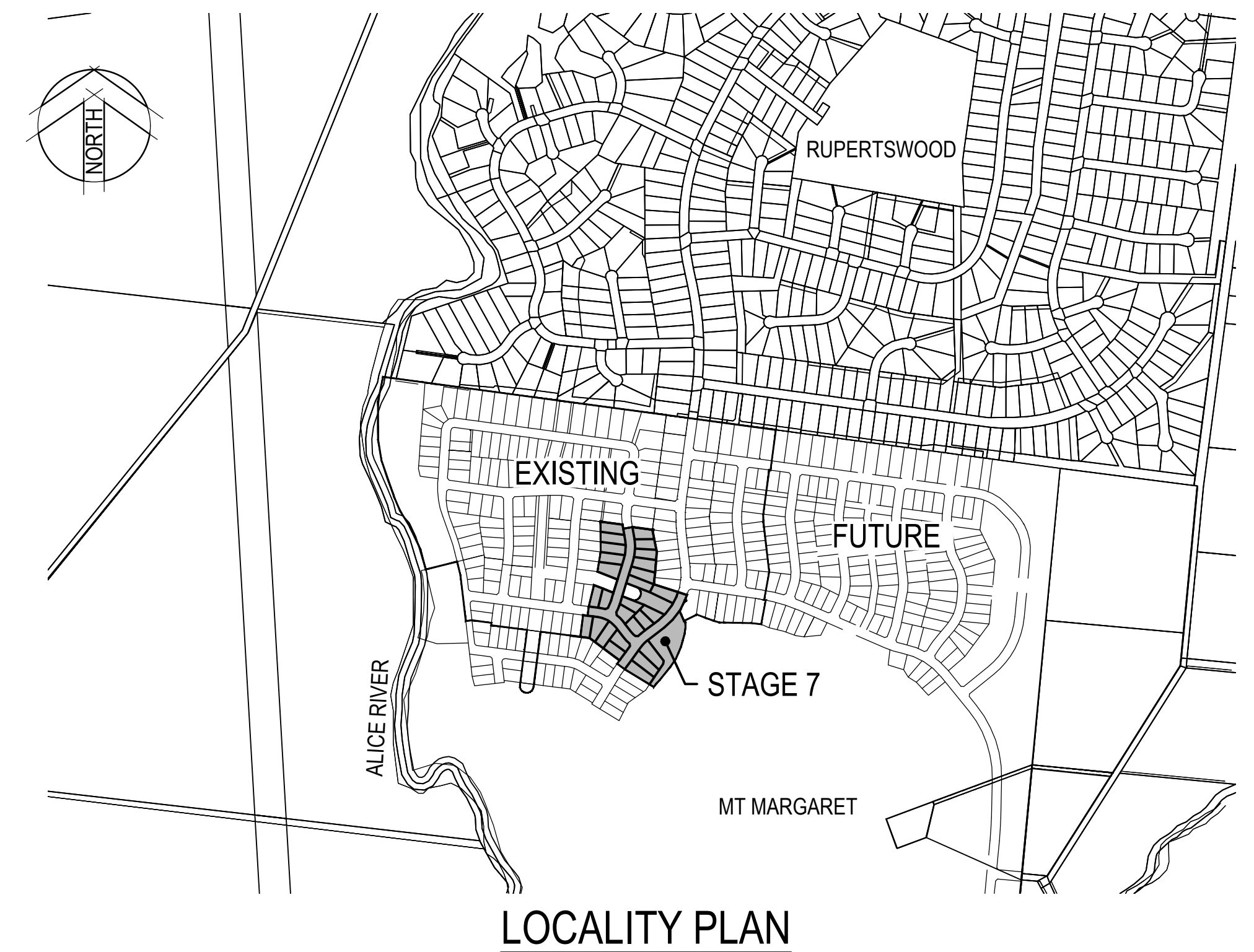




MOUNT MARGARET DEVELOPMENTS PTY LTD

MOUNT MARGARET, ALICE RIVER STAGE 7



Townsville City Council
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OPW20/0086
20/08/2020

Townsville City Council
Received
17/07/2020

967192-CI-700
Drawing Number

B
Revision

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

SCHEDULE OF DRAWINGS

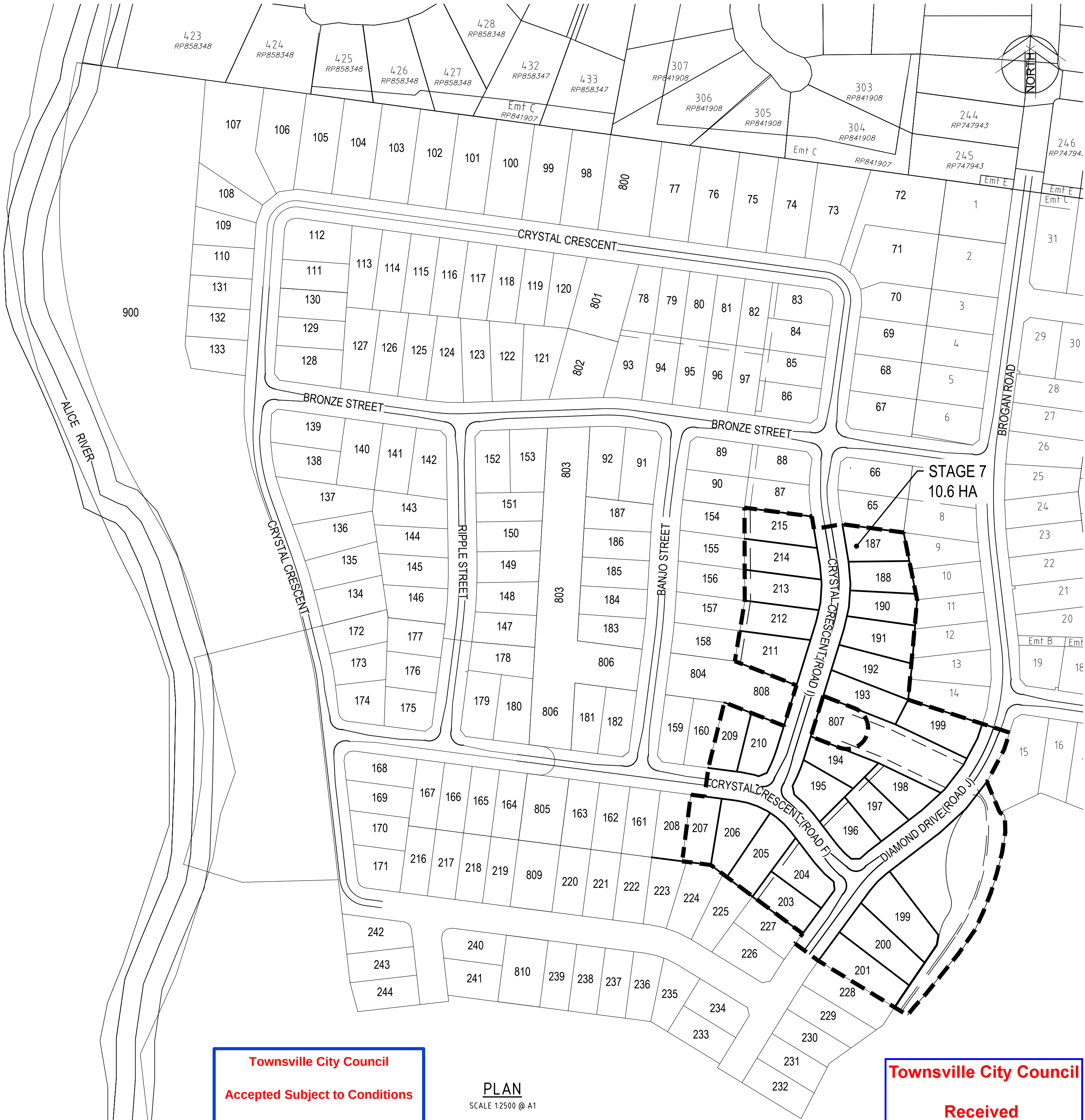
DRAWING No.	DESCRIPTION
967192-CI-700	COVER
967192-CI-701	DRAWING INDEX & ALLOTMENT LAYOUT PLAN
967192-CI-702	CONTROL LINE GEOMETRY PLAN
967192-CI-703	EARTHWORKS LAYOUT PLAN SHEET 1 OF 3
967192-CI-704	EARTHWORKS LAYOUT PLAN SHEET 2 OF 3
967192-CI-705	EARTHWORKS LAYOUT PLAN SHEET 3 OF 3
967192-CI-706	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

- IF IN DOUBT ASK.
- PROJECT COMPLETED ON PSM121521, LEVEL DATUM AHD (DER) REDUCED LEVEL 50.627, AZIMUTH MGA'94
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL INFORMATION ISSUED BY THE SUPERINTENDENT DURING THE COURSE OF THE CONTRACT.
- DRAWINGS SHALL NOT BE SCALED
- 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.
- 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
- 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

- 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.
- 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.



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"			

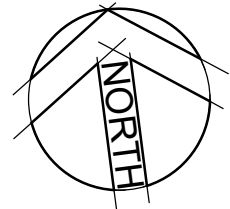


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 Web: www.cardno.com.au

Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7		Status	FOR APPROVAL
Designed JN	Date 9/02/2018		NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Verified MB	Date 9/02/2018	Title	CONTROL LINE GEMOETRY PLAN		Datum	A1
Approved	10801				Date	2/9/2018
					Scale	As Shown
					Size	A1
MB	9/02/2018				Drawing Number	967192-CI-702
					Revision	A

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



NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH COUNCIL STANDARD ROADWORKS AND STORMWATER DRAWINGS.
- 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.
- ALL CHAINAGES SHOWN ARE PEGGED CHAINAGES UNLESS SHOWN OTHERWISE.
- ALLOTMENTS TO BE GRADED EVENLY BETWEEN LEVELS SHOWN. CONSTRUCTED LOT GRADE TO BE MINIMUM 1:4.00.
- 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

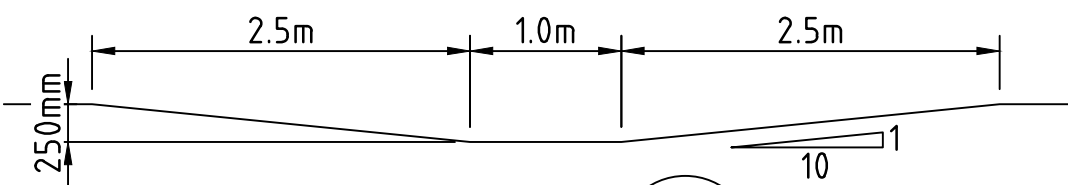
Q50 LEVELS

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

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20/08/2020

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17/07/2020

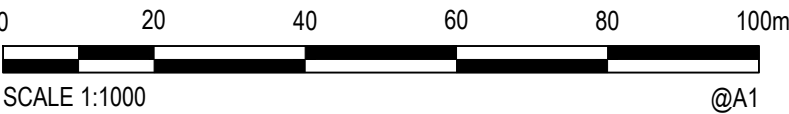


SECTION
SCALE 1:50m

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XREFs: XR-967192-CADASTRAL; XR-967192-EXISTING-CONTOURS-STG78; XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\96719671-92 - Mount Margaret Engineering\DRAWINGS\STAGE 6.7 & 8\967192-CI-703.dwg

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



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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	Date 9/02/2018

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 A.H.D	Date 2/9/2018	Scale As Shown	Size A1
Drawing Number 967192-CI-703	Revision B			

DATE PLOTTED: 2 Jun 2020 12:56 PM BY: JAMES WONG

Townsville City Council

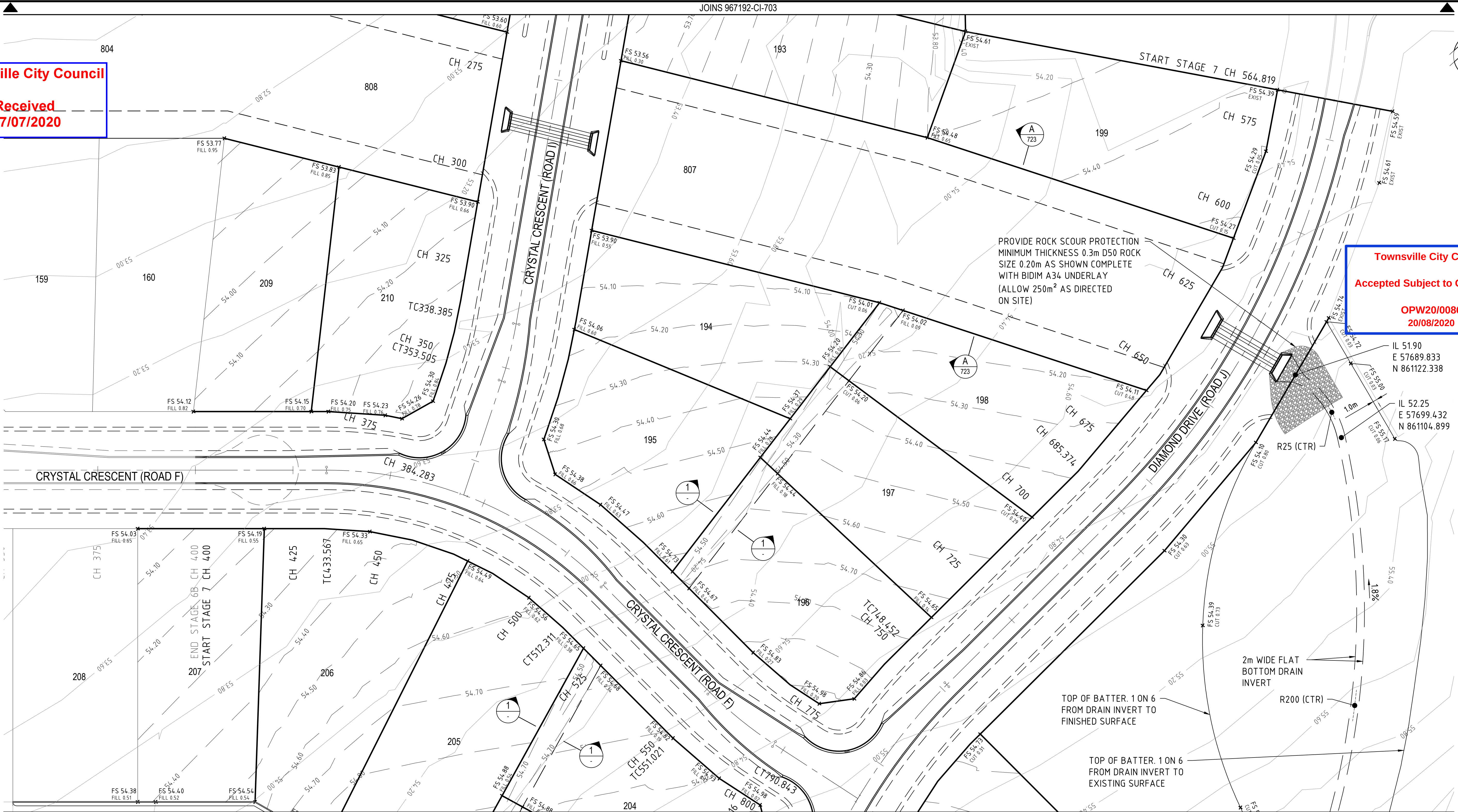
Received
17/07/2020

Townsville City Council
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OPW20/0086
20/08/2020

