Cardno (Qld) Pty Ltd | ABN 57 051 074 992
Level 1, 520 Flinders Street
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Tel: 07 4772 1166 Fax: 07 4721 2508
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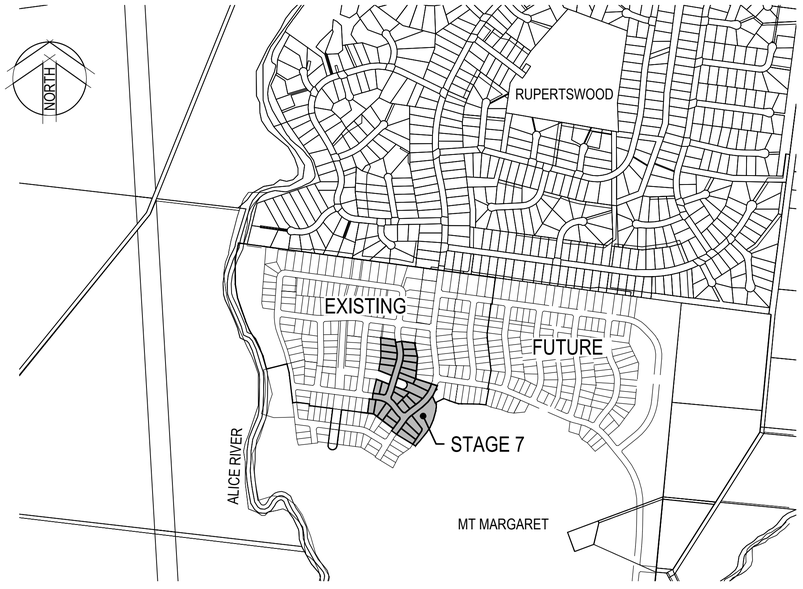
MOUNT MARGARET DEVELOPMENTS PTY LTD

MOUNT MARGARET, ALICE RIVER
STAGE 7

SITE PLAN



LOCALITY PLAN

967192-CI-700
Drawing Number

B
Revision

DATE PLOTTED: 2 July 2020 12:51 PM BY: - JAMES WONG
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96711\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-700.dwg

DATE PLOTTED: 2 July 2020 3:21 PM BY: - JAMES WONG

SCHEDULE OF DRAWINGS

DRAWING No.	DESCRIPTION
967192-CI-700	COVER
967192-CI-701	DRAWING INDEX & ALLOTMENT LAYOUT PLAN
967192-CI-702	CONTROL LINE GEOMETRY PLAN
967192-CI-703	EARTHWORKS LAYOUT PLAN SHEET 1 OF 3
967192-CI-704	EARTHWORKS LAYOUT PLAN SHEET 2 OF 3
967192-CI-705	EARTHWORKS LAYOUT PLAN SHEET 3 OF 3
967192-CI-706	ROADWORKS & STORMWATER DRAINAGE PLAN SHEET 1 OF 3
967192-CI-707	ROADWORKS & STORMWATER DRAINAGE PLAN SHEET 2 OF 3
967192-CI-708	ROADWORKS & STORMWATER DRAINAGE PLAN SHEET 3 OF 3
967192-CI-709	ROADWORKS LONGITUDINAL SECTION - CRYSTAL CRESCENT (ROAD F)
967192-CI-710	ROADWORKS CROSS SECTIONS - CRYSTAL CRESCENT (ROAD F)
967192-CI-711	ROADWORKS LONGITUDINAL SECTION - CRYSTAL CRESCENT (ROAD I)
967192-CI-712	ROADWORKS CROSS SECTIONS - CRYSTAL CRESCENT (ROAD I) - SHEET 1 OF 2
967192-CI-713	ROADWORKS CROSS SECTIONS - CRYSTAL CRESCENT (ROAD I) - SHEET 2 OF 2
967192-CI-714	ROADWORKS LONGITUDINAL SECTION - DIAMOND DRIVE (ROAD J)
967192-CI-715	ROADWORKS CROSS SECTIONS - DIAMOND DRIVE (ROAD J) - SHEET 1 OF 2
967192-CI-716	ROADWORKS CROSS SECTIONS - DIAMOND DRIVE (ROAD J) - SHEET 1 OF 2
967192-CI-717	INTERSECTION DETAIL PLANS SHEET 1 OF 2
967192-CI-718	INTERSECTION DETAIL PLANS SHEET 2 OF 2
967192-CI-719	WATER RETICULATION LAYOUT PLAN SHEET 1 OF 3
967192-CI-720	WATER RETICULATION LAYOUT PLAN SHEET 2 OF 3
967192-CI-721	WATER RETICULATION LAYOUT PLAN SHEET 3 OF 3
967192-CI-722	CULVERT DETAILS
967192-CI-723	MISCELLANEOUS DETAILS
967192-CI-724	BUILDING ENVELOPE & DRIVEWAY ACCESS PLAN SHEET 1 OF 3
967192-CI-725	BUILDING ENVELOPE & DRIVEWAY ACCESS PLAN SHEET 2 OF 3
967192-CI-726	BUILDING ENVELOPE & DRIVEWAY ACCESS PLAN SHEET 3 OF 3
967192-CI-727	SOIL EROSION & SEDIMENT CONTROL PLAN SHEET 1 OF 3
967192-CI-728	SOIL EROSION & SEDIMENT CONTROL PLAN SHEET 2 OF 3
967192-CI-729	SOIL EROSION & SEDIMENT CONTROL PLAN SHEET 3 OF 3
967192-CI-730	SOIL EROSION, SEDIMENT CONTROL DETAILS SHEET 1 OF 2
967192-CI-731	SOIL EROSION, SEDIMENT CONTROL DETAILS SHEET 2 OF 2
967192-CI-732	Q50 DRAINAGE CATCHMENT PLAN SHEET 1 OF 2
967192-CI-733	Q50 DRAINAGE CATCHMENT PLAN SHEET 2 OF 2

GENERAL

1. IF IN DOUBT ASK.
2. PROJECT COMPLETED ON PSM121521, LEVEL DATUM AHD (DER) REDUCED LEVEL 50.627, AZIMUTH MGA'94
3. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL INFORMATION ISSUED BY THE SUPERINTENDENT DURING THE COURSE OF THE CONTRACT.
4. DRAWINGS SHALL NOT BE SCALED
5. ALL DIMENSIONS RELEVANT TO SETTING OUT, SURFACE LEVELS AND INVERT LEVELS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL ENSURE THAT ALL WORKS ARE MAINTAINED IN A SAFE AND STABLE CONDITION AND THAT ADEQUATE PROTECTION AGAINST EROSION AND SILTATION IS IN PLACE
7. WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT CURRENT AUSTRALIAN STANDARDS AND THE REQUIREMENTS OF TOWNSVILLE CITY COUNCIL AND OTHER AUTHORITIES AS REQUIRED

SAFETY IN DESIGN AND CONSTRUCTION

1. ALL EXCAVATIONS SHALL BE CARRIED OUT BY EXPERIENCED CONTRACTORS. ANY EXCAVATION SHALL BE ADEQUATELY SHORED IN ACCORDANCE WITH WORK PLACE STANDARDS WITH SUITABLE BARRICADES PLACED AROUND THE EXCAVATION.
2. CONSTRUCTION ACTIVITY CAN BE HAZARDOUS. POTENTIAL SAFETY HAZARDS CONSIDERED BY THE DESIGNERS TO HAVE A HIGHER RISK THAN NORMAL CONSTRUCTION ACTIVITY ARE IDENTIFIED WITH APPROPRIATE NOTES ON THESE DRAWINGS. IT SHOULD BE NOTED THAT DESIGNERS HAVE A LOWER LEVEL OF UNDERSTANDING OF THE RISKS INVOLVED IN CONSTRUCTION COMPARED TO THAT OF A COMPETENT CONTRACTOR. IT IS THEREFORE ESSENTIAL THAT AN ADEQUATE SAFETY PLAN IS PREPARED BY THE CONTRACTOR FOR THE WORKS. SAFETY PLANS ARE TO BE PREPARED IN COMPLIANCE WITH THE STATUTORY REQUIREMENTS. THE DESIGNERS MAY NOT BE AWARE OF ALL SAFETY RISKS AND HAZARDS INVOLVED IN THIS PROJECT AND THE ABSENCE OF COMMENT DOES NOT IMPLY THAT THERE ARE ONLY LOW LEVEL RISKS OR HAZARDS INVOLVED IN THIS PROJECT. APPROPRIATE WORK METHOD STATEMENTS ARE TO BE PREPARED FOR HIGH RISK ACTIVITY BY THE CONTRACTOR. THE DESIGNERS ARE AVAILABLE TO BE CONSULTED WHEN REQUIRED CONCERNING THEIR AREA OF CONTROL WITH REGARDS TO SAFETY PLANS.

PLAN
SCALE 1:2500 @ A1

Rev.	Date	Description	Des.	Verif.	Appd.
B	01/07/2020	LOT AMENDMENT	LL	MB	MB
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 50 100 150 200 250m
SCALE 1:2500 @A1

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Web: www.cardno.com.au

Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER
STAGE 7
Title: DRAWING INDEX & ALLOTMENT LAYOUT PLAN

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-701
Revision: B

XREFs: XR-967192-MASTER; XR-967192-CADASTRAL
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-701.dwg

DATE PLOTTED: 2 July 2020 3:20 PM BY: JAMES WONG

CONTROL LINE GEOMETRY - CRYSTAL CRESCENT (ROAD F)

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	57010.629	861185.737	97°22'54.53"			
TC	433.567	57440.602	861130.032	97°22'54.53"			
IP 2	472.939	57481.799	861124.695		R = 100.000	78.745	45°07'02.85"
CT	512.311	57507.088	861091.738	142°29'57.37"			
TC	551.021	57530.654	861061.028	142°29'57.37"			
IP 3	561.619	57537.129	861052.588		R = -100.000	21.196	12°08'38.87"
CT	572.216	57545.236	861045.700	130°21'18.51"			
IP 4	597.811	57564.740	861029.127	130°21'18.51"			

CONTROL LINE GEOMETRY - CRYSTAL CRESCENT (ROAD I)

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	90.770	57533.909	861400.988	170°33'33.72"			
TC	127.503	57539.934	861364.752	170°33'33.72"			
IP 2	162.344	57545.754	861329.752		R = 150.000	69.681	26°36'57.83"
CT	197.184	57535.277	861295.853	197°10'31.54"			
TC	338.385	57493.580	861160.949	197°10'31.54"			
IP 3	345.945	57491.344	861153.712		R = 100.000	15.120	8°39'48.10"
CT	353.505	57488.042	861146.895	205°50'19.64"			
IP 4	384.283	57474.628	861119.194	205°50'19.64"			

CONTROL LINE GEOMETRY - DIAMOND DRIVE (ROAD J)

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	564.819	57709.635	861190.494	197°57'46.42"			
IP 2	625.096	57690.461	861131.353		R = 199.999	120.555	34°32'11.09"
IP 3	685.374	57641.138	861093.505				
TC	748.452	57591.095	861055.105	232°29'57.37"			
IP 4	769.647	57574.167	861042.115		R = -150.000	42.391	16°11'31.82"
CT	790.843	57561.533	861024.920	216°18'25.55"			
TC	875.029	57511.685	860957.078	216°18'25.55"			
IP 5	896.434	57499.003	860939.818		R = -500.000	42.809	4°54'20.13"
CT	917.839	57487.844	860921.537	211°24'05.42"			
IP 6	1026.388	57431.286	860828.887	211°24'05.42"			

PLAN
SCALE 1:1000 @ A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 20 40 60 80 100m
SCALE 1:1000 @A1

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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER
STAGE 7
Title: CONTROL LINE GEMOETRY PLAN

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-702
Revision: A

XREFs:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96600\96719671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-702.dwg

DATE PLOTTED: 1 July 2020 9:16 AM BY: LACHLAN LANDY

JOINS 967192-CI-704

PLAN

SCALE 1:500 @ A1

NOTES

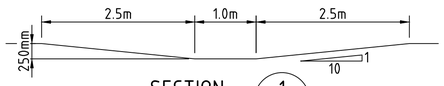
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH COUNCIL STANDARD ROADWORKS AND STORMWATER DRAWINGS.
2. ALL BACKFILL TO BE COMPACTED TO NOT LESS THAN 95% OF THE STANDARD MAXIMUM DRY DENSITY TO AS1289 IN MAXIMUM 150mm LAYERS UNLESS NOTED OTHERWISE.
3. ALL CHAINAGES SHOWN ARE PEGGED CHAINAGES UNLESS SHOWN OTHERWISE.
4. ALLOTMENTS TO BE GRADED EVENLY BETWEEN LEVELS SHOWN. CONSTRUCTED LOT GRADE TO BE MINIMUM 1:400.
5. ALL BATTERS WITHIN ALLOTMENTS TO BE MAXIMUM 1 : 6 UNLESS NOTED OTHERWISE.

LEGEND

- 51.00 — EXISTING SURFACE CONTOURS
- 51.00 — DESIGN SURFACE CONTOURS
- FS 11.05 FILL 0.40 — FINISHED ALLOTMENT LEVEL WITH CUT/FILL VALUE
- FS 11.05 EXIST — EXISTING ALLOTMENT LEVEL
- TOP OF BATTER
- BOTTOM OF BATTER

Q50 LEVELS

CRYSTAL CRESCENT (ROAD I)		
CHAINAGE	LHS LEVEL	RHS LEVEL
90.770	52.6	52.5
100	52.7	52.6
125	52.8	52.7
150	53.0	52.9
175	53.2	53.0
200	53.3	53.1
225	53.4	53.1
250	53.5	53.1
275	53.6	52.7
300	53.6	52.7
325	53.8	53.9
350	54.0	54.0



SECTION 1 -
SCALE 1:50m

Rev.	Date	Description	Des.	Verif.	Appd.
B	1/07/2020	LEVEL AMMENDMENTS	JN	MB	MB
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 20 40 60 80 100m
SCALE 1:1000 @A1

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		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	9/02/2018

Approved 10801

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: EARTHWORKS LAYOUT PLAN
SHEET 1 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

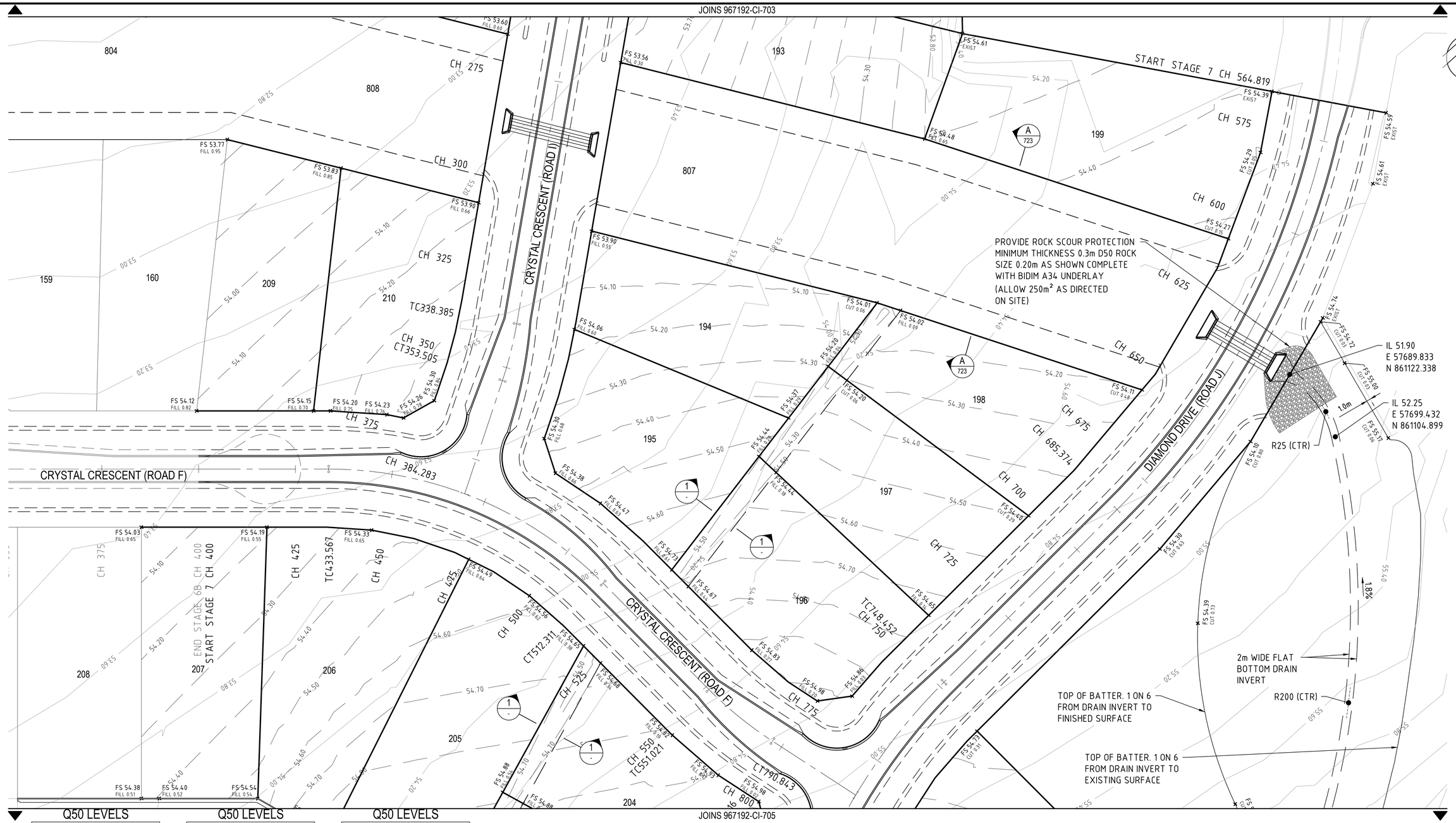
Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-703
Revision: B

XREFs: XR-967192-CADASTRAL; XR-967192-MASTER; XR-967192-EXISTING-CONTOURS-STG678; XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967119671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-703.dwg

DATE PLOTTED: 2 July 2020 12:56 PM BY - JAMES WONG

JOINS 967192-CI-703



JOINS 967192-CI-705

Q50 LEVELS

CRYSTAL CRESCENT (ROAD F)

CHAINAGE	LHS LEVEL	RHS LEVEL
400	53.7	54.0
425	53.9	54.1
450	54.1	54.2
475	54.0	54.3
500	54.2	54.4
525	54.4	54.5
550	54.5	54.6
575	54.6	54.7

Q50 LEVELS

CRYSTAL CRESCENT (ROAD I)

CHAINAGE	LHS LEVEL	RHS LEVEL
90.770	52.6	52.5
100	52.7	52.6
125	52.8	52.7
150	53.0	52.9
175	53.2	53.0
200	53.3	53.1
225	53.4	53.1
250	53.5	53.1
275	53.6	52.7
300	53.6	52.7
325	53.8	53.9
350	54.0	54.0

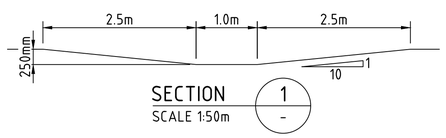
Q50 LEVELS

DIAMOND DRIVE (ROAD J)

CHAINAGE	LHS LEVEL	RHS LEVEL
600	54.1	53.6
625	54.1	53.6
650	54.1	53.6
675	54.3	54.3
700	54.4	54.3
725	54.6	54.4
750	54.7	54.6
775	54.9	54.7
800	55.0	54.7
825	55.1	54.9
850	55.2	55.0
875	55.3	55.1

PLAN

SCALE 1:500 @ A1



SECTION 1 - SCALE 1:50m

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH COUNCIL STANDARD ROADWORKS AND STORMWATER DRAWINGS.
2. ALL BACKFILL TO BE COMPACTED TO NOT LESS THAN 95% OF THE STANDARD MAXIMUM DRY DENSITY TO AS1289 IN MAXIMUM 150mm LAYERS UNLESS NOTED OTHERWISE.
3. ALL CHAINAGES SHOWN ARE PEGGED CHAINAGES UNLESS SHOWN OTHERWISE.
4. ALLOTMENTS TO BE GRADED EVENLY BETWEEN LEVELS SHOWN. CONSTRUCTED LOT GRADE TO BE MINIMUM 1:400.
5. ALL BATTERS WITHIN ALLOTMENTS TO BE MAXIMUM 1 : 6 UNLESS NOTED OTHERWISE.

LEGEND

- —51.00— EXISTING SURFACE CONTOURS
- – –51.00– – DESIGN SURFACE CONTOURS
- FS 11.05 FILL 0.40 FINISHED ALLOTMENT LEVEL WITH CUT/FILL VALUE
- FS 11.05 EXIST EXISTING ALLOTMENT LEVEL
- ——— TOP OF BATTER
- — — — BOTTOM OF BATTER

Rev.	Date	Description	Des.	Verif.	Appd.
B	1/07/2020	LEVEL AMMENDMENTS	JN	MB	MB
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m
SCALE 1:500 @A1

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Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: EARTHWORKS LAYOUT PLAN
SHEET 2 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-704
Revision: B

XREFs: XR-967192-CADASTRAL; XR-967192-MASTER; XR-967192-EXISTING-CONTOURS-STG678; XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967119677-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-704.dwg

DATE PLOTTED: 1 July 2020 3:25 PM BY : LACHLAN LANDY

JOINS 967192-CI-704

CRYSTAL CRESCENT (ROAD F)

DIAMOND DRIVE (ROAD J)

CH 425 TC433.567 CH 450 CH 475 CH 500 CT512.311 CH 525 CH 550 TC551.021 CT790.843 CH 575 CT572.216 CH 597.811 CH 725 TC748.452 CH 750 CH 775 CH 800 CH 825 CH 850 END OF STAGE 7 CH 875

BATTER DOWN AT 1:6 TO EXISTING SURFACE

BATTER UP TO EXISTING AT 1:6

TOP OF BATTER. 1 ON 6 FROM DRAIN INVERT TO FINISHED SURFACE

TOP OF BATTER. 1 ON 6 FROM DRAIN INVERT TO EXISTING SURFACE

2m WIDE FLAT BOTTOM DRAIN INVERT

R200 (CTR)

IL 55.05
E 57655.734
N 860959.112

IL 55.48
E 57609.805
N 860895.633

NORTH

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH COUNCIL STANDARD ROADWORKS AND STORMWATER DRAWINGS.
2. ALL BACKFILL TO BE COMPACTED TO NOT LESS THAN 95% OF THE STANDARD MAXIMUM DRY DENSITY TO AS1289 IN MAXIMUM 150mm LAYERS UNLESS NOTED OTHERWISE.
3. ALL CHAINAGES SHOWN ARE PEGGED CHAINAGES UNLESS SHOWN OTHERWISE.
4. ALLOTMENTS TO BE GRADED EVENLY BETWEEN LEVELS SHOWN. CONSTRUCTED LOT GRADE TO BE MINIMUM 1:400.
5. ALL BATTERS WITHIN ALLOTMENTS TO BE MAXIMUM 1 : 6 UNLESS NOTED OTHERWISE.

