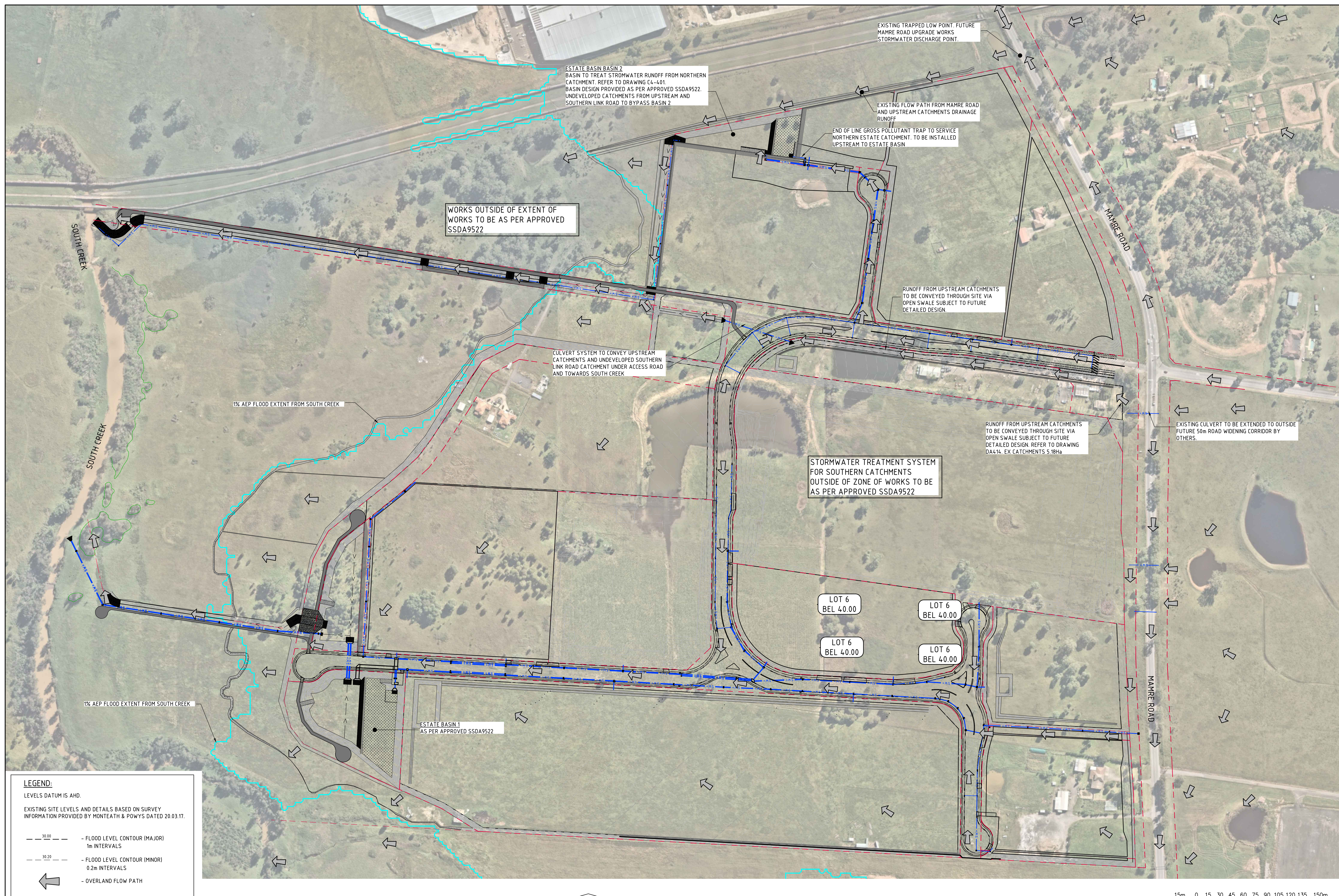


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ACCESS ROAD 4 ROAD PAVEMENT DETAILS

ACCESS ROAD 4 CUL-DE-SAC PAVEMENT DETAILS

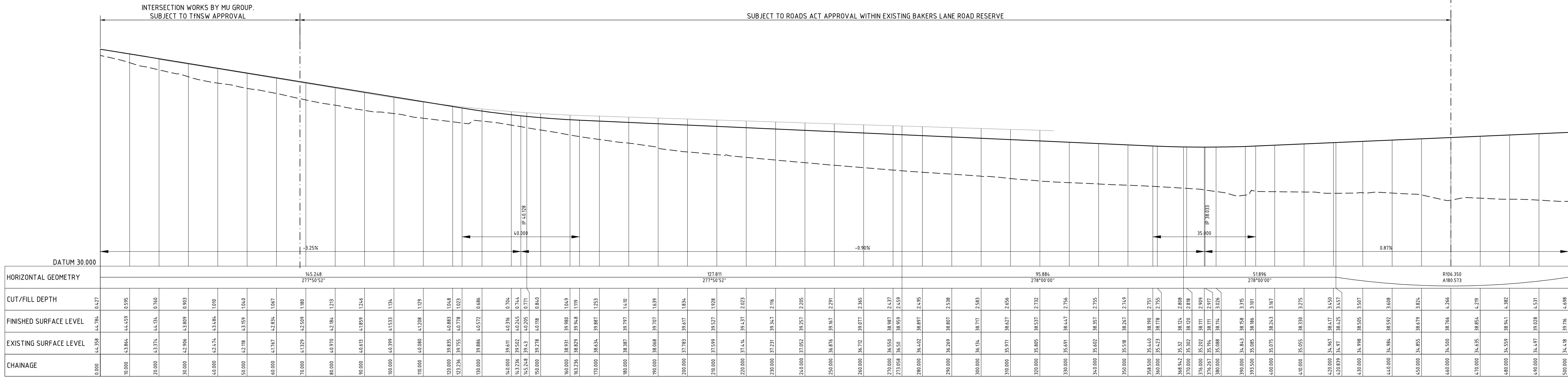
NORTHERN BASIN ACCESS TRACK

PEDESTRIAN SLAB DETAILS

PENRITH CITY COUNCIL KERB & GUTTER
SCALE 1:10

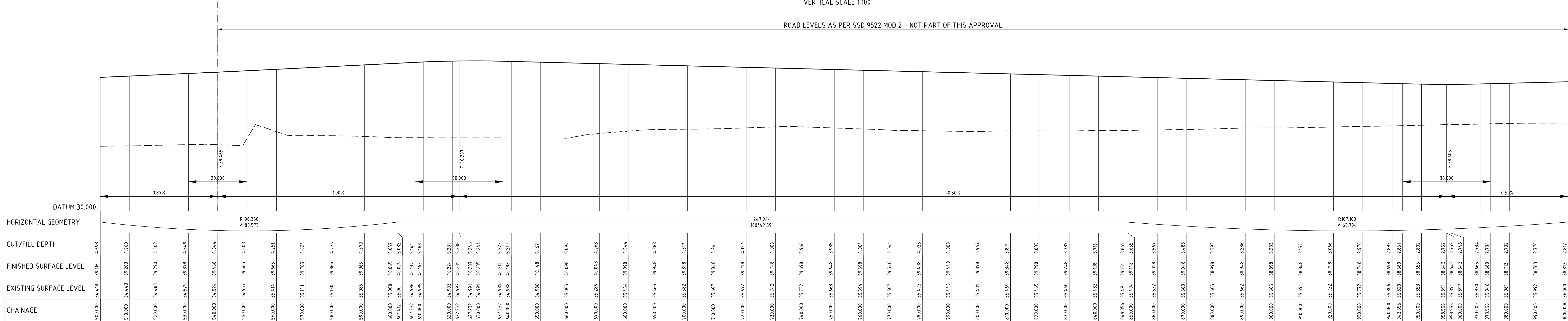


TYPICAL SECTION THRU' MEDIAN ISLAND
1:10



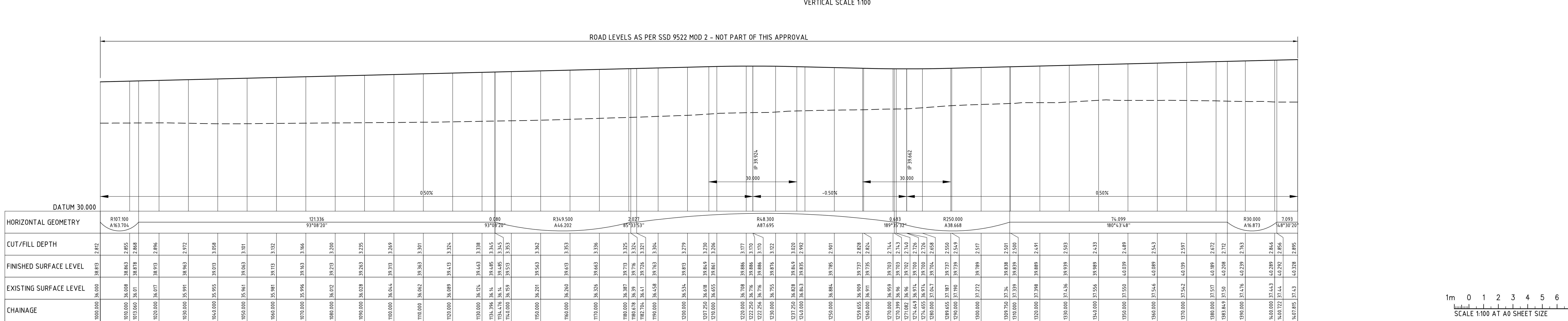
LONGITUDINAL SECTION - CL BAKERS LANE & ACCESS ROAD 1

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



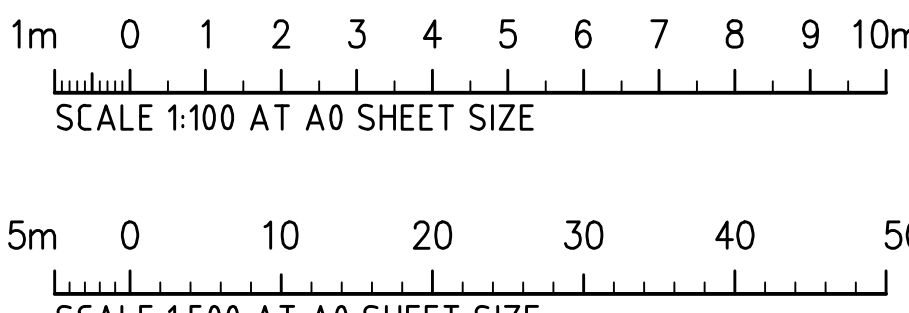
LONGITUDINAL SECTION - CL BAKERS LANE & ACCESS ROAD 1

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

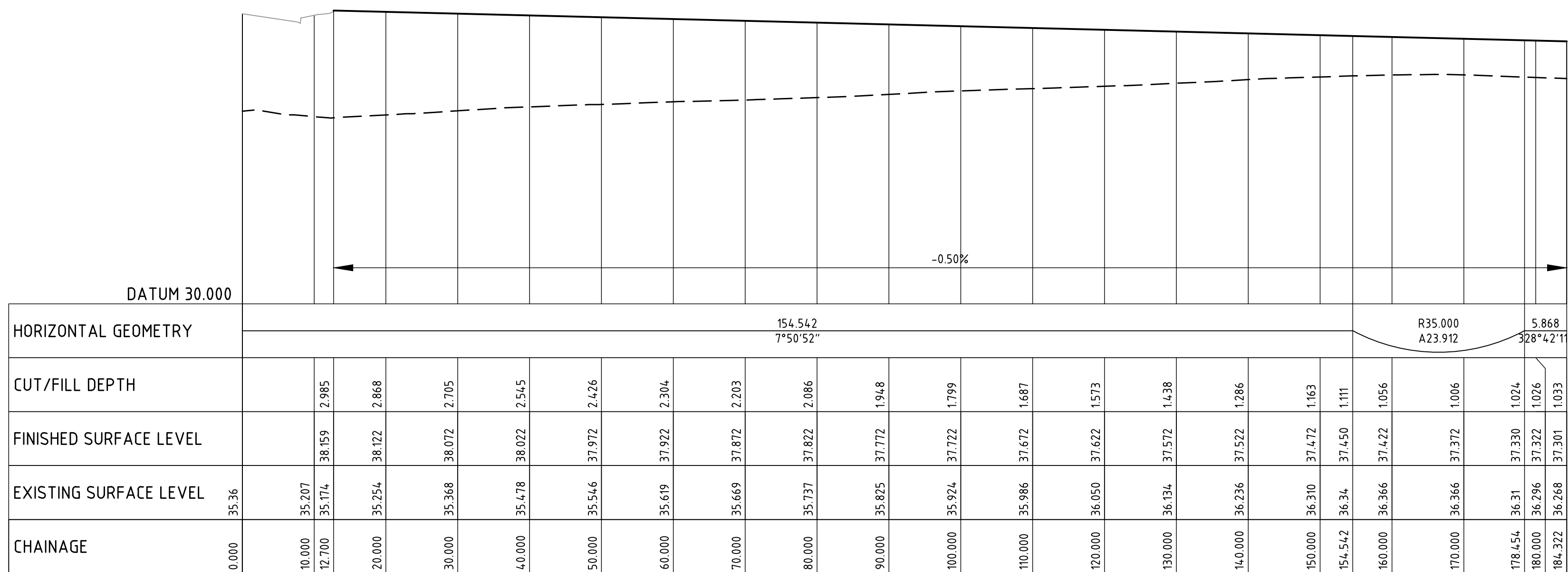
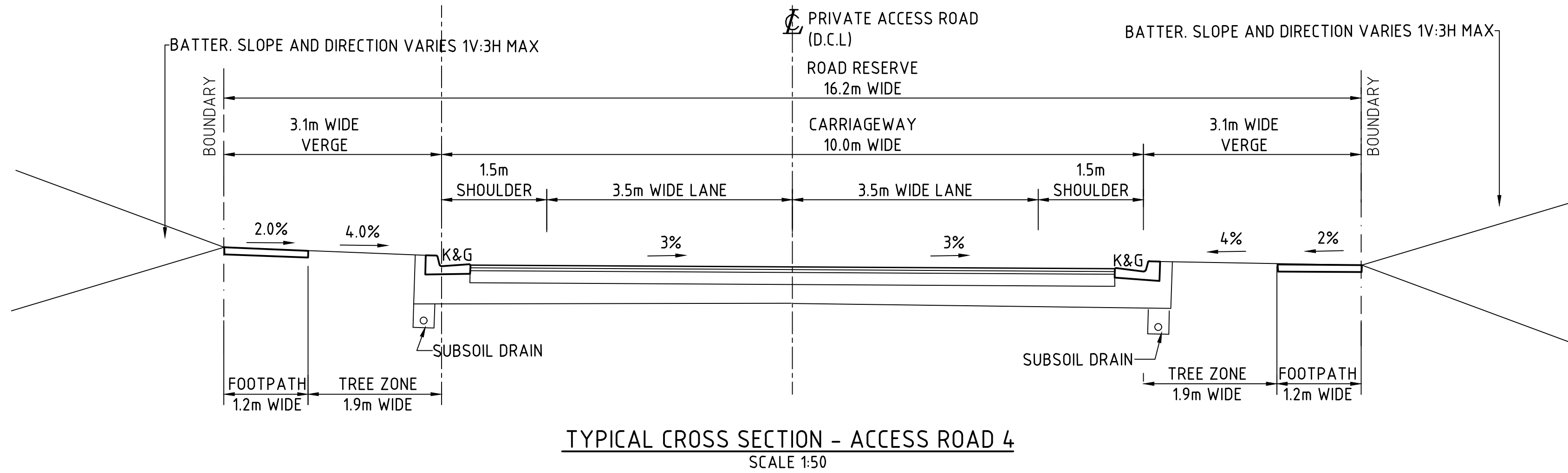
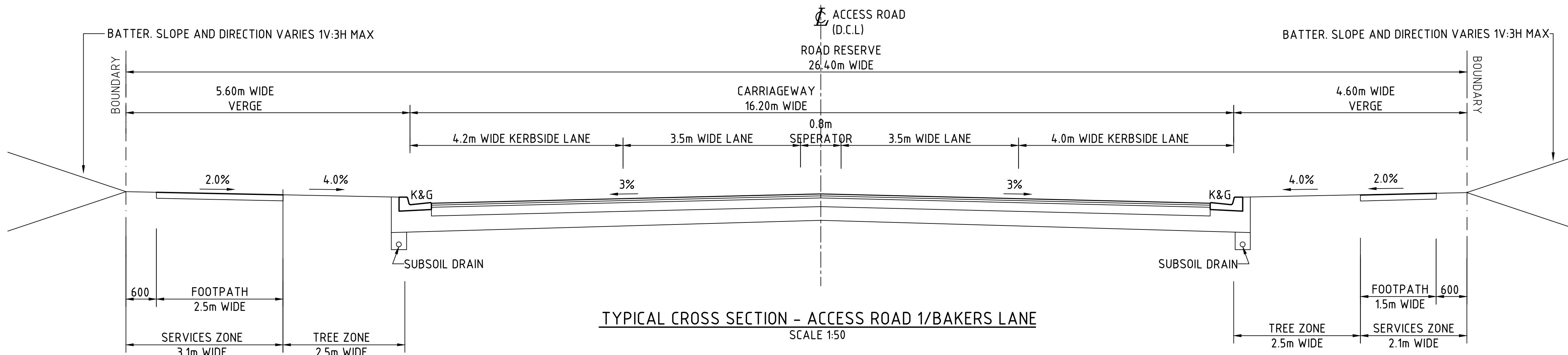