IL 51.90
E 57689.833
N 861122.338

IL 52.25
E 57699.432
N 861104.899



PROVIDE ROCK SCOUR PROTECTION
MINIMUM THICKNESS 0.3m D50 ROCK
SIZE 0.20m AS SHOWN COMPLETE
WITH BIDIM A34 UNDERLAY
(ALLOW 250m² AS DIRECTED
ON SITE)

2m WIDE FLAT
BOTTOM DRAIN
INVERT

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

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

Q50 LEVELS

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

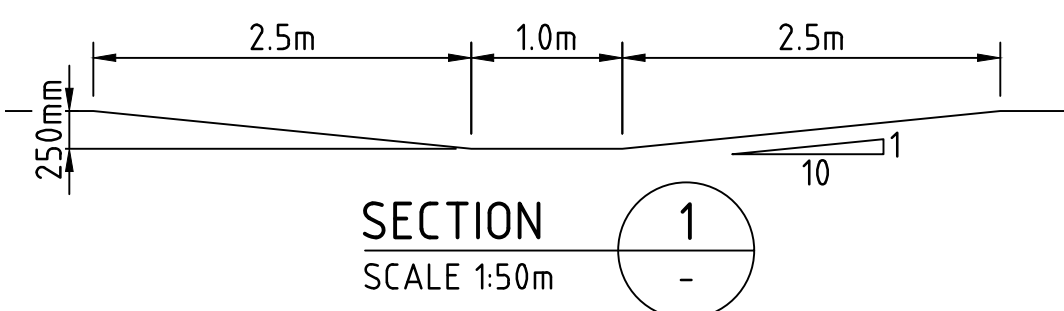
CHAINAGE	LHS LEVEL	RHS LEVEL
90.770	52.6	52.5
100	52.7	52.6
125	52.8	52.7
150	53.0	52.9
175	53.2	53.0
200	53.3	53.1
225	53.4	53.1
250	53.5	53.1
275	53.6	52.7
300	53.6	52.7
325	53.8	53.9
350	54.0	54.0

Q50 LEVELS

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



NOTES

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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

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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 9/02/2018

Client MOUNT MARGARET DEVELOPMENTS PTY LTD
Project MOUNT MARGARET, ALICE RIVER
STAGE 7
Title EARTHWORKS LAYOUT PLAN
SHEET 2 OF 3

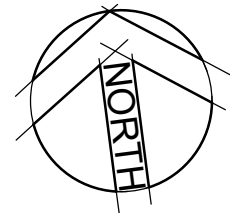
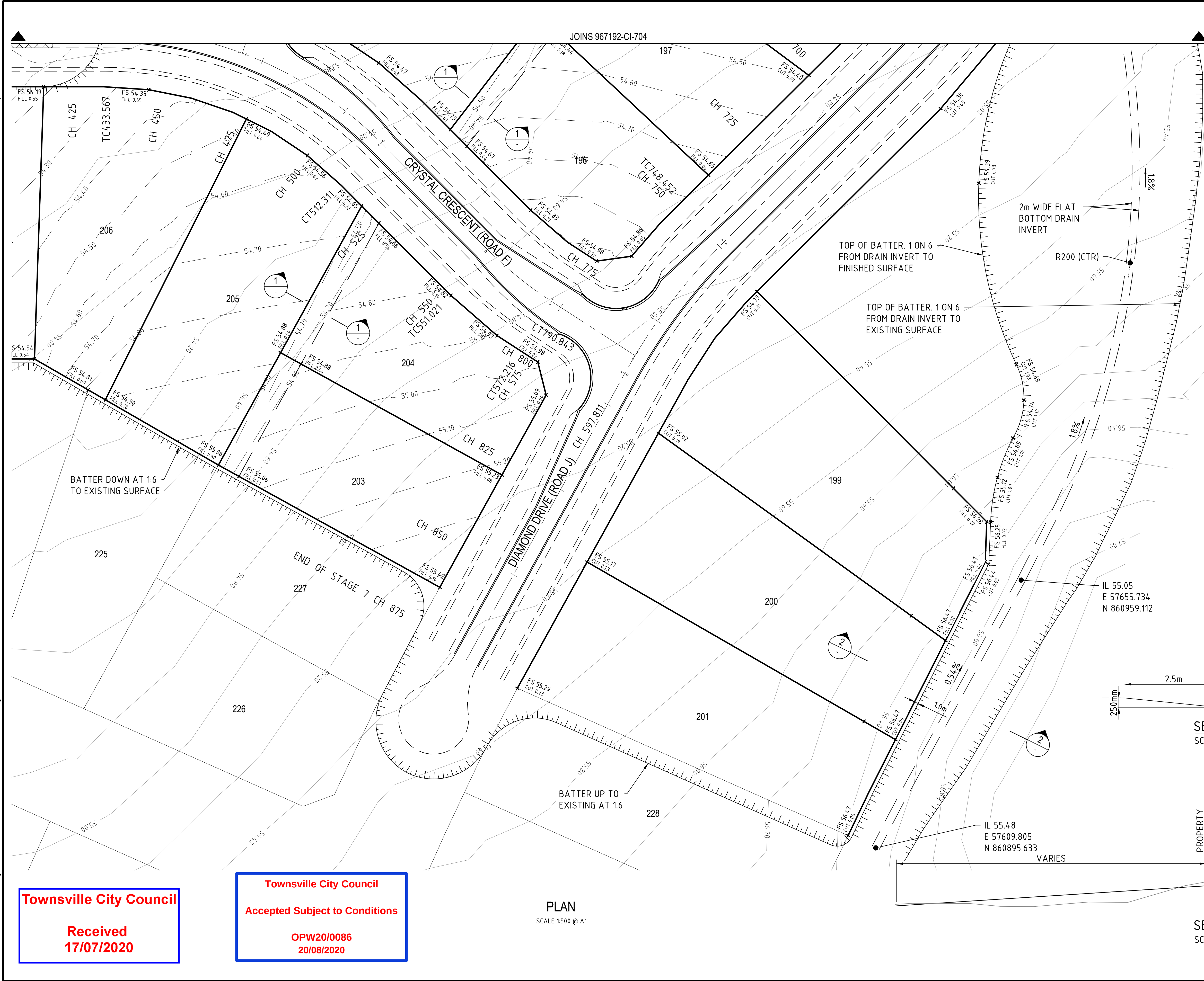
Status **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum A.H.D Date 2/9/2018 Scale As Shown Size A1
Drawing Number 967192-CI-704 Revision B

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

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DATE PLOTTED: 1 JULY 2020 3:25 PM BY: LACHLAN LINDY

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NOTES

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- 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

Townsville City Council

Received
17/07/2020

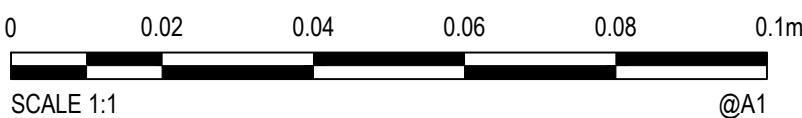
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20/08/2020

PLAN

SCALE 1:500 @ A1



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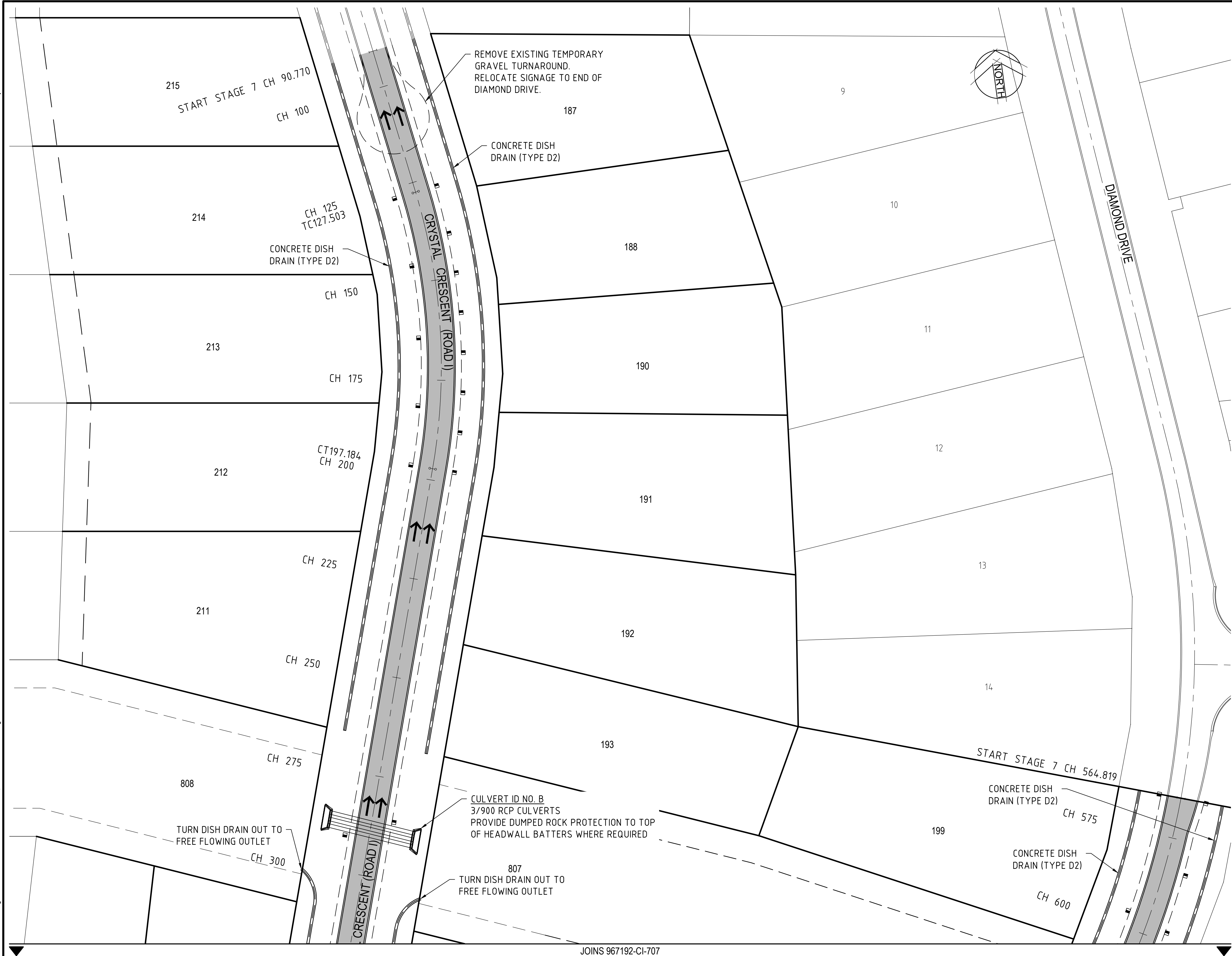


Drawn JJ 9/02/2018	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD
Checked MB 9/02/2018	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER
Designed JN 9/02/2018	Date 9/02/2018	Stage STAGE 7
Verified MB 9/02/2018	Date 9/02/2018	Title EARTHWORKS LAYOUT PLAN
Approved MB 9/02/2018	Date 9/02/2018	Sheet SHEET 3 OF 3
Status FOR APPROVAL		NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum A.H.D	Date 2/9/2018	Scale As Shown
Drawing Number 967192-CI-705	Size A1	Revision B

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

XREFs: XR-967192-MASTER; XR-967192-CADASTRAL
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\967192 - Mount Margaret Engineering\DRAWINGS\STAGE 6, 7 & 8\967192-CI-706.dwg

