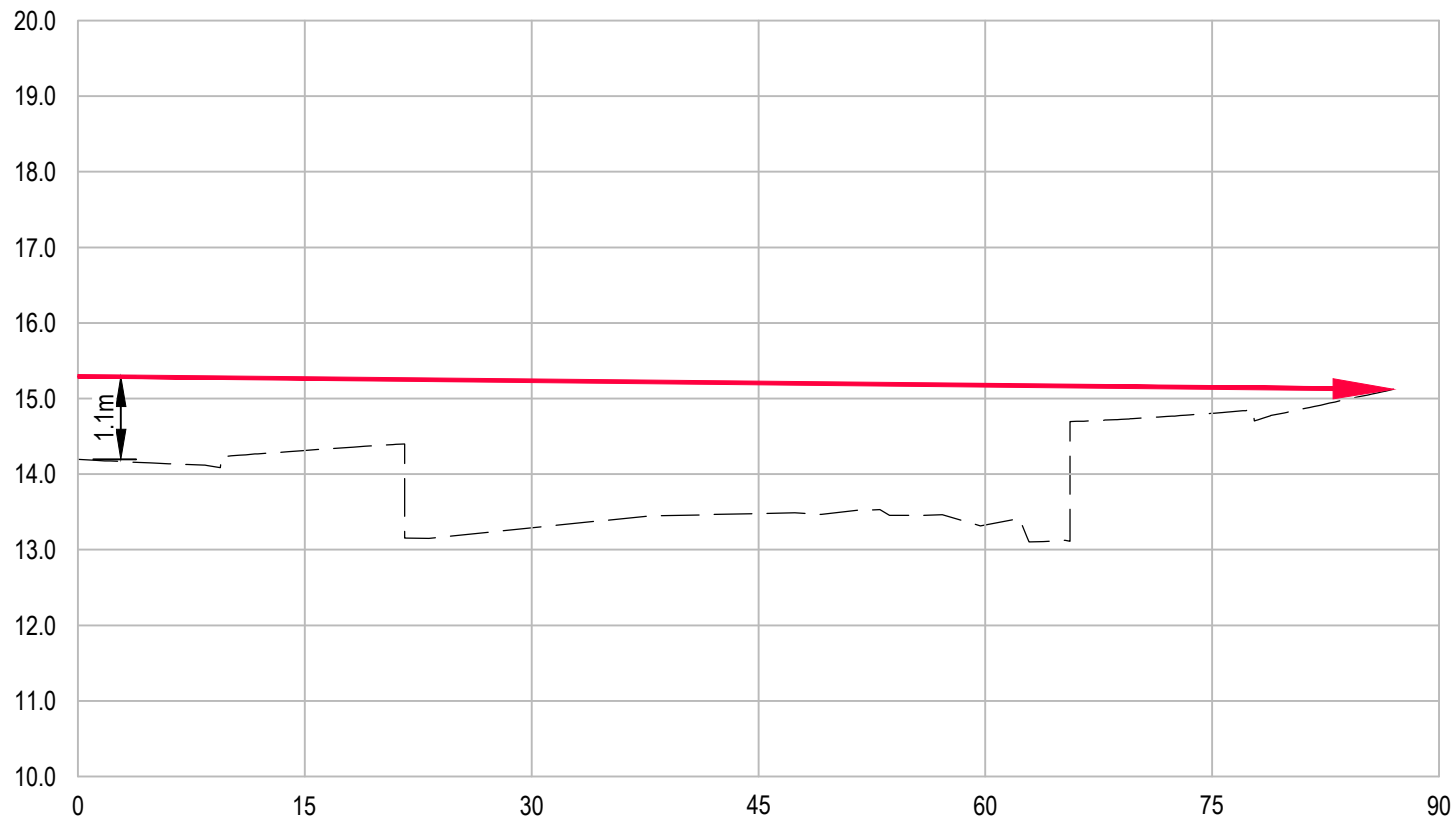
Status	PRELIMINARY
DATUM	AHD
Scale	1:1000
Size	A1
Drawing Number	82015040-54-SK048
Revision	2