LONGITUDINAL SECTION - CL BAKERS LANE & ACCESS ROAD 1

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOR DEVELOPMENT APPLICATION



PAVEMENT MAINTENANCE NOTES :

DURING THE LIFE OF THE PAVEMENT, DAMAGE IN VARIOUS FORMS IS LIKELY TO OCCUR. GOOD MAINTENANCE WILL KEEP PROBLEMS TO A MINIMUM AND EXTEND THE LIFE OF PAVEMENTS. THE FOLLOWING LIKELY AREAS OF DAMAGE MAY OR MAY NOT OCCUR DURING THE LIFE OF THE PAVEMENTS:

SLAB PAVEMENTS :

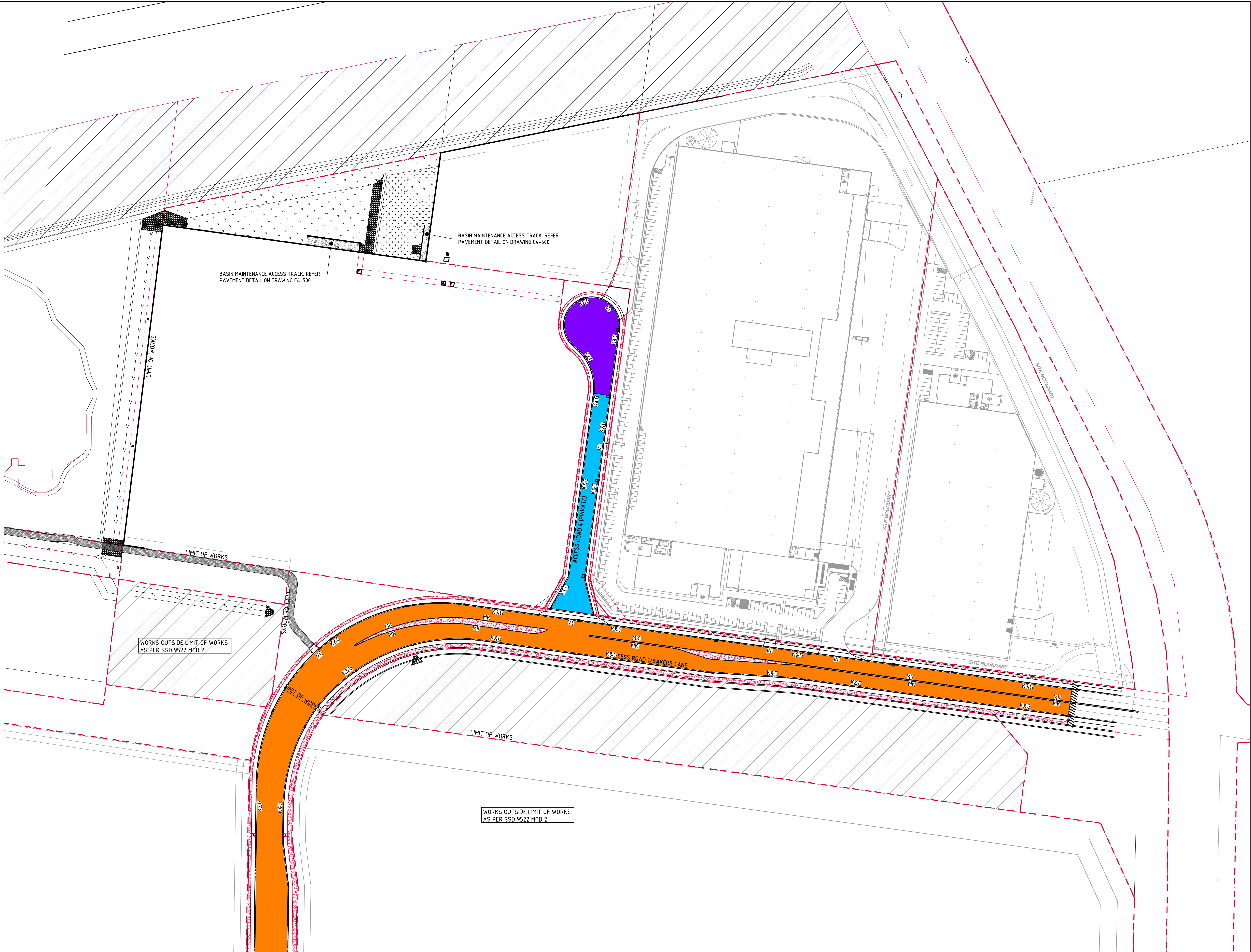
1. DAMAGE TO JOINTS SUCH AS FRETTING OR BREAKING AWAY OF PIECES SHOULD BE REPAIRED USING CONCRETE REPAIR PRODUCTS AND THE JOINTING MATERIAL MADE GOOD.
2. CRACKING OF SLABS WHICH MAY OCCUR OVER THE LIFE OF THE SLAB SHOULD BE REPAIRED BY EPOXY GROUTING AS SOON AS POSSIBLE TO PREVENT LOCAL FRETTING AND BREAKING AWAY. THE DEFINITION OF A CRACK WHICH MAY BECOME DETRIMENTAL IS ONE WHICH IS GREATER THAN 0.3mm.
3. LOCAL DAMAGE DUE TO MECHANICAL PROCESSES OR PALLETS (WITH PROTRUDING NAILS) SHOULD BE REPAIRED AS SOON AS POSSIBLE WITH AN EPOXY CONCRETE REPAIR PRODUCT.
4. LOCAL MOVEMENT OF SLABS CAUSED BY EXTERNAL SOURCES SUCH AS INGRESS OF WATER SHOULD BE REFERRED TO THE ENGINEER TO DETERMINE THE BEST METHOD OF REPAIR.
5. JOINT SEALANTS WILL GENERALLY BREAKDOWN AND NEED REPLACEMENT AFTER 12 MONTHS WHEN MOST OF THE SLAB SHRINKAGE HAS TAKEN PLACE. RESEALING NEEDS TO BE CARRIED OUT TO ENSURE ONGOING SUPPORT TO SLAB EDGES.

ASPHALT PAVEMENTS :

1. UNLESS NOTED OTHERWISE, FLEXIBLE PAVEMENTS SHOWN ON THESE DRAWINGS ARE THE MINIMUM NECESSARY TO SUPPORT ARTICULATED VEHICLES FOR A MINIMUM DESIGN LIFETIME.
2. CRACKING OF THE ASPHALT SURFACE AND OTHER DEFECTS SHOULD BE REPAIRED QUICKLY TO PREVENT INGRESS OF WATER TO THE SUBGRADE, WHICH WILL ACCELERATE DETERIORATION OF PAVEMENTS.
3. DRAINAGE GRADES SHOULD BE MAINTAINED TO AVOID PONDING OF SURFACE WATER WHICH MAY CONTRIBUTE TO DETERIORATION.

LEGEND:

- PRIVATE INDUSTRIAL ROAD 1x10⁷ ESA
- COLLECTOR ROAD 5x10⁷ ESA
- CUL-DE-SAC PAVEMENT
- CONCRETE FOOTPATH
- SEWAGE IOP STATION
- KERB & GUTTER
- MOUNTABLE KERB



FOR DEVELOPMENT APPLICATION

ROAD PAVEMENT PLAN
SCALE 1:750

6m 0 15 30 45 60 75m
SCALE 1:750 AT A0 SHEET SIZE

AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE
ISSUED FOR DEVELOPMENT APPLICATION	16.08.22	C						
ISSUED FOR DEVELOPMENT APPLICATION	05.08.22	B						
ISSUED FOR DEVELOPMENT APPLICATION	12.11.21	A						

CLIENT

ALTIS
PROPERTY PARTNERS

FRASERS
PROPERTY

PROJECT
MAMRE SOUTH PRECINCT
657 - 708 MAMRE ROAD
KEMPS CREEK, 2178, NSW

DESIGNED: MW | DRAWN: MC | DATE: NOV 21 | CHECKED: MW | DATE: A0 | SCALE: AS SHOWN | CAD REF: C013362-02-C3-503



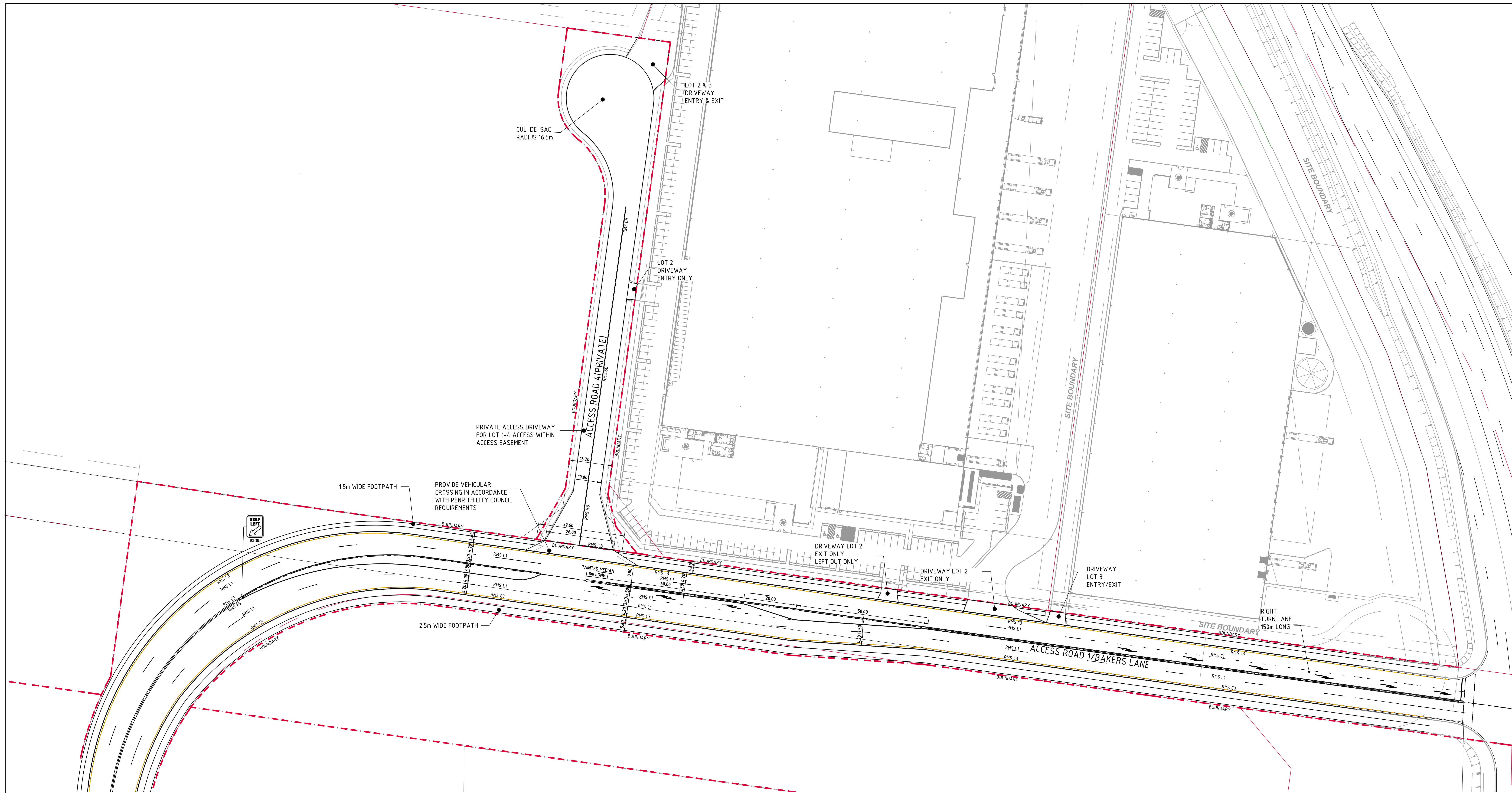
Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446
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Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au

CRC
COSTIN ROE
CONSULTING
CIVIL &
STRUCTURAL
ENGINEERS

DRAWING TITLE
PAVEMENT TYPE PLAN
MOD 3

DRAWING NO
C013362-02-C3-503

ISSUE



FUNCTIONAL LAYOUT PLAN-MOD 3 STAGE 1
1:500 SCALE

LINEMARKING NOTES:

ALL REGULATORY SIGNPOSTING AND LINE MARKING SHOWN ON THESE DRAWINGS WILL NEED TO BE APPROVED BY WRITTEN AUTHORISATION FROM AN OFFICER AUTHORISED UNDER SECTION 5.9 OF THE RMS DELEGATIONS MANUAL.