Document Set ID: 18708498
Version: 2, Version Date: 21/08/2020



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 CONTRRCTOR IS TO LOCATE ALL SERVICES BY CONTACTING THE RELEVANT 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

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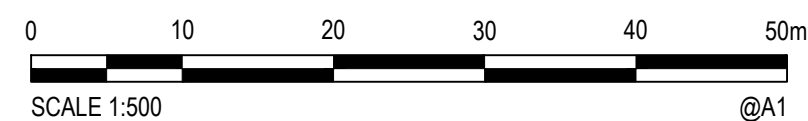
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20/08/2020

Townsville City Council

Received
17/07/2020

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



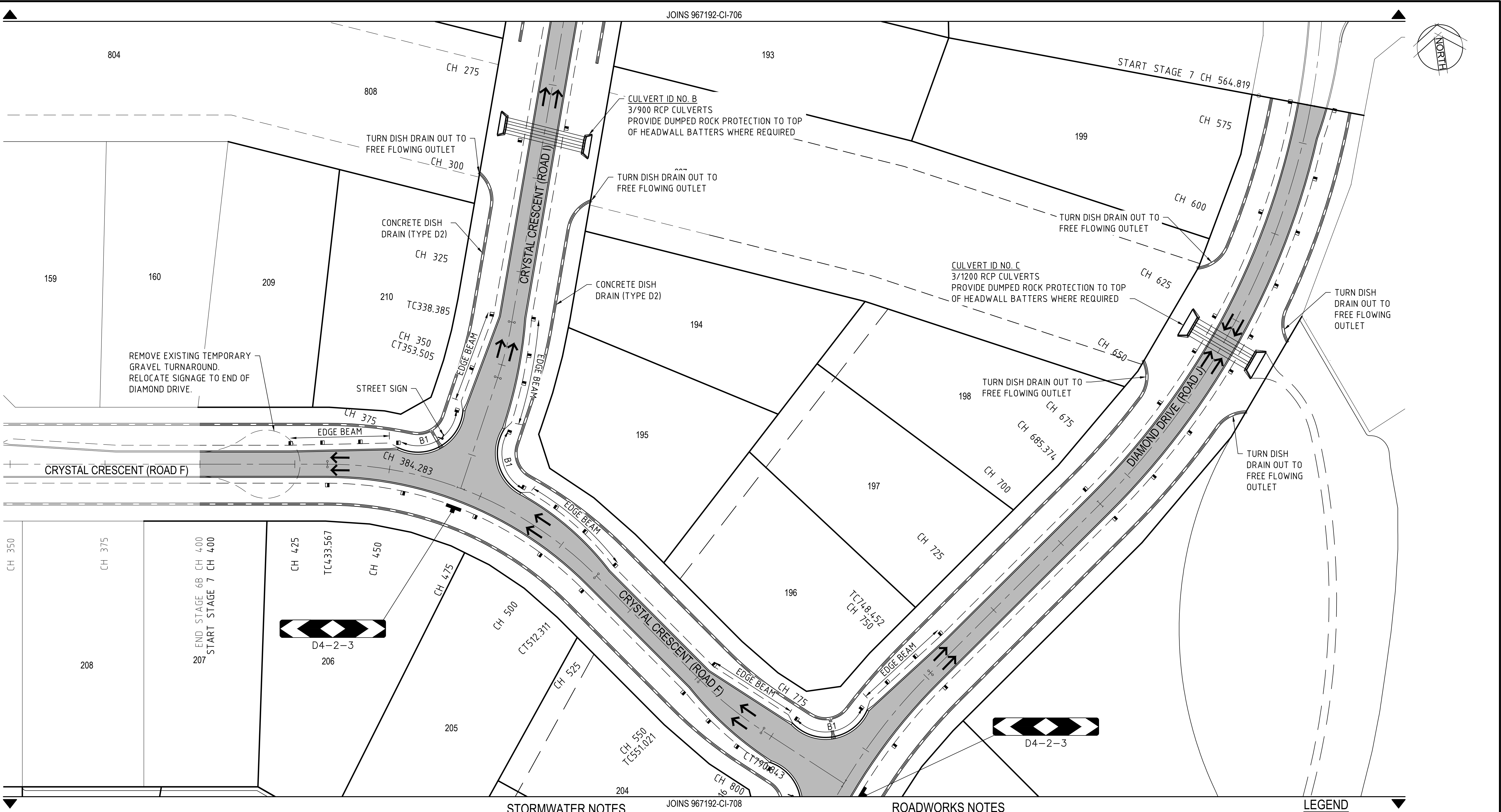
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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER
Designed JN	Date 9/02/2018	STAGE 7
Verified MB	Date 9/02/2018	Title ROADWORKS & STORMWATER DRAINAGE PLAN
Approved MB	Date 9/02/2018	SHEET 1 OF 3
Status FOR APPROVAL	NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Datum A.H.D	Date 2/9/2018	Scale As Shown
Drawing Number 967192-CI-706	Revision A	

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

XREFs: XR-967192-CADASTRAL; XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\967192\967192-2 - Mount Margaret Engineering\DRAWINGS\STAGE 6, 7 & 8\967192-CI-707.dwg



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 CONTRRCTOR IS TO LOCATE ALL SERVICES BY CONTACTING THE RELEVANT 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

Townsville City Council

Received
17/07/2020

Townsville City Council

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OPW20/0086
20/08/2020



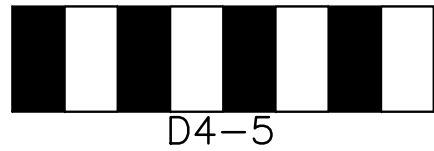
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Web: www.cardno.com.au

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		Date	10/08/20
MB		Date	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
Datum	A.H.D
Date	2/9/2018
Scale	As Shown
Size	A1
Drawing Number	967192-CI-707
Revision	A



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

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 CONTRACTOR IS TO LOCATE ALL SERVICES BY CONTACTING THE RELEVANT 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.

	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

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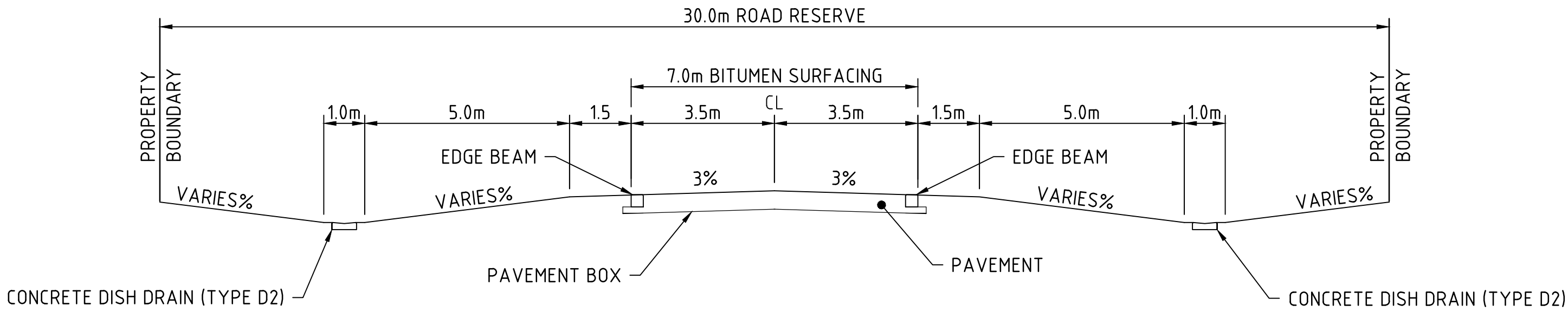


Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Designed JN	Date 9/02/2018		Datum A.H.D		
Verified MB	Date 9/02/2018		Scale As Shown		
Approved	Date 10801	Title ROADWORKS & STORMWATER DRAINAGE PLAN SHEET 3 OF 3	Drawing Number 967192-CI-708		Revision A
MB	Date 9/02/2018				

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

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20/08/2020

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17/07/2020

Vertical Geometry Grade (%)
Vertical Geometry Length (m)
Vertical Curve Length (m)
Vertical Curve Radius (m)

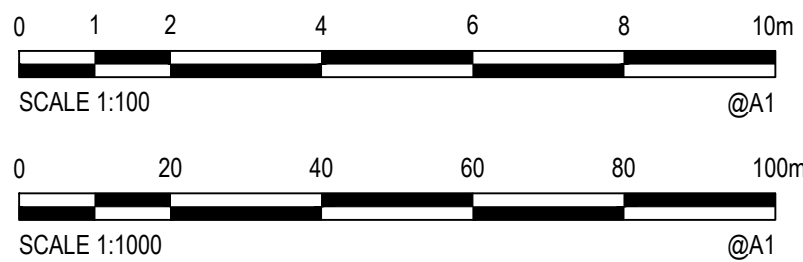
DATUM RL 42.000

Horizontal Curve Length (m)
Horizontal Curve Radius (m)

VOLUMES	CUT
	FILL
DRAIN INVERT RHS	
DRAIN INVERT LHS	
EXISTING SURFACE LEVELS	
CUT/FILL DEPTH TO EXISTING	
CONTROL LINE FINISHED LEVEL	
CONTROL LINE CHAINAGE	

CRYSTAL CRESCENT ROAD F - LONGITUDINAL SECTION

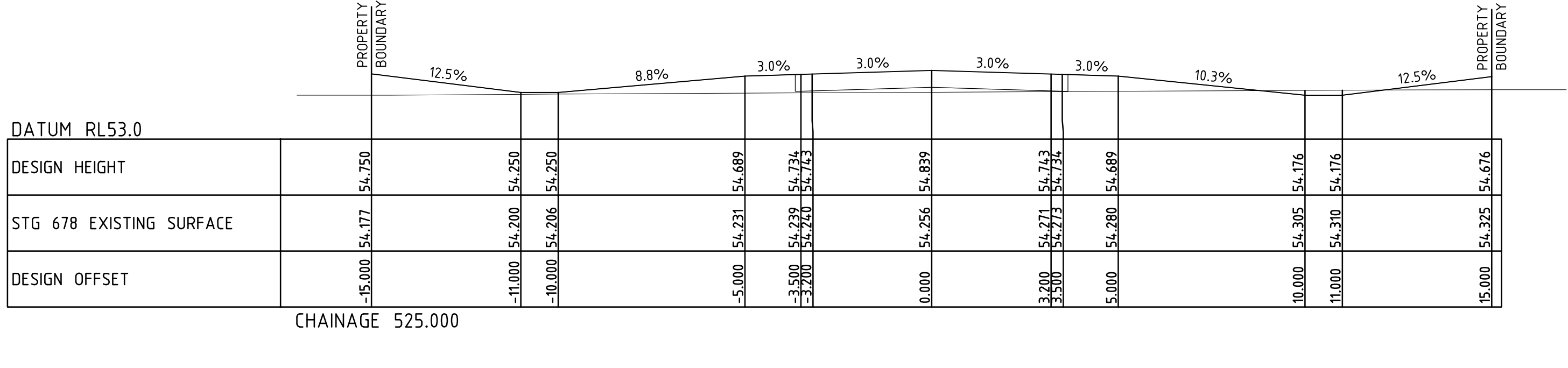
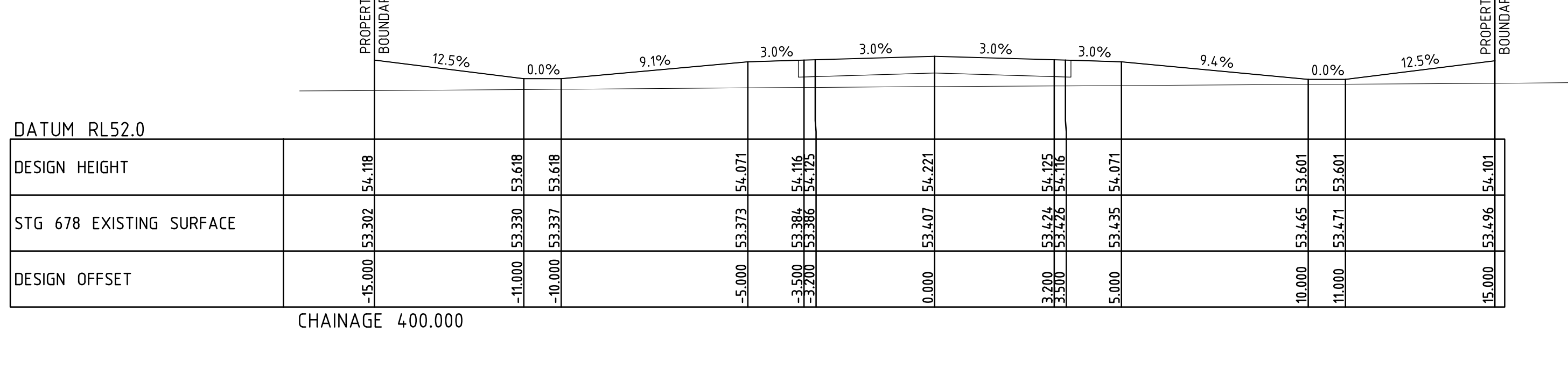
SCALE HORIZONTAL 1: 1000
VERTICAL 1: 100



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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD				
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status	FOR APPROVAL		
Designed JN	Date 9/02/2018		NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Verified MB	Date 9/02/2018		Datum	Date	Scale	Size
Approved	10801	Title	A.H.D	2/9/2018	As Shown	A1
MB	9/02/2018	ROADWORKS LONGITUDINAL SECTION CRYSTAL CRESCENT (ROAD F)	Drawing Number	967192-CI-709		Revision A