LEGEND

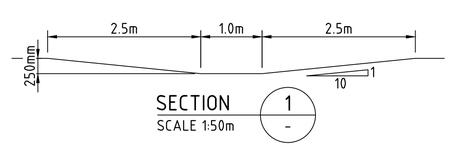
- —51.00— EXISTING SURFACE CONTOURS
- – –51.00– – DESIGN SURFACE CONTOURS
- FS 11.05 FILL 0.40 FINISHED ALLOTMENT LEVEL WITH CUT/FILL VALUE
- FS 11.05 EXIST EXISTING ALLOTMENT LEVEL
- TOP OF BATTER
- — — — BOTTOM OF BATTER

Q50 LEVELS

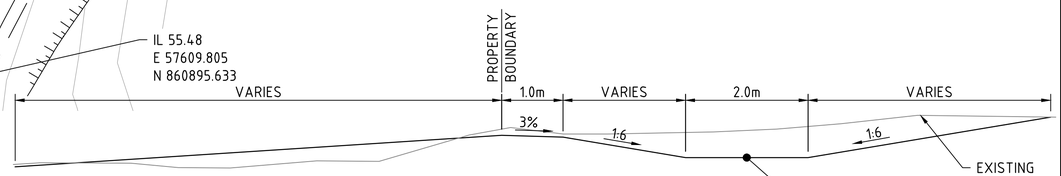
CRYSTAL CRESCENT (ROAD F)		
CHAINAGE	LHS LEVEL	RHS LEVEL
400	53.7	54.0
425	53.9	54.1
450	54.1	54.2
475	54.0	54.3
500	54.2	54.4
525	54.4	54.5
550	54.5	54.6
575	54.6	54.7

Q50 LEVELS

DIAMOND DRIVE (ROAD J)		
CHAINAGE	LHS LEVEL	RHS LEVEL
600	54.1	53.6
625	54.1	53.6
650	54.1	53.6
675	54.3	54.3
700	54.4	54.3
725	54.6	54.4
750	54.7	54.6
775	54.9	54.7
800	55.0	54.7
825	55.1	54.9
850	55.2	55.0
875	55.3	55.1



SECTION 1 (-)
SCALE 1:50m



SECTION 2 (-)
SCALE 1:50m

PLAN
SCALE 1:500 @ A1

Rev.	Date	Description	Des.	Verif.	Appd.
B	1/07/2020	LEVEL AMMENDMENTS	JN	MB	MB
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

SCALE 1:1 @A1 (0 0.02 0.04 0.06 0.08 0.1m)

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Web: www.cardno.com.au

		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER STAGE 7

Title: EARTHWORKS LAYOUT PLAN SHEET 3 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

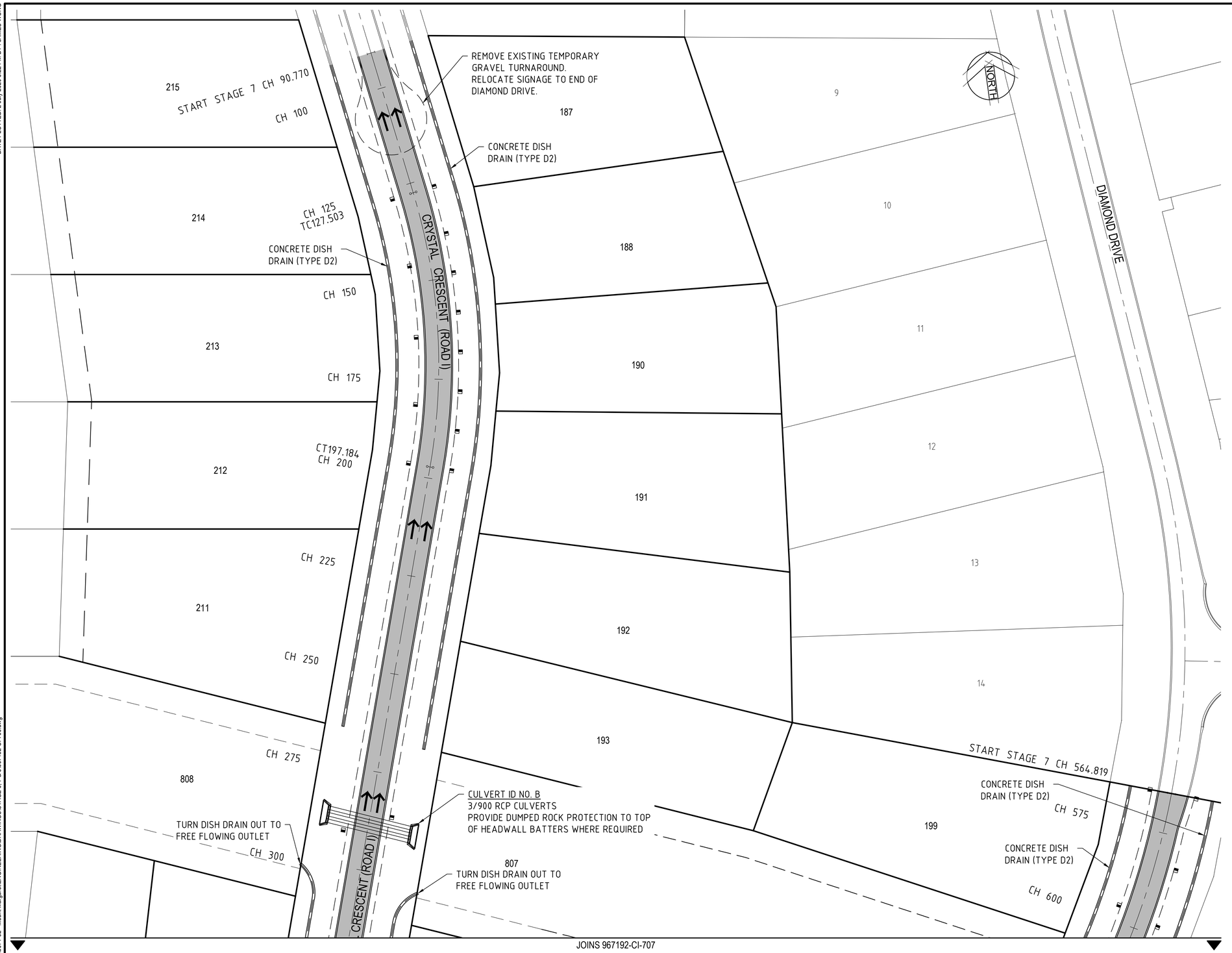
Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-705

Revision: B

XREFs: XR-967192-CADASTRAL; XR-967192-MASTER; XR-967192-EXISTING-CONTOURS-STG6?8; XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\6?1-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-705.dwg

DATE PLOTTED: 2 July 2020 3:22 PM BY: - JAMES WONG



STORMWATER NOTES

1. ALL DRAINAGE LINES TO BE RCBC'S UNLESS NOTED OTHERWISE, REFER DRAWING 967192-CI-722 FOR DRAINAGE DETAILS
2. CRUSHER DUST TO BE USED FOR BACKFILLING OF ALL LINES THAT ARE LOCATED UNDER ROADWAYS.
3. HEADWALLS ARE BY OTHERS.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE CONSTRUCTION VEHICLES DO NOT BREAK OR DAMAGE STORMWATER ALREADY LAID DURING THE COURSE OF CONSTRUCTION.
5. TRENCH WALLS FOR SERVICES WILL NEED TO BE BATTERED FOR CONSTRUCTION SAFETY.
6. FOR MISCELLANEOUS DETAILS REFER TO DRAWING 967192-CI-723
7. FOR Q100 DRAINAGE CROSS SECTIONS REFER TO DRAWINGS 967192-CI-722
8. FOR Q50 DRAINAGE CATCHMENT DETAILS REFER TO DRAWING 967192-CI-732

ROADWORKS NOTES

1. ALL CHAINAGES SHOWN ARE PEGGED CHAINAGES UNLESS SHOWN OTHERWISE.
2. FOR STREET NAME SIGN AND INSTALLATION DETAILS REFER COUNCIL STANDARD DRAWING SD-065.
3. FOR ROAD LONGITUDINAL & TYPICAL CROSS SECTIONS REFER TO DRAWINGS 967192-CI-709 TO 967192-CI-716
4. FOR INTERSECTION DETAILS REFER TO DRAWING 967192-CI-717 AND 718
5. EXISTING SERVICES ARE LOCATED WITHIN THE SITE. THE CONTRRACTOR IS TO LOCATE ALL SERVICES BY CONTACTING THE RELEVENT AUTHORITY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
6. FOR KERB AND CHANNEL DETAILS, REFER COUNCIL STANDARD DRAWING SD-020 AND DRAWING 967192-CI-723
7. CUT BACK EXISTING PAVEMENT 100mm AND CONCRETE EDGE BEAM AND JOIN NEATLY.

LEGEND

- BARRIER KERB & CHANNEL (TYPE B1)
- CONCRETE EDGE BEAM (300x300)
- CONCRETE DISH DRAIN (TYPE D2)
- ROAD EDGE GUIDE POST
- DOUBLE STREET NAME PLATE
- ROAD SIGN
- BITUMEN SEAL AND PAVEMENT, REFER DRAWING 967192-CI-709,711 & 714 FOR DETAILS
- FLOW ARROW

PLAN

SCALE 1:500 @ A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m

SCALE 1:500 @A1

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		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: ROADWORKS & STORMWATER DRAINAGE PLAN
SHEET 1 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

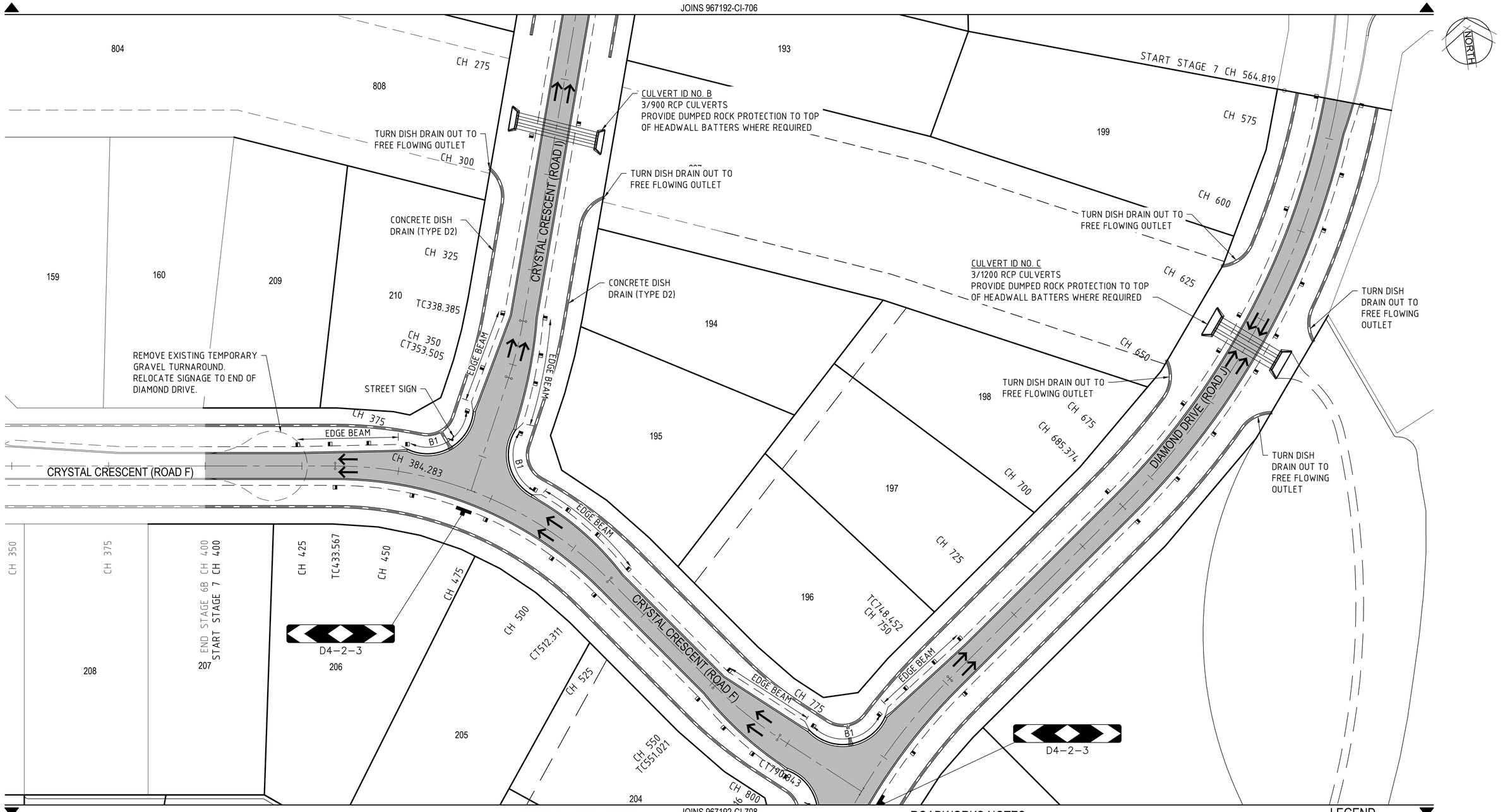
Drawing Number: 967192-CI-706

Revision: A

XREF's: XR-967192-MASTER; XR-967192-CADASTRAL
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\967119671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-706.dwg

DATE PLOTTED: 2 July 2020 3:23 PM BY: JAMES WONG

JOINS 967192-CI-706



JOINS 967192-CI-708

PLAN

SCALE 1:500 @ A1

STORMWATER NOTES

1. ALL DRAINAGE LINES TO BE RCBC'S UNLESS NOTED OTHERWISE, REFER DRAWING 967192-CI-722 FOR DRAINAGE DETAILS
2. CRUSHER DUST TO BE USED FOR BACKFILLING OF ALL LINES THAT ARE LOCATED UNDER ROADWAYS.
3. HEADWALLS ARE BY OTHERS.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE CONSTRUCTION VEHICLES DO NOT BREAK OR DAMAGE STORMWATER ALREADY LAID DURING THE COURSE OF CONSTRUCTION.
5. TRENCH WALLS FOR SERVICES WILL NEED TO BE BATTERED FOR CONSTRUCTION SAFETY.
6. FOR MISCELLANEOUS DETAILS REFER TO DRAWING 967192-CI-723
7. FOR Q100 DRAINAGE CROSS SECTIONS REFER TO DRAWINGS 967192-CI-722
8. FOR Q50 DRAINAGE CATCHMENT DETAILS REFER TO DRAWING 967192-CI-732

ROADWORKS NOTES

1. ALL CHAINAGES SHOWN ARE PEGGED CHAINAGES UNLESS SHOWN OTHERWISE.
2. FOR STREET NAME SIGN AND INSTALLATION DETAILS REFER COUNCIL STANDARD DRAWING SD-065.
3. FOR ROAD LONGITUDINAL & TYPICAL CROSS SECTIONS REFER TO DRAWINGS 967192-CI-709 TO 967192-CI-716
4. FOR INTERSECTION DETAILS REFER TO DRAWING 967192-CI-717 AND 718
5. EXISTING SERVICES ARE LOCATED WITHIN THE SITE. THE CONTRRACTOR IS TO LOCATE ALL SERVICES BY CONTACTING THE RELEVENT AUTHORITY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
6. FOR KERB AND CHANNEL DETAILS, REFER COUNCIL STANDARD DRAWING SD-020 AND DRAWING 967192-CI-723
7. CUT BACK EXISTING PAVEMENT 100mm AND CONCRETE EDGE BEAM AND JOIN NEATLY.

LEGEND

- BARRIER KERB & CHANNEL (TYPE B1)
- CONCRETE EDGE BEAM (300x300)
- CONCRETE DISH DRAIN (TYPE D2)
- ROAD EDGE GUIDE POST
- DOUBLE STREET NAME PLATE
- ROAD SIGN
- BITUMEN SEAL AND PAVEMENT, REFER DRAWING 967192-CI-709,711 & 714 FOR DETAILS
- FLOW ARROW

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m

SCALE 1:500 @A1

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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER STAGE 7

Title: ROADWORKS & STORMWATER DRAINAGE PLAN SHEET 2 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

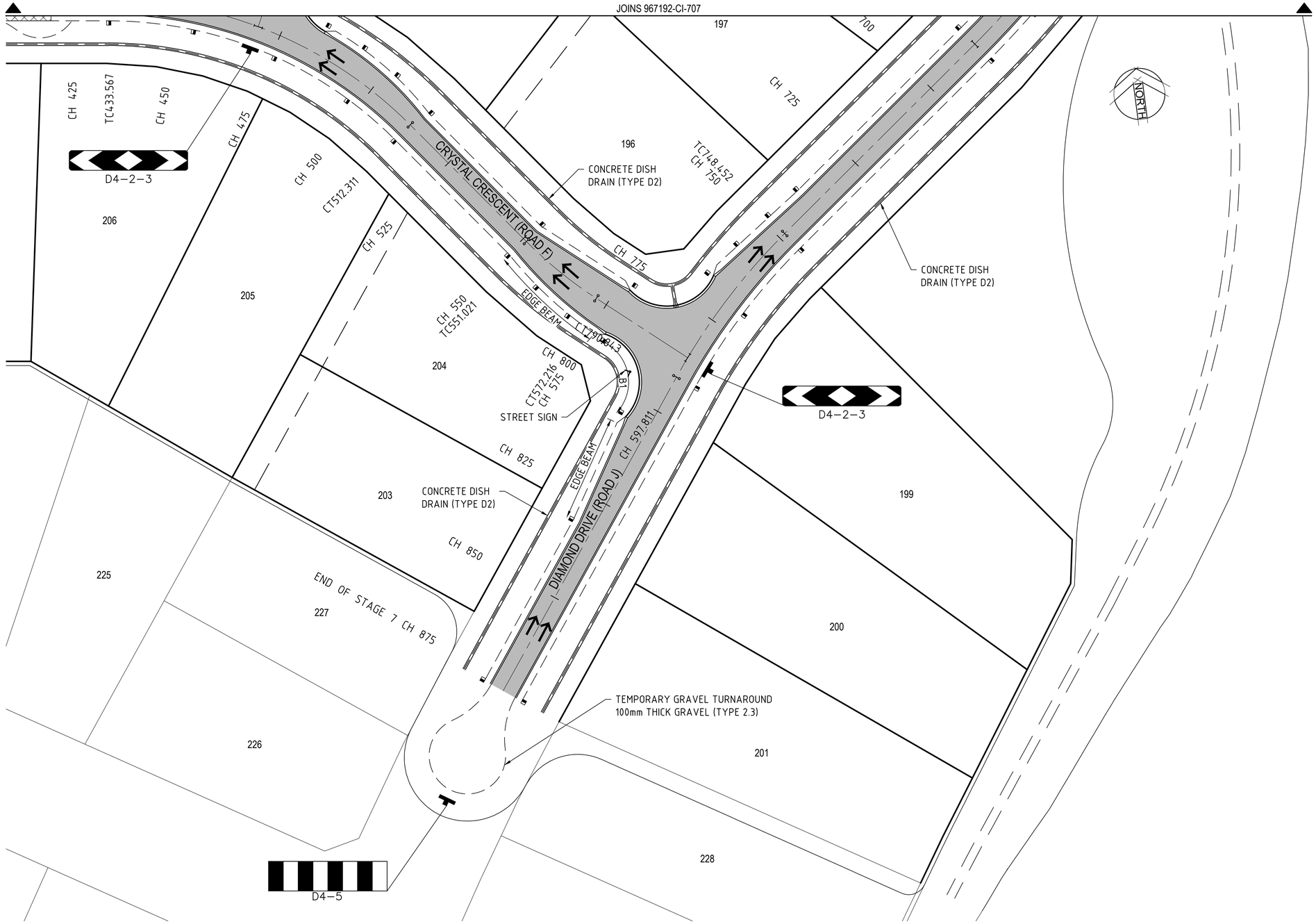
Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-707

Revision: A

XREFs: XR-967192-CADASTRAL; XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-707.dwg

DATE PLOTTED: 2 July 2020 3:24 PM BY: JAMES WONG



PLAN

SCALE 1:500 @ A1

STORMWATER NOTES

1. ALL DRAINAGE LINES TO BE RCBC'S UNLESS NOTED OTHERWISE, REFER DRAWING 967192-CI-722 FOR DRAINAGE DETAILS
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7. FOR Q100 DRAINAGE CROSS SECTIONS REFER TO DRAWINGS 967192-CI-722
8. FOR Q50 DRAINAGE CATCHMENT DETAILS REFER TO DRAWING 967192-CI-732

ROADWORKS NOTES

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7. CUT BACK EXISTING PAVEMENT 100mm AND CONCRETE EDGE BEAM AND JOIN NEATLY.