ALL LINEMARKING TO CONFORM TO RMS DELINEATION MANUAL AND QA SPECIFICATION R14.5. REFER TO THIS DOCUMENT FOR LINE TYPES, DIMENSIONS & MARKER SPACING.

RPM's TO BE PROVIDED IN CONJUNCTION WITH LINEMARKING AS PER RMS QA SPECIFICATION R14.2.

REMOVE ALL EXISTING LINEMARKING AS REQUIRED TO ALLOW FOR MARKING OF NEW INTERSECTION LAYOUTS. LINEMARKING REMOVAL TO BE PERFORMED IN ACCORDANCE WITH RMS STANDARDS

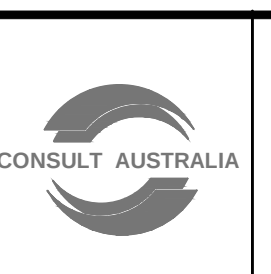
FOR DEVELOPMENT APPLICATION

5m 0 10 20 30 40 50m
SCALE 1:500 AT A0 SHEET SIZE

AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE
ISSUED FOR DEVELOPMENT APPLICATION	16.08.22	C						
ISSUED FOR DEVELOPMENT APPLICATION	05.09.22	B						
ISSUED FOR INFORMATION	13.07.22	A						

CLIENT	PROJECT
ALTIS PROPERTY PARTNERS	MAMRE SOUTH PRECINCT 657 - 708 MAMRE ROAD KEMPS CREEK, 2178, NSW
FRASERS PROPERTY	

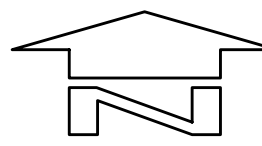
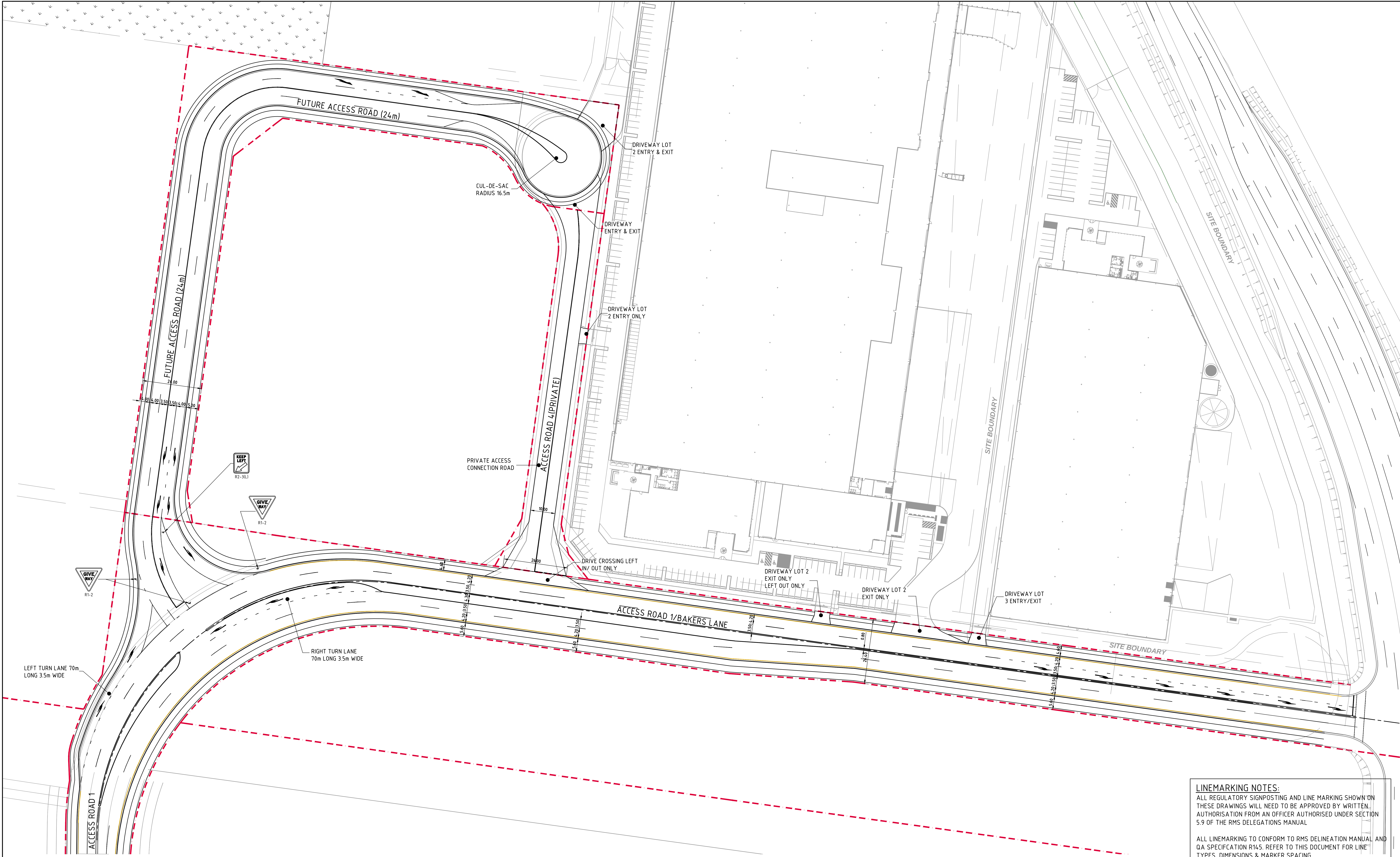
DESIGNED	DRAWN	CHECKED	DATE	SCALE	SCALE	CAD REF.
MW	MC	MC	NOV 21	A0	AS SHOWN	C013362-02-SK3-01



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e: mail@costinroe.com.au w: costinroe.com.au



DRAWING TITLE	DRAWING NO
FUNCTIONAL LAYOUT PLAN STAGE 1 INTERSECTION MOD 3	C013362-02-SK3-01



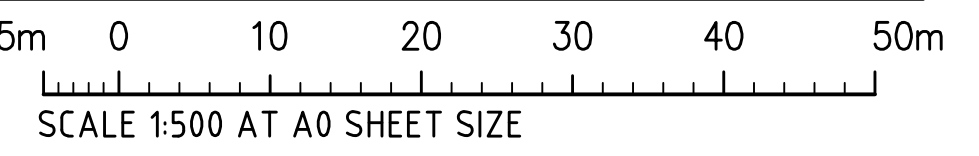
FUNCTIONAL LAYOUT PLAN-MOD 3 STAGE 2 INTERSECTION
1500 SCALE

LINEMARKING NOTES:
ALL REGULATORY SIGNPOSTING AND LINE MARKING SHOWN ON THESE DRAWINGS WILL NEED TO BE APPROVED BY WRITTEN AUTHORISATION FROM AN OFFICER AUTHORISED UNDER SECTION 5.9 OF THE RMS DELEGATIONS MANUAL

ALL LINEMARKING TO CONFORM TO RMS DELINEATION MANUAL AND QA SPECIFICATION R14.5. REFER TO THIS DOCUMENT FOR LINE TYPES, DIMENSIONS & MARKER SPACING.

RPM's TO BE PROVIDED IN CONJUNCTION WITH LINEMARKING AS PER RMS QA SPECIFICATION R14.2.

REMOVE ALL EXISTING LINEMARKING AS REQUIRED TO ALLOW FOR MARKING OF NEW INTERSECTION LAYOUTS. LINEMARKING REMOVAL TO BE PERFORMED IN ACCORDANCE WITH RMS STANDARDS



FOR DEVELOPMENT APPLICATION

AMENDMENTS				AMENDMENTS				AMENDMENTS				AMENDMENTS			
ISSUED FOR DEVELOPMENT APPLICATION	16.08.22	C		ISSUED FOR DEVELOPMENT APPLICATION	05.08.22	B		ISSUED FOR DEVELOPMENT APPLICATION	13.07.22	A		ISSUED FOR DEVELOPMENT APPLICATION	13.07.22	A	
ISSUED FOR INFORMATION	13.07.22	A		ISSUED FOR INFORMATION	13.07.22	A		ISSUED FOR INFORMATION	13.07.22	A		ISSUED FOR INFORMATION	13.07.22	A	
AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS

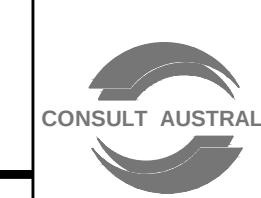
CLIENT		PROJECT		COSTIN ROE CONSULTING PTY LTD.		DRAWING TITLE	
ALTIS PROPERTY PARTNERS		MAMRE SOUTH PRECINCT		PO Box N410 Sydney NSW 1220		FUNCTIONAL LAYOUT PLAN	
FRASERS PROPERTY		657 - 708 MAMRE ROAD		Level 4, 8 Windmill Street, Millers Point NSW 2000		STAGE 2 INTERSECTION	
		KEMPS CREEK, 2178, NSW		p: +61 2 9251 7699		MOD 3	
				e: mail@costinroe.com.au		DRAWING NO	
				w: costinroe.com.au		C013362.02- SK3-02	



ALTIS
PROPERTY PARTNERS



DESIGNED MW	DRAWN MC	DATE NOV 21	CHECKED MW	SIZE A0	SCALE AS SHOWN	CAD REF: C013362.02-SK3-03
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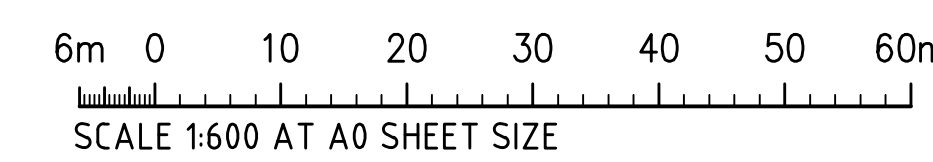