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



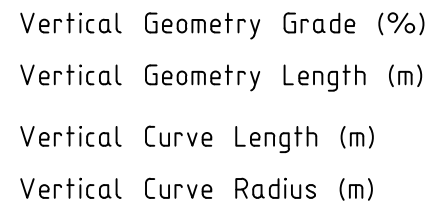
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Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD					
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7		Status	FOR APPROVAL		
Designed JN	Date 9/02/2018				NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Verified MB	Date 9/02/2018	Title			Datum	Date	Scale	Size
Approved	10801				A.H.D	2/9/2018	As Shown	A1
MB	9/02/2018		ROADWORKS CROSS SECTIONS CRYSTAL CRESCENT (ROAD F)		Drawing Number	967192-CI-710		Revision A

PROVISIONAL PAVEMENT DESIGN

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



CRYSTAL CRESCENT ROAD I - LONGITUDINAL SECTION

SCALE HORIZONTAL 1: 1000
VERTICAL 1: 100

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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Designed JN	Date 9/02/2018		Datum A.H.D		
Verified MB	Date 9/02/2018		Scale As Shown		
Approved	10801	Title	Date 2/9/2018	Size A1	Revision
MB	9/02/2018	ROADWORKS LONGITUDINAL SECTION CRYSTAL CRESCENT (ROAD I)		Drawing Number 967192-CI-711	
				A	

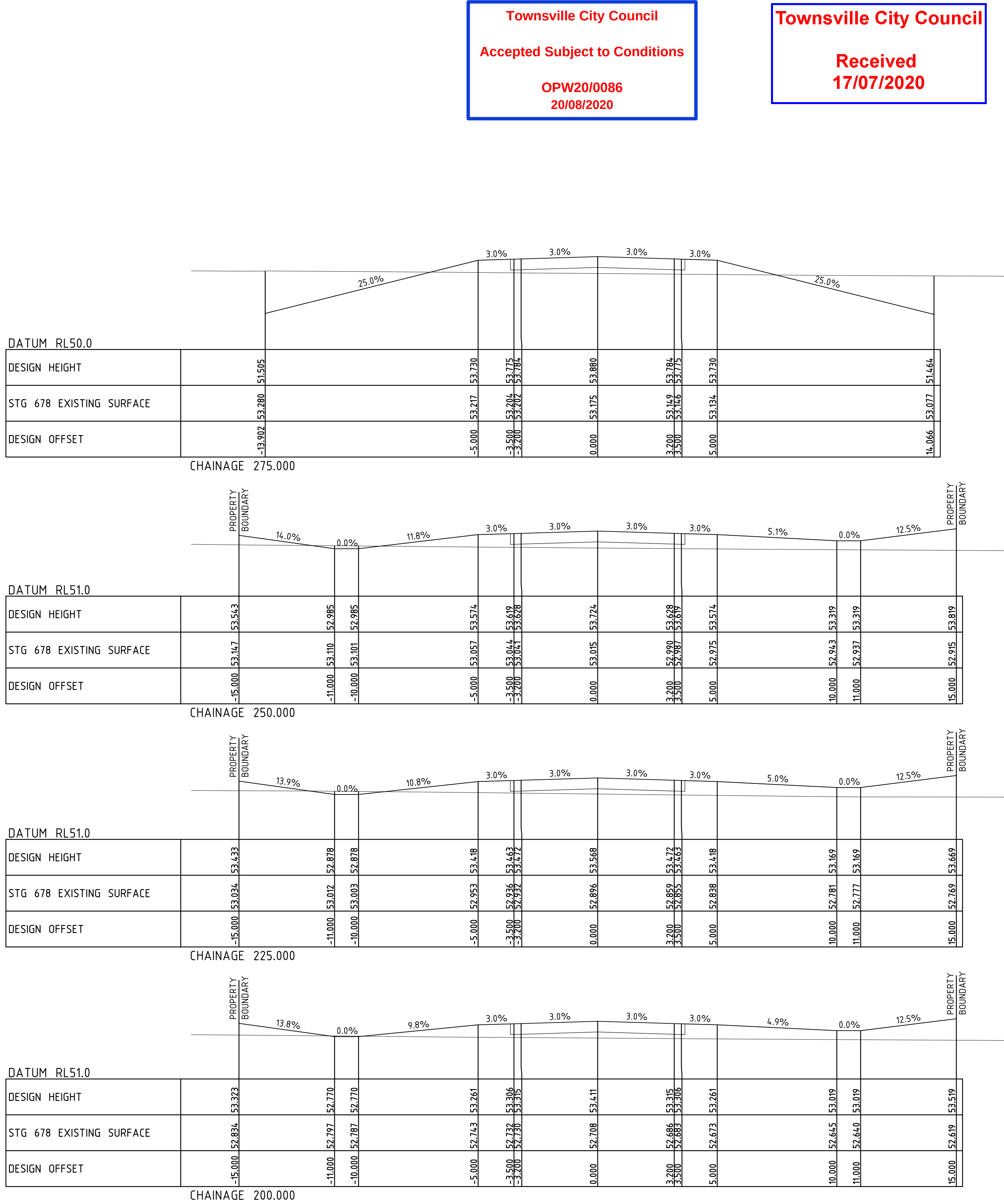
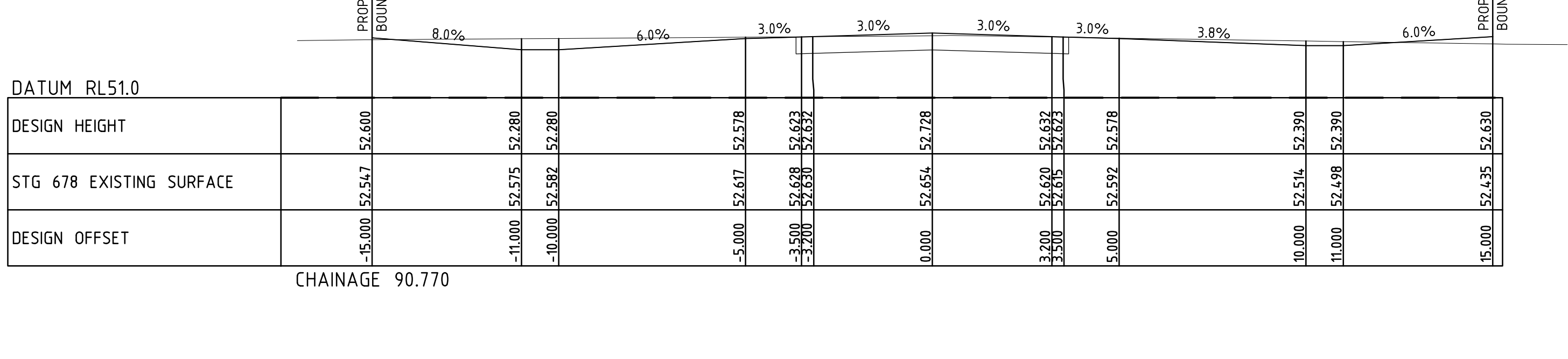
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17/07/2020

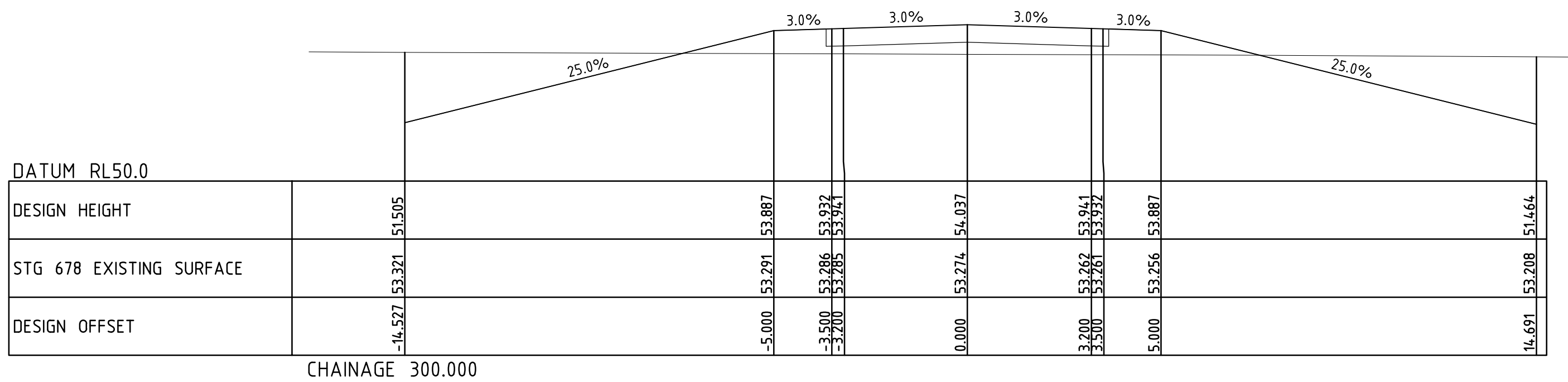
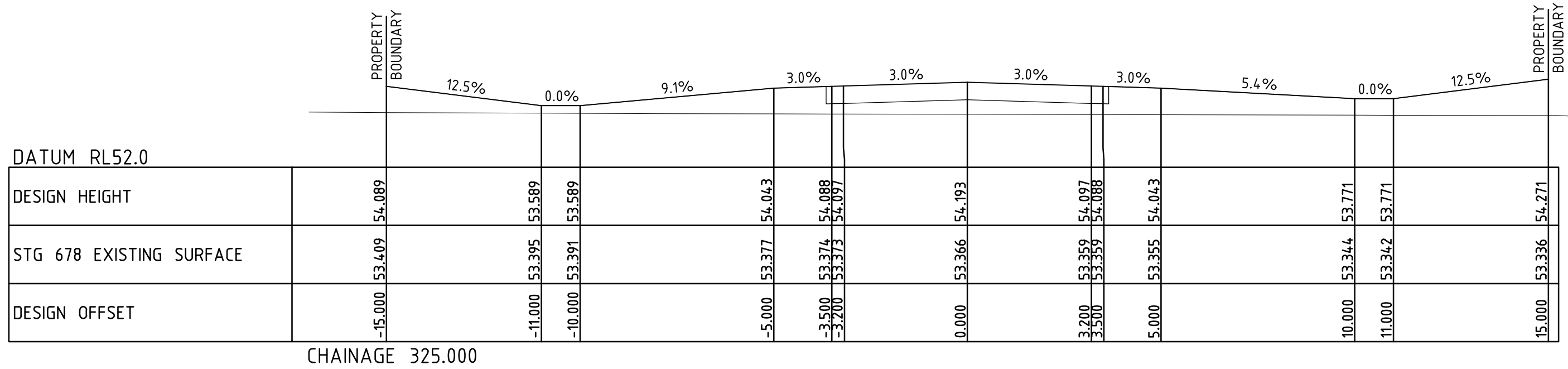
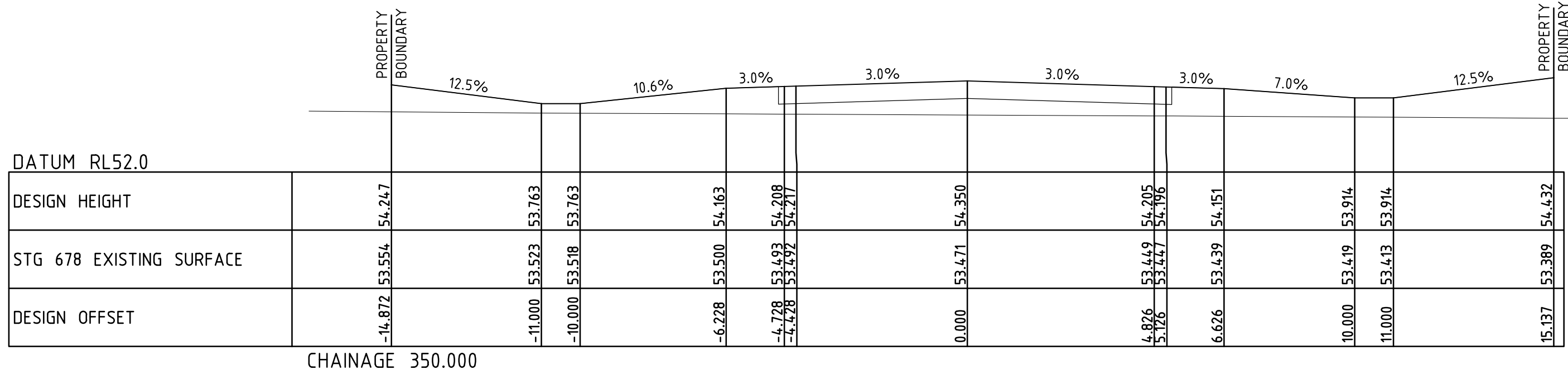


A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB
Rev.	Date	Description	Des.	Verif.	Appd.