LEGEND

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- CONCRETE EDGE BEAM (300x300)
- CONCRETE DISH DRAIN (TYPE D2)
- ROAD EDGE GUIDE POST
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- ROAD SIGN
- BITUMEN SEAL AND PAVEMENT, REFER DRAWING 967192-CI-709,711 & 714 FOR DETAILS
- FLOW ARROW

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 20 40 60 80 100m

SCALE 1:1000 @A1

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Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER STAGE 7

Title: ROADWORKS & STORMWATER DRAINAGE PLAN SHEET 3 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-708

Revision: A

XREF's: XR-967192-CADASTRAL, XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96900\96719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-708.dwg

DATE PLOTTED: 2 July 2020 3:25 PM BY : JAMES WONG

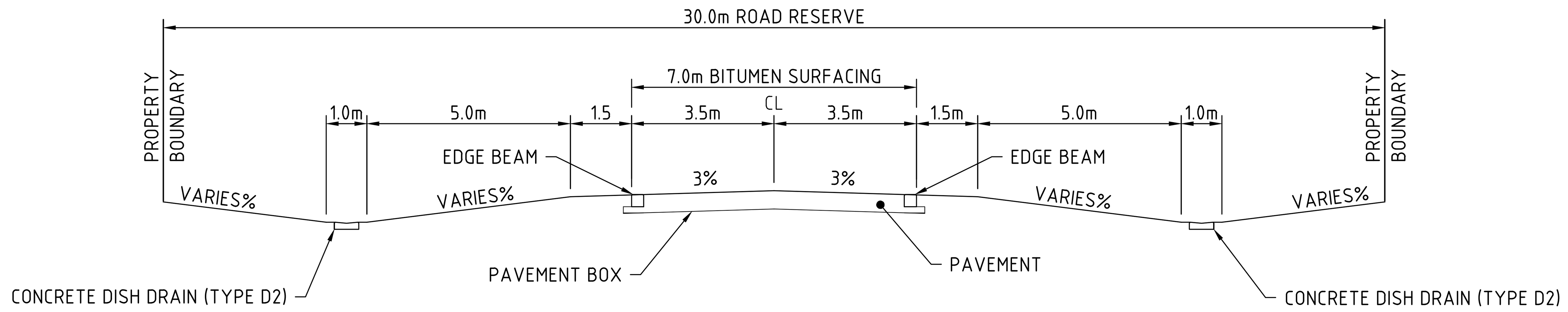
CRYSTAL CRESCENT (ROAD F)

ROAD TYPE: ACCESS STREET
DESIGN SPEED: 50km/h (NOT INCLUDING INTERSECTION)

PROVISIONAL PAVEMENT DESIGN

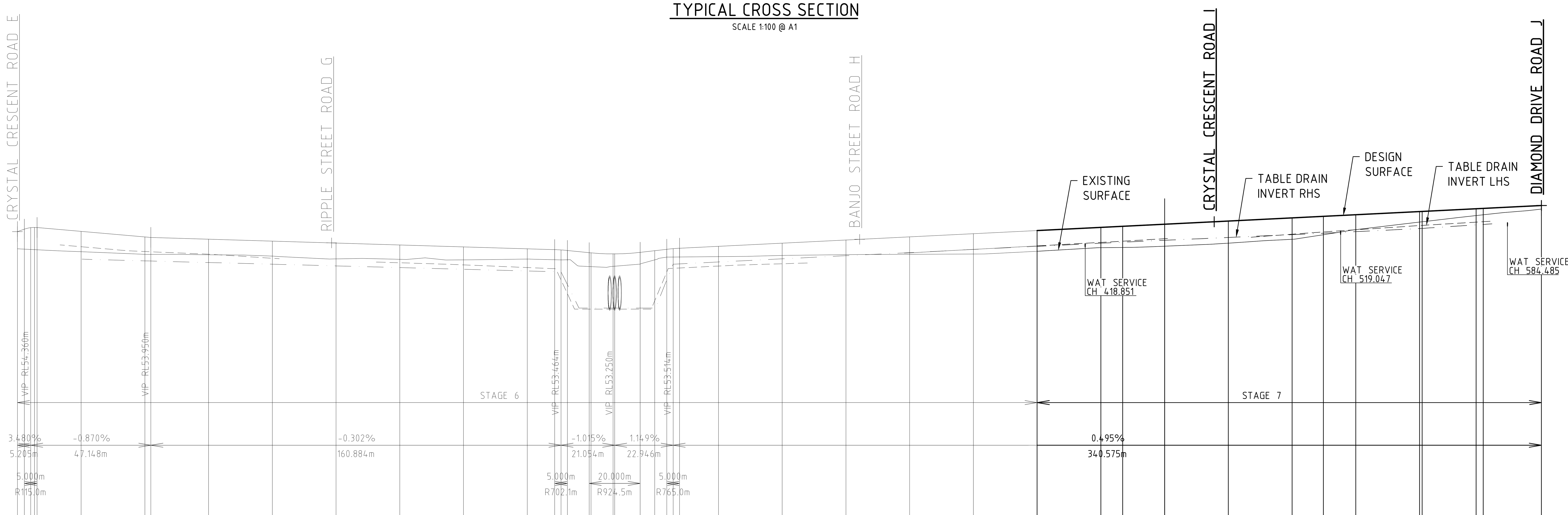
TWO COAT BITUMEN SEAL (14mm/7mm)
- PRIME COAT - AMC00 @ 0.8 L/m²
- SEAL COAT 1 - CL170 @ 1.5L/m²
- 14mm PRECOATED AGG. @ 95m²/m³
- SEAL COAT 2 - CL170 @ 1.1L/m²
- 7mm AGG. @ 120m²/m³

150mm BASE (DTMR TYPE 2.1)
150mm SUB BASE (DTMR TYPE 2.3)
150mm LOWER SUB BASE (DTMR TYPE 2.5)



TYPICAL CROSS SECTION

SCALE 1:100 @ A1



Vertical Geometry Grade (%)	3.480%	-0.870%	-0.302%	-1.015%	1.149%	0.495%
Vertical Geometry Length (m)	5.205m	47.148m	160.884m	21.054m	22.946m	340.575m

Vertical Curve Length (m)	5.000m	5.000m	20.000m	5.000m
Vertical Curve Radius (m)	R115.0m	R702.1m	R924.5m	R765.0m

DATUM RL 42.000

Horizontal Curve Length (m)	78.74m	21.2m
Horizontal Curve Radius (m)	R100m	R-100m

VOLUMES (in order along the section)

CUT	0	12	21	23	26	24	26	36	39	61	88	174	159	67	41	17	3	1	0	0	0	0	0	0	0	1	18	38	90
FILL	13	146	137	115	92	39	31	65	61	39	46	124	49	29	42	44	59	136	215	248	247	255	204	121	205	190	95	57	13

CONTROL LINE CHAINAGE	CONTROL LINE FINISHED LEVEL	CUT/FILL DEPTH TO EXISTING	EXISTING SURFACE LEVELS	DRAIN INVERT LHS	DRAIN INVERT RHS
0.000	54.179	0.673	53.506		
2.705	54.273	0.783	53.490		
5.205	54.333	0.856	53.477		
6.705	54.343	0.873	53.470		
7.705	54.338	0.873	53.465		
25.000	54.188	0.798	53.390	53.586	
50.000	53.970	0.683	53.288	53.397	53.031
52.352	53.950	0.665	53.285	53.387	53.025
75.000	53.882	0.612	53.270	53.292	52.965
100.000	53.806	0.588	53.218	53.133	52.899
125.000	53.730	0.623	53.107		52.833
150.000	53.655	0.563	53.091	52.956	52.767
175.000	53.579	0.510	53.069	52.873	52.701
200.000	53.504	0.404	53.100	52.769	52.635
210.736	53.471	0.396	53.075	52.724	52.607
213.236	53.459	0.390	53.069	52.280	52.600
215.736	53.438	0.365	53.073	51.743	52.097
224.290	53.351	0.543	52.808	51.138	51.180
225.000	53.345	0.540	52.805	51.138	51.180
233.670	53.304	0.487	52.816	51.138	51.180
234.290	53.304	0.483	52.821	51.138	51.180
244.290	53.365	0.461	52.904	51.138	51.180
250.000	53.430	0.360	53.070	51.466	51.180
254.736	53.485	0.307	53.178	52.597	52.281
257.236	53.510	0.330	53.179	52.739	52.900
259.736	53.526	0.345	53.181	52.751	52.912
275.000	53.602	0.404	53.197	52.827	52.987
300.000	53.725	0.483	53.243	52.917	53.110
325.000	53.849	0.575	53.275		53.233
350.000	53.973	0.685	53.288	53.345	53.355
375.000	54.097	0.798	53.299	53.481	53.478
400.000	54.221	0.814	53.407	53.618	53.601
425.000	54.344	0.798	53.547	53.755	53.724
433.567	54.387	0.831	53.556	53.801	53.766
450.000	54.468	0.863	53.605	53.900	53.838
475.000	54.592	0.867	53.725		53.949
500.000	54.716	0.841	53.875	54.076	54.059
512.311	54.777	0.721	54.056	54.166	54.113
525.000	54.839	0.584	54.256	54.250	54.176
550.000	54.963	0.412	54.551	54.416	54.298
551.021	54.968	0.405	54.563	54.422	54.304
572.216	55.073	0.265	54.808	54.549	54.443
575.000	55.087	0.249	54.838	54.568	54.460
597.811	55.200	0.140	55.060		

CRYSTAL CRESCENT ROAD F - LONGITUDINAL SECTION

SCALE HORIZONTAL 1: 1000
VERTICAL 1: 100

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

SCALE 1:100 (0 1 2 4 6 8 10m) @A1
SCALE 1:1000 (0 20 40 60 80 100m) @A1

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Role	Name	Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB 10801	9/02/2018

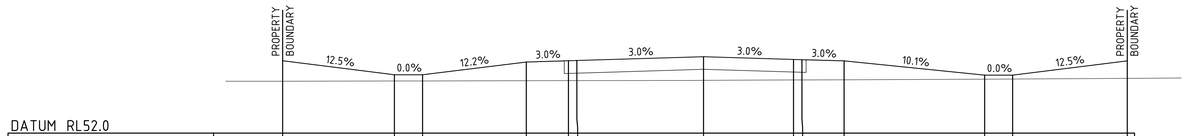
Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: ROADWORKS LONGITUDINAL SECTION CRYSTAL CRESCENT (ROAD F)
Status: FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-709
Revision: A

XREF's:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\9671\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-709.dwg

DATE PLOTTED: 2 July 2020 3:25 PM BY : JAMES WONG



DATUM RL52.0

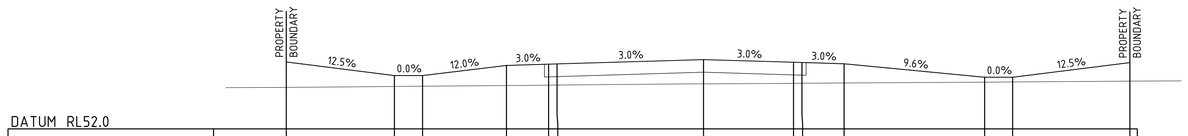
DESIGN HEIGHT	54.573		54.076	54.076	54.526	54.571	54.580	54.716	54.620	54.611	54.566	54.059	54.059	54.568
STG 678 EXISTING SURFACE	53.845		53.853	53.855	53.862	53.864	53.865	53.875	53.888	53.889	53.896	53.919	53.924	53.946
DESIGN OFFSET	-14.975		-11.000	-10.000	-6.307	-4.807	-4.307	0.000	3.200	3.500	5.000	10.000	11.000	15.075

CHAINAGE 500.000

DATUM RL52.0

DESIGN HEIGHT								54.592		54.496 54.497	54.442	53.949	53.949	54.465
STG 678 EXISTING SURFACE	REFER TO INTERSECTION DETAIL PLANS FOR LEVELS							53.725		53.747 53.749	53.759	53.793	53.800	53.836
DESIGN OFFSET								0.000		3.200 3.500	5.000	10.000	11.000	15.129

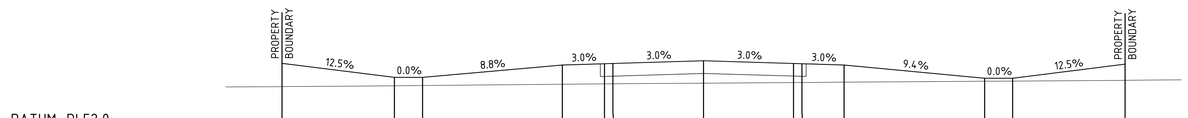
CHAINAGE 475.000



DATUM RL52.0

DESIGN HEIGHT	54.381		53.900	53.900	54.258	54.303 54.312		54.468		54.372 54.363	54.318	53.838	53.838	54.359
STG 678 EXISTING SURFACE	53.480		53.510	53.519	53.545	53.558 53.561		53.605		53.622 53.624	53.633	53.665	53.672	53.698
DESIGN OFFSET	-14.846		-11.000	-10.000	-7.013	-5.513 -5.213		0.000		3.200 3.500	5.000	10.000	11.000	15.170

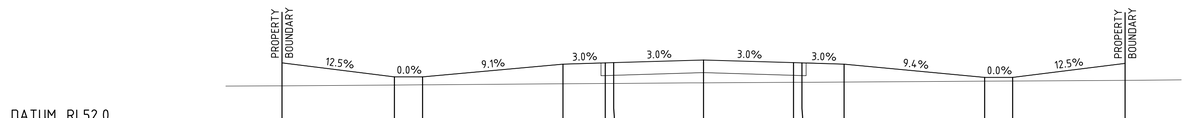
CHAINAGE 450.000



DATUM RL52.0

DESIGN HEIGHT	54.255		53.755	53.755	54.194	54.239 54.248		54.344		54.248 54.239	54.194	53.724	53.724	54.224
STG 678 EXISTING SURFACE	53.425		53.456	53.464	53.508	53.521 53.524		53.547		53.569 53.571	53.581	53.616	53.623	53.650
DESIGN OFFSET	-15.000		-11.000	-10.000	-5.024	-3.524 -3.224		0.000		3.200 3.500	5.000	10.000	11.000	15.000

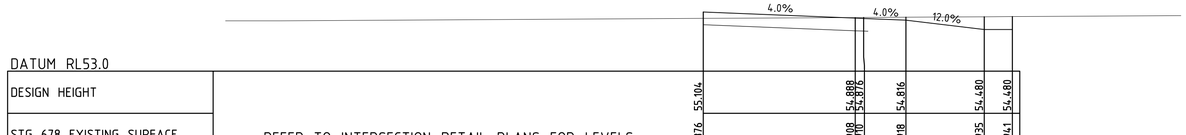
CHAINAGE 425.000



DATUM RL52.0

DESIGN HEIGHT	54.118		53.618	53.618	54.071	54.116 54.125		54.221		54.125 54.116	54.071	53.601	53.601	54.101
STG 678 EXISTING SURFACE	53.302		53.330	53.337	53.373	53.384 53.386		53.407		53.424 53.426	53.435	53.465	53.471	53.496
DESIGN OFFSET	-15.000		-11.000	-10.000	-5.000	-3.500 -3.200		0.000		3.200 3.500	5.000	10.000	11.000	15.000

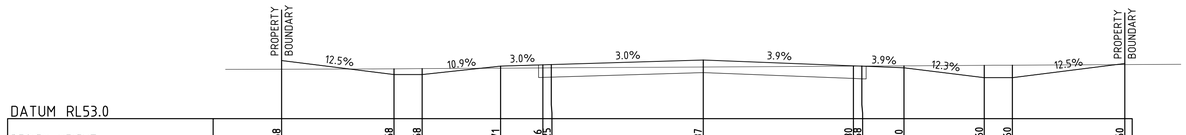
CHAINAGE 400.000



DATUM RL53.0

DESIGN HEIGHT								55.104		54.888 54.876	54.816	54.480	54.480	
STG 678 EXISTING SURFACE	REFER TO INTERSECTION DETAIL PLANS FOR LEVELS							54.876		54.908 54.910	54.918	54.935	54.941	
DESIGN OFFSET								0.000		5.411 5.711	7.211	10.000	11.000	

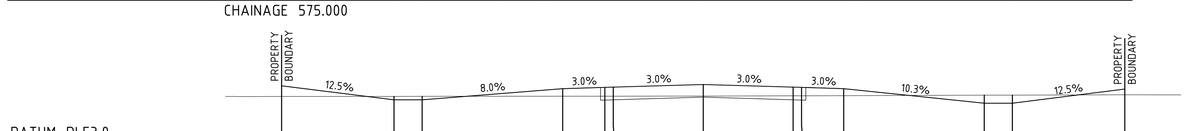
CHAINAGE 578.434



DATUM RL53.0

DESIGN HEIGHT	55.068		54.568	54.568	54.871	54.916 54.925		55.087		54.880 54.868	54.810	54.460	54.460	54.960
STG 678 EXISTING SURFACE	54.760		54.774	54.780	54.796	54.805 54.807		54.838		54.870 54.872	54.880	54.897	54.903	54.924
DESIGN OFFSET	-15.000		-11.000	-10.000	-7.207	-5.707 -5.407		0.000		5.346 5.646	7.146	10.000	11.000	15.000

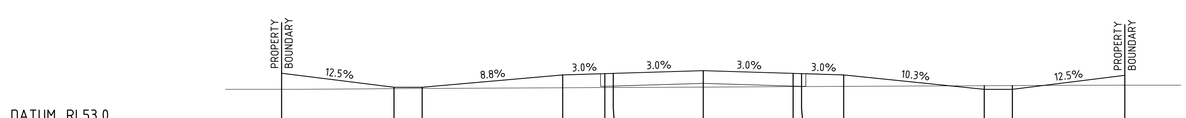
CHAINAGE 575.000



DATUM RL53.0

DESIGN HEIGHT	54.916		54.416	54.416	54.813	54.858 54.867		54.963		54.867 54.858	54.813	54.298	54.298	54.798
STG 678 EXISTING SURFACE	54.535		54.539	54.540	54.545	54.547 54.547		54.551		54.562 54.563	54.567	54.582	54.585	54.597
DESIGN OFFSET	-15.000		-11.000	-10.000	-5.000	-3.500 -3.200		0.000		3.200 3.500	5.000	10.000	11.000	15.000

CHAINAGE 550.000



DATUM RL53.0

DESIGN HEIGHT	54.750		54.250	54.250	54.689	54.734 54.743		54.839		54.743 54.734	54.689	54.176	54.176	54.676
STG 678 EXISTING SURFACE	54.177		54.200	54.206	54.231	54.239 54.241		54.256		54.271 54.273	54.280	54.305	54.310	54.325
DESIGN OFFSET	-15.000		-11.000	-10.000	-5.000	-3.500 -3.200		0.000		3.200 3.500	5.000	10.000	11.000	15.000

CHAINAGE 525.000

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

SCALE 1:100 @A1

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Web: www.cardno.com.au

		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: ROADWORKS CROSS SECTIONS
CRYSTAL CRESCENT (ROAD F)

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-710

Revision: A

XREF's:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\71-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-710.dwg

DATE PLOTTED: 2 July 2020 3:26 PM BY - JAMES WONG

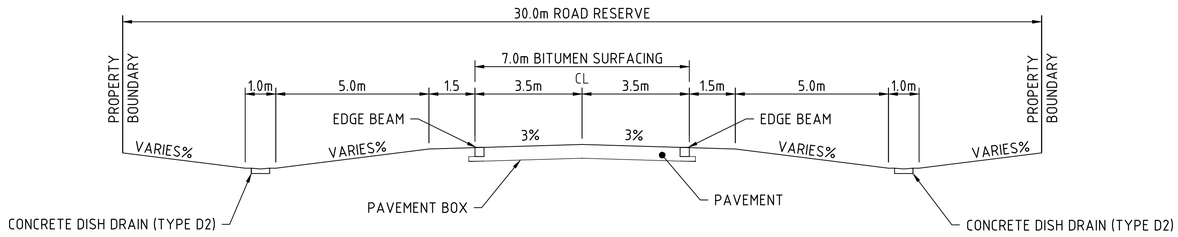
CRYSTAL CRESCENT (ROAD I)

ROAD TYPE: ACCESS STREET
DESIGN SPEED: 50km/h (NOT INCLUDING INTERSECTION)

PROVISIONAL PAVEMENT DESIGN

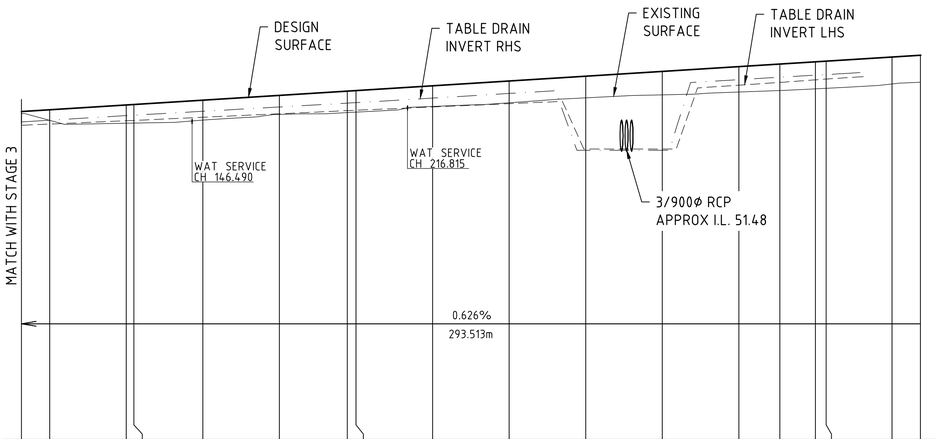
TWO COAT BITUMEN SEAL (14mm/7mm)
- PRIME COAT - AMC00 @ 0.8 L/m²
- SEAL COAT 1 - CL170 @ 1.5L/m²
- 14mm PRECOATED AGG. @ 95m²/m³
- SEAL COAT 2 - CL170 @ 1.1L/m²
- 7mm AGG. @ 120m²/m³