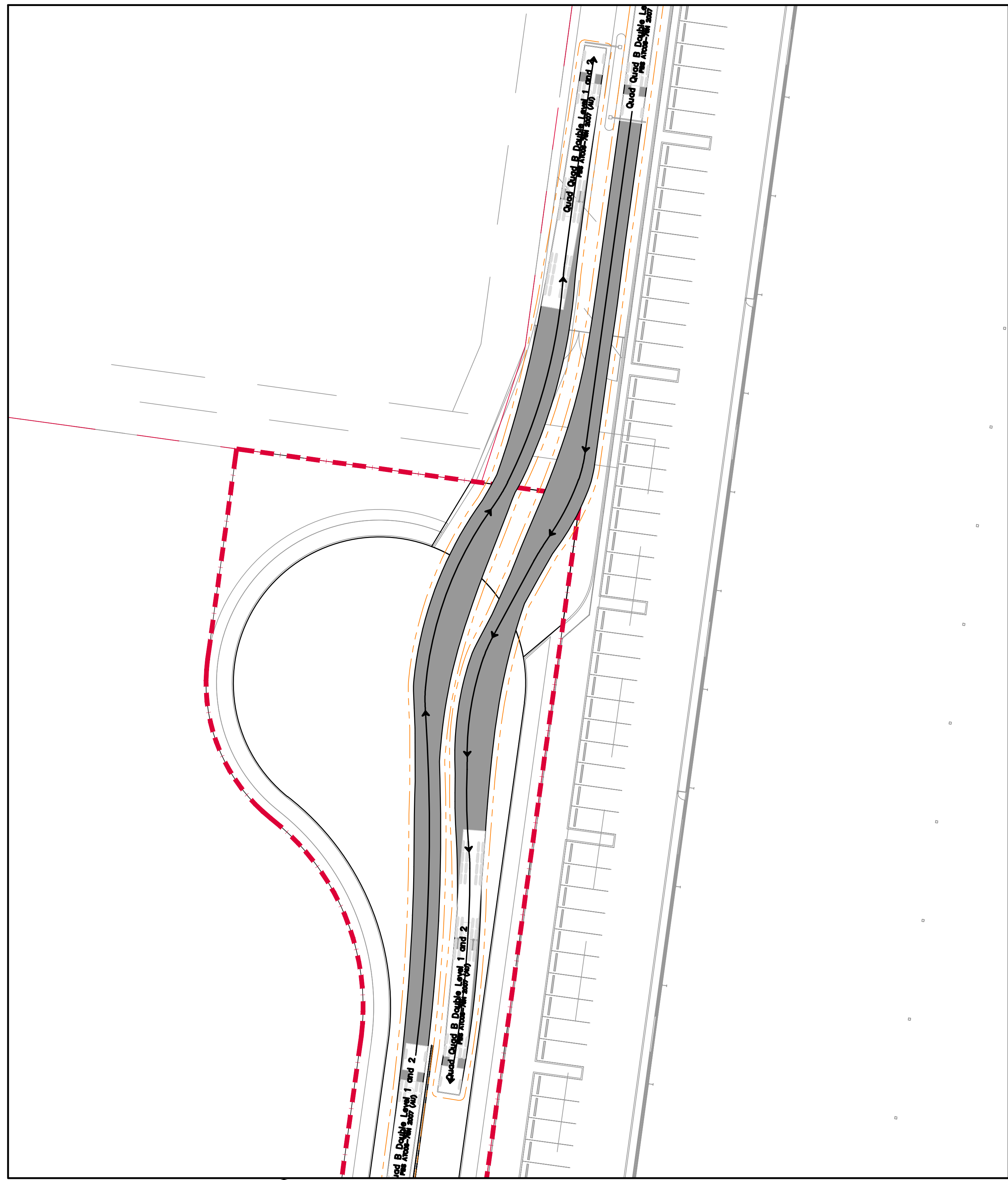
CRC
COSTIN ROE
CONSULTING

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STRUCTURAL
ENGINEERS**

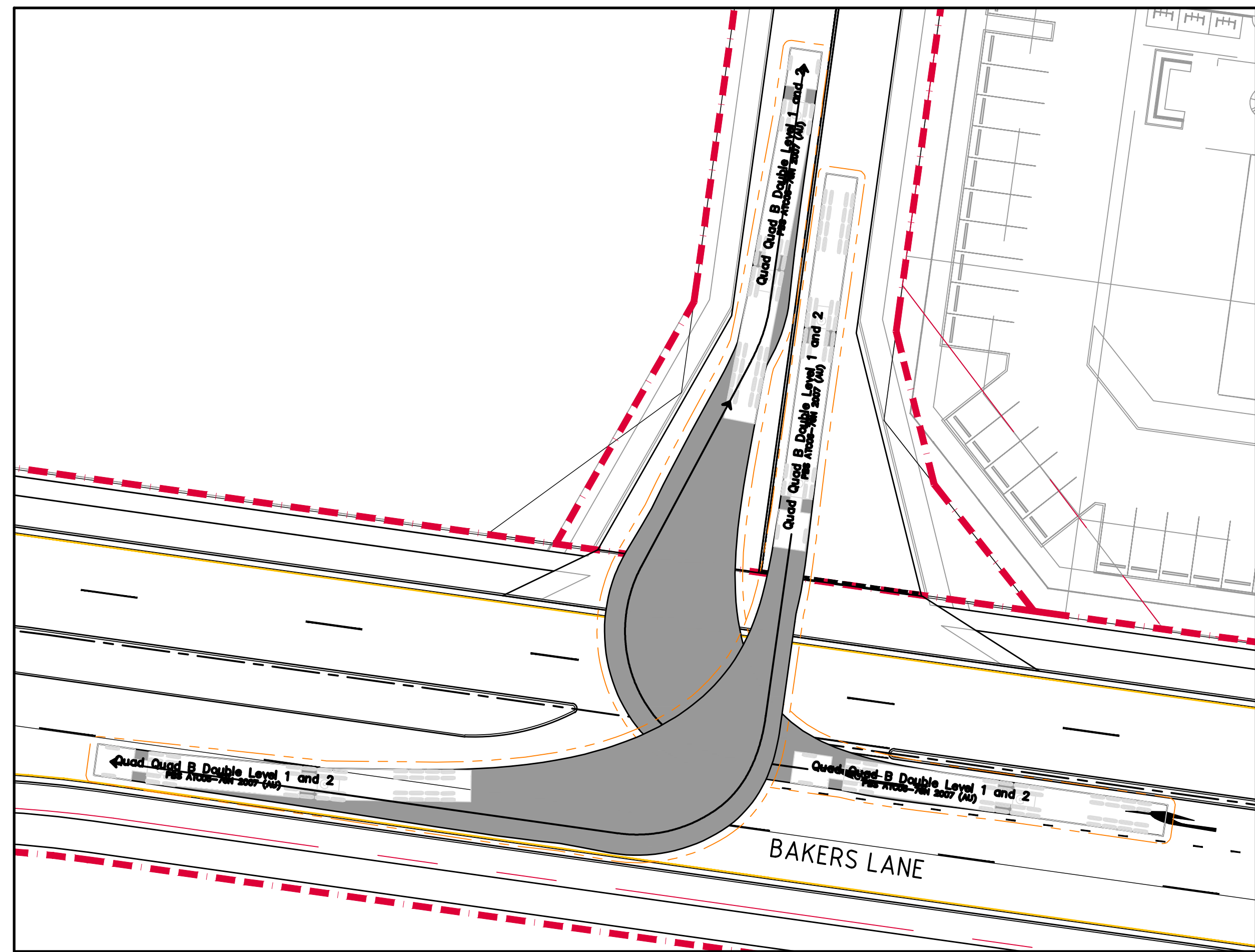
ISSUE

REMOVE ALL EXISTING LINEMARKING AS REQUIRED TO ALLOW FOR MARKING OF NEW INTERSECTION LAYOUTS. LINEMARKING REMOVAL TO BE PERFORMED IN ACCORDANCE WITH RMS STANDARDS

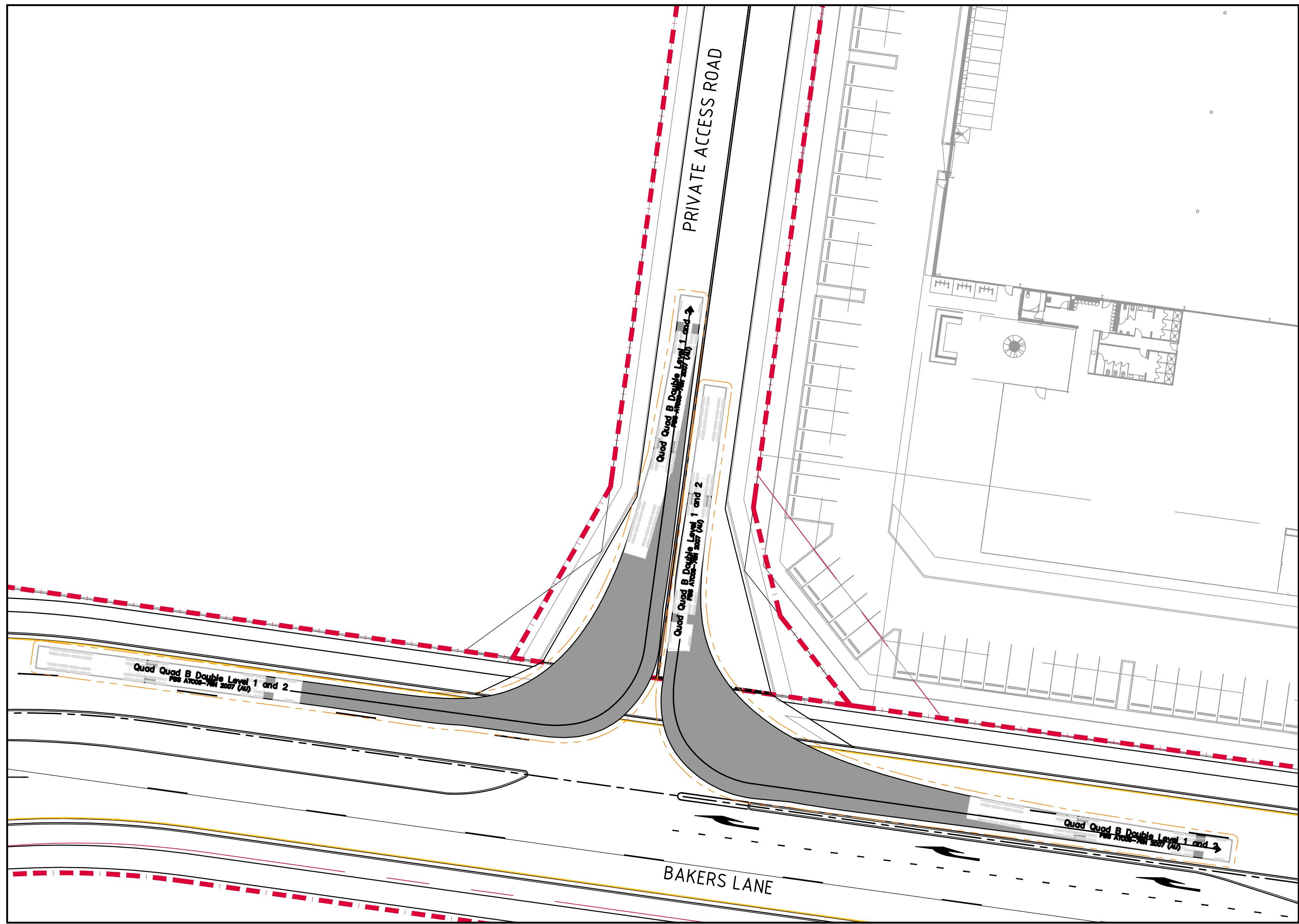




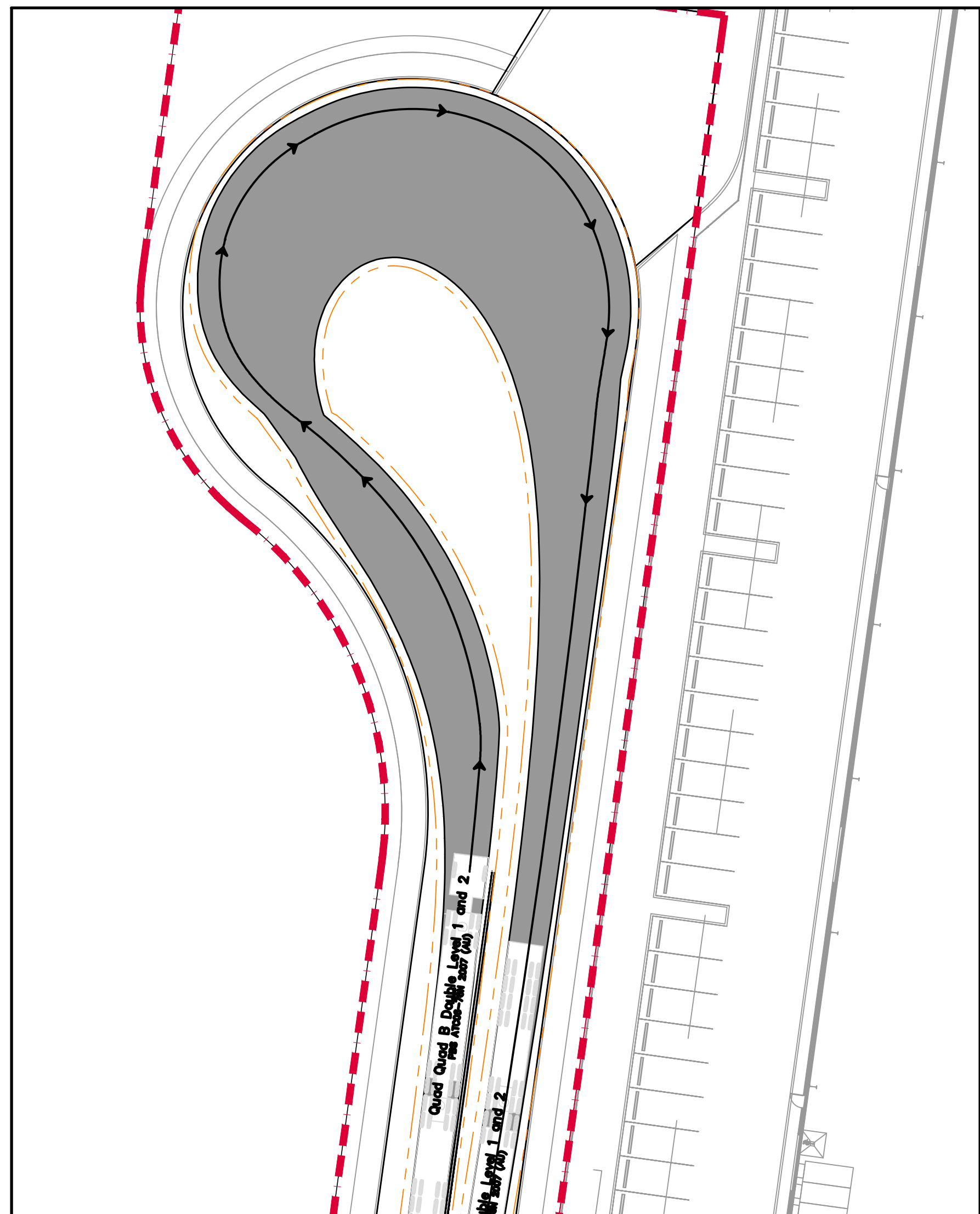
TUNNING PATHS PLAN-LOT 2 ACCESS
SCALE 1:300



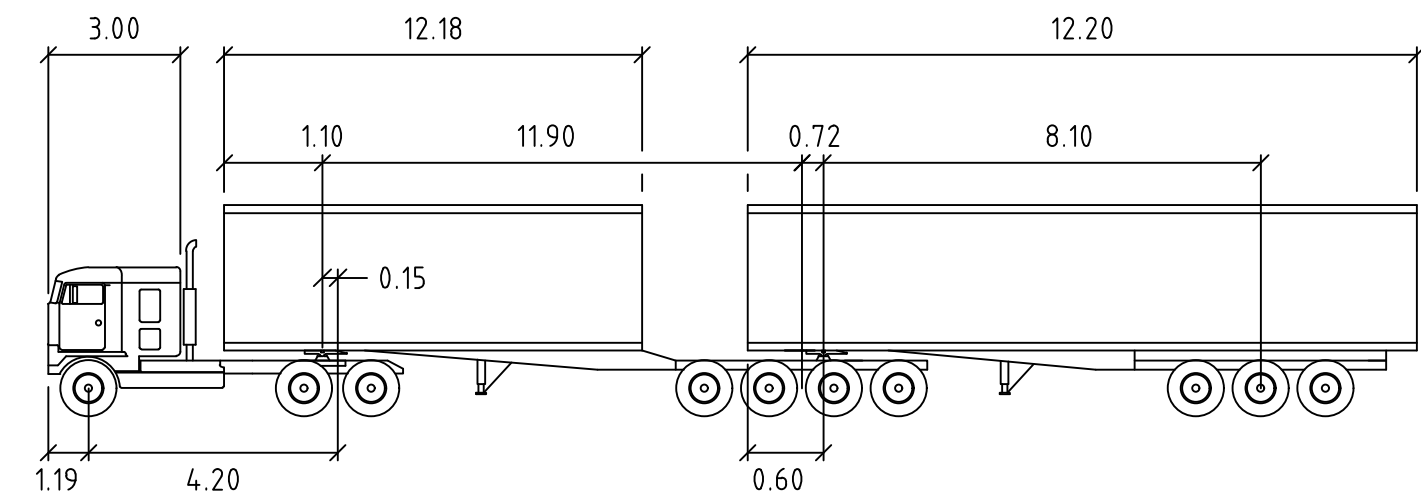
TUNNING PATHS PLAN-RIGHT TURN
SCALE 1:300



TUNNING PATHS PLAN-LEFT TURN
SCALE 1:300



TUNNING PATHS PLAN-TURNING HEAD
SCALE 1:300



N.T.S.			
Tractor Width	2.50	Lock to Lock Time	6.0
Trailer Width	2.50	Steering Angle	22.7
Tractor Track	2.50	Articulating Angle	70.0
Trailer Track	2.50		