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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status	FOR APPROVAL	
Designed JN	Date 9/02/2018		NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Verified MB	Date 9/02/2018		Date A.H.D	Scale 2/9/2018	Size As Shown
Approved 10801			Drawing Number 967192-CI-712		Revision A
MB	9/02/2018	Title ROADWORKS CROSS SECTIONS CRYSTAL CRESCENT (ROAD I) SHEET 1 OF 2			



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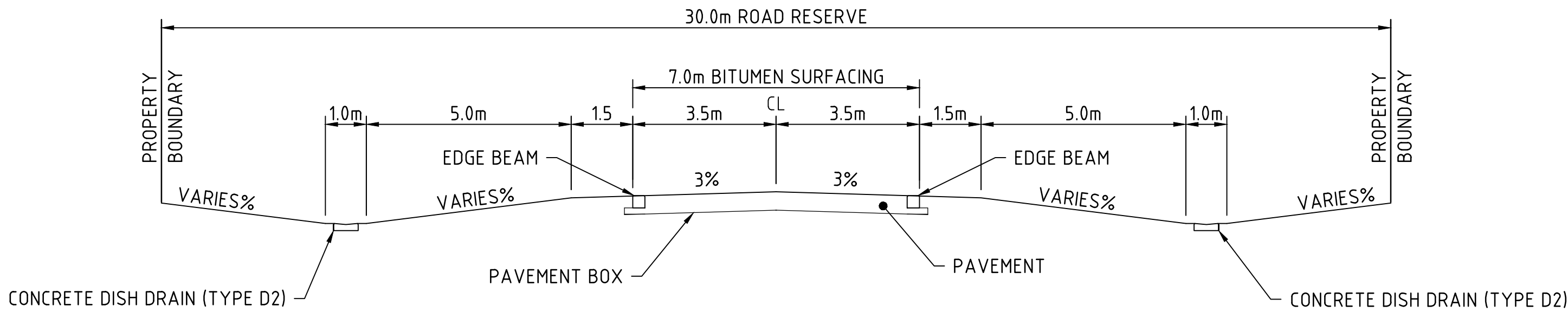


Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD						
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7			Status	FOR APPROVAL		
Designed JN	Date 9/02/2018					NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Verified MB	Date 9/02/2018	Title	ROADWORKS CROSS SECTIONS CRYSTAL CRESCENT (ROAD I) SHEET 2 OF 2			Datum	Date	Scale	Size
Approved	10801					A.H.D	2/9/2018	As Shown	A1
MB	9/02/2018					Drawing Number			Revision
						967192-CI-713			A

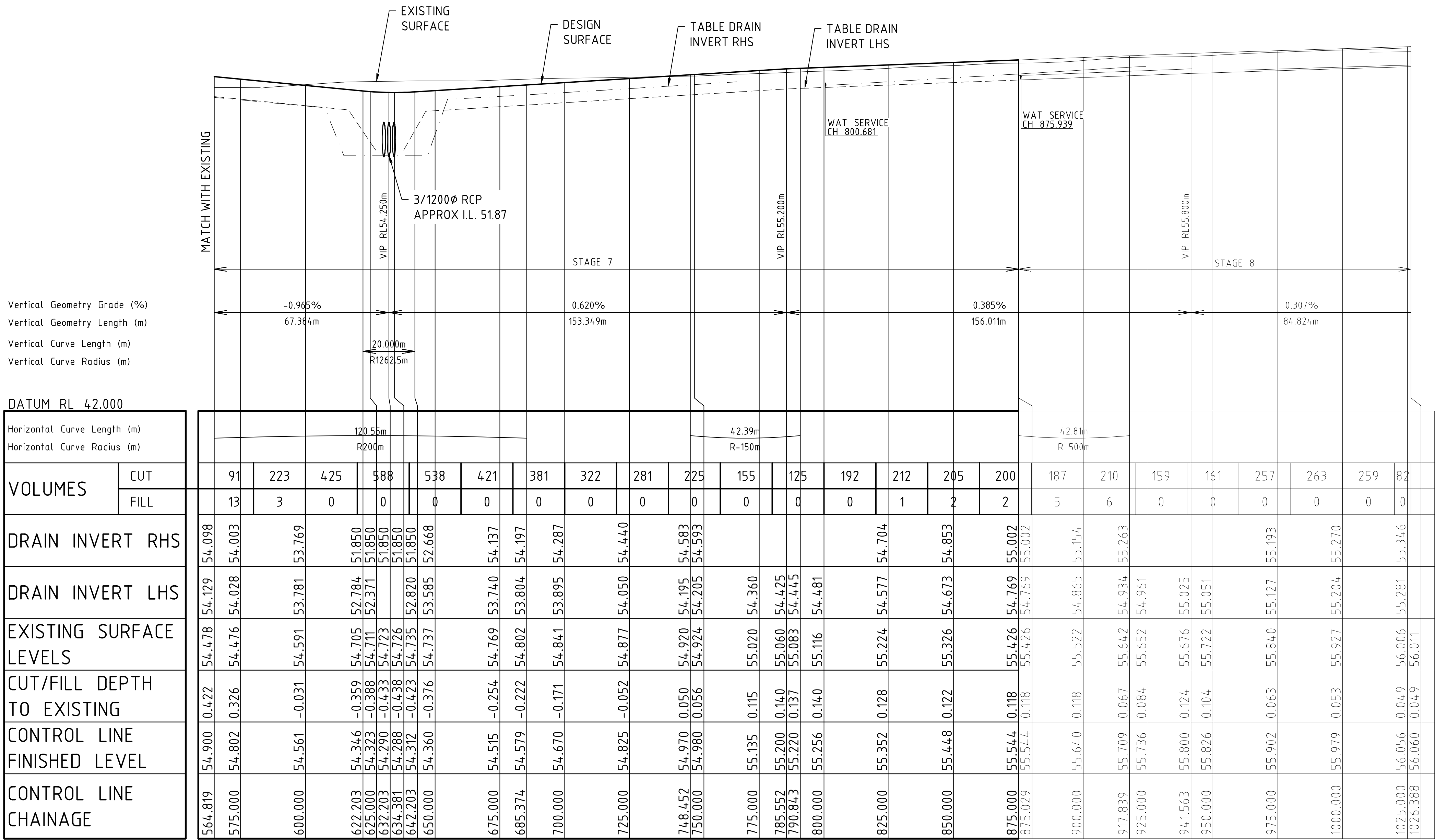
ROAD TYPE: ACCESS STREET
DESIGN SPEED: 50km/h (NOT INCLUDING INTERSECTION)

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. @ 95m³/m³
 - SEAL COAT 2 - CL170 @ 1.1L/m²
 - 7mm AGG. @ 120m³/m³
- 150mm BASE (DTMR TYPE 2.1)**
- 150mm SUB BASE (DTMR TYPE 2.3)**
- 150mm LOWER SUB BASE (DTMR TYPE 2.4)**



TYPICAL CROSS SECTION
SCALE 1:100 @ A1



DIAMOND DRIVE ROAD J - LONGITUDINAL SECTION
SCALE HORIZONTAL 1: 1000
VERTICAL 1: 100

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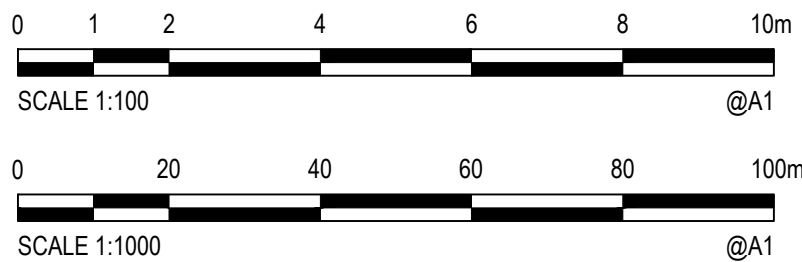
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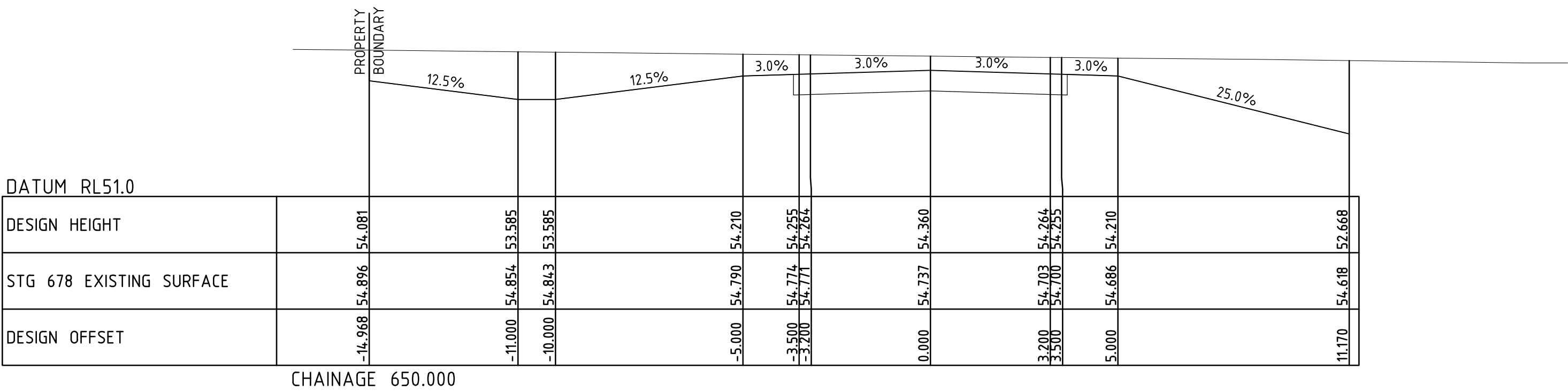
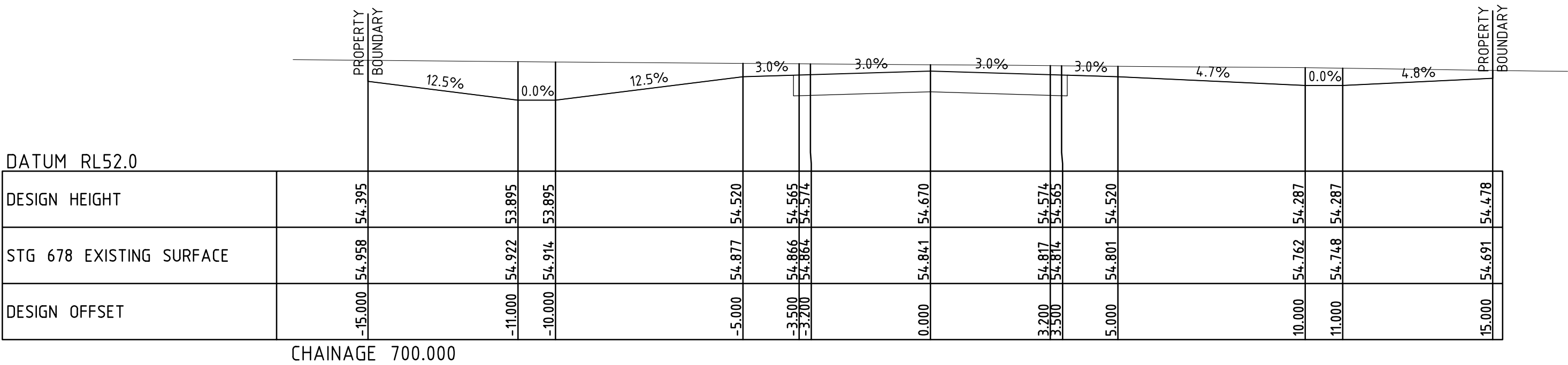
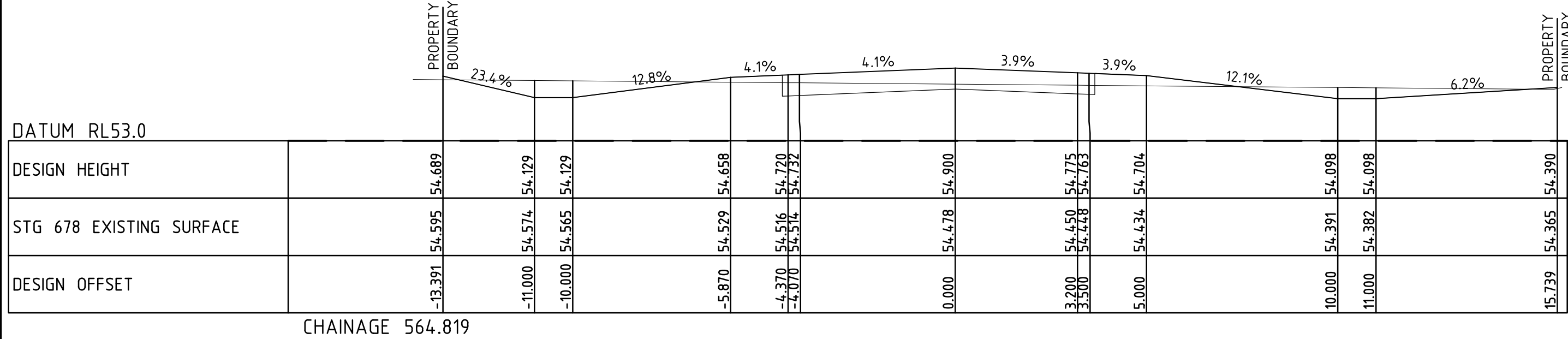
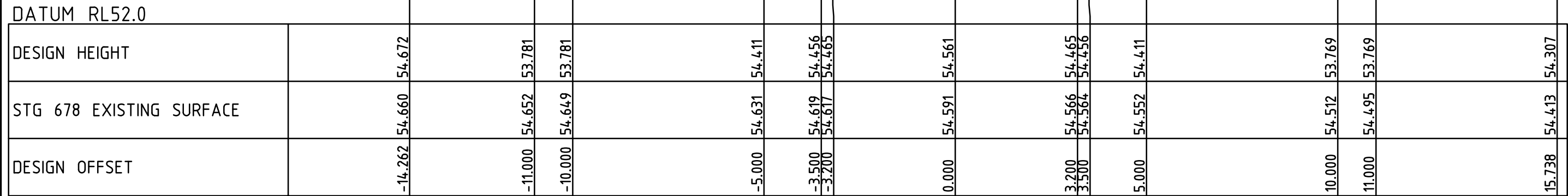
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL				JN	MB	MB
Rev.	Date	Description				Des.	Verif.	Appd.