150mm BASE (DTMR TYPE 2.1)
150mm SUB BASE (DTMR TYPE 2.3)
150mm LOWER SUB BASE (DTMR TYPE 2.5)



TYPICAL CROSS SECTION

SCALE 1:100 @ A1



Vertical Geometry Grade (%)																						
Vertical Geometry Length (m)																						
Vertical Curve Length (m)																						
Vertical Curve Radius (m)																						
DATUM RL 42.000																						
Horizontal Curve Length (m)							69.68m											15.12m				
Horizontal Curve Radius (m)							R150m											R100m				
VOLUMES	CUT		29	7		0	0	1	1	3	4	5	109	242	76	0	0		0			
	FILL		13	123		178	196	186	205	201	198	198	121	94	198	292	299		65			
DRAIN INVERT RHS		52.390	52.445		52.596	52.611	52.737	52.877	53.002	53.019	53.169	53.319	51.464	51.464	53.771	53.851	53.914	53.933				
DRAIN INVERT LHS		52.280	52.320		52.427	52.438	52.541	52.656	52.758	52.770	52.878	52.985	51.505	51.505	53.589	53.678	53.763	53.789				
EXISTING SURFACE LEVELS		52.654	52.441		52.348	52.352	52.449	52.633	52.693	52.708	52.896	53.015	53.175	53.274	53.366	53.415	53.471	53.488		53.629		53.689
CUT/FILL DEPTH TO EXISTING		0.074	0.345		0.594	0.606	0.649	0.622	0.701	0.703	0.672	0.709	0.705	0.763	0.827	0.862	0.878	0.883		0.877		0.875
CONTROL LINE FINISHED LEVEL		52.728	52.786		52.942	52.958	53.098	53.255	53.394	53.411	53.568	53.724	53.880	54.037	54.193	54.277	54.350	54.371		54.506		54.564
CONTROL LINE CHAINAGE		90.770	100.000		125.000	127.503	150.000	175.000	197.184	200.000	225.000	250.000	275.000	300.000	325.000	338.385	350.000	353.505		375.000		384.283

CRYSTAL CRESCENT ROAD I - LONGITUDINAL SECTION

SCALE HORIZONTAL 1: 1000
VERTICAL 1: 100

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
SCALE 1:100 @A1

0 20 40 60 80 100m
SCALE 1:1000 @A1

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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: ROADWORKS LONGITUDINAL SECTION CRYSTAL CRESCENT (ROAD I)

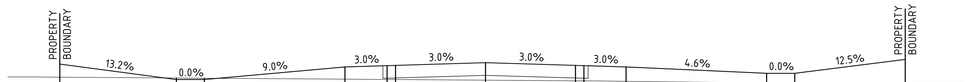
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-711
Revision: A

XREF's:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-711.dwg

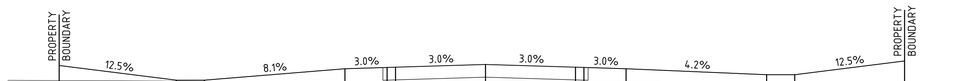
DATE PLOTTED: 2 July 2020 3:27 PM BY: JAMES WONG



DATUM RL51.0

DESIGN HEIGHT	53.203	52.656	52.656	53.105	53.150	53.150	53.255	53.159	53.150	53.105	52.817	52.817	53.369
STG 678 EXISTING SURFACE	52.740	52.710	52.703	52.668	52.657	52.653	52.633	52.610	52.608	52.593	52.540	52.534	52.513
DESIGN OFFSET	-15.143	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	14.931

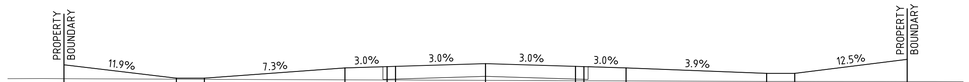
CHAINAGE 175.000



DATUM RL51.0

DESIGN HEIGHT	53.062	52.541	52.541	52.948	53.002	53.002	53.098	53.002	52.993	52.948	52.737	52.737	53.276
STG 678 EXISTING SURFACE	52.530	52.502	52.495	52.468	52.463	52.462	52.449	52.437	52.436	52.430	52.409	52.404	52.387
DESIGN OFFSET	-15.168	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	14.911

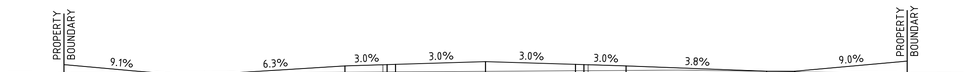
CHAINAGE 150.000



DATUM RL51.0

DESIGN HEIGHT	52.904	52.427	52.427	52.792	52.837	52.846	52.942	52.846	52.837	52.792	52.596	52.596	53.096
STG 678 EXISTING SURFACE	52.406	52.389	52.386	52.367	52.361	52.360	52.348	52.335	52.334	52.329	52.313	52.312	52.307
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

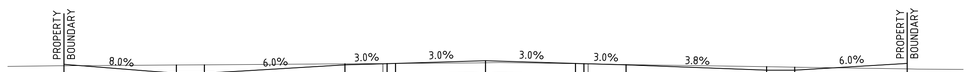
CHAINAGE 125.000



DATUM RL51.0

DESIGN HEIGHT	52.682	52.320	52.320	52.636	52.681	52.690	52.786	52.690	52.681	52.636	52.445	52.445	52.804
STG 678 EXISTING SURFACE	52.361	52.368	52.374	52.408	52.418	52.420	52.461	52.463	52.465	52.475	52.438	52.423	52.360
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

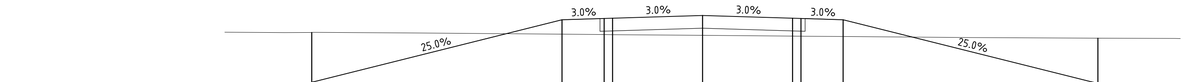
CHAINAGE 100.000



DATUM RL51.0

DESIGN HEIGHT	52.600	52.280	52.280	52.578	52.632	52.632	52.728	52.632	52.623	52.578	52.390	52.390	52.630
STG 678 EXISTING SURFACE	52.467	52.475	52.482	52.617	52.628	52.631	52.654	52.620	52.615	52.592	52.514	52.498	52.435
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

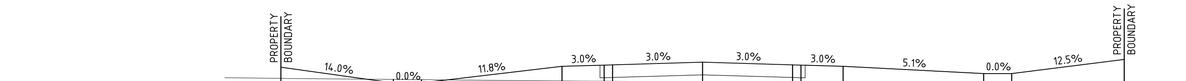
CHAINAGE 90.770



DATUM RL50.0

DESIGN HEIGHT	51.505	53.730	53.775	53.784	53.880	53.784	53.775	53.730	51.464					
STG 678 EXISTING SURFACE	53.280	53.217	53.204	53.202	53.175	53.149	53.146	53.134	53.077					
DESIGN OFFSET	-13.902	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	14.066					

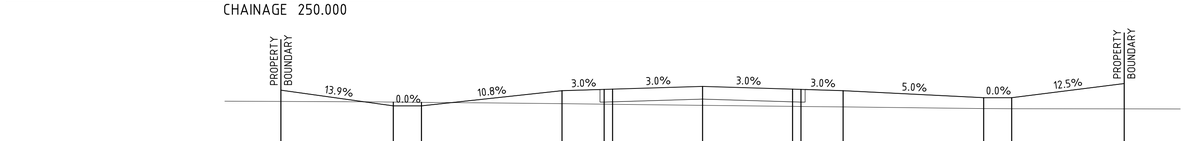
CHAINAGE 275.000



DATUM RL51.0

DESIGN HEIGHT	53.543	52.985	52.985	53.574	53.619	53.628	53.724	53.628	53.619	53.574	53.319	53.319	53.819	
STG 678 EXISTING SURFACE	53.147	53.110	53.101	53.057	53.044	53.041	53.015	52.990	52.987	52.975	52.943	52.937	52.915	
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000	

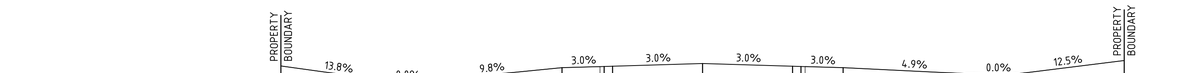
CHAINAGE 250.000



DATUM RL51.0

DESIGN HEIGHT	53.433	52.878	52.878	53.418	53.463	53.472	53.568	53.472	53.463	53.418	53.169	53.169	53.669	
STG 678 EXISTING SURFACE	53.034	53.012	53.003	52.953	52.936	52.932	52.896	52.859	52.855	52.838	52.781	52.777	52.769	
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000	

CHAINAGE 225.000



DATUM RL51.0

DESIGN HEIGHT	53.323	52.770	52.770	53.261	53.306	53.315	53.411	53.315	53.306	53.261	53.019	53.019	53.519	
STG 678 EXISTING SURFACE	52.834	52.797	52.787	52.743	52.732	52.730	52.708	52.686	52.683	52.673	52.645	52.640	52.619	
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000	

CHAINAGE 200.000

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m

SCALE 1:100 @A1

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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: ROADWORKS CROSS SECTIONS
CRYSTAL CRESCENT (ROAD I)
SHEET 1 OF 2

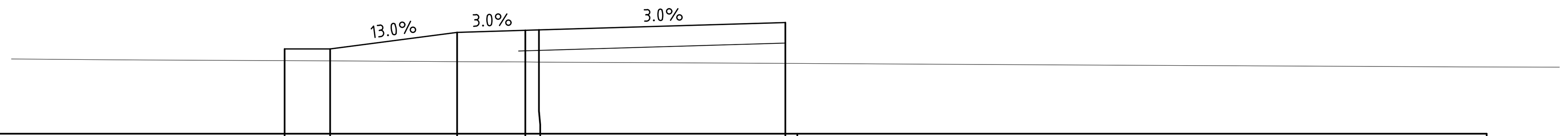
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-712
Revision: A

XREFs:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96001\96711\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-712.dwg

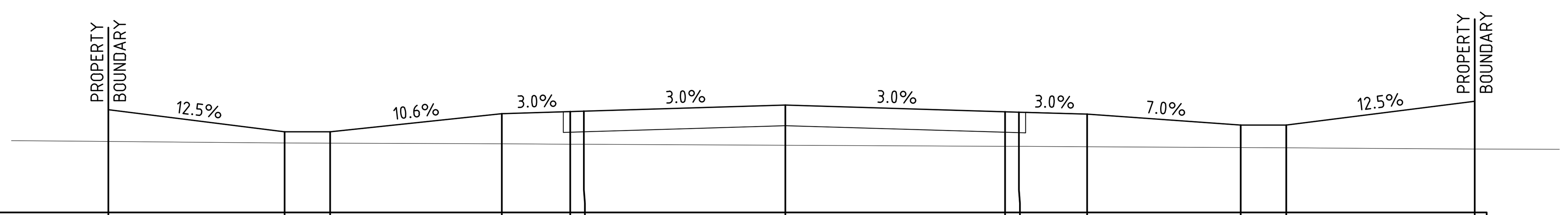
DATE PLOTTED: 2 July 2020 3:27 PM BY : JAMES WONG



DATUM RL52.0

DESIGN HEIGHT	53.869	53.869	54.231	54.276	54.285	54.448	REFER TO INTERSECTION DETAIL PLANS FOR LEVELS
STG 678 EXISTING SURFACE	53.609	53.603	53.588	53.580	53.579	53.550	
DESIGN OFFSET	-11.000	-10.000	-7.211	-5.711	-5.411	0.000	

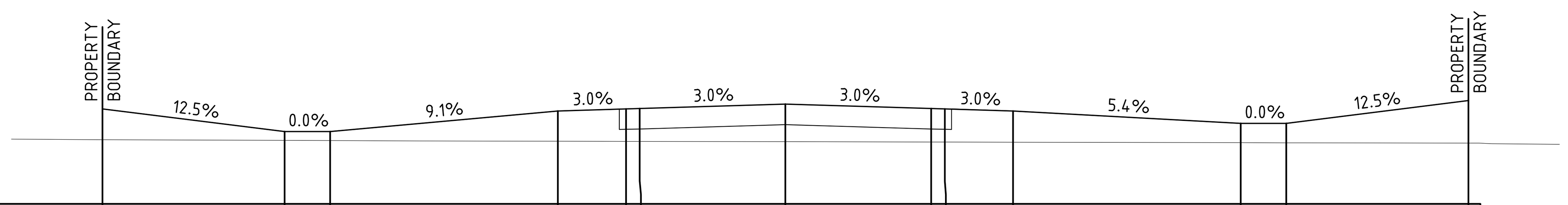
CHAINAGE 365.663



DATUM RL52.0

DESIGN HEIGHT	54.247	53.763	53.763	54.163	54.208	54.217	54.350	54.205	54.196	54.151	53.914	53.914	54.432
STG 678 EXISTING SURFACE	53.554	53.523	53.518	53.500	53.493	53.492	53.471	53.449	53.447	53.439	53.419	53.413	53.389
DESIGN OFFSET	-14.872	-11.000	-10.000	-6.228	-4.728	-4.428	0.000	4.826	5.126	6.626	10.000	11.000	15.137

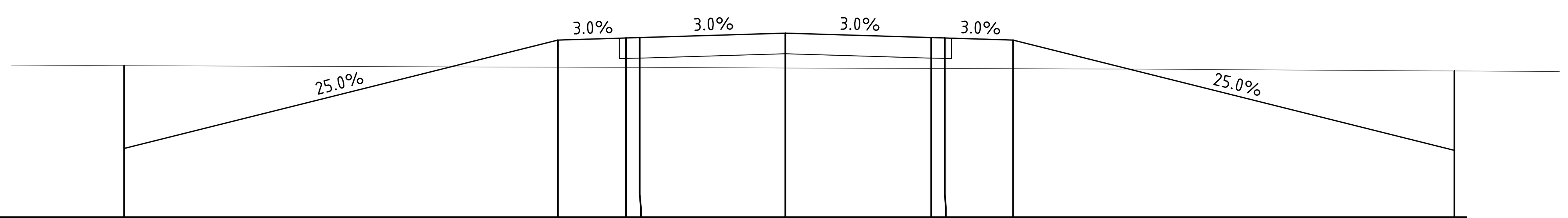
CHAINAGE 350.000



DATUM RL52.0

DESIGN HEIGHT	54.089	53.589	53.589	54.043	54.088	54.097	54.193	54.097	54.088	54.043	53.771	53.771	54.271
STG 678 EXISTING SURFACE	53.409	53.395	53.391	53.377	53.374	53.373	53.366	53.359	53.359	53.355	53.344	53.342	53.336
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

CHAINAGE 325.000



DATUM RL50.0

DESIGN HEIGHT	51.505	53.887	53.932	53.941	54.037	53.941	53.932	53.887	51.464
STG 678 EXISTING SURFACE	53.321	53.291	53.286	53.285	53.274	53.262	53.261	53.256	53.208
DESIGN OFFSET	-14.527	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	14.691

CHAINAGE 300.000

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
SCALE 1:100 @A1

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Web: www.cardno.com.au

Role	Name	Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB 10801	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: ROADWORKS CROSS SECTIONS
CRYSTAL CRESCENT (ROAD I)
SHEET 2 OF 2

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-713 Revision: A

XREF's:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\9671\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-713.dwg

DATE PLOTTED: 2 July 2020 3:28 PM BY : JAMES WONG

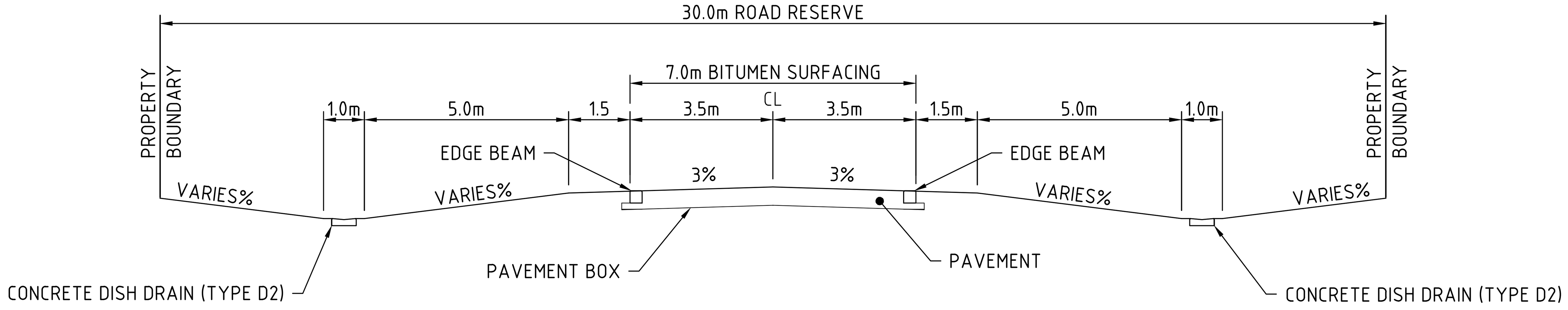
DIAMOND DRIVE (ROAD J)

ROAD TYPE: ACCESS STREET
DESIGN SPEED: 50km/h (NOT INCLUDING INTERSECTION)

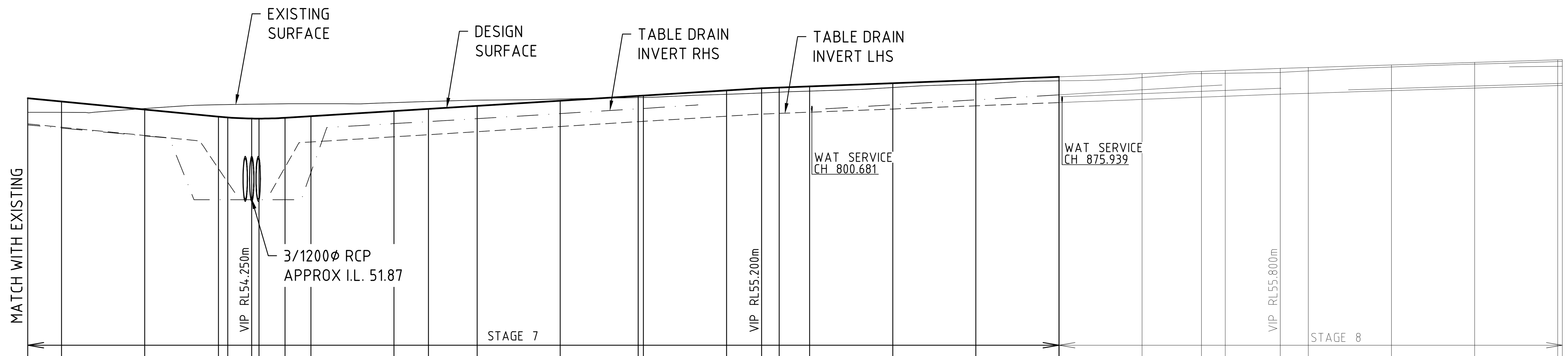
PROVISIONAL PAVEMENT DESIGN

TWO COAT BITUMEN SEAL (14mm/7mm)
- PRIME COAT - AMC00 @ 0.8 L/m²
- SEAL COAT 1 - CL170 @ 1.5L/m²
- 14mm PRECOATED AGG. @ 95m²/m³
- SEAL COAT 2 - CL170 @ 1.1L/m²
- 7mm AGG. @ 120m²/m³

150mm BASE (DTMR TYPE 2.1)
150mm SUB BASE (DTMR TYPE 2.3)
150mm LOWER SUB BASE (DTMR TYPE 2.5)



TYPICAL CROSS SECTION
SCALE 1:100 @ A1



Vertical Geometry Grade (%): -0.965% | 0.620% | 0.385% | 0.307%
Vertical Geometry Length (m): 67.384m | 153.349m | 156.011m | 84.824m
Vertical Curve Length (m): 20.000m
Vertical Curve Radius (m): R1262.5m

DATUM RL 42.000

Horizontal Curve Length (m): 120.55m | 42.39m | 42.81m
Horizontal Curve Radius (m): R200m | R-150m | R-500m

CONTROL LINE CHAINAGE	DRAIN INVERT RHS	DRAIN INVERT LHS	EXISTING SURFACE LEVELS	CUT/FILL DEPTH TO EXISTING	CONTROL LINE FINISHED LEVEL
564.819	54.098	54.129	54.478	0.422	54.900
575.000	54.003	54.028	54.476	0.326	54.802
600.000	53.769	53.781	54.591	-0.031	54.561
622.203	51.850	52.784	54.705	-0.359	54.346
625.000	51.850	52.371	54.711	-0.388	54.323
632.203	51.850		54.723	-0.433	54.290
634.381	51.850		54.726	-0.438	54.288
642.203	51.850	52.820	54.735	-0.423	54.312
650.000	52.668	53.585	54.737	-0.376	54.360
675.000	54.137	53.740	54.769	-0.254	54.515
685.374	54.197	53.804	54.802	-0.222	54.579
700.000	54.287	53.895	54.841	-0.171	54.670
725.000	54.440	54.050	54.877	-0.052	54.825
748.452	54.583	54.195	54.920	0.050	54.970
750.000	54.593	54.205	54.924	0.056	54.980
775.000		54.360	55.020	0.115	55.135
785.552		54.425	55.060	0.140	55.200
790.843		54.445	55.083	0.137	55.220
800.000		54.481	55.116	0.140	55.256
825.000	54.704	54.577	55.224	0.128	55.352
850.000	54.853	54.673	55.326	0.122	55.448
875.000	55.002	54.769	55.426	0.118	55.544
875.029	55.002	54.769	55.426	0.118	55.544
900.000	55.154	54.865	55.522	0.118	55.640
917.839	55.263	54.934	55.642	0.067	55.709
925.000		54.961	55.652	0.084	55.736
941.563		55.025	55.676	0.124	55.800
950.000		55.051	55.722	0.104	55.826
975.000	55.193	55.127	55.840	0.063	55.902
1000.000	55.270	55.204	55.927	0.053	55.979
1025.000	55.346	55.281	56.006	0.049	56.056
1026.388			56.011	0.049	56.060