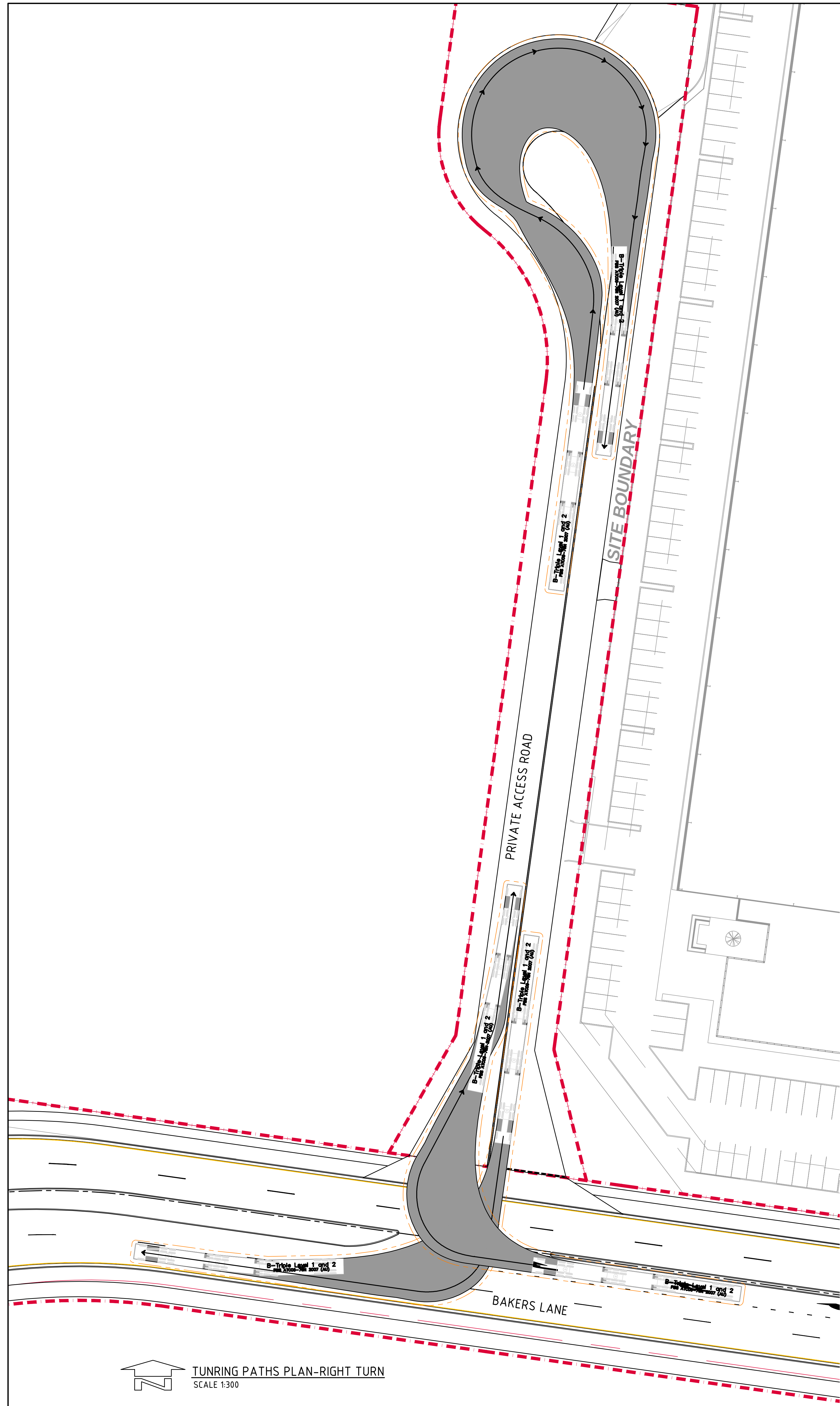
NOTE:
THIS PLAN HAS BEEN PRODUCED USING VEHICLE MODELLING
COMPUTER SOFTWARE AUTODESK AUTOTURN.
THE VEHICLES ADOPTED ARE BASED UPON VEHICLE DATA
PROVIDED BY THE SOFTWARE FOR AUSTRROADS & AS2890.

SWEPT PATH NOTE:
SWEPT PATH RUN SPEED 15km/h.
— VEHICLE BODY PATH
- - - VEHICLE BODY PATH
600mm CLEARANCE

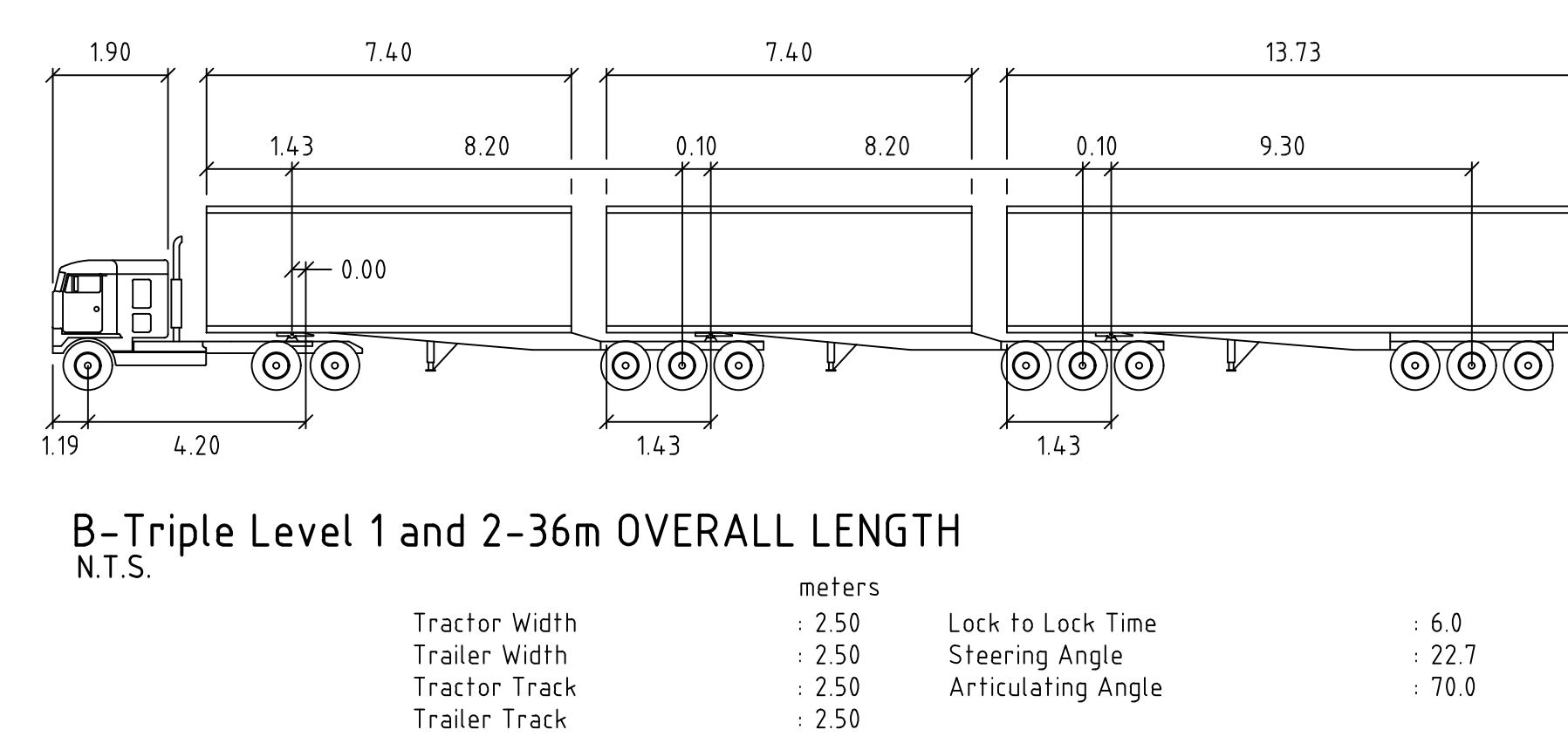
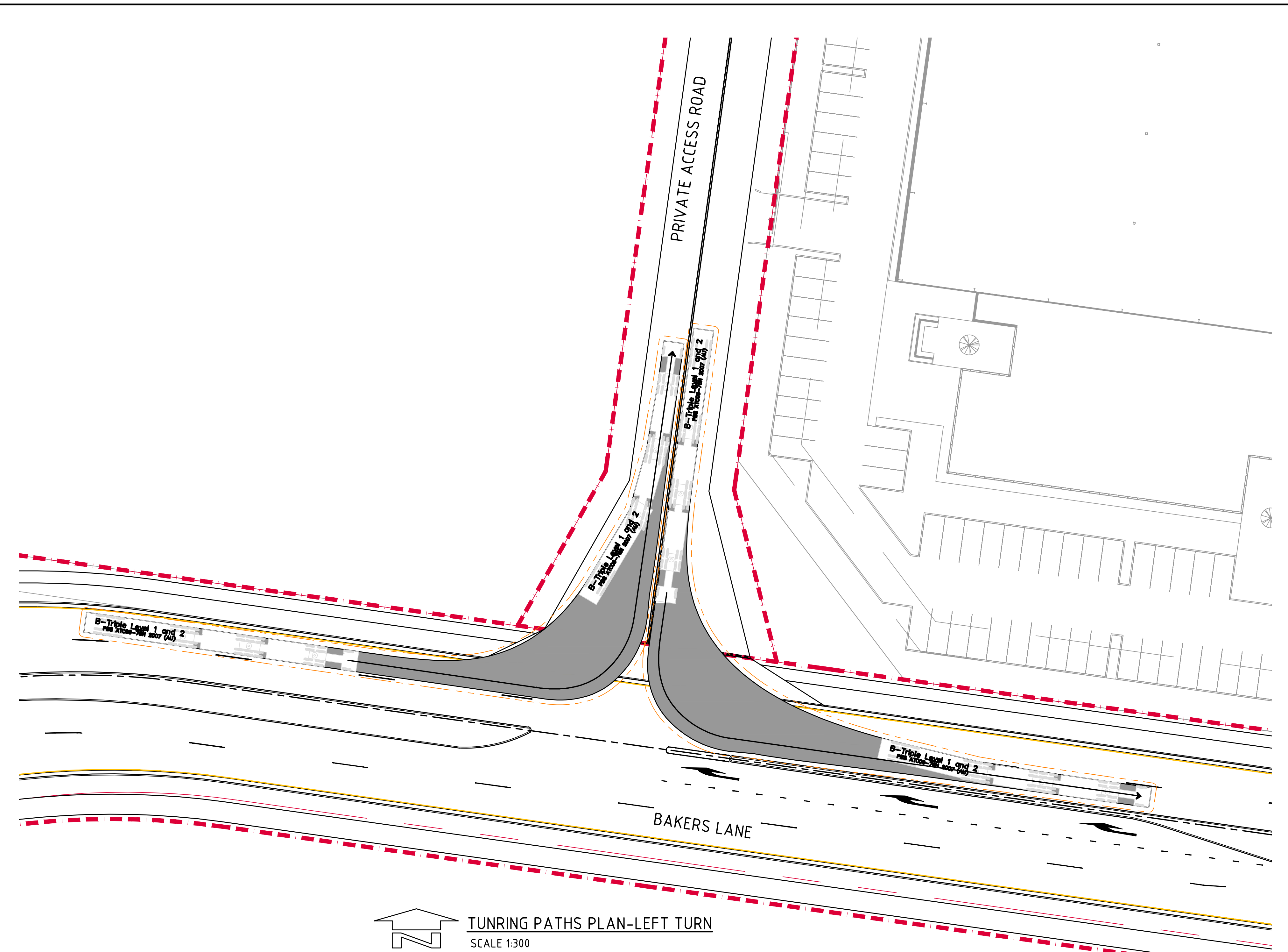
3m 0 5 10 15 20 25 30m
SCALE 1:300 AT A0 SHEET SIZE

FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION				12.08.22				B			
ISSUED FOR DEVELOPMENT APPLICATION				05.08.22				A			
AMENDMENTS				DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE
PROJECT				MAMRE SOUTH PRECINCT				657 - 708 MAMRE ROAD			
CLIENT				ALTIS PROPERTY PARTNERS				FRASERS PROPERTY			
CONSULTANT				COSTIN ROE CONSULTING				CIVIL & STRUCTURAL ENGINEERS			
DRAWING NO.				C013362-02-SK3-04				ISSUE			
TITLE				TURNING PATHS PLAN-SHEET 1				STAGE 1 INTERSECTION			
MOD				MOD 3				B			

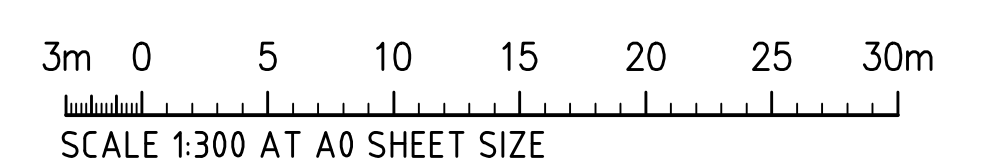


FOR INFORMATION ONLY



NOTE:
THIS PLAN HAS BEEN PRODUCED USING VEHICLE MODELLING COMPUTER SOFTWARE AUTODESK AUTOTURN.
THE VEHICLES ADOPTED ARE BASED UPON VEHICLE DATA PROVIDED BY THE SOFTWARE FOR AUSTRROADS & AS2890.
36m B-TRIPLE TURNING PATHS PROVIDED AS CHECK VEHICLE ONLY.
DESIGN BASED ON 30m B-DOUBLE-REFER TO DRAWING SK4-04.