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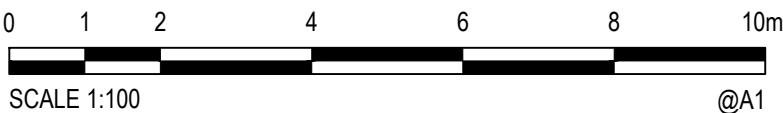


Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7		Status	FOR APPROVAL
Designed JN	Date 9/02/2018		NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Verified MB	Date 9/02/2018	Title	ROADWORKS LONGITUDINAL SECTION DIAMOND DRIVE (ROAD J)		Datum	A1
Approved	10801				Date	2/9/2018
					Scale	As Shown
					Size	A1
MB	9/02/2018				Drawing Number	967192-CI-714
					Revision	A



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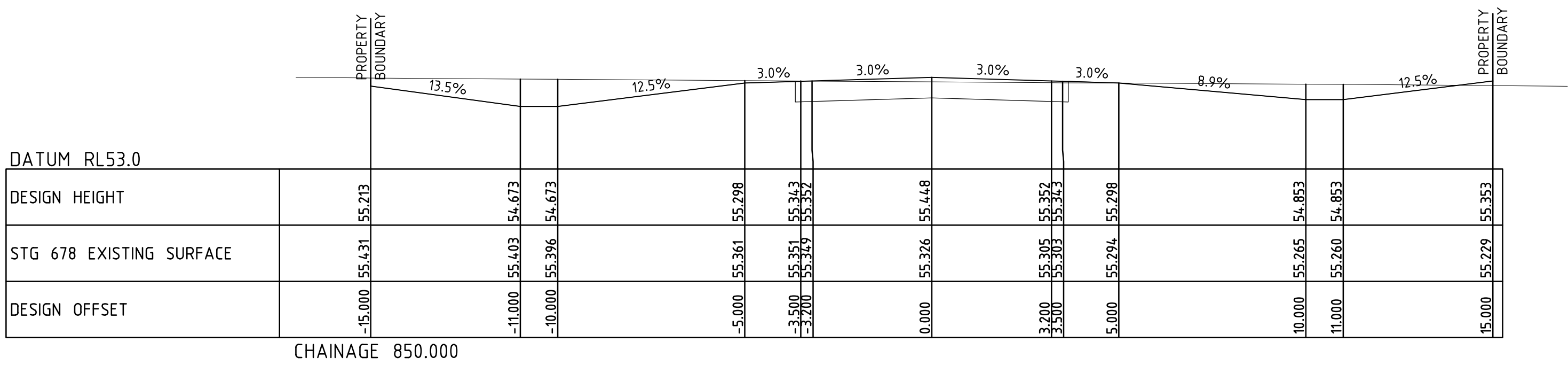
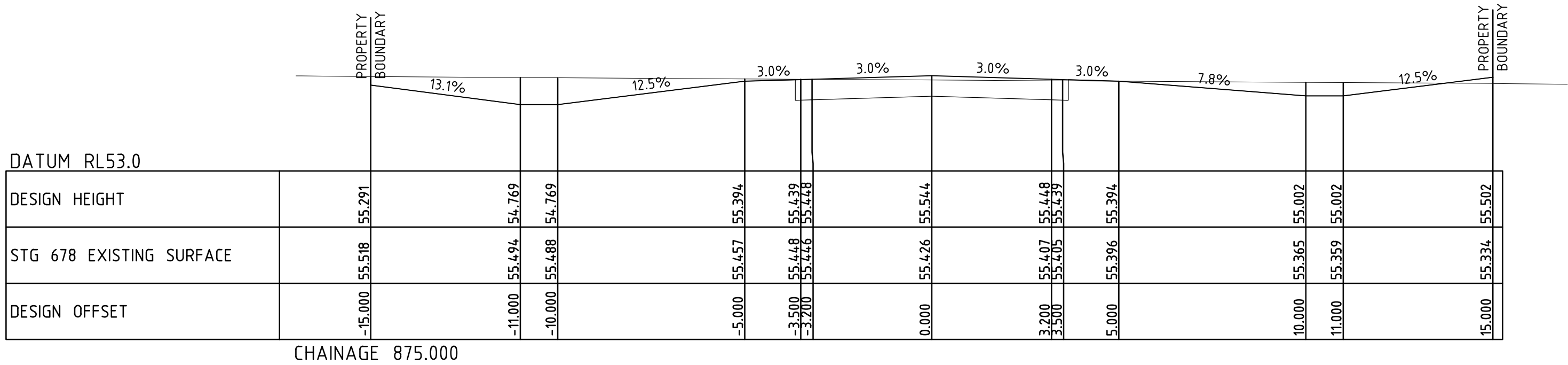
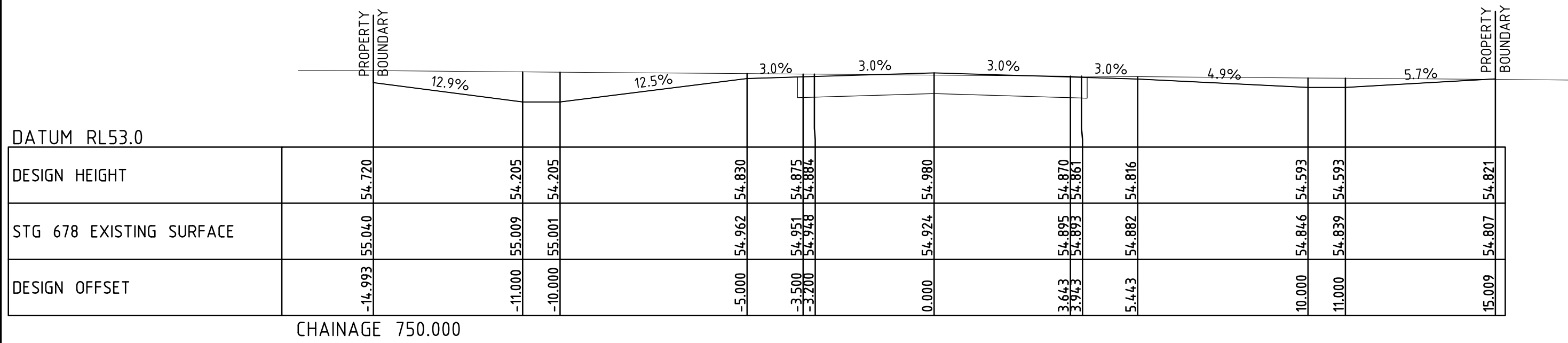
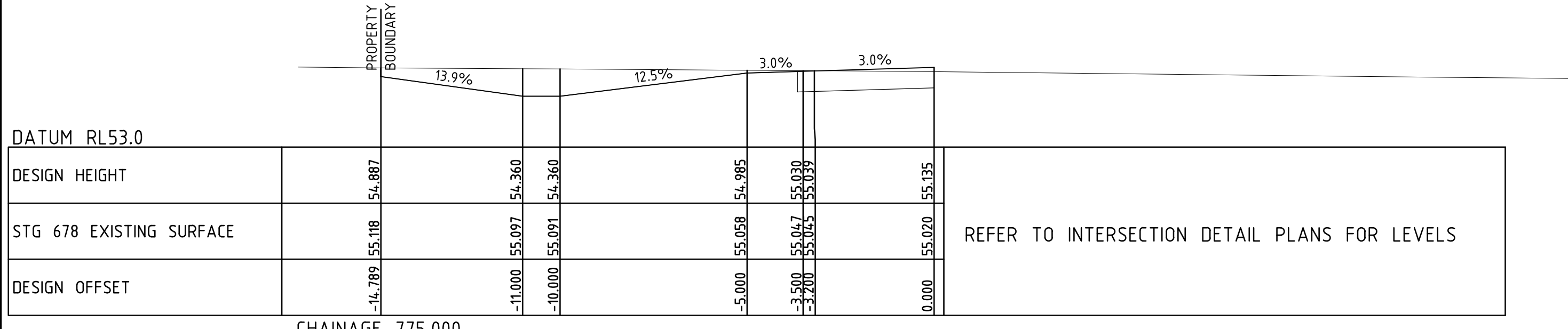
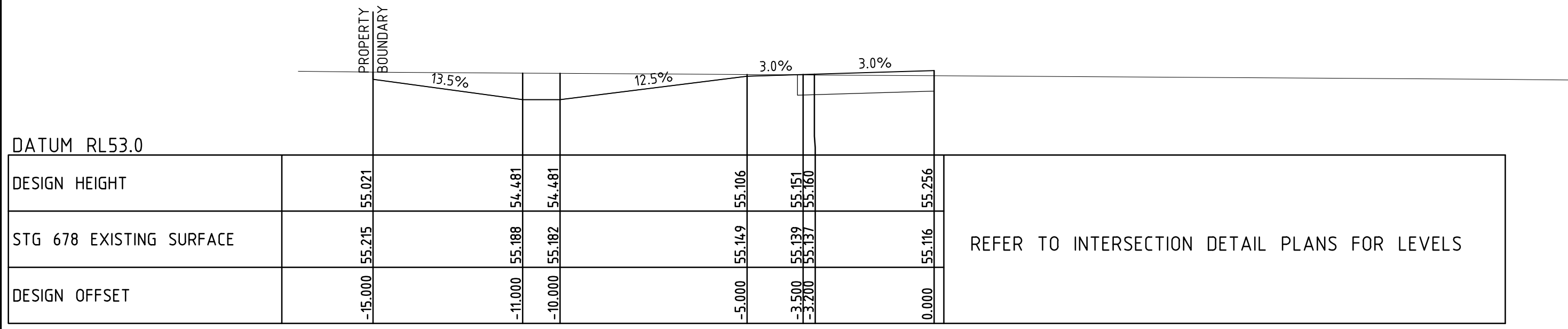
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Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD					
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7		Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Designed JN	Date 9/02/2018				Datum			Date
Verified MB	Date 9/02/2018	Title	ROADWORKS CROSS SECTIONS DIAMOND DRIVE (ROAD J) SHEET 1 OF 2		A.H.D	2/9/2018	As Shown	A1
Approved	10801				Drawing Number			Revision
MB	9/02/2018				967192-CI-715			A



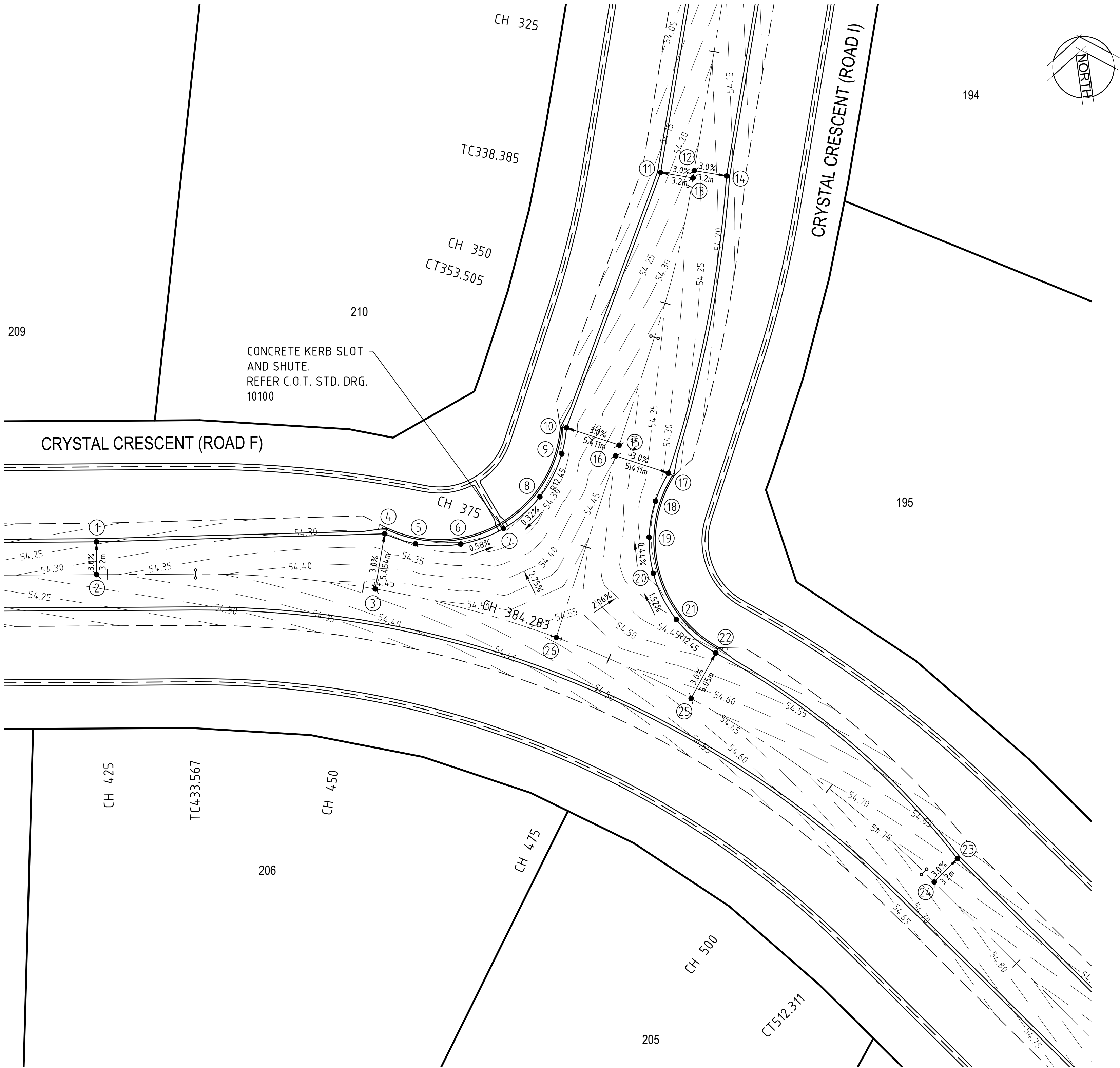
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Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7		Status	FOR APPROVAL
Designed JN	Date 9/02/2018				NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Verified MB	Date 9/02/2018	Title	ROADWORKS CROSS SECTIONS DIAMOND DRIVE (ROAD J) SHEET 2 OF 2		Datum	A1
Approved	10801				Date	2/9/2018
					Scale	As Shown
					Size	A1
MB	9/02/2018				Drawing Number	967192-CI-716
					Revision	A