VOLUMES																								
CUT	91	223	425	588	538	421	381	322	281	225	155	125	192	212	205	200	187	210	159	161	257	263	259	82
FILL	13	3	0	0	0	0	0	0	0	0	0	0	0	1	2	2	5	6	0	0	0	0	0	0

DIAMOND DRIVE ROAD J - LONGITUDINAL SECTION

SCALE HORIZONTAL 1: 1000
VERTICAL 1: 100

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
SCALE 1:100 @A1

0 20 40 60 80 100m
SCALE 1:1000 @A1

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Role	Name	Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB 10801	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER
STAGE 7
Title: ROADWORKS LONGITUDINAL SECTION
DIAMOND DRIVE (ROAD J)

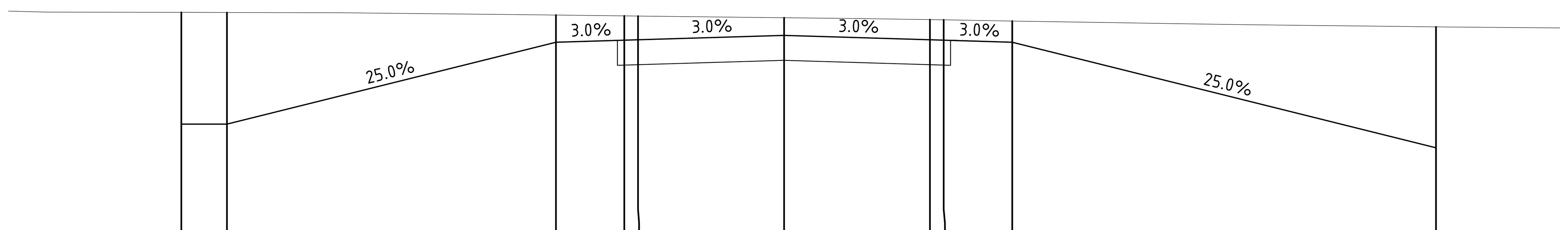
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-714
Revision: A

XREF's:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\9671\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-714.dwg

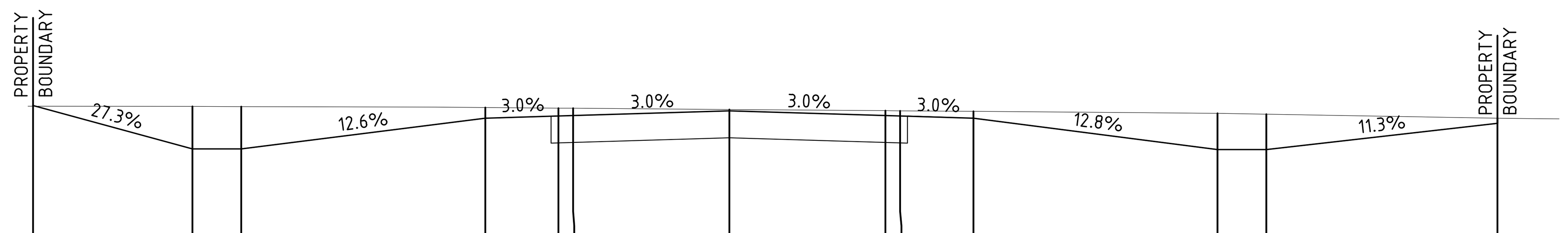
DATE PLOTTED: 2 July 2020 3:28 PM BY : JAMES WONG



DATUM RL50.0

DESIGN HEIGHT	52.371	52.371	54.173	54.218	54.227	54.323	54.227	54.218	54.173	51.850
STG 678 EXISTING SURFACE	54.828	54.826	54.767	54.750	54.747	54.711	54.668	54.663	54.639	54.510
DESIGN OFFSET	-13.208	-12.208	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	14.290

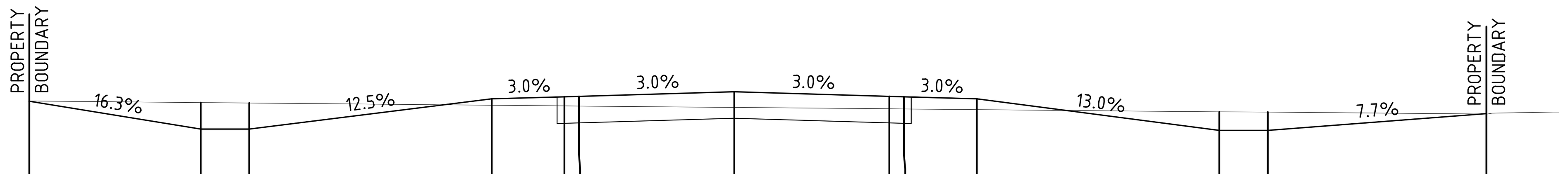
CHAINAGE 625.000



DATUM RL52.0

DESIGN HEIGHT	54.672	53.781	53.781	54.411	54.456	54.465	54.561	54.465	54.456	54.411	53.769	53.769	54.307
STG 678 EXISTING SURFACE	54.660	54.652	54.649	54.631	54.619	54.617	54.591	54.566	54.564	54.552	54.512	54.495	54.413
DESIGN OFFSET	-14.262	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.738

CHAINAGE 600.000



DATUM RL53.0

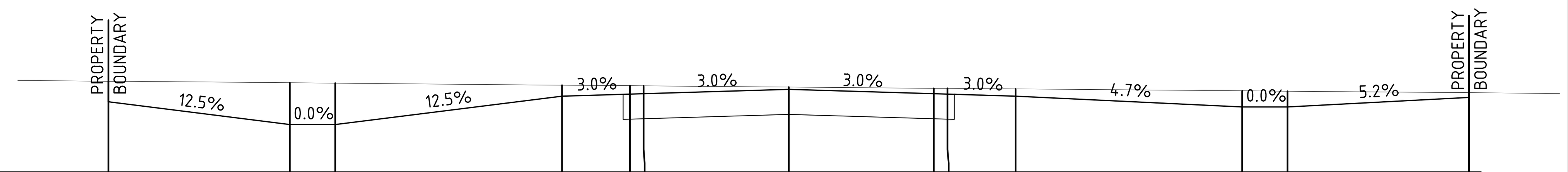
DESIGN HEIGHT	54.605	54.028	54.028	54.652	54.697	54.706	54.802	54.706	54.697	54.652	54.003	54.003	54.348
STG 678 EXISTING SURFACE		54.576	54.567	54.521	54.508	54.505	54.476	54.447	54.444	54.431	54.387	54.378	54.338
DESIGN OFFSET	-14.531	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.507

CHAINAGE 575.000

DATUM RL53.0

DESIGN HEIGHT	54.689	54.129	54.129	54.658	54.720	54.732	54.900	54.775	54.763	54.704	54.098	54.098	54.390
STG 678 EXISTING SURFACE	54.595	54.574	54.565	54.529	54.516	54.514	54.478	54.450	54.448	54.434	54.391	54.382	54.365
DESIGN OFFSET	-13.391	-11.000	-10.000	-5.870	-4.370	-4.070	0.000	3.200	3.500	5.000	10.000	11.000	15.739

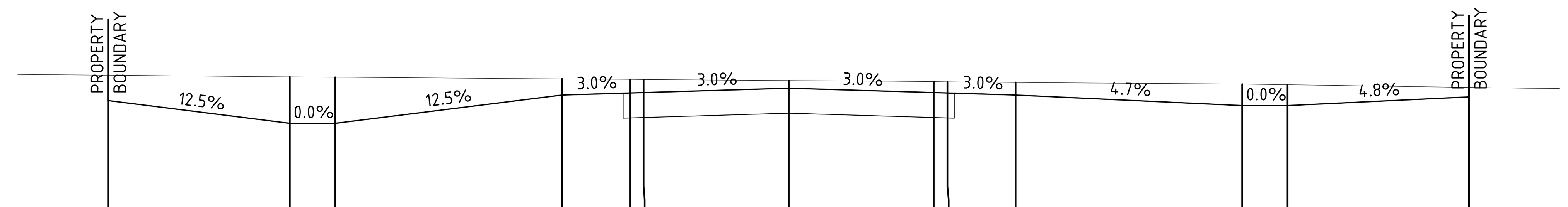
CHAINAGE 564.819



DATUM RL53.0

DESIGN HEIGHT	54.550	54.050	54.050	54.675	54.720	54.729	54.825	54.729	54.720	54.675	54.440	54.440	54.649
STG 678 EXISTING SURFACE	55.006	54.971	54.962	54.919	54.907	54.904	54.877	54.850	54.848	54.835	54.794	54.785	54.753
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

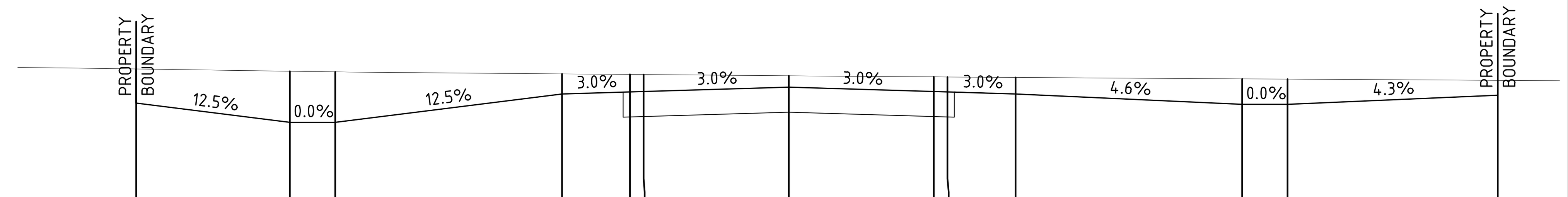
CHAINAGE 725.000



DATUM RL52.0

DESIGN HEIGHT	54.395	53.895	53.895	54.520	54.565	54.574	54.670	54.574	54.565	54.520	54.287	54.287	54.478
STG 678 EXISTING SURFACE	54.958	54.922	54.914	54.877	54.866	54.864	54.841	54.817	54.814	54.801	54.762	54.748	54.691
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

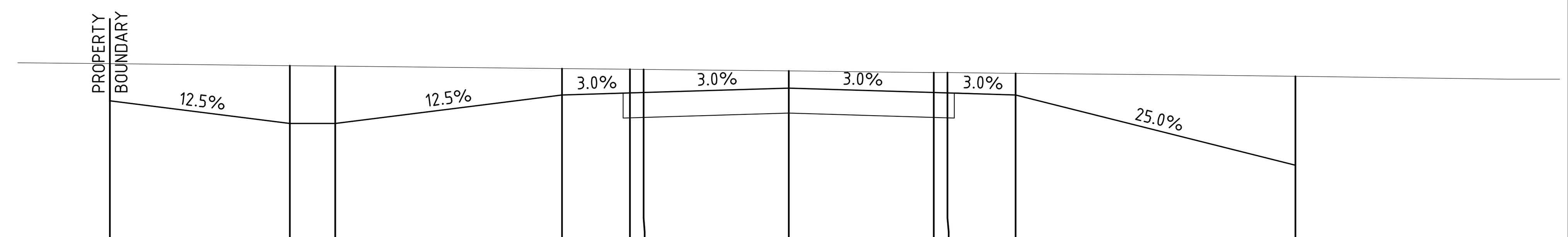
CHAINAGE 700.000



DATUM RL52.0

DESIGN HEIGHT	54.163	53.740	53.740	54.365	54.410	54.419	54.515	54.419	54.410	54.365	54.137	54.137	54.338
STG 678 EXISTING SURFACE	54.918	54.870	54.856	54.811	54.799	54.796	54.769	54.744	54.742	54.733	54.702	54.696	54.667
DESIGN OFFSET	-14.386	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.632

CHAINAGE 675.000



DATUM RL51.0

DESIGN HEIGHT	54.081	53.585	53.585	54.210	54.255	54.264	54.360	54.264	54.255	54.210	52.668
STG 678 EXISTING SURFACE	54.896	54.854	54.843	54.790	54.774	54.771	54.737	54.703	54.700	54.686	54.618
DESIGN OFFSET	-14.968	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	11.170

CHAINAGE 650.000

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB 10801	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: ROADWORKS CROSS SECTIONS
DIAMOND DRIVE (ROAD J)
SHEET 1 OF 2

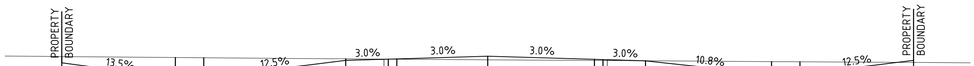
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-715
Revision: A

XREF's:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\9671\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-715.dwg

DATE PLOTTED: 2 July 2020 3:29 PM BY - JAMES WONG



DATUM RL53.0

DESIGN HEIGHT	55.117	54.577	54.577	55.202	55.247	55.256	55.352	55.239	55.230	55.185	54.704	54.704	55.204
STG 678 EXISTING SURFACE	55.338	55.304	55.295	55.256	55.246	55.245	55.224	55.199	55.197	55.188	55.159	55.152	55.132
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.761	4.061	5.561	10.000	11.000	15.000

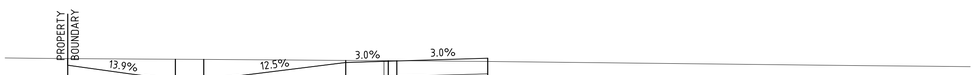
CHAINAGE 825.000

DATUM RL53.0

DESIGN HEIGHT	55.021	54.481	54.481	55.106	55.151	55.160	55.256
STG 678 EXISTING SURFACE	55.215	55.188	55.182	55.149	55.139	55.137	55.116
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000

REFER TO INTERSECTION DETAIL PLANS FOR LEVELS

CHAINAGE 800.000



DATUM RL53.0

DESIGN HEIGHT	54.887	54.360	54.360	54.985	55.030	55.039	55.135
STG 678 EXISTING SURFACE	55.118	55.097	55.091	55.058	55.047	55.045	55.020
DESIGN OFFSET	-14.789	-11.000	-10.000	-5.000	-3.500	-3.200	0.000

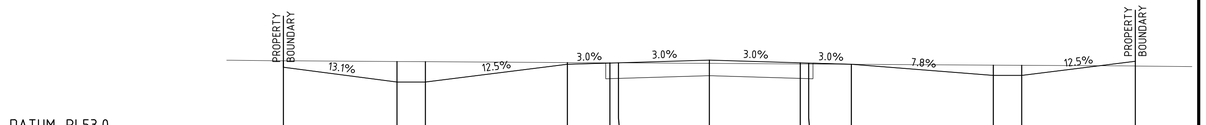
REFER TO INTERSECTION DETAIL PLANS FOR LEVELS

CHAINAGE 775.000

DATUM RL53.0

DESIGN HEIGHT	54.720	54.205	54.205	54.830	54.875	54.884	54.980	54.870	54.861	54.816	54.593	54.593	54.821
STG 678 EXISTING SURFACE	55.040	55.009	55.001	54.962	54.951	54.948	54.924	54.895	54.893	54.882	54.846	54.839	54.807
DESIGN OFFSET	-14.993	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.643	3.943	5.443	10.000	11.000	15.009

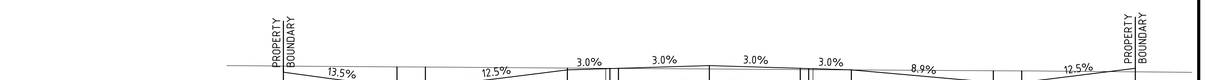
CHAINAGE 750.000



DATUM RL53.0

DESIGN HEIGHT	55.291	54.769	54.769	55.394	55.439	55.448	55.544	55.448	55.439	55.394	55.002	55.002	55.502
STG 678 EXISTING SURFACE	55.518	55.494	55.488	55.457	55.418	55.410	55.426	55.407	55.405	55.396	55.365	55.359	55.334
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

CHAINAGE 875.000



DATUM RL53.0

DESIGN HEIGHT	55.213	54.613	54.613	55.298	55.343	55.352	55.448	55.352	55.343	55.298	54.953	54.953	55.353
STG 678 EXISTING SURFACE	55.431	55.403	55.396	55.361	55.351	55.349	55.326	55.305	55.303	55.294	55.265	55.260	55.229
DESIGN OFFSET	-15.000	-11.000	-10.000	-5.000	-3.500	-3.200	0.000	3.200	3.500	5.000	10.000	11.000	15.000

CHAINAGE 850.000

XREFs:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\967119671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-716.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
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Townsville, QLD 4810
Tel: 07 4772 1166 Fax: 07 4721 2508
Web: www.cardno.com.au

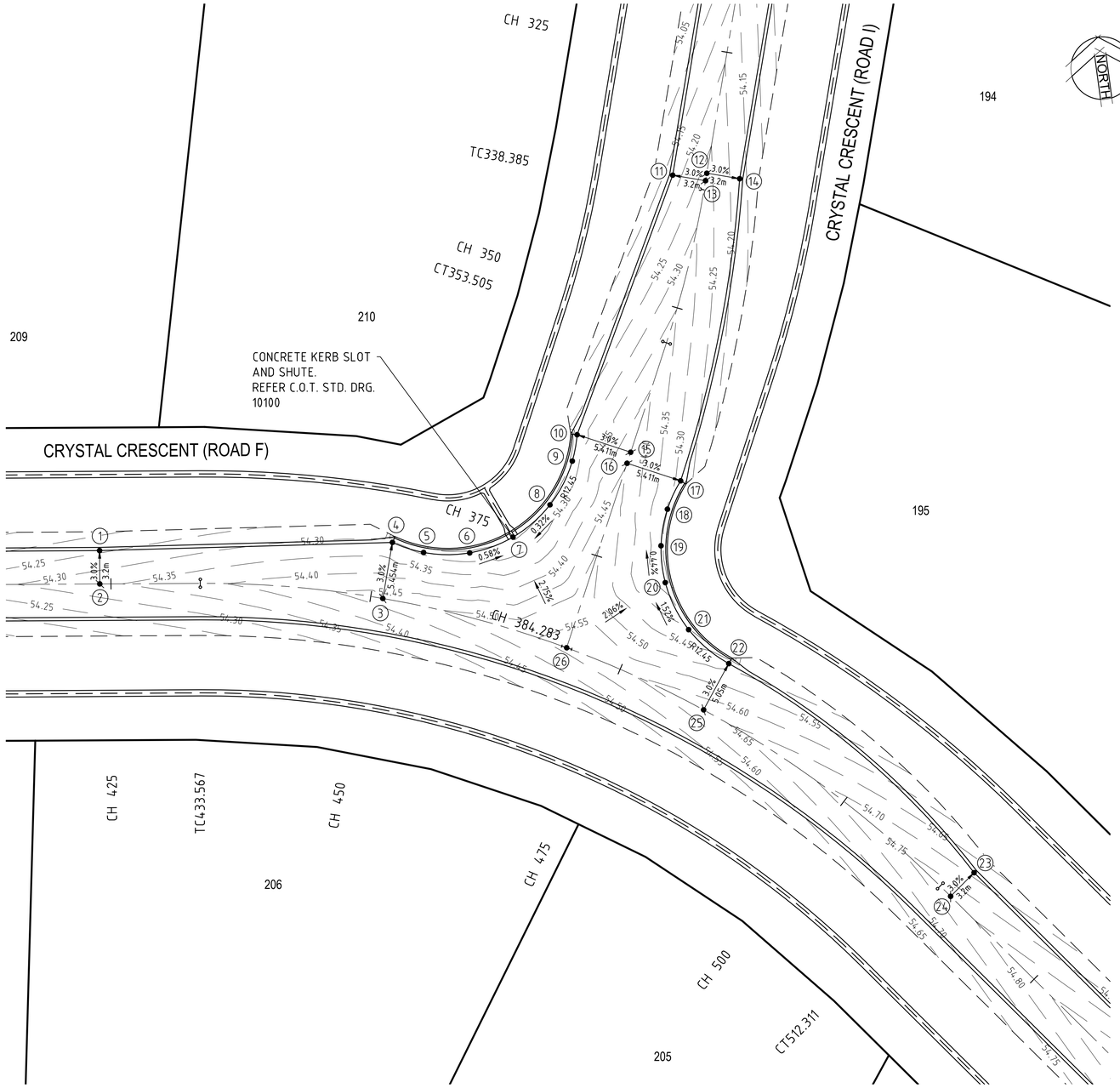
		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVLOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: ROADWORKS CROSS SECTIONS DIAMOND DRIVE (ROAD J) SHEET 2 OF 2

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-716
Revision: A



SETOUT POINTS

PT No.	EASTING	NORTHING	RL.
1	57431.455	861134.444	54.243
2	57431.044	861131.270	54.339
3	57457.775	861126.248	54.473
4	57459.412	861131.450	54.310
5	57462.240	861130.090	54.292
6	57466.624	861129.458	54.266
7	57470.951	861130.401	54.240
8	57474.880	861132.995	54.255
9	57477.565	861136.863	54.270
10	57478.357	861139.312	54.278
11	57490.788	861162.750	54.175
12	57494.058	861162.495	54.267
13	57493.845	861161.805	54.271
14	57497.115	861161.550	54.171
15	57483.228	861136.953	54.441
16	57482.743	861135.952	54.448
17	57487.614	861133.594	54.285
18	57485.990	861131.071	54.299
19	57484.913	861127.677	54.314
20	57484.840	861124.118	54.330
21	57486.458	861119.343	54.407
22	57489.838	861115.602	54.484
23	57510.482	861092.571	54.688
24	57507.944	861090.623	54.784
25	57486.853	861111.528	54.635
26	57474.628	861119.194	54.564

LEGEND

- BARRIER KERB & CHANNEL (TYPE B1)
- CONCRETE EDGE BEAM (300x300)
- CONCRETE DISH DRAIN (TYPE D2)
- (1) SETOUT POINT
- 3.0% DESIGN GRADE

PLAN

SCALE 1:250 @ A1

ROADWORKS NOTES

1. CONTOURS DENOTED THUS —— 4.00 —— INDICATE GROUND FINISHED SURFACE LEVELS.
2. ALL LEVELS ARE LIP OF KERB LEVELS OR CROWN LEVELS.
3. ALL SETOUT IS TO LIP OF KERB UNLESS OTHERWISE NOTED.
4. GRADE EVENLY BETWEEN LEVELS SHOWN.
5. CONTRACTOR SHALL ENSURE THAT ALL KERB AND CHANNEL GRADES SHALL NOT FALL BELOW 0.25% AT ANY POINT IRRESPECTIVE OF ROAD CENTRELINE GRADING SHOWN ON LONGITUDINAL SECTIONS.