SWEPT PATH NOTE:
SWEPT PATH RUN SPEED 15km/h.
— VEHICLE BODY PATH
- - - VEHICLE BODY PATH
600mm CLEARANCE



ISSUED FOR INFORMATION		05.08.22	A				
AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE

CLIENT

ALTIS
PROPERTY PARTNERS

FRASERS
PROPERTY

PROJECT

MAMRE SOUTH PRECINCT
657 - 708 MAMRE ROAD
KEMPS CREEK, 2178, NSW

DESIGNED
MW

DRAWN
MC

DATE
NOV 21

CHECKED
MW

DATE
NOV 21

SCALE
AS SHOWN

CAD REF.
C013362-02-SK3-05

CONSULT AUSTRALIA

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CRC
COSTIN ROE
CONSULTING

CIVIL &
STRUCTURAL
ENGINEERS

DRAWING TITLE

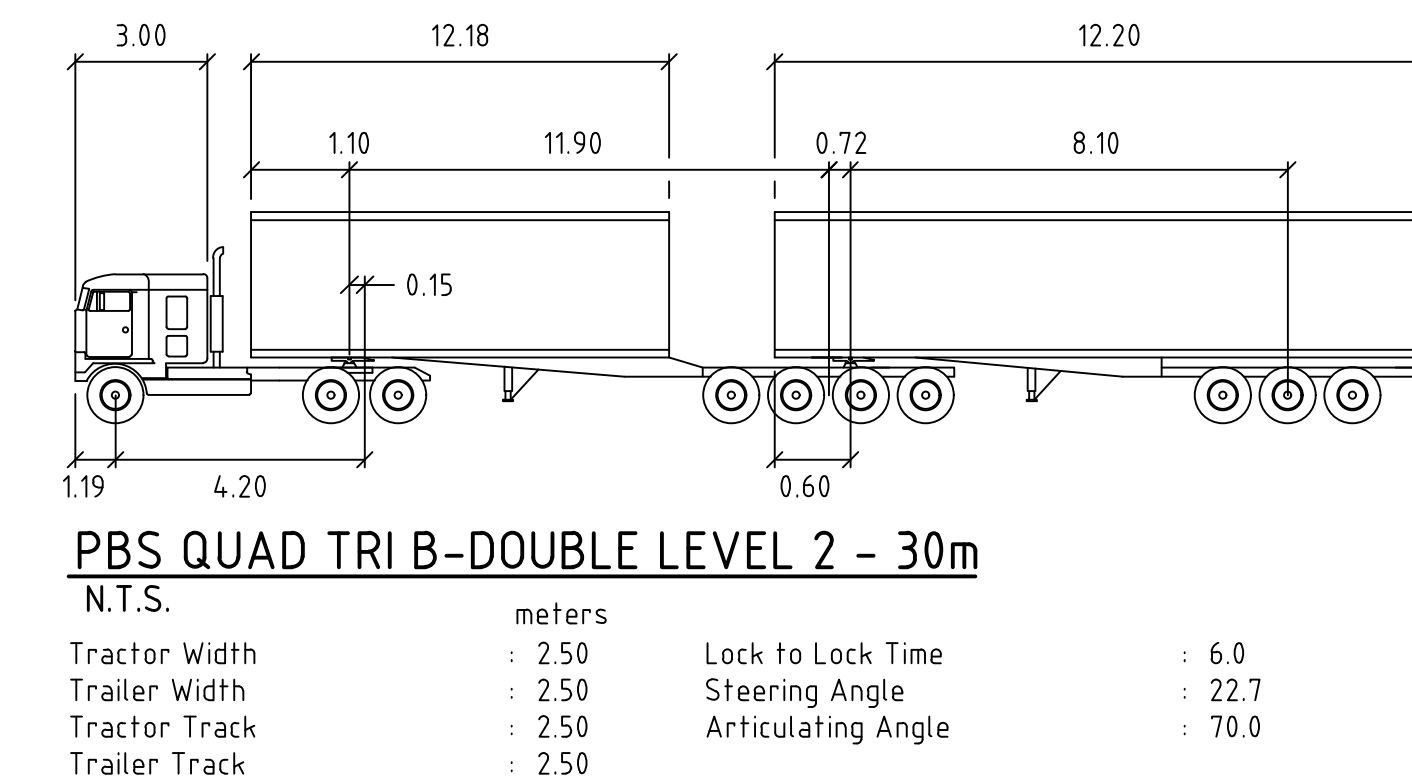
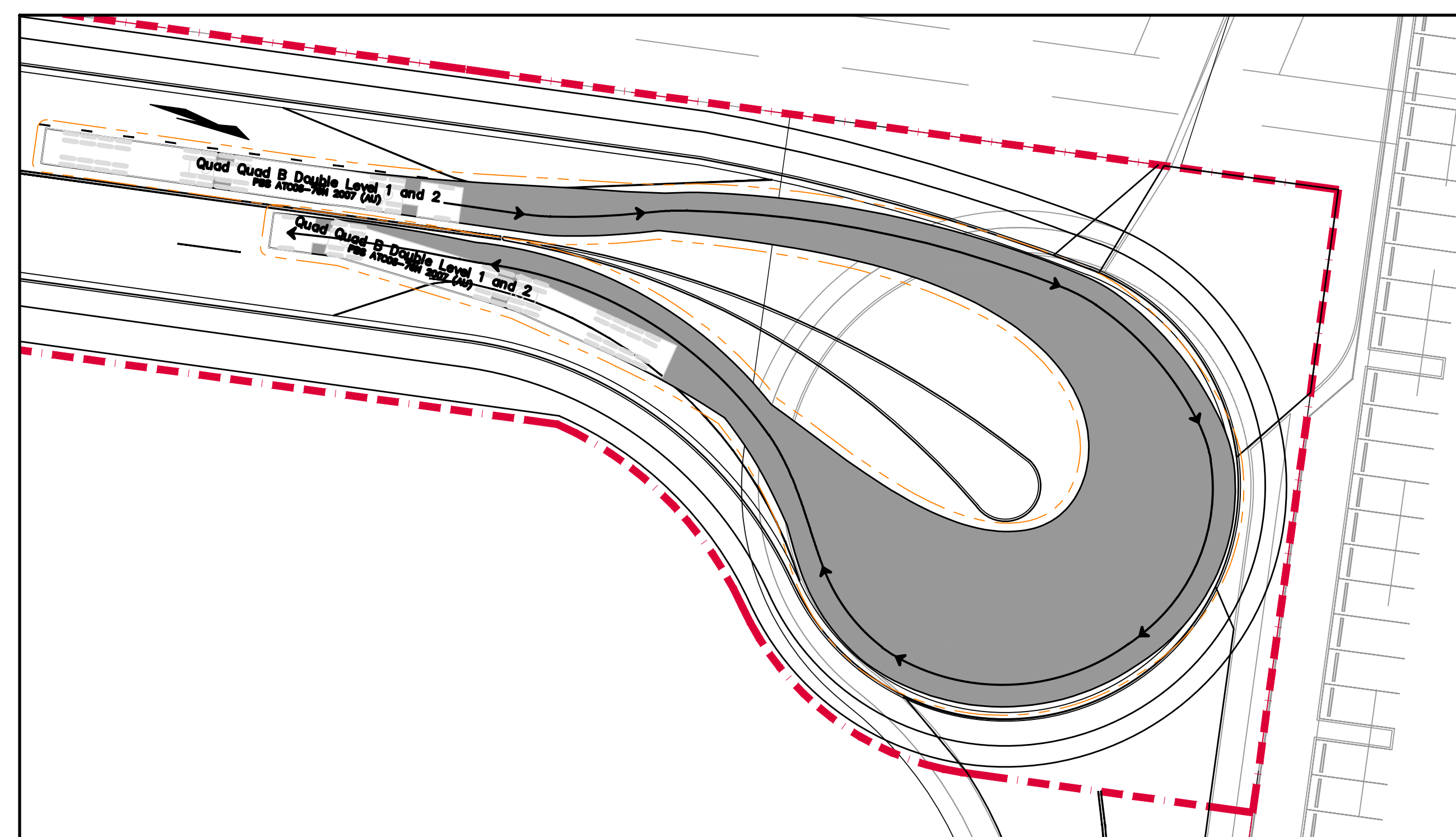
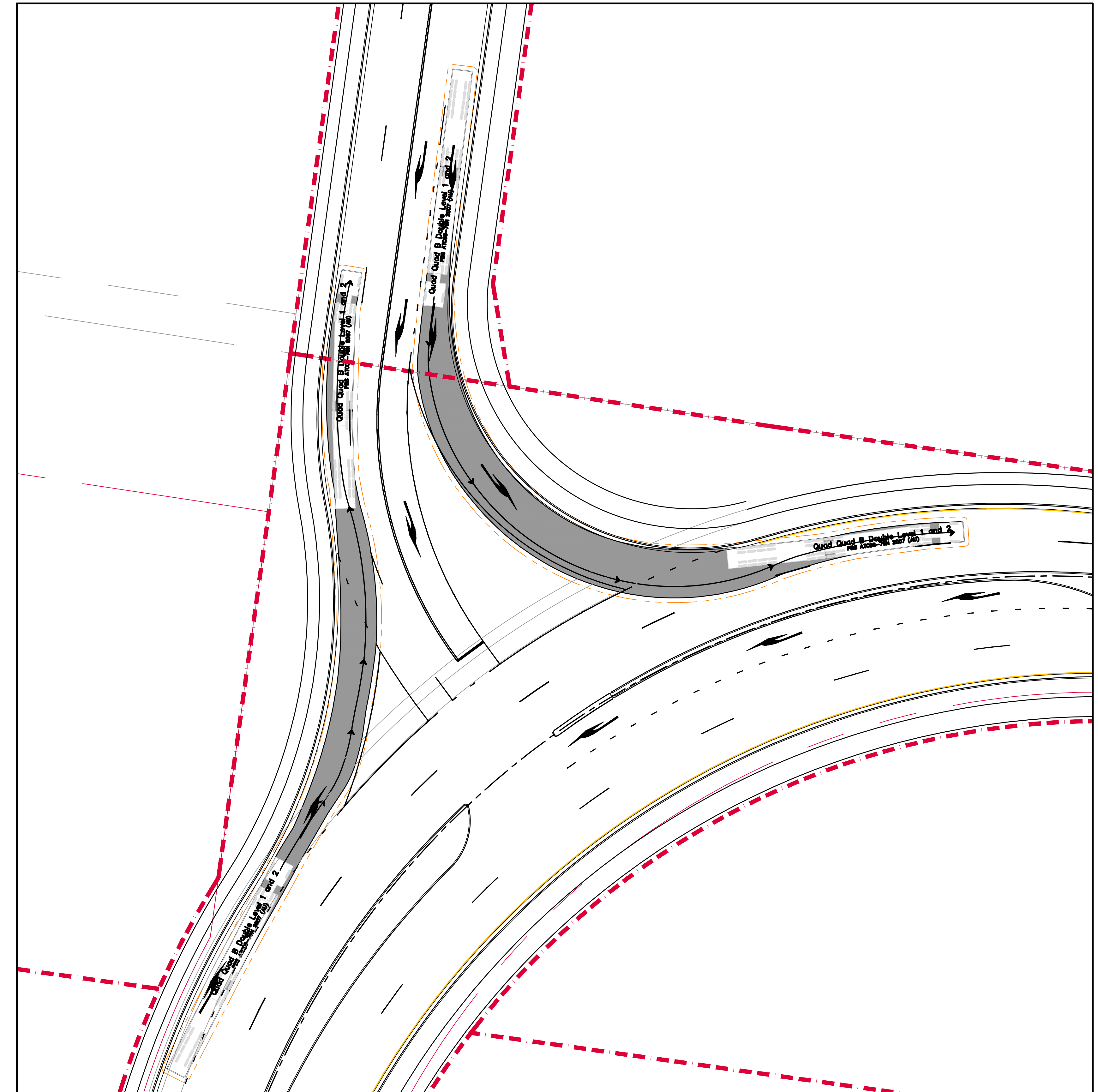
TURNING PATHS PLAN-SHEET 2
STAGE 1 INTERSECTION
MOD 3

DRAWING NO.

C013362-02-SK3-05

ISSUE

A

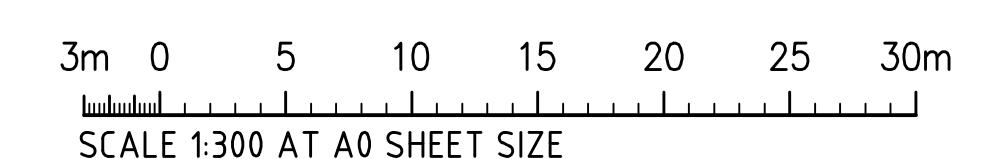


NOTE:
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COMPUTER SOFTWARE AUTODESK AUTOTURN.
THE VEHICLES ADOPTED ARE BASED UPON VEHICLE DATA
PROVIDED BY THE SOFTWARE FOR AUSTROADS & AS2890.

SWEPT PATH NOTE:
SWEPT PATH RUN SPEED 15km/h.

———— VEHICLE BODY PATH

----- VEHICLE BODY PATH
600mm CLEARANCE



FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION			12.08.22			A		
AMENDMENTS:			DATE			ISSUE		
AMENDMENTS			DATE			ISSUE		

	CLIENT
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ALTIS
PROPERTY PARTNERS



PROJECT
MAMRE SOUTH PRECINCT
657 - 708 MAMRE ROAD
KEMPS CREEK, 2178, NSW

DESIGNED MW	DRAWN MC	DATE NOV 21	CHECKED MW	SIZE A0	SCALE AS SHOWN	CAD REF: C013362 02-SK3
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CONSULT AUSTRALIA

Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446

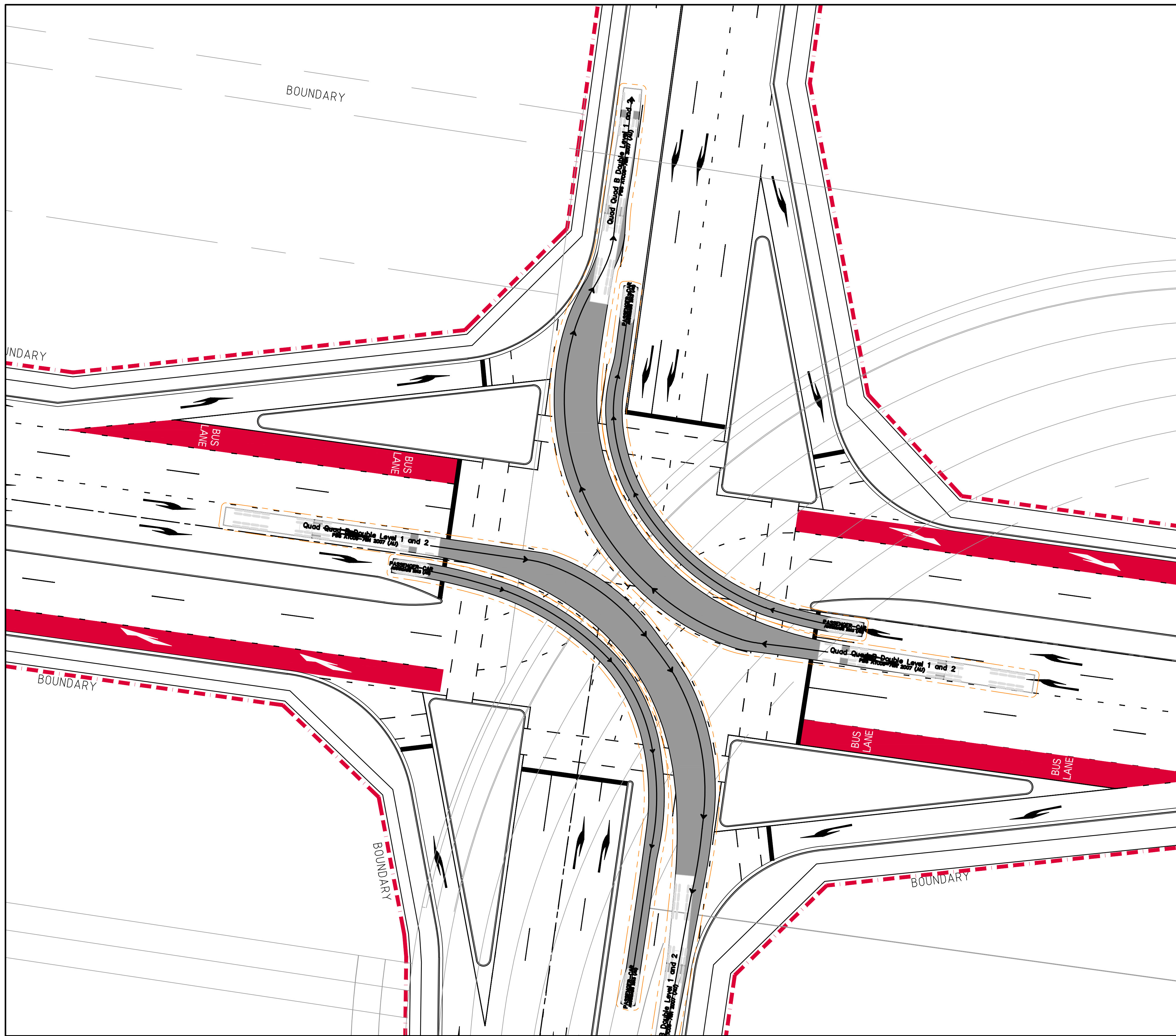
PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au

CRC
COSTIN ROE
CONSULTING

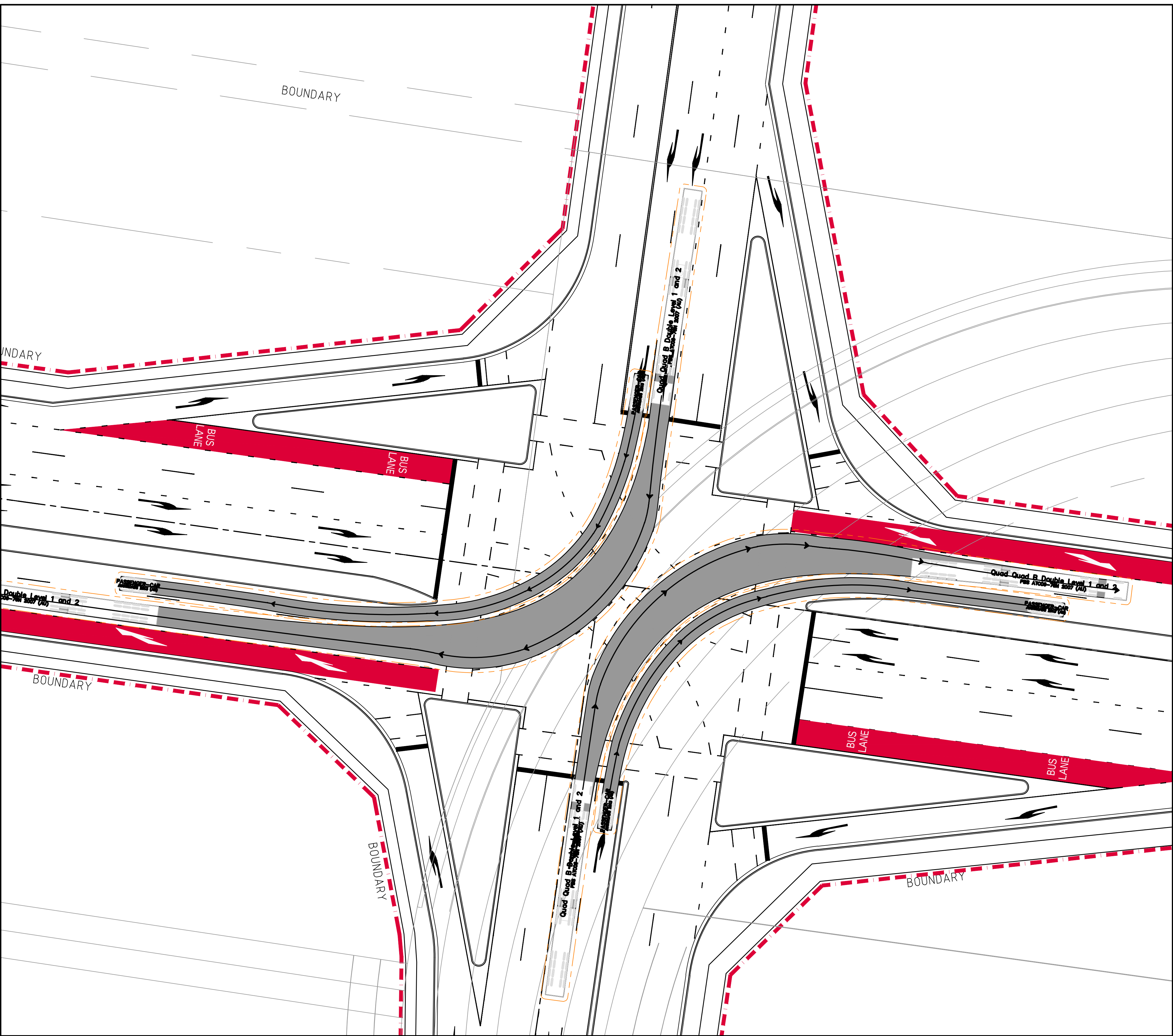
**CIVIL &
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ENGINEERS**