PLAN
SCALE 1:250 @ A1

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SETOUT POINTS

PT No.	EASTING	NORTHING	RL.
1	57431.455	86134.444	54.243
2	57431.044	86131.270	54.339
3	57457.775	86126.248	54.473
4	57459.412	86131.450	54.310
5	57462.240	86130.090	54.292
6	57466.624	86129.458	54.266
7	57470.951	86130.401	54.240
8	57474.880	86132.995	54.255
9	57477.565	86136.863	54.270
10	57478.357	86139.312	54.278
11	57490.788	86162.750	54.175
12	57494.058	86162.495	54.267
13	57493.845	86161.805	54.271
14	57497.115	86161.550	54.171
15	57483.228	86136.953	54.441
16	57482.743	86135.952	54.448
17	57487.614	86133.594	54.285
18	57485.990	86131.071	54.299
19	57484.913	86127.677	54.314
20	57484.840	86124.118	54.330
21	57486.458	86119.343	54.407
22	57489.838	86115.602	54.484
23	57510.482	861092.571	54.688
24	57507.944	861090.623	54.784
25	57486.853	86111.528	54.635
26	57474.628	86119.194	54.564

LEGEND

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

ROADWORKS NOTES

- CONTOURS DENOTED THUS $\text{---} 4.00 \text{---}$ INDICATE GROUND FINISHED SURFACE LEVELS.
- ALL LEVELS ARE LIP OF KERB LEVELS OR CROWN LEVELS.
- ALL SETOUT IS TO LIP OF KERB UNLESS OTHERWISE NOTED.
- GRADE EVENLY BETWEEN LEVELS SHOWN.
- 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

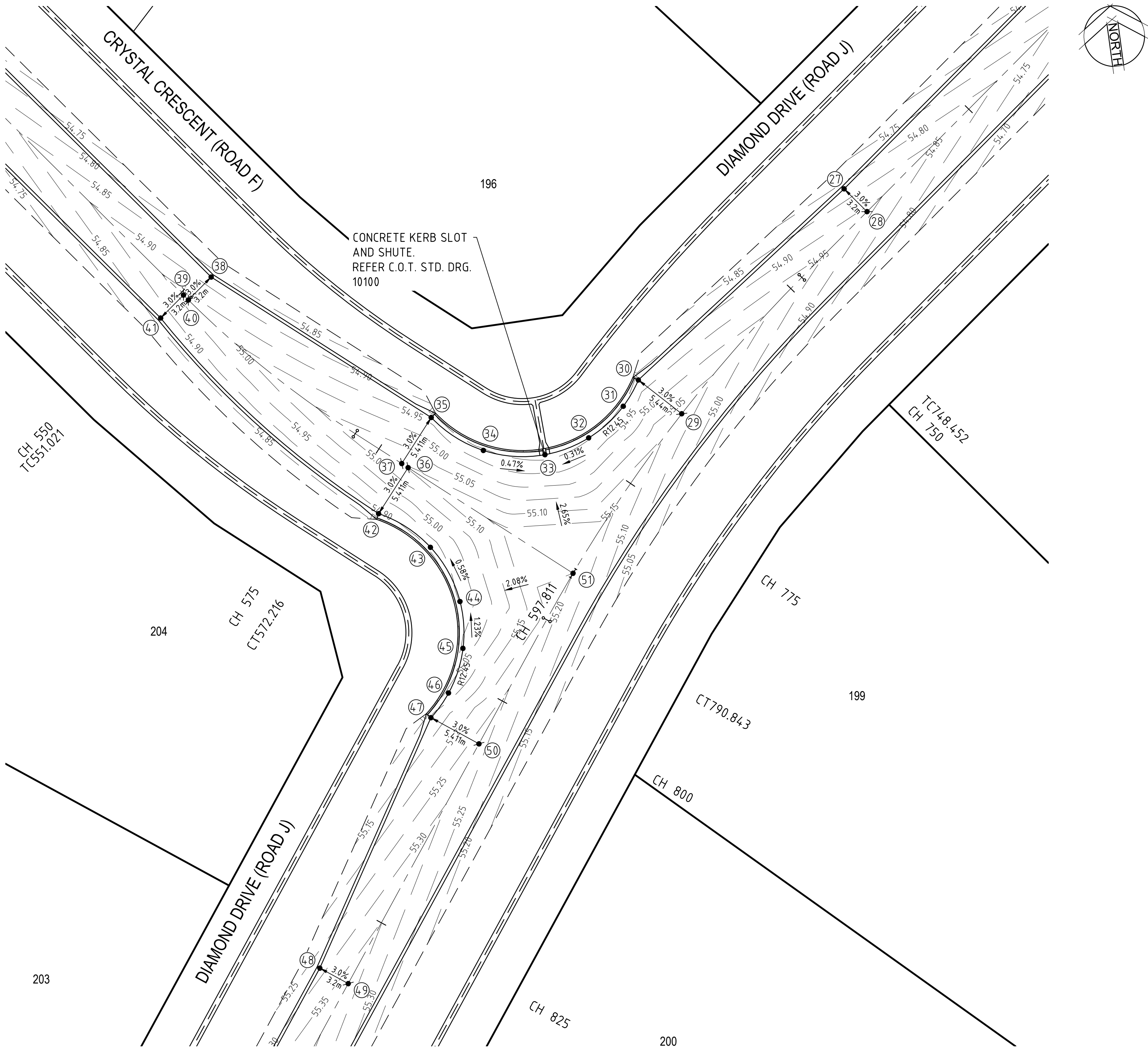


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Web: www.cardno.com.au

Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER
Designed JN	Date 9/02/2018	STAGE 7
Verified MB	Date 9/02/2018	Title INTERSECTION DETAILS PLAN
Approved 10801	Date 9/02/2018	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
Drawing Number 967192-CI-717	Size A1	Revision A



PLAN
SCALE 1:250 @ A1

Townsville City Council

**Received
17/07/2020**

Townsville City Council

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**OPW20/0086
20/08/2020**

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

- CONTOURS DENOTED THUS $\text{---} 4.00 \text{---}$ INDICATE GROUND FINISHED SURFACE LEVELS.
- ALL LEVELS ARE LIP OF KERB LEVELS OR CROWN LEVELS.
- ALL SETOUT IS TO LIP OF KERB UNLESS OTHERWISE NOTED.
- GRADE EVENLY BETWEEN LEVELS SHOWN.
- 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.	Verf.	Appd.
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB



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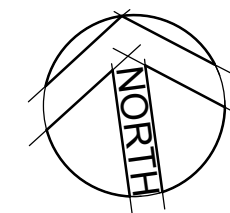
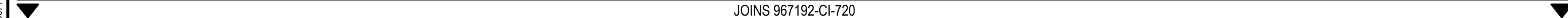


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Drawn JJ	Date 9/02/2018
Checked MB	Date 9/02/2018
Designed JN	Date 9/02/2018
Verified MB	Date 9/02/2018
Approved	10801
MB	9/02/2018

Client MOUNT MARGARET DEVELOPMENTS PTY LTD	Project MOUNT MARGARET, ALICE RIVER	Status FOR APPROVAL
STAGE 7	INTERSECTION DETAILS PLAN SHEET 2 OF 2	NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum A.H.D	Date 2/9/2018	Scale As Shown
Drawing Number 967192-CI-718	Revision A	Size 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 DCL FITTINGS.
5. PIPE FITTINGS TO BE DCL 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		WATERMAIN AND SIZE
	EXISTING FIRE HYDRANT		FIRE HYDRANT
	EXISTING VALVE		VALVE AND SIZE
	EXISTING TEE		TEE
	EXISTING END CAP		END CAP
			32 O.D. MDPE. WITH ENVELOPER

Townsville City Council

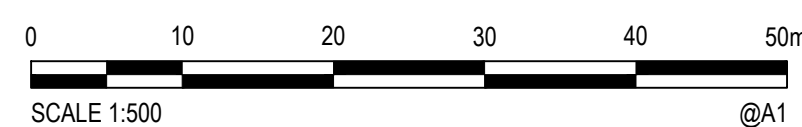
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20/08/2020

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Received
17/07/2020

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



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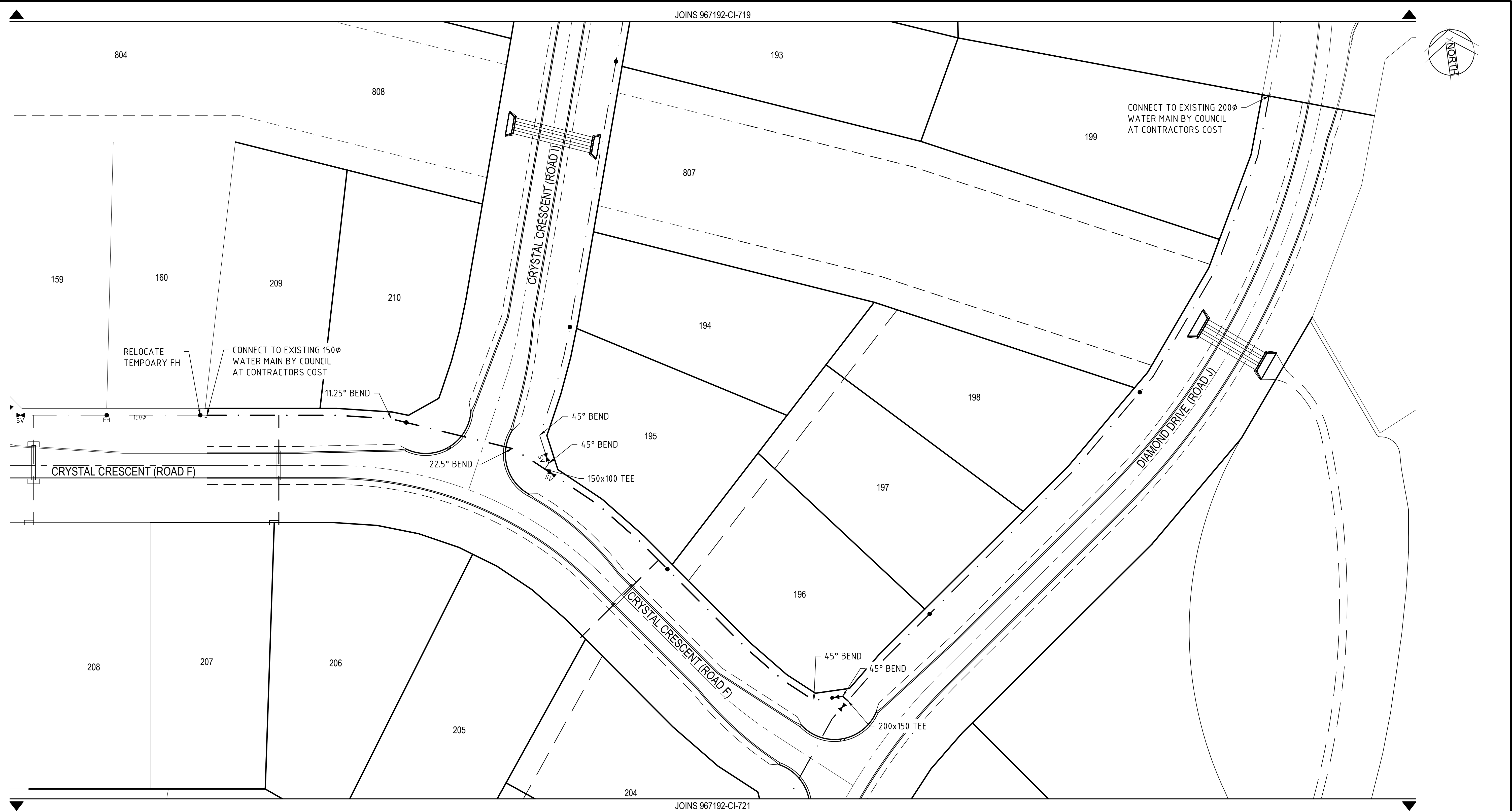


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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD				
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Designed JN	Date 9/02/2018	Title WATER RETICULATION LAYOUT PLAN SHEET 1 OF 3	Datum A.H.D	Date 2/9/2018	Scale As Shown	Size A1
Verified MB	Date 9/02/2018		Drawing Number 967192-CI-719			
Approved	10801		Revision A			
MB	9/02/2018					

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

XREFs: XR-967192-CADASTRAL; XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\967192-192 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6.7 & 8\967192-CI-720.dwg



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17/07/2020

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20/08/2020

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 AS14.77, 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



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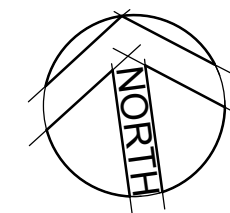
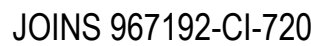
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Drawn	JJ	Date	9/02/2018
Checked	MB	Date	9/02/2018
Designed	JN	Date	9/02/2018
Verified	MB	Date	9/02/2018
Approved		Date	10801
MB		Date	9/02/2018

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						Revision	
967192-CI-720						A	



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 WATERMANS 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 DICI FITTINGS.
5. PIPE FITTINGS TO BE DICI TO AS2280.
6. POLYTHENE PIPES SHALL BE MDPE PN16 TO AS4130
7. TRENCH WALLS FOR SERVICES WILL NEED TO BE BATTERED FOR CONSTRUCTION SAFETY.