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 5 10 15 20 25m
SCALE 1:250 @A1

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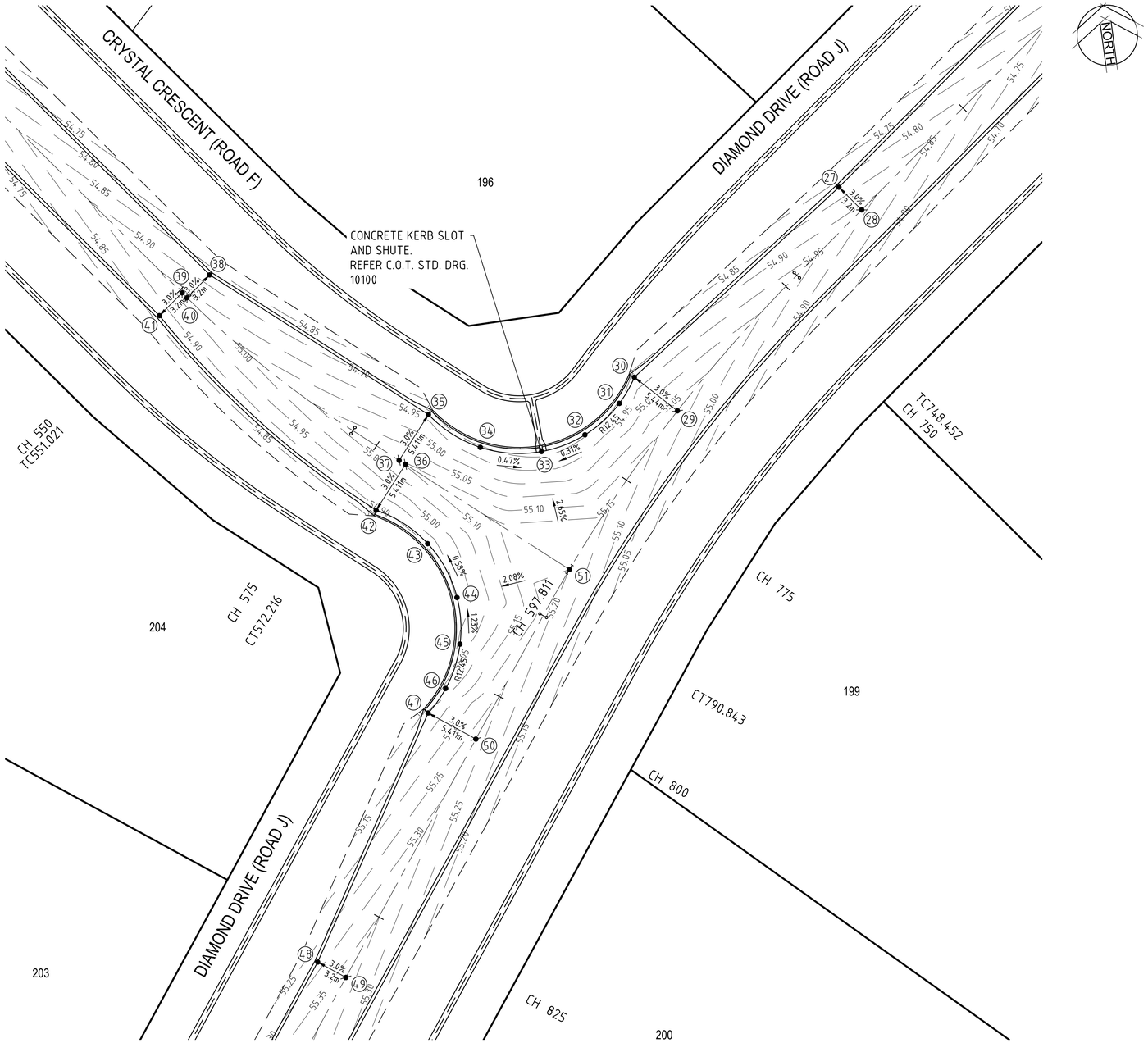
		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: INTERSECTION DETAILS PLAN SHEET 1 OF 2
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: A.H.D | Date: 2/9/2018 | Scale: As Shown | Size: A1
Drawing Number: 967192-CI-717 | Revision: A

DATE PLOTTED: 2 July 2020 3:30 PM BY - JAMES WONG
XREFs: XR-967192-CADASTRAL; XR-967192-MASTER; XR-967192-DESIGN-CONTOURS-ROADS-678
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-717.dwg



PLAN
SCALE 1:250 @ A1

SETOUT POINTS			
PT No.	EASTING	NORTHING	RL.
27	57596.421	861063.225	54.817
28	57598.369	861060.686	54.913
29	57577.514	861043.325	55.079
30	57573.709	861047.213	54.918
31	57571.879	861044.837	54.909
32	57568.070	861042.195	54.895
33	57563.559	861041.130	54.880
34	57557.581	861042.360	54.909
35	57552.906	861046.284	54.938
36	57549.974	861041.674	55.104
37	57549.402	861042.160	55.100
38	57533.192	861062.976	54.872
39	57530.233	861061.575	54.965
40	57530.654	861061.028	54.968
41	57527.695	861059.627	54.869
42	57546.470	861037.550	54.888
43	57551.101	861033.565	54.924
44	57553.278	861027.856	54.960
45	57552.948	861023.226	55.018
46	57550.945	861019.038	55.075
47	57548.890	861016.852	55.112
48	57534.672	860993.767	55.282
49	57537.251	860991.872	55.378
50	57553.251	861013.648	55.274
51	57564.740	861029.127	55.200

LEGEND

- BARRIER KERB & CHANNEL (TYPE B1)
- CONCRETE EDGE BEAM (300x300)
- CONCRETE DISH DRAIN (TYPE D2)
- (1) SETOUT POINT
- 3.0% DESIGN GRADE

ROADWORKS NOTES

1. CONTOURS DENOTED THUS —— 4.00 —— INDICATE GROUND FINISHED SURFACE LEVELS.
2. ALL LEVELS ARE LIP OF KERB LEVELS OR CROWN LEVELS.
3. ALL SETOUT IS TO LIP OF KERB UNLESS OTHERWISE NOTED.
4. GRADE EVENLY BETWEEN LEVELS SHOWN.
5. CONTRACTOR SHALL ENSURE THAT ALL KERB AND CHANNEL GRADES SHALL NOT FALL BELOW 0.25% AT ANY POINT IRRESPECTIVE OF ROAD CENTRELINE GRADING SHOWN ON LONGITUDINAL SECTIONS.

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 5 10 15 20 25m
SCALE 1:250 @A1

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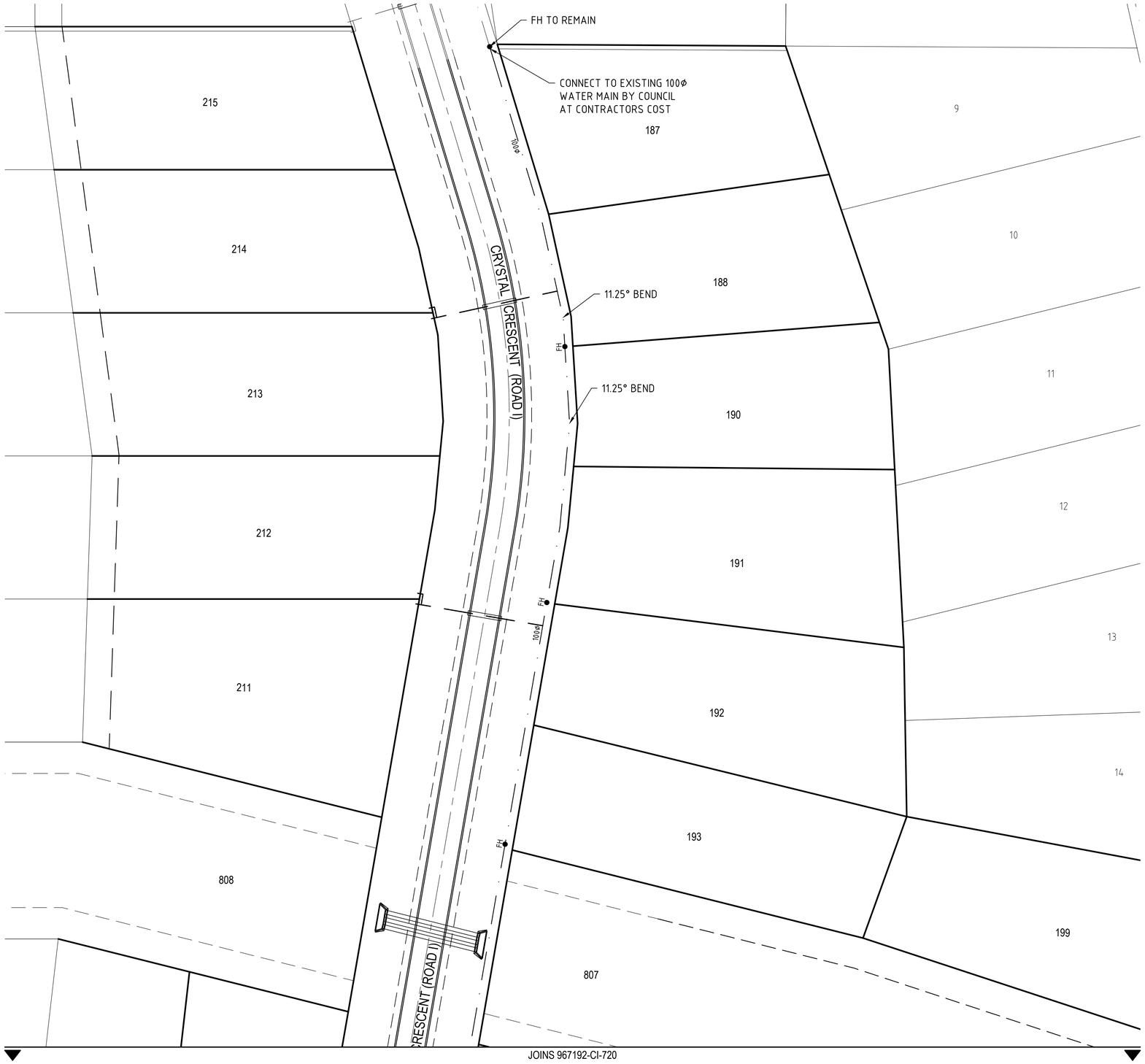
Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: INTERSECTION DETAILS PLAN SHEET 2 OF 2
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: A.H.D | Date: 2/9/2018 | Scale: As Shown | Size: A1
Drawing Number: 967192-CI-718 | Revision: A

DATE PLOTTED: 2 July 2020 3:31 PM BY - JAMES WONG
XREF's: XR-967192-MASTER, XR-967192-CADASTRAL, XR-967192-DESIGN-CONTOURS-ROADS-678
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\971-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-718.dwg

DATE PLOTTED: 2 July 2020 3:33 PM BY : JAMES WONG



PLAN

SCALE 1:500 @ A1

NORTH

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT CITY COUNCIL STANDARD WATER DRAWINGS INCLUDING FORMER THURINGOWA STANDARD DRAWINGS.
2. CONNECTION TO EXISTING WATERMAIN TO BE CARRIED OUT BY THE COUNCIL AT CONTRACTORS COST.
3. ALL WATERMAINS TO BE LOCATED 1.8m +/- 0.1m OFF ROAD RESERVE ALIGNMENTS UNLESS NOTED OTHERWISE.
4. PIPES FOR WATER MAINS TO BE PVC-U CLASS 16, OD COMPATIBLE TO AS1477, RUBBER RING JOINTED WITH SOCKETED DICL FITTINGS.
5. PIPE FITTINGS TO BE DICL TO AS2280.
6. POLYTHENE PIPES SHALL BE MDPE PN16 TO AS4130
7. TRENCH WALLS FOR SERVICES WILL NEED TO BE BATTERED FOR CONSTRUCTION SAFETY.

LEGEND

EXISTING WATERMAIN		100ϕ	WATERMAIN AND SIZE
EXISTING FIRE HYDRANT		FH	FIRE HYDRANT
EXISTING VALVE		100SV	VALVE AND SIZE
EXISTING TEE			TEE
EXISTING END CAP			END CAP
			32 O.D. MDPE. WITH ENVELOPER

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m

SCALE 1:500 @A1

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		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved		10801
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER STAGE 7

Title: WATER RETICULATION LAYOUT PLAN SHEET 1 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

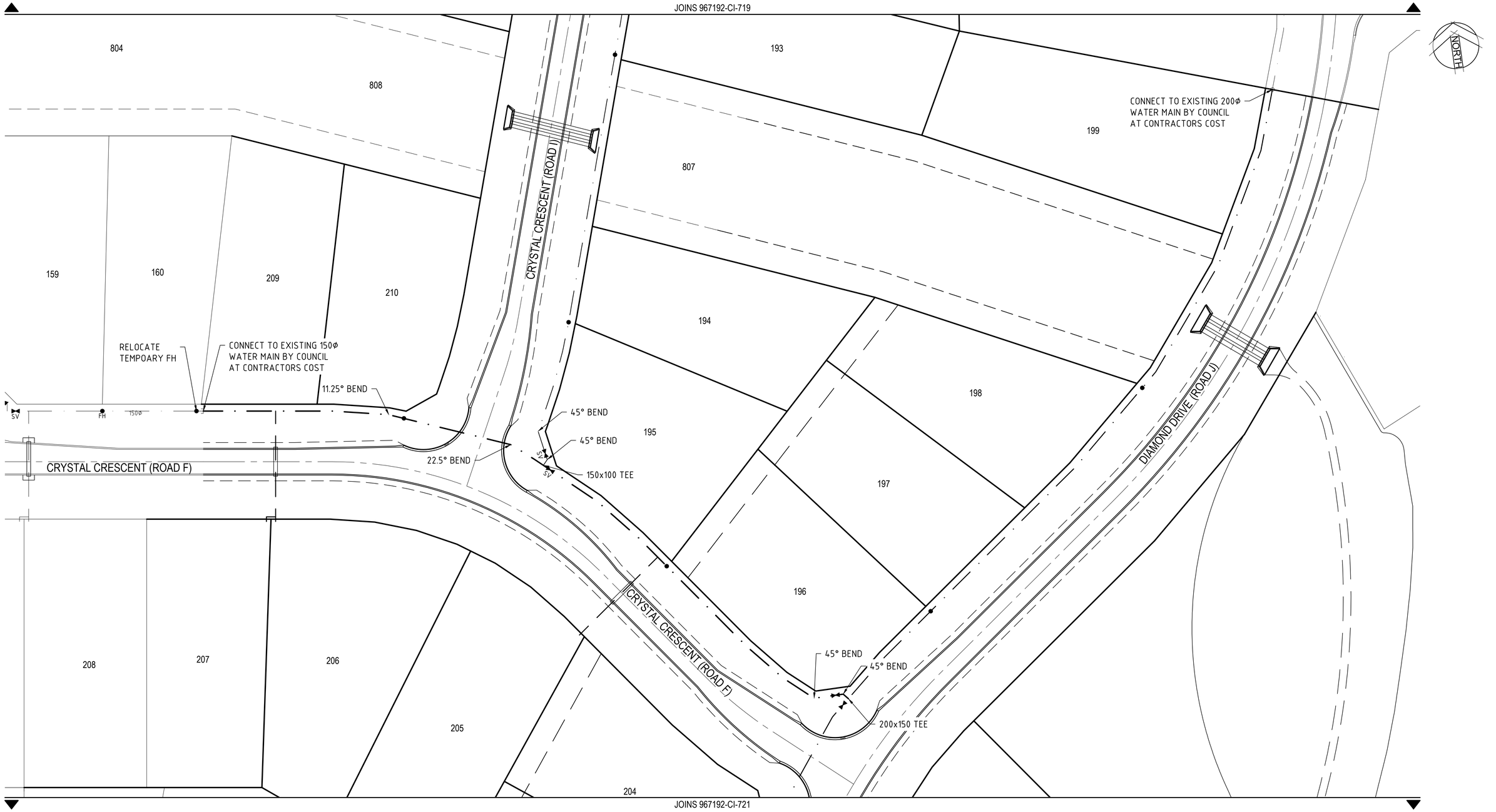
Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-719

Revision: A

XREF's: XR-967192-CADASTRAL; XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967192-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-719.dwg

DATE PLOTTED: 2 July 2020 3:35 PM BY: JAMES WONG



PLAN

SCALE 1:500 @ A1

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT CITY COUNCIL STANDARD WATER DRAWINGS INCLUDING FORMER THURINGOWA STANDARD DRAWINGS.
2. CONNECTION TO EXISTING WATERMAIN TO BE CARRIED OUT BY THE COUNCIL AT CONTRACTORS COST.
3. ALL WATERMAINS TO BE LOCATED 1.8m +/- 0.1m OFF ROAD RESERVE ALIGNMENTS UNLESS NOTED OTHERWISE.
4. PIPES FOR WATER MAINS TO BE PVC-U CLASS 16, OD COMPATIBLE TO AS1477, RUBBER RING JOINTED WITH SOCKETED DICL FITTINGS.
5. PIPE FITTINGS TO BE DICL TO AS2280.
6. POLYTHENE PIPES SHALL BE MDPE PN16 TO AS4130
7. TRENCH WALLS FOR SERVICES WILL NEED TO BE BATTERED FOR CONSTRUCTION SAFETY.

LEGEND

	EXISTING WATERMAIN	100Φ	WATERMAIN AND SIZE
	EXISTING FIRE HYDRANT	FH	FIRE HYDRANT
	EXISTING VALVE	100SV	VALVE AND SIZE
	EXISTING TEE		TEE
	EXISTING END CAP		END CAP
			32 O.D. MDPE. WITH ENVELOPER

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m
SCALE 1:500 @A1

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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

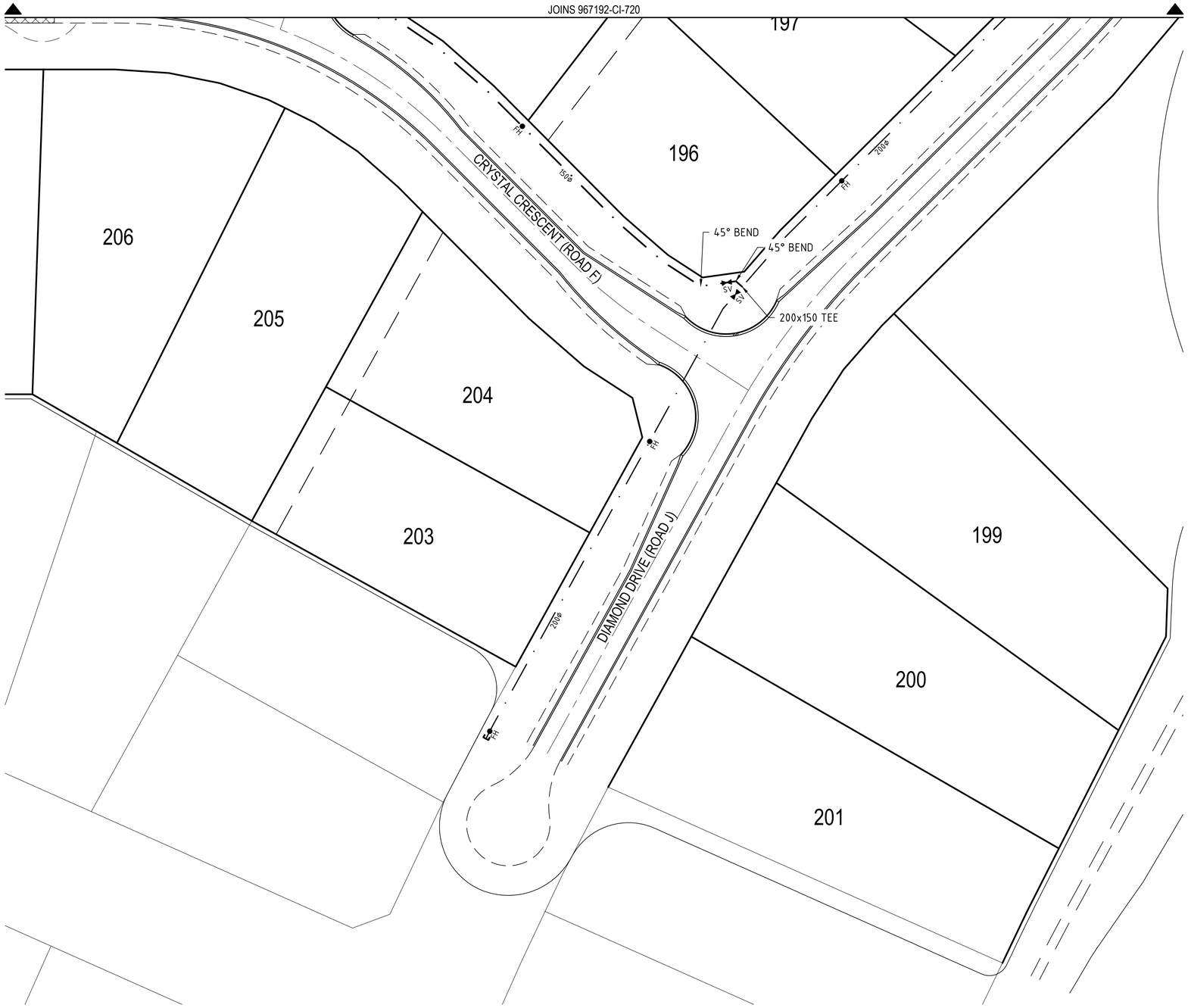
Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: WATER RETICULATION LAYOUT PLAN SHEET 2 OF 3
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-720
Revision: A

XREF's: XR-967192-CADASTRAL, XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96900\96719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-720.dwg

DATE PLOTTED: 2 July 2020 3:36 PM BY: JAMES WONG



PLAN

SCALE 1:500 @ A1

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT CITY COUNCIL STANDARD WATER DRAWINGS INCLUDING FORMER THURINGOWA STANDARD DRAWINGS.
2. CONNECTION TO EXISTING WATERMAIN TO BE CARRIED OUT BY THE COUNCIL AT CONTRACTORS COST.
3. ALL WATERMAINS TO BE LOCATED 1.8m +/- 0.1m OFF ROAD RESERVE ALIGNMENTS UNLESS NOTED OTHERWISE.
4. PIPES FOR WATER MAINS TO BE PVC-U CLASS 16, OD COMPATIBLE TO AS1477, RUBBER RING JOINTED WITH SOCKETED DICL FITTINGS.
5. PIPE FITTINGS TO BE DICL TO AS2280.
6. POLYTHENE PIPES SHALL BE MDPE PN16 TO AS4130
7. TRENCH WALLS FOR SERVICES WILL NEED TO BE BATTERED FOR CONSTRUCTION SAFETY.