DRAWING TITLE	TURNING PATHS PLAN-SHEET 3
	STAGE 2 INTERSECTION
	MOD 3
DRAWING No.	C013362 02-SK3-06

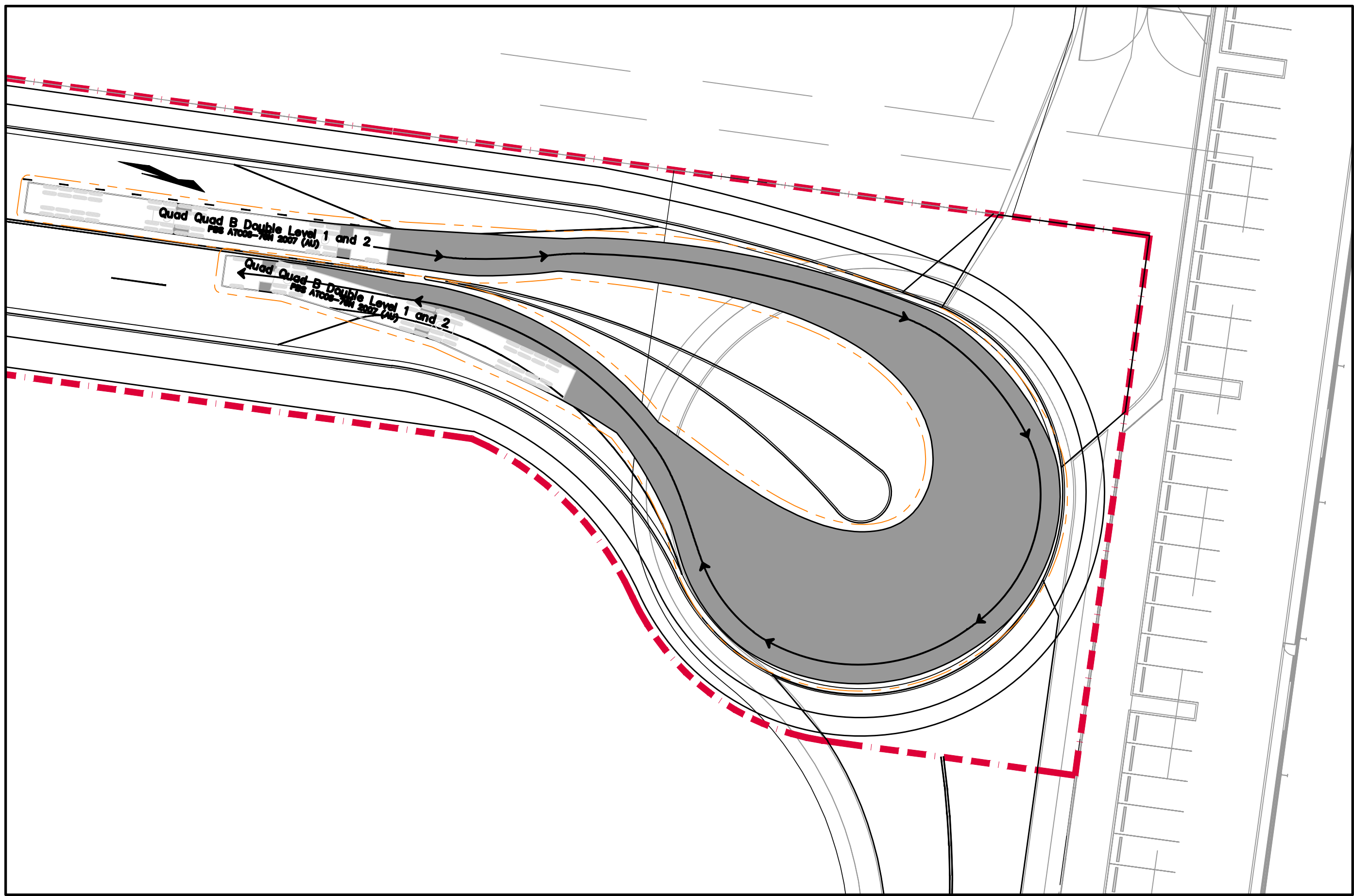
SUE
A



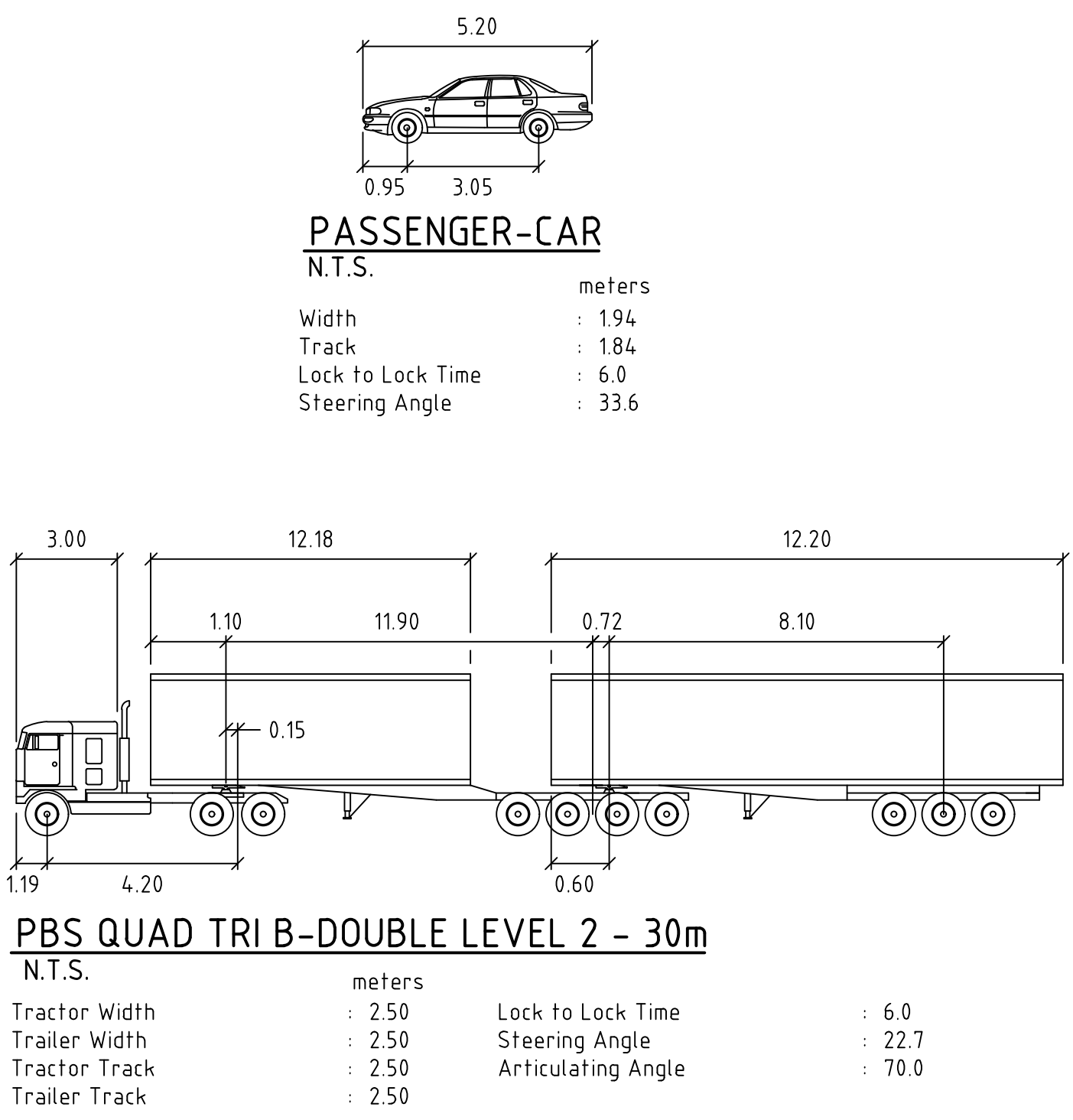
TUNRING PATHS PLAN-RIGHT TURN
SCALE 1:300



TUNRING PATHS PLAN-RIGHT TURN
SCALE 1:300

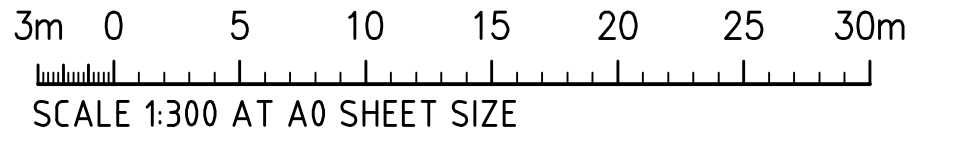


TUNRING PATHS PLAN-TURNING HEAD
SCALE 1:300

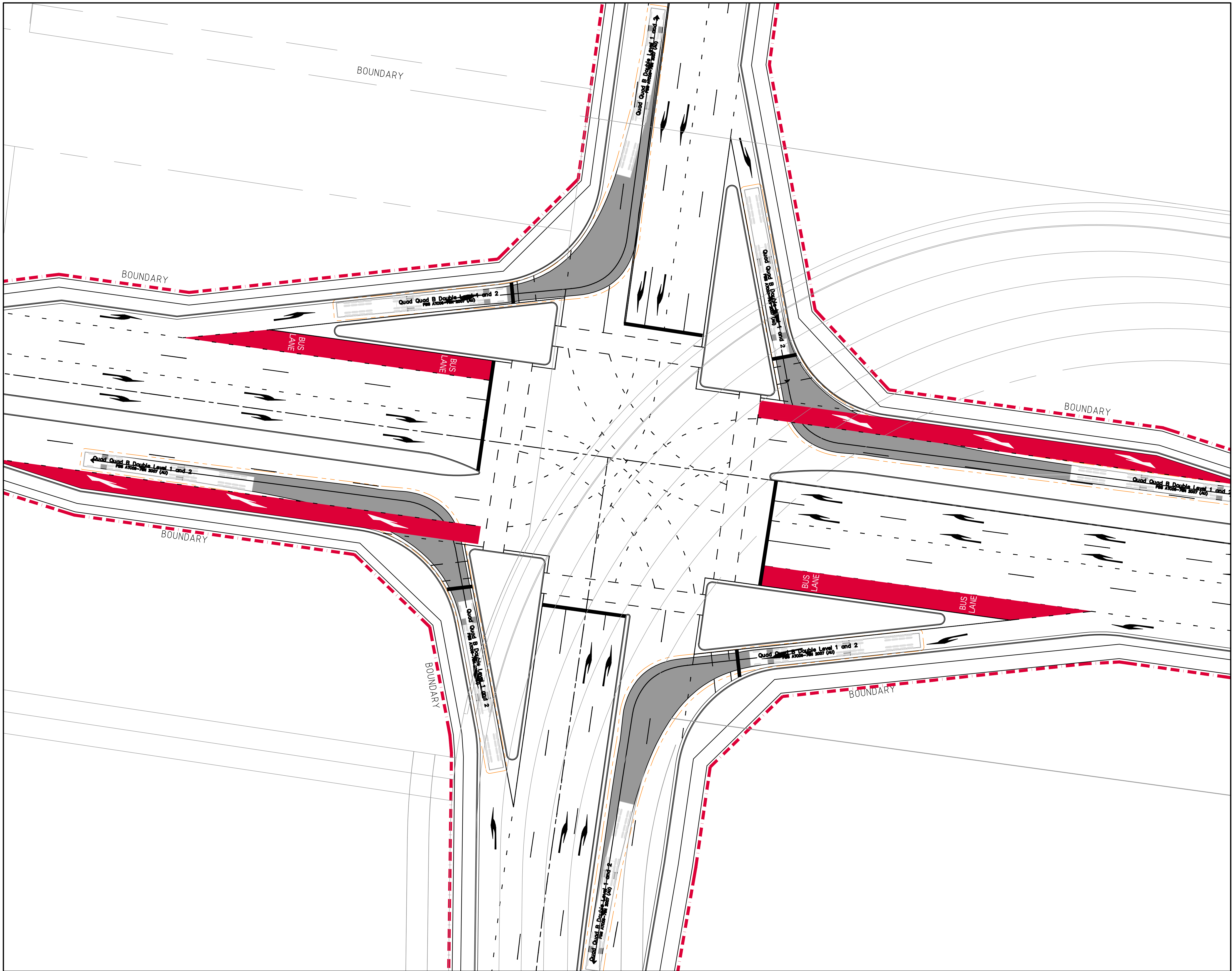


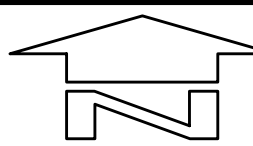
NOTE:
THIS PLAN HAS BEEN PRODUCED USING VEHICLE MODELLING
COMPUTER SOFTWARE AUTODESK AUTOTURN.
THE VEHICLES ADOPTED ARE BASED UPON VEHICLE DATA
PROVIDED BY THE SOFTWARE FOR AUSTRROADS & AS2890.

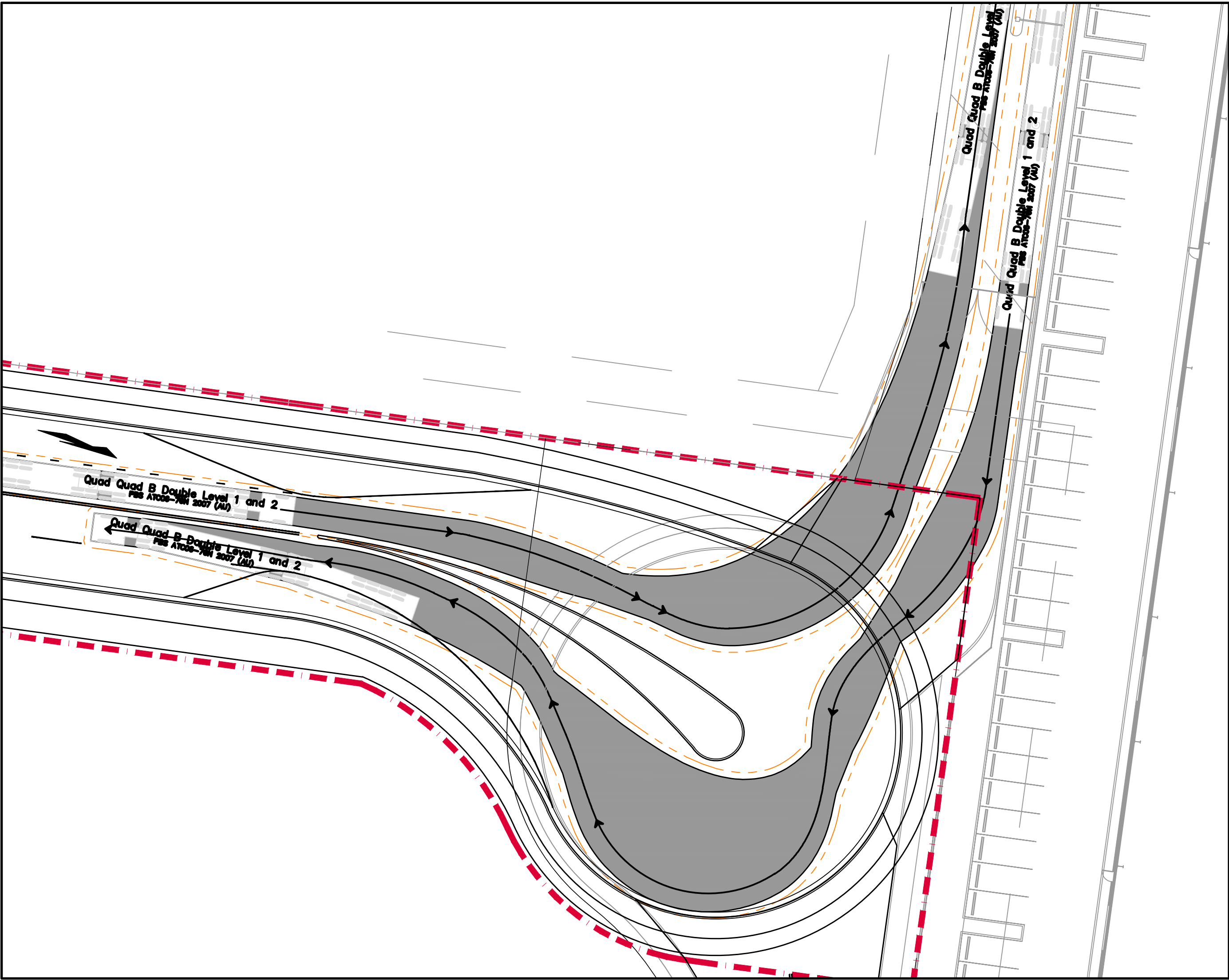
SWEPT PATH NOTE:
SWEPT PATH RUN SPEED 15km/h.
— VEHICLE BODY PATH
- - - VEHICLE BODY PATH
600mm CLEARANCE

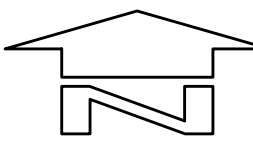


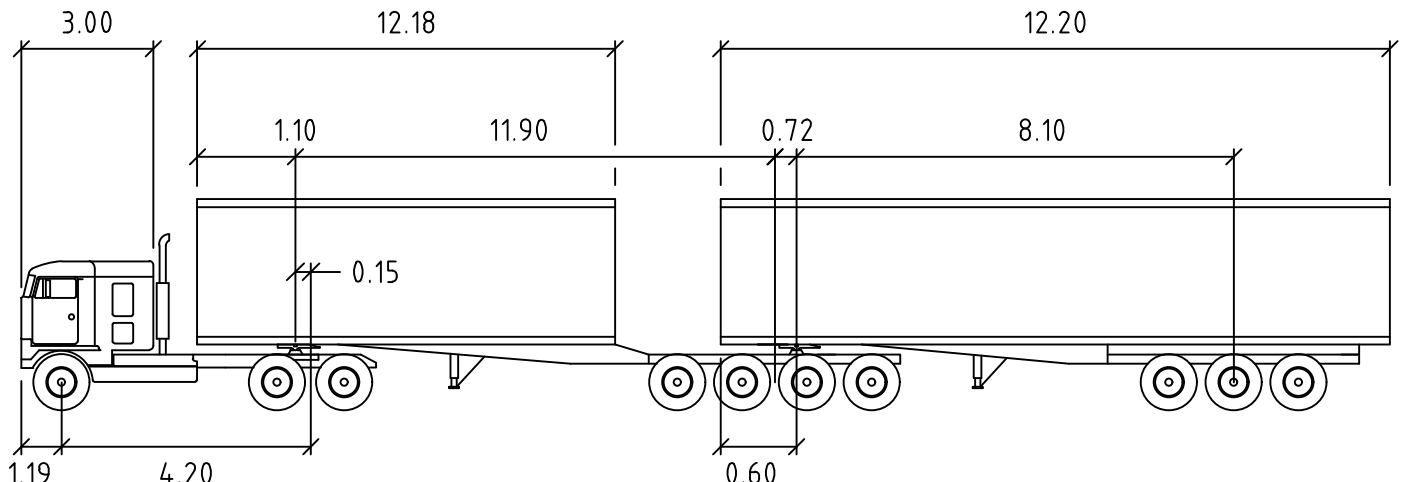
FOR DEVELOPMENT APPLICATION



 TURNING PATHS PLAN-LEFT TURN
SCALE 1:300



 TURNING PATHS PLAN-LOT 2 ACCESS
SCALE 1:300

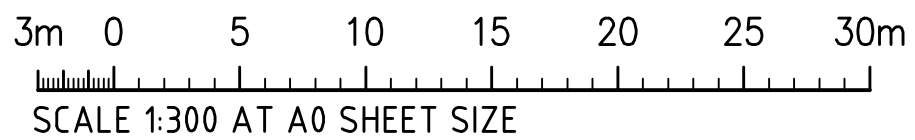


PBS QUAD TRI B-DOUBLE LEVEL 2 - 30m
N.T.S.

Tractor Width	2.50	Lock to Lock Time	6.0
Trailer Width	2.50	Steering Angle	22.7
Tractor Track	2.50	Articulating Angle	70.0
Trailer Track	2.50		

NOTE:
THIS PLAN HAS BEEN PRODUCED USING VEHICLE MODELLING
COMPUTER SOFTWARE AUTODESK AUTURN.
THE VEHICLES ADOPTED ARE BASED UPON VEHICLE DATA
PROVIDED BY THE SOFTWARE FOR AUSTRROADS & AS2890.

SWEPT PATH NOTE:
SWEPT PATH RUN SPEED 15km/h.
— VEHICLE BODY PATH
- - - VEHICLE BODY PATH
600mm CLEARANCE



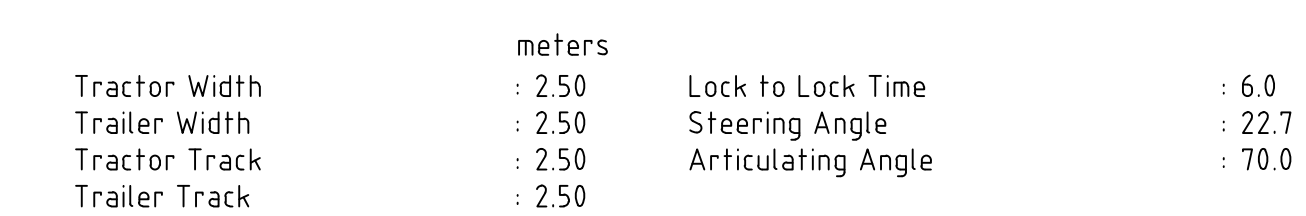
FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION				AMENDMENTS			
DATE	12.08.22	ISSUE	A	DATE	ISSUE	AMENDMENTS	DATE
AMENDMENTS		DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS

CLIENT		PROJECT		DESIGNED		CHECKED		SCALE		CAD REF.	
ALTIS PROPERTY PARTNERS		MAMRE SOUTH PRECINCT		MW		MW		A0		C013362-02-SK3-08	
FRASERS PROPERTY		657 - 708 MAMRE ROAD		DATE		NOV 21		AS SHOWN			
		KEMPS CREEK, 2178, NSW									

CONSULT AUSTRALIA		Costin Roe Consulting Pty Ltd.		CRC COSTIN ROE CONSULTING		CIVIL & STRUCTURAL ENGINEERS	
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DRAWING TITLE		DRAWING NO		ISSUE	
TURNING PATHS PLAN-SHEET 5		C013362-02 - SK3-08		A	
STAGE 2 INTERSECTION					
MOD 3					



SWEPT PATH NOTE:
SWEPT PATH RUN SPEED 15km/h.

	VEHICLE BODY PATH
	VEHICLE BODY PATH 600mm CLEARANCE



DRAWING TITLE		ISSUE
TURNING PATHS PLAN-SHEET 7		A
STAGE 2 INTERSECTION		
MOD 3		
DRAWING No	C013362.02-SK3-10	