DATE PLOTTED: 18 November 2019 4:49 PM BY: JACK WINWOOD-SMITH

XREFs: XR-82015040-54-G-TITLE; XR-82016126-01-D2-BASE; XR-820161261-01-D2-SIGNS & LINES
CAD File: \\AU\VOL\CF303\Projects\FY15040-54_Calderwood Road Upgrade\Drawings\Build\Sketches\82015040-54-SK049.dwg

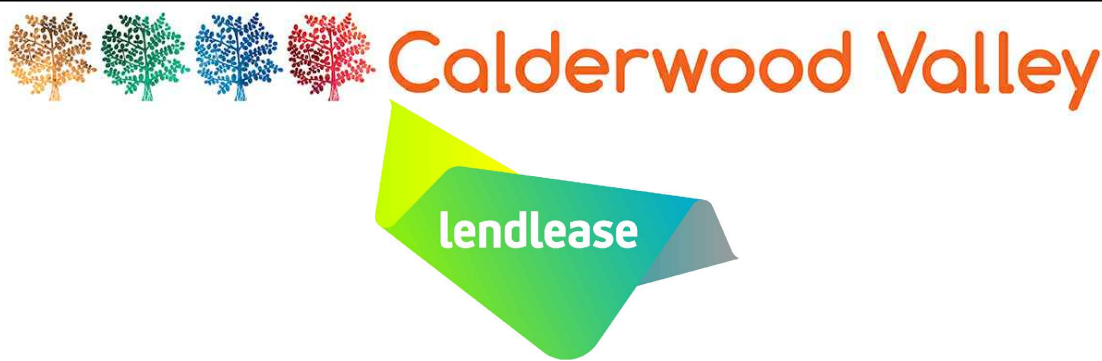
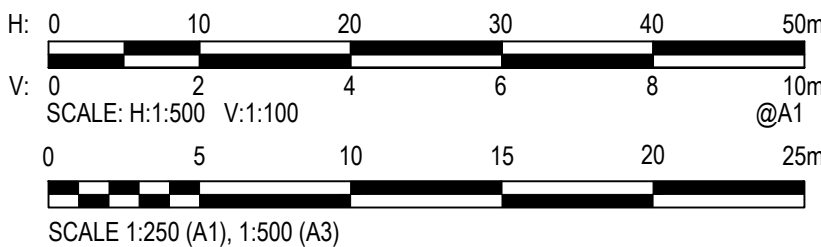


SIGHT DISTANCE LAYOUT
SCALE 1:250



LONGITUDINAL SECTION - SIGHT LINE
SCALE - HORIZ 1:500 VERT 1:100 (VERTICAL 5x EXAGGERATED)

APPROACH SIGHT DISTANCE (ASD)			
R _t (REACTION TIME) =	2.0 s	(TABLE 5.2 - AGRD PART 3)	
V (DESIGN SPEED) =	70 km/h	(SIGN POSTED SPEED + 10 km/h)	
d (COEFFICIENT OF DECELERATION) =	0.36	(TABLE 5.3 - AGRD PART 3)	
a (LONGITUDINAL GRADE) =	1.0%		
MINIMUM REQUIRED ASD =	91.03 m		



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Drawn	JWS	Date	15/11/2019
Checked	BAH	Date	15/11/2019
Designed	MPR	Date	23/08/2019
Verified	XDH	Date	23/08/2019
Approved			
IP		Date	15/11/2019

Client	LENLEASE
Project	CALDERWOOD ROAD UPGRADE
	CONCEPT DESIGN
	ROAD CONCEPT
Title	SIGHT DISTANCE LAYOUT PLAN AND LONG SECTION

Status	PRELIMINARY		
	NOT TO BE USED FOR CONSTRUCTION PURPOSES		
DATUM	AHD	Scale	AS SHOWN
Drawing Number	82015040-54-SK049	Size	A1
Revision			1