LEGEND

EXISTING WATERMAIN	100ø	WATERMAIN AND SIZE
EXISTING FIRE HYDRANT	FH	FIRE HYDRANT
EXISTING VALVE	100SV	VALVE AND SIZE
EXISTING TEE		TEE
EXISTING END CAP		END CAP
		32 O.D. MDPE. WITH ENVELOPER

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m

SCALE 1:500 @A1

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Drawn	JJ	Date 9/02/2018
Checked	MB	Date 9/02/2018
Designed	JN	Date 9/02/2018
Verified	MB	Date 9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: WATER RETICULATION LAYOUT PLAN
SHEET 3 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-721

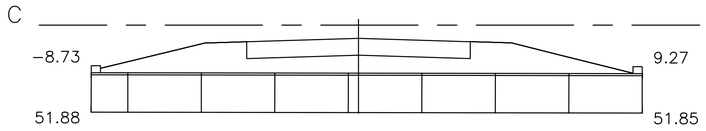
Revision: A

XREFs: XR-967192-MASTER; XR-967192-CADASTRAL
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967119\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-721.dwg

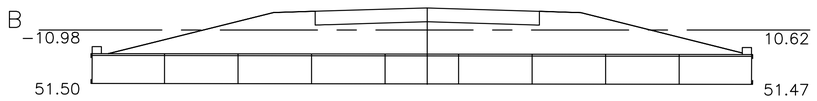
DATE PLOTTED: 2 July 2020 3:37 PM BY: JAMES WONG

DRAINAGE SCHEDULE

Culvert No.	Culvert Chainage	Drainage Structure	Wingwalls Skew	Wingwalls Type	Wingwalls Lengths W1 (m)	Wingwalls Lengths W2 (m)	EndWalls / Wingwalls (U)Conc. (m^3) 2309	EndWalls / Wingwalls (R)Conc. (m^3) 2308	EndWalls / Wingwalls Reinforcing (m^2)	EndWalls / Wingwalls Reinforcing (mesh)	Concrete Bases Conc. (m^3) 2302	Concrete Bases Reinforcing RL1218 (m^2)	Concrete Bases Reinforcing N12 (m)	Concrete Bases Reinforcing Nibs (m)	Aprons Rock Area (m^2) 2315	Aprons Wire Matt. Area (m^2) 2316	Aprons Wire Matt. Thick (mm)	Aprons Reinforced Conc. (m^3) 2313	Aprons Reinforced Reinforcing (m^2)	Aprons Reinforced Reinforcing (mesh)	Aprons Mass Conc. (m^3) 2314	Cut Off Walls (m^3)	Excavation (m3) Culv.	Excavation (m3) Ends	Excavation (m3) Inlet Outlet	Fill / Backfill OLM (m^3)	Fill / Backfill FBM (m^3)	Fill / Backfill BHM (m^3)	Fill / Backfill BSP (m^3)	No Fines Conc. Block	Reo. Bar Mass (kg)	OLM = Overlay Material FBM = Fill / Backfill /Side Material BHM = Bedding / Haunch Material BSP = Bedding Steel Pipes Remarks
B	288.33	3/900 RCP (27/2.4)	4.3	1	2.0 2.0	1.7 1.7	6.3											2.3	20.1	SL62		0.8					1.7	31.1		4		3/900 RCP
C	632.20	3/1200 RCP (3/1.2 21/2.4)	0.5	1	2.6 2.6	2.6 2.6	9.4											4.2	33.8	SL62		1.0					2.9	35.1		8		3/1200 RCP
		Total Quantities					15.7											6.5				1.9					4	66		12		Mesh quantities are net only No allowances made for laps etc.
		Total Mesh					53.9/SL62																									



3/1200 RCP (3/1.2 21/2.4) (Class 2, Butt Joint) (17.99 outside of walls) 632.2
Skew Angle 0.5° Skew Number 90.5 (18.00 overall length)
Wingwall Type 1 (W1 2.6, W2 2.6) (U)Conc. 9.4m^3
Reinforced Conc. Apron (Type 3) Conc. 4.2m^3, C/O Wall Conc. 1.0m^3
Overlay Material 155.8m^3, Backfill Material 2.9m^3
Bedding/Haunch Material 35.1m^3 (H2)
Standard Drawings – 1305, 1306, 1359
External Dia. 1359mm, Pipe Thick. 70mm, Headwall Ht. 230mm



3/900 RCP (27/2.4) (Class 2, Butt Joint) (21.53 outside of walls) 288.33
Skew Angle 4.3° Skew Number 94.3 (21.60 overall length)
Wingwall Type 1 (W1 2.0, W2 1.7) (U)Conc. 6.3m^3
Reinforced Conc. Apron (Type 3) Conc. 2.3m^3, C/O Wall Conc. 0.8m^3
Overlay Material 99.1m^3, Backfill Material 1.7m^3
Bedding/Haunch Material 31.1m^3 (H2)
Standard Drawings – 1305, 1306, 1359
External Dia. 1029mm, Pipe Thick. 57mm, Headwall Ht. 230mm

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
SCALE 1:100 @A1

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Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	10801	
	MB	9/02/2018

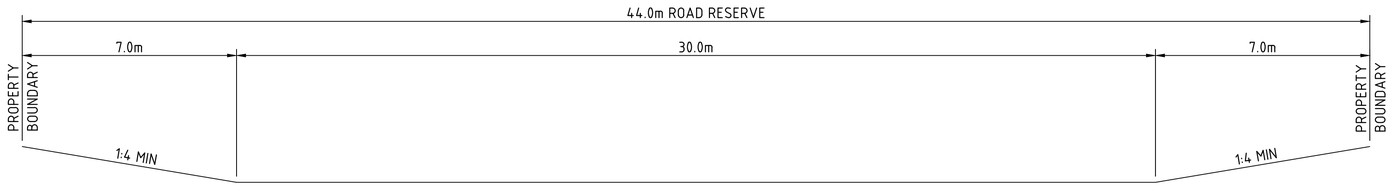
Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: CULVERT DETAILS
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-722
Revision: A

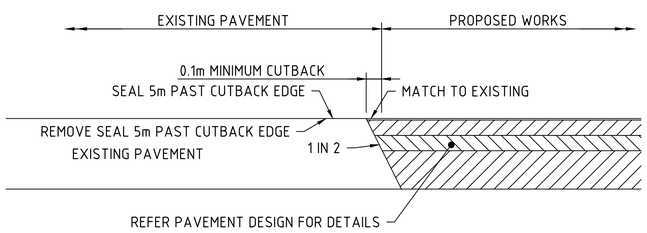
XREFs:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96900\96719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-722.dwg

DATE PLOTTED: 2 July 2020 3:38 PM BY: - JAMES WONG



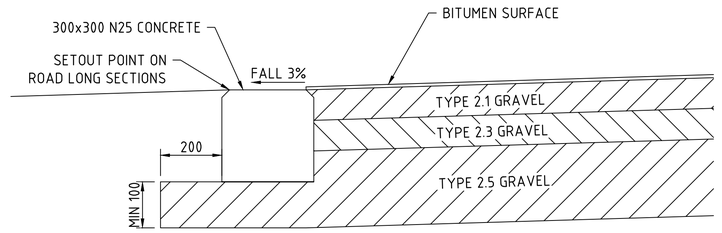
FLAT BOTTOM DRAIN - TYPICAL CROSS SECTION

SECTION A
SCALE 1:100 -



TYPICAL PAVEMENT CUTBACK DETAIL

NOT TO SCALE



CONCRETE EDGE BEAM DETAIL

NOT TO SCALE

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

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SCALE 1:100 @A1

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Web: www.cardno.com.au

		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	10801	
	MB	9/02/2018

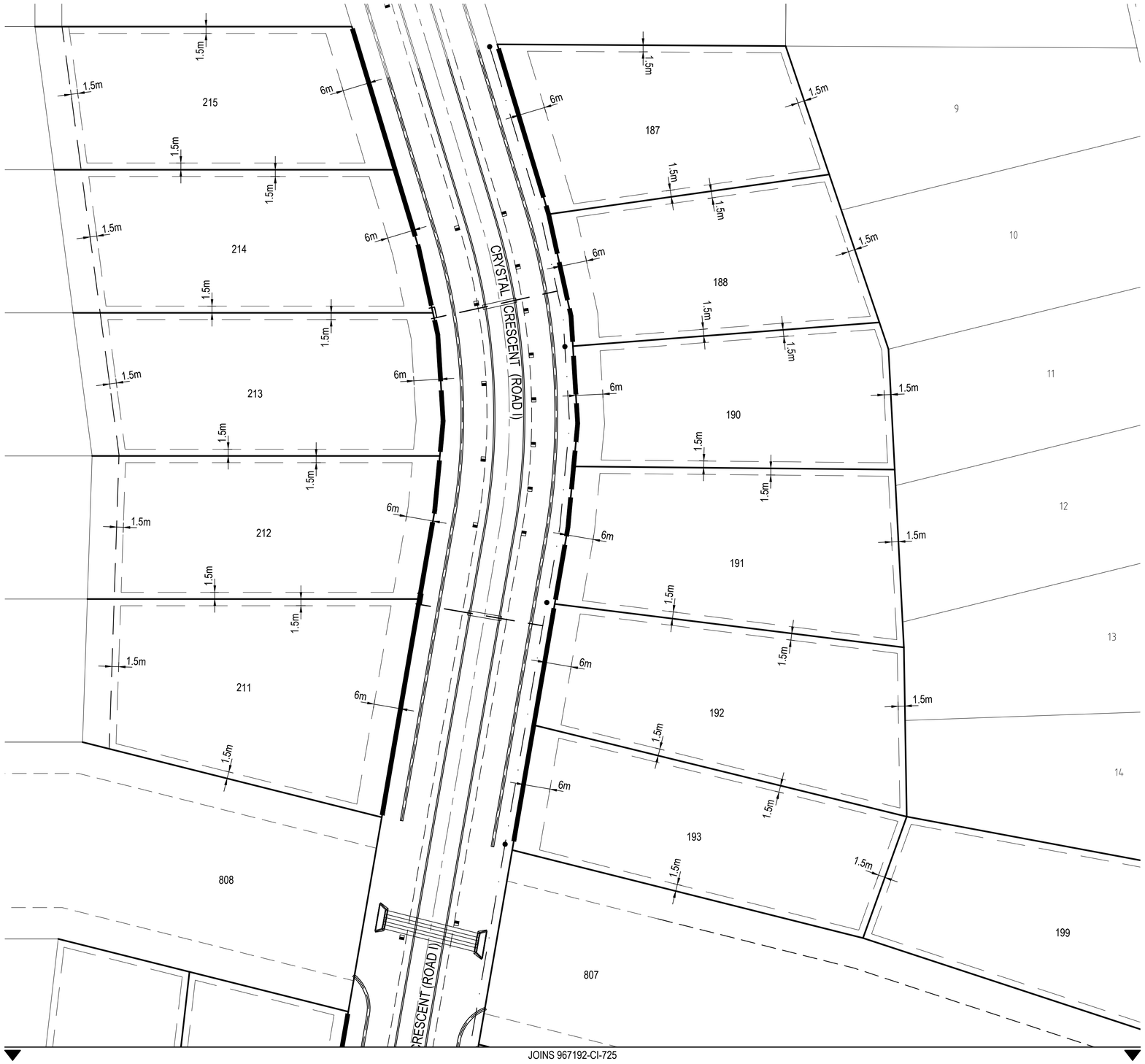
Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: MISCELLANEOUS DETAILS
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-723
Revision: A

XREFs:
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-723.dwg

DATE PLOTTED: 2 July 2020 3:38 PM BY: - JAMES WONG

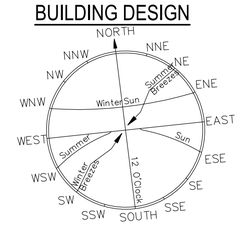


JOINS 967192-CI-725

PLAN

SCALE 1:500 @ A1

CLIMATICALLY RESPONSIVE BUILDING DESIGN



THE FOLLOWING DESIGN PARAMETERS SHOULD BE CONSIDERED DURING THE DESIGN PHASE OF PROPOSED DWELLINGS.

1. A BUILDING ORIENTATION THAT MINIMISES THE LENGTH OF EXTERNAL WALL AREAS THAT ARE EXPOSED TO SOLAR RADIATION.
2. AN INTERNAL LAYOUT ENSURING THAT LIVING AREAS ARE PROTECTED FROM SUMMER SOLAR RADIATION (i.e. LIVING AREAS ORIENTATED NORTH TO NORTH-EAST AND SERVICE AREAS ARE ORIENTATED TO THE WEST AND SOUTH)
3. BUILDING PROJECTIONS ARE USED TO MINIMISE SUMMER SOLAR RADIATION TO EXTERNAL WALLS (i.e. CARPORTS, LARGE OVERHANGS, EXTERNAL SCREENS ARE INCORPORATED THAT FULLY SHADE WESTERN AND SOUTH-WESTERN FACING EXTERNAL WALLS FROM SOLAR RADIATION.
4. A BUILDING LAYOUT THAT MAXIMISES THE CAPTURE OF PREVAILING BREEZES (LIVING AREA WINDOWS AND DOORS ARE ORIENTATED TO THE NORTH-EAST, ROOM LAYOUTS AND INTERNAL ACCESS WAYS ARE DESIGNED TO MAXIMISE CROSS VENTILATION).

LEGEND

- BUILDING ENVELOPE
- ALLOWABLE DRIVEWAY ACCESS
- WATER MAIN
- HOUSE CONNECTIONS (WATER)
- FH — FIRE HYDRANT
- SIGNS
- GUIDE POSTS

DRIVEWAY ACCESS ENVELOPE NOTES

1. FOR DRIVEWAY ACCESS ENVELOPE ALLOW 0.5m MINIMUM CLEARANCE TO ALL COUNCIL INFRASTRUCTURE, EXCEPT STORMWATER PITS WHICH REQUIRE 5.0m CLEARANCE
2. ALL DRIVEWAYS REQUIRE A PERMIT TO CARRY OUT WORKS ON COUNCIL CONTROLLED LAND PRIOR TO CONSTRUCTION.
3. FOR CLEARANCES TO TELSTRA AND ERGON ENERGY INFRASTRUCTURE, REFER TO THE RELEVANT AUTHORITY.

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

BUILDING SETBACK NOTES

1. DIMENSIONS SHOWN APPLY TO CLASS 1 BUILDINGS. FOR CLASS 10a AND 10b BUILDINGS, SETBACKS SHALL CONFORM TO THE REQUIREMENTS OF THE QUEENSLAND DEVELOPMENT CODE (CHAPTER 12).
2. ALL SETBACK DISTANCES ARE TAKEN FROM THE OUTERMOST PROJECTION WHICH IS A DISTANCE MEASURED FROM THE EDGE OF THE FACIA BOARD TO THE PROPERTY BOUNDARY.

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

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SCALE 1:500 @A1

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		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: BUILDING ENVELOPE & DRIVEWAY ACCESS PLAN
SHEET 1 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-724

Revision: A

XREFs: XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96711\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-724.dwg

DATE PLOTTED: 2 July 2020 3:39 PM BY: JAMES WONG

PLAN

SCALE 1:500 @ A1

THE FOLLOWING DESIGN PARAMETERS SHOULD BE CONSIDERED DURING THE DESIGN PHASE OF PROPOSED DWELLINGS.

1. A BUILDING ORIENTATION THAT MINIMISES THE LENGTH OF EXTERNAL WALL AREAS THAT ARE EXPOSED TO SOLAR RADIATION.
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LEGEND

- BUILDING ENVELOPE
- ALLOWABLE DRIVEWAY ACCESS
- WATER MAIN
- HOUSE CONNECTIONS (WATER)
- FH FIRE HYDRANT
- SIGNS
- GUIDE POSTS

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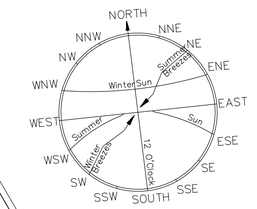
CLIMATICALLY RESPONSIVE BUILDING DESIGN



Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

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SCALE 1:500 @A1

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Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: BUILDING ENVELOPE & DRIVEWAY ACCESS PLAN
SHEET 2 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-725
Revision: A

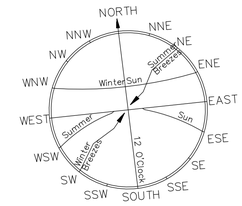
XREFs: XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96711\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-725.dwg

DATE PLOTTED: 2 July 2020 3:39 PM BY: - JAMES WONG

PLAN

SCALE 1:500 @ A1

CLIMATICALLY RESPONSIVE BUILDING DESIGN



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LEGEND

- BUILDING ENVELOPE
- ALLOWABLE DRIVEWAY ACCESS
- WATER MAIN
- HOUSE CONNECTIONS (WATER)
- FH FIRE HYDRANT
- SIGNS
- GUIDE POSTS

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Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m
SCALE 1:500 @A1

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		Date
Drawn	JJ	9/02/2018
Checked	MB	9/02/2018
Designed	JN	9/02/2018
Verified	MB	9/02/2018
Approved		10801
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: BUILDING ENVELOPE & DRIVEWAY ACCESS PLAN
SHEET 3 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-726
Revision: A

XREF's: XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96711\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-726.dwg

DATE PLOTTED: 2 July 2020 3:40 PM BY: JAMES WONG

JOINS 967192-CI-728

NOTES

1. REFER TO AUS-SPEC CONSTRUCTION SPECIFICATION C211 FOR DETAILS DURING CONSTRUCTION.
2. ALL STOCKPILES ARE TO HAVE SILT FENCES INSTALLED TO PREVENT SEDIMENT DISCHARGE.
3. ALL MEASURES FOR EROSION AND SEDIMENTATION CONTROL SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND THE MAINTENANCE PERIOD.
4. ALL MEASURES FOR EROSION AND SEDIMENTATION CONTROL SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR IN SUCH A MANNER SO AS NOT TO PRESENT A POTENTIAL HAZARD TO ANY PERSON OR PROPERTY.

LEGEND

- 51.00 — DESIGN SURFACE CONTOURS
- DIRECTION OF OVERLAND FLOW PATH
- HYDROMULCH (BY OTHERS)
- TOP OF BATTER
- BOTTOM OF BATTER
- ENTRY/EXIT PAD

PLAN

SCALE 1:500 @ A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m

SCALE 1:500 @A1

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Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: SOIL EROSION & SEDIMENT CONTROL PLAN
SHEET 1 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-727

Revision: A

XREFs: XR-967192-MASTER, XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\96719\71-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-727.dwg

DATE PLOTTED: 2 July 2020 3:41 PM BY: - JAMES WONG

JOINS 967192-CI-727

JOINS 967192-CI-729

PLAN
SCALE 1:500 @ A1

NOTES

1. REFER TO AUS-SPEC CONSTRUCTION SPECIFICATION C211 FOR DETAILS DURING CONSTRUCTION.
2. ALL STOCKPILES ARE TO HAVE SILT FENCES INSTALLED TO PREVENT SEDIMENT DISCHARGE.
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LEGEND

- 51.00 — DESIGN SURFACE CONTOURS
- DIRECTION OF OVERLAND FLOW PATH
- HYDROMULCH (BY OTHERS)
- TOP OF BATTER
- BOTTOM OF BATTER
- ENTRY/EXIT PAD

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

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SCALE 1:500 @A1

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Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER
STAGE 7
Title: SOIL EROSION & SEDIMENT CONTROL PLAN
SHEET 2 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-728
Revision: A

XREFs: XR-967192-MASTER; XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96000\967119\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-728.dwg

DATE PLOTTED: 2 July 2020 3:41 PM BY: - JAMES WONG

JOINS 967192-CI-728

NOTES

1. REFER TO AUS-SPEC CONSTRUCTION SPECIFICATION C211 FOR DETAILS DURING CONSTRUCTION.
2. ALL STOCKPILES ARE TO HAVE SILT FENCES INSTALLED TO PREVENT SEDIMENT DISCHARGE.
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LEGEND

- 51.00 — DESIGN SURFACE CONTOURS
- DIRECTION OF OVERLAND FLOW PATH
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PLAN

SCALE 1:500 @ A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 10 20 30 40 50m

SCALE 1:500 @A1

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Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD

Project: MOUNT MARGARET, ALICE RIVER
STAGE 7

Title: SOIL EROSION & SEDIMENT CONTROL PLAN
SHEET 3 OF 3

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

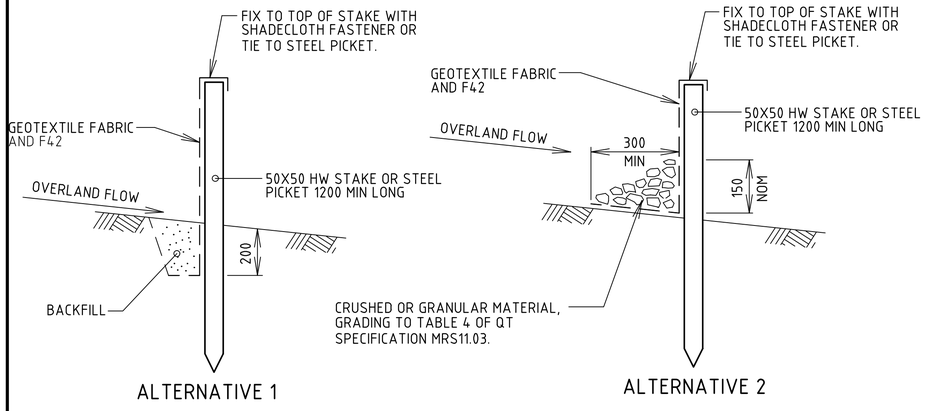
Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

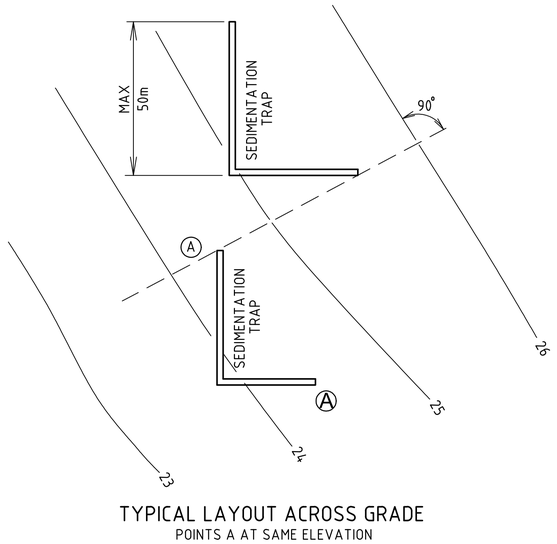
Drawing Number: 967192-CI-729

Revision: A

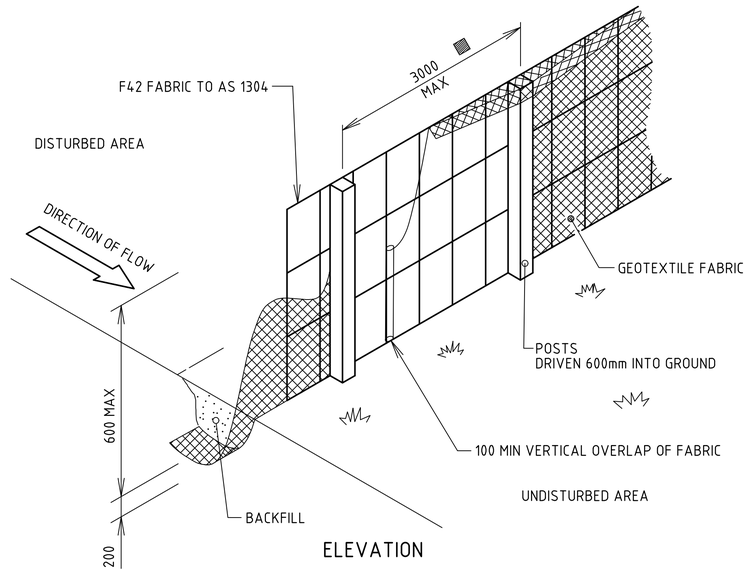
XREF's: XR-967192-MASTER, XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\96711\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-729.dwg

DATE PLOTTED: 2 July 2020 3:42 PM BY: - JAMES WONG



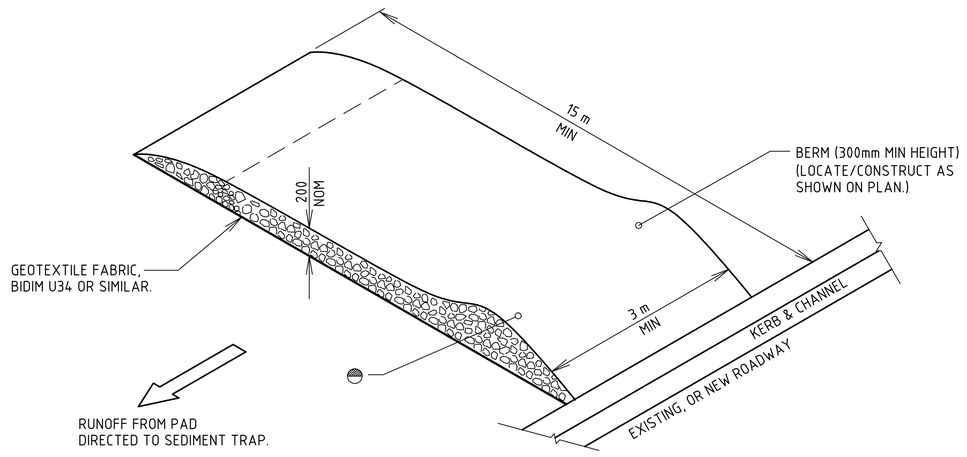


TYPICAL LAYOUT ACROSS GRADE
POINTS A AT SAME ELEVATION



ELEVATION

SEDIMENT FENCE



TEMPORARY CONSTRUCTION ENTRY / EXIT SEDIMENT TRAP

LEGEND

- UNBOUND PAVEMENT MATERIAL (GRAVEL) TO GRADING B, TABLE 9 OF QT SPECIFICATION MRS11.05, EXCLUDE MATERIAL FINER THAN AS SIEVE 2.36mm.
- WITHOUT F42 FABRIC, 2000 MAX C\C

NOTES

1. GENERAL
   - (A) TEMPORARY DRAINAGE CONTROL. FLOW SHOULD BE DIVERTED AROUND THE WORK SITE WHERE POSSIBLE.
   - (B) ALL DRAINAGE, EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND BE OPERATIONAL BEFORE COMMENCING UP-SLOPE EARTHWORKS.
   - (C) ALL CONTROL MEASURES TO BE INSPECTED AT LEAST WEEKLY AND AFTER SIGNIFICANT RUNOFF PRODUCING STORMS.
   - (D) CONTROL MEASURES MAY BE REMOVED WHEN ON-SITE EROSION IS CONTROLLED AND 70% PERMANENT SOIL COVERAGE IS OBTAINED OVER ALL UPSTREAM DISTURBED LAND.
   - (E) IN AREAS WHERE RUNOFF TURBIDITY IS TO BE CONTROLLED, EXPOSED SURFACES TO BE EITHER MULCHED, COVERED WITH EROSION CONTROL BLANKETS OR TURFED IF EARTHWORKS ARE EXPECTED TO BE DELAYED FOR MORE THAN 14 DAYS.
2. SEDIMENT FENCE
   - (A) NORMALLY LOCATED ALONG THE CONTOUR WITH A MAXIMUM CATCHMENT AREA 0.6 ha PER 100m LENGTH OF FENCE.
   - (B) WOVEN FABRICS ARE PREFERRED, I.E. OPERATIONAL PERIOD LESS THAN 6 MONTHS OR ON SITES WHERE SIGNIFICANT SEDIMENT RUNOFF IS NOT EXPECTED.
   - (C) WHERE FENCES NEED TO BE LOCATED ACROSS THE CONTOUR THE LAYOUT SHALL CONFORM TO 'TYPICAL LAYOUT ACROSS GRADE'.
   - (D) FENCES ARE REQUIRED 2m MIN FROM TOE OF CUT OR FILL BATTERS, WHERE NOT PRACTICAL ONE FENCE CAN BE AT THE TOE WITH A SECOND FENCE 1m MIN AWAY. FENCE SHOULD NOT BE LOCATED PARALLEL WITH TOE IF CONCENTRATION OF FLOW WILL OCCUR BEHIND THE FENCE.
3. TEMP CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP.
   - (A) ADJACENT STORMWATER RUNOFF TO BE DIVERTED AWAY FROM ENTRY/EXIT.
   - (B) WHEEL - WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.
4. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES, INCORPORATE TRAFFIC CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT.
5. ALL DIMENSIONS IN MILLIMETRES UNLESS INDICATED OTHERWISE.

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

SCALE 1:100 @A1 (0 1 2 4 6 8 10m)

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Drawn	JJ	9/02/2018
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Approved	MB	10801 9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: SOIL EROSION, SEDIMENT CONTROL DETAILS SHEET 1 OF 2

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-730
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XREFs:
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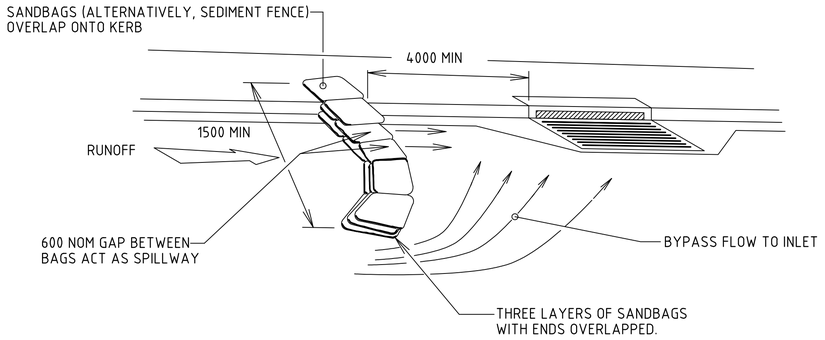
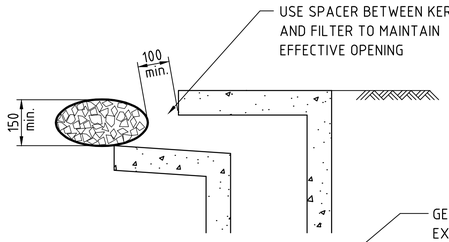
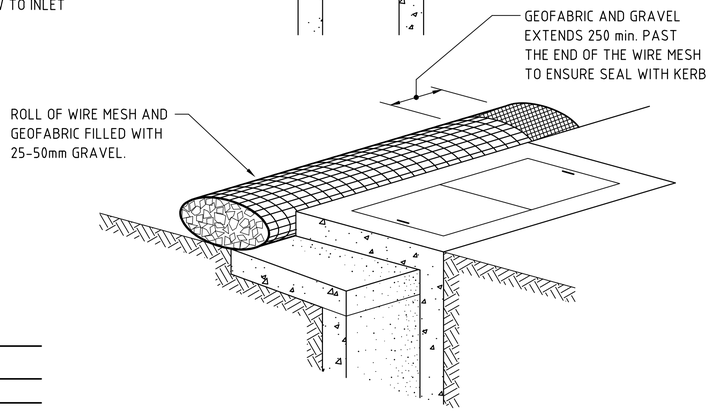
DATE PLOTTED: 2 July 2020 3:42 PM BY : JAMES WONG



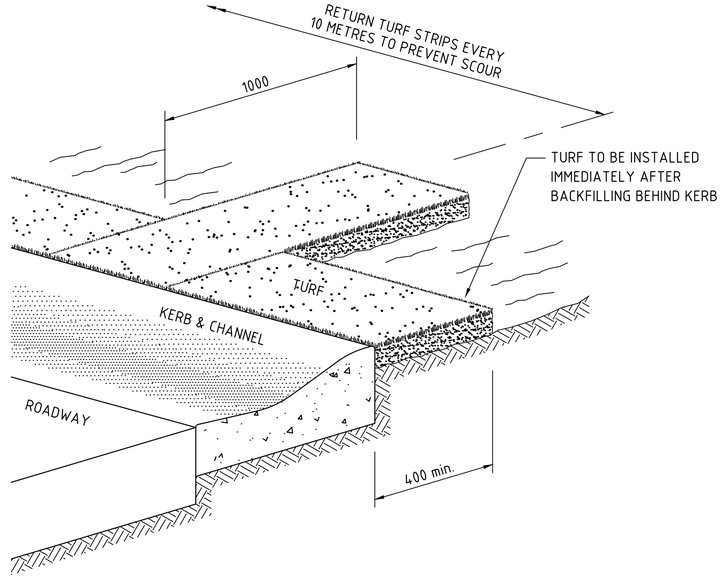
ON GRADE KERB INLET SEDIMENT TRAP





FILTER TO SIDE INLET GULLY PIT

NOT TO SCALE



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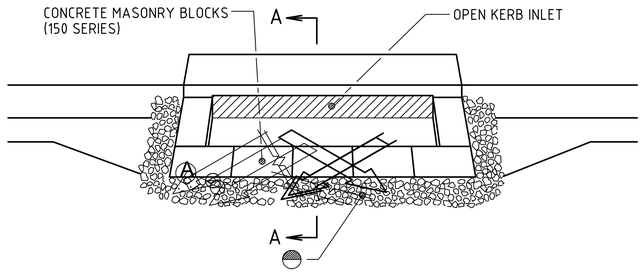
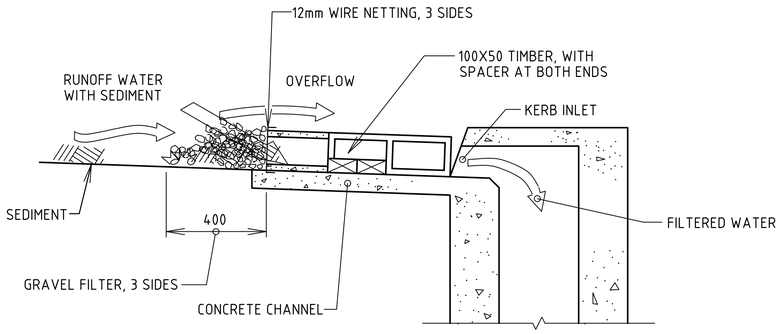
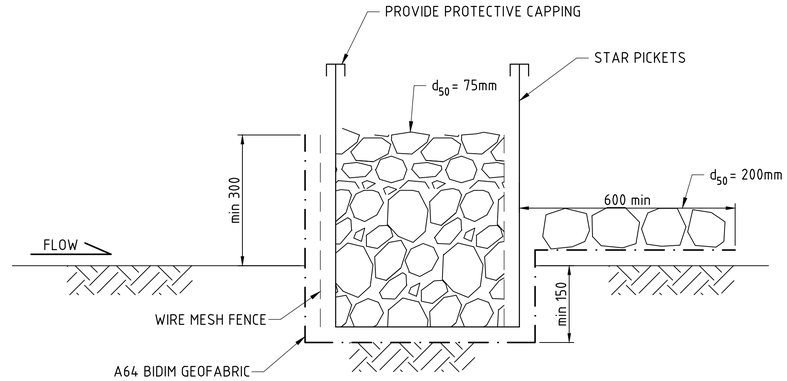




SECTION A-A

SAG INLET SEDIMENT TRAP, ST-1

A STABILISED BYPASS 'OVERLAND FLOW PATH'
SHOULD EXIST ADJACENT TO INLET IN GENUINE SAGS.



CHECK DAM SECTION DETAIL

NOT TO SCALE

LEGEND

GRAVEL FILTER, REFER GRADING B, TABLE 9 OF QT SPECIFICATION MRS11.05, EXCLUDE MATERIAL FINER THEN AS SIEVE 2.36mm.

NOTES

1. FIELD INLET
   - A) A STABILISED BYPASS OVERLAND FLOW PATH SHOULD EXIST ADJACENT TO THE FIELD INLET.
   - B) WATER LEVEL CONTROL PERIMETER BANKS MAY BE REQUIRED.
   - C) BLOCKS TO BE RESTRAINED BY A HORIZONTAL TIMBER RAIL AT BLOCK JOINT HEIGHT FIXED TO TIMBER STAKES AT CORNERS.
2. CHECK DAMS
   - A) CATCHMENT AREA LIMITED TO 4 ha
   - B) USE IN MINOR OPEN DRAINS ONLY, (VELOCITY CONTROL), SEDIMENT COLLECTION IS A SECONDARY PURPOSE.
3. STRAW BALE BANKS
   - A) BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR,IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
   - B) EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 100mm ON THE DOWNSTREAM SIDE AND PLACED SO THE BINDINGS ARE HORIZONTAL.
   - C) BALES SHALL BE SECURELY ANCHORED IN PLACE WITH EITHER TWO STAKES OR STEEL PICKETS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER.
   - D) INSPECTIONS SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. REPLACE AT LEAST 3 monthly.
4. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES, INCORPORATE TRAFFIC CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT.
5. ALL DIMENSIONS IN MILLIMETRES UNLESS INDICATED OTHERWISE.

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 1 2 4 6 8 10m
SCALE 1:100 @A1

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Approved	10801	
	MB	9/02/2018

Client: MOUNT MARGARET DEVELOPMENTS PTY LTD
Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: SOIL EROSION, SEDIMENT CONTROL DETAILS SHEET 2 OF 2
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

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A.H.D	2/9/2018	As Shown	A1

Drawing Number: 967192-CI-731
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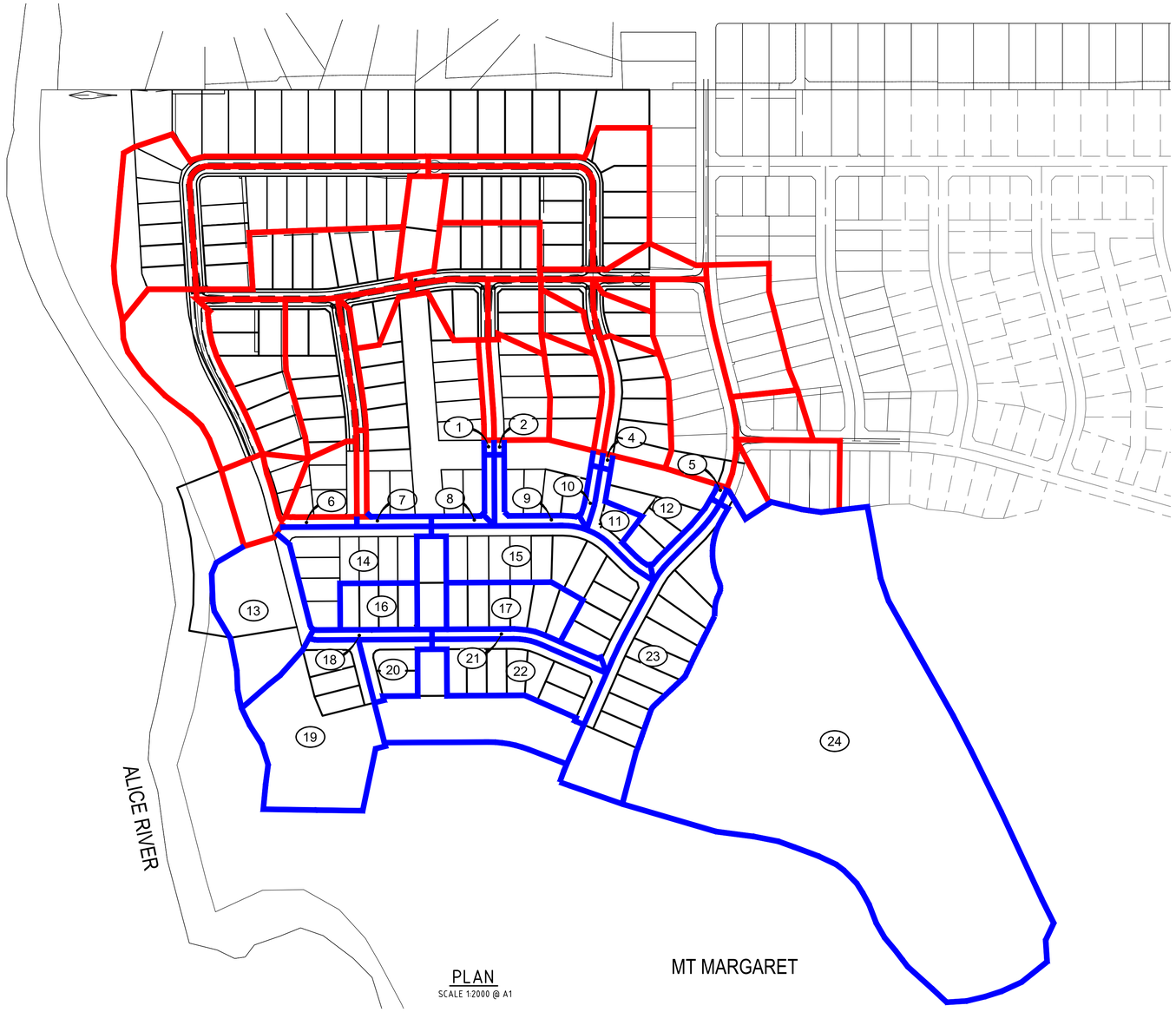
XREF's: XR-967192-MASTER; XR-967192-CATCHMENT AREAS STG678
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\96900\96719\671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-732.dwg

NORTH

Area Table	
Number	Area (Ha)
1	0.033
2	0.033
3	0.032
4	0.032
5	0.038
6	0.168
7	0.165
8	0.130
9	0.342
10	0.134
11	0.519
12	0.231
13	2.471
14	2.017
15	3.313
16	0.812
17	1.389
18	0.272
19	3.981
20	0.712
21	0.400
22	1.968
23	3.962
24	24.373



PLAN
SCALE 1:2000 @ A1

LEGEND

- EXISTING CATCHMENT BOUNDARY
- CATCHMENT BOUNDARY
- (29) CATCHMENT NUMBER
- ← DIRECTION OF FLOW

Rev.	Date	Description	Des.	Verif.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB

0 50 100 150 200m
SCALE 1:2000 @A1

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Project: MOUNT MARGARET, ALICE RIVER STAGE 7
Title: Q50 DRAINAGE CATCHMENT PLAN
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES

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