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

SCALE 1:500 @ A1

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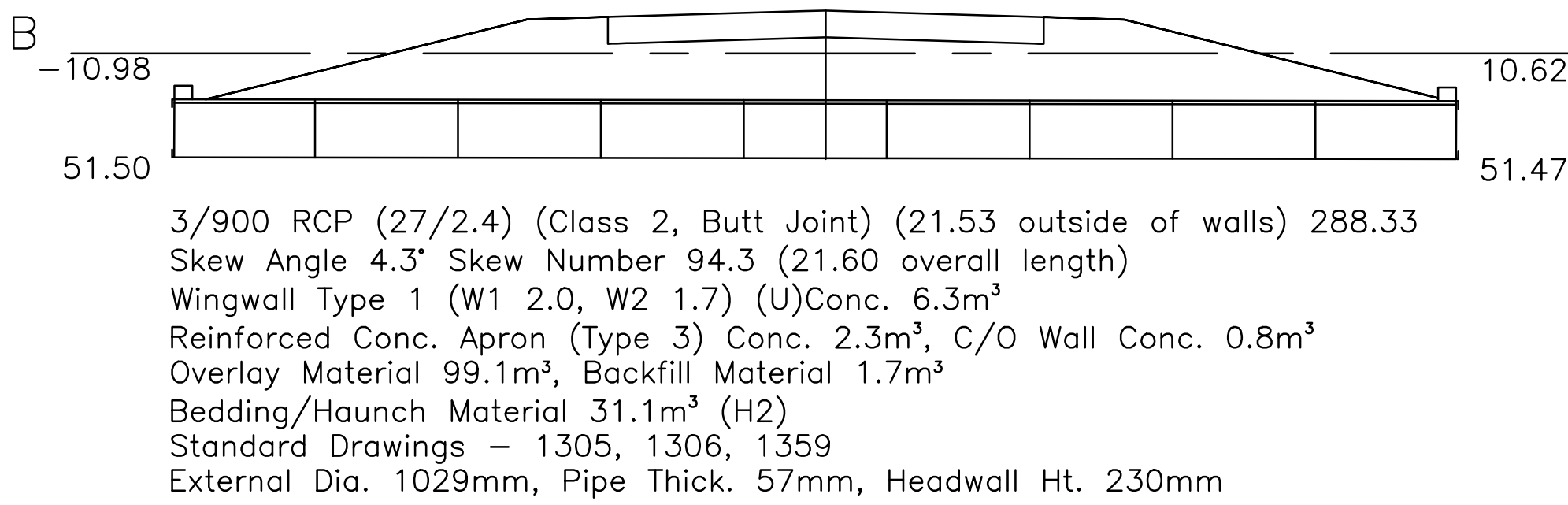
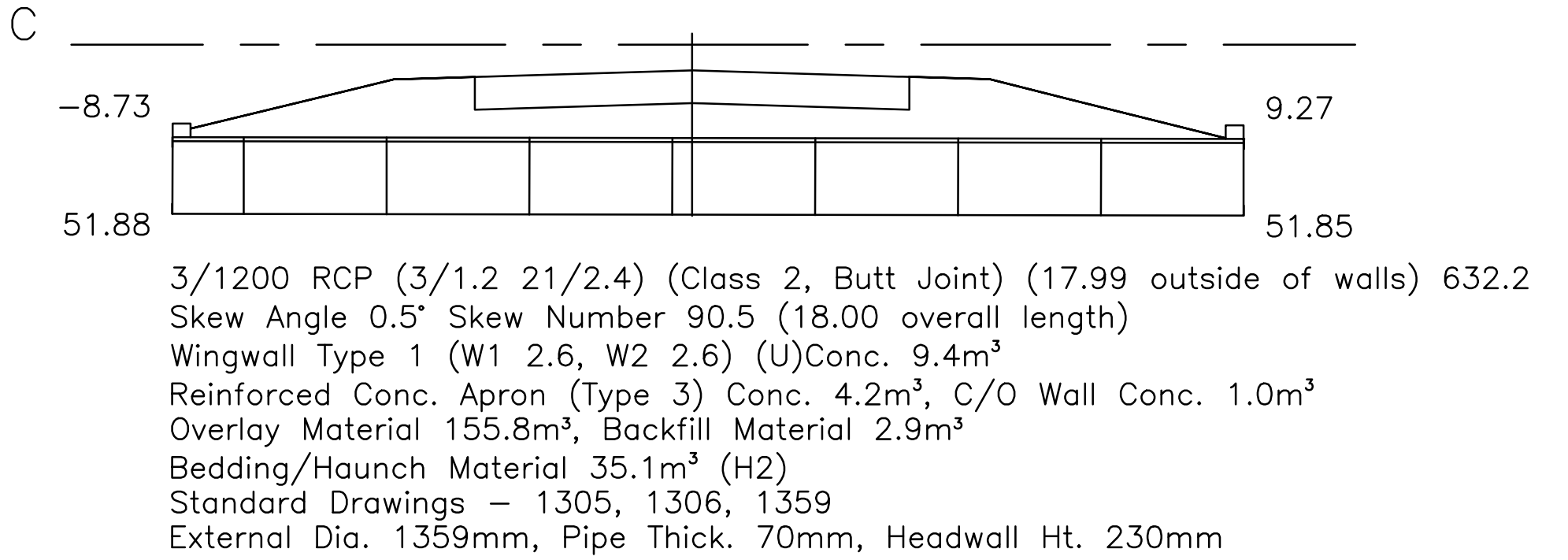
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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Designed JN	Date 9/02/2018				
Verified MB	Date 9/02/2018	Title WATER RETICULATION LAYOUT PLAN SHEET 3 OF 3	Datum		
Approved	10801		A.H.D		A1
			Drawing Number		Revision
MB	9/02/2018		967192-CI-721		A

DRAINAGE SCHEDULE

Culvert		Drainage Structure	Wingwalls			EndWalls / Wingwalls				Concrete Bases			Aprons					Cut Off Walls (m³)	Excavation (m3)			Fill / Backfill				No Fines Conc. Block	Reo. Bar Mass (kg)	OLM = Overlay Material FBM = Fill / Backfill /Side Material BHM = Bedding / Haunch Material BSP = Bedding Steel Pipes		
			S k e w	T y p e	Lengths					Conc. (m³) 2302	Reinforcing			Area (m²) 2315	Area (m²) 2316	Thick (mm)	Reinforced												Conc. (m³) 2314	
W1 (m)	W2 (m)				(U)Conc. (m³) 2309	(R)Conc. (m³) 2308	Reinforcing		(m²)		(mesh)	(m²)	(mesh)																	
							Conc. (m³)	RL1218 (m²)									N12 (m)		Nibs (m)											
																				Remarks										
No.	Chainage	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																								



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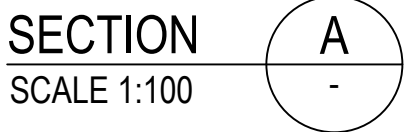
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB
Rev.	Date	Description	Des.	Verif.	Appd.



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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL		
Designed JN	Date 9/02/2018		NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Verified MB	Date 9/02/2018		Datum Date Scale Size A.H.D 2/9/2018 As Shown A1		
Approved	10801	Title CULVERT DETAILS	Drawing Number		Revision
MB	9/02/2018		967192-CI-722		A



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



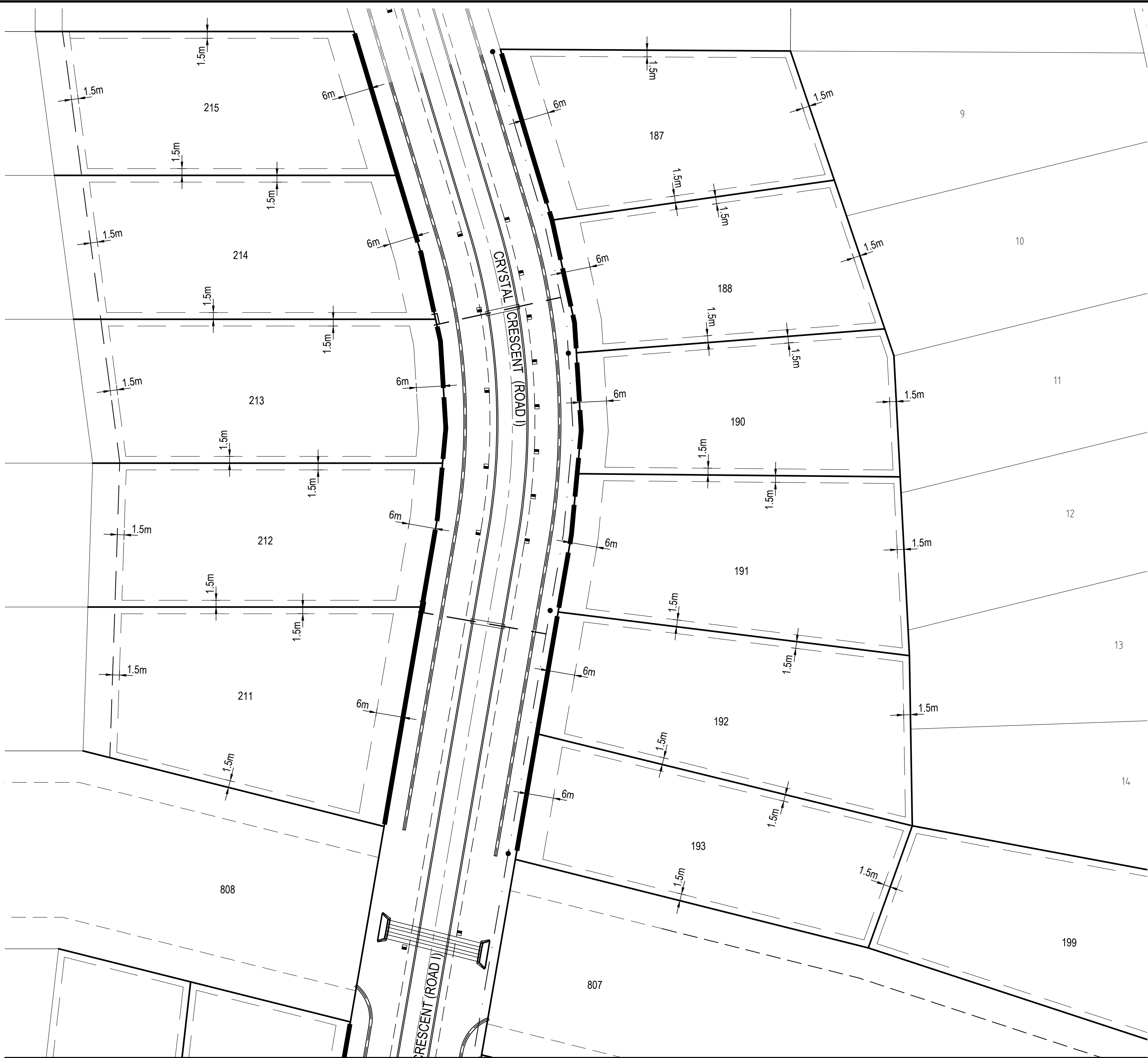
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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL		
Designed JN	Date 9/02/2018		NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Verified MB	Date 9/02/2018		Datum A.H.D		
Approved 10801			Date 2/9/2018		Scale As Shown
Title MISCELLANEOUS DETAILS		Drawing Number 967192-CI-723		Size A1	
MB	9/02/2018	Revision A			

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

XREFs: XR-967192-MASTER
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JOINS 967192-CI-725

PLAN

SCALE 1:500 @ A1



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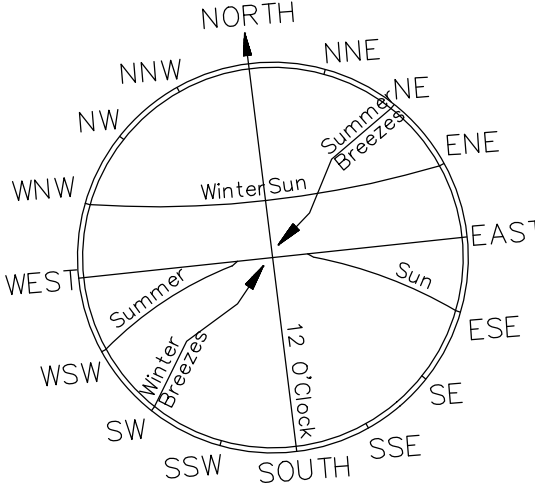
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Drawn	JJ	Date	9/02/2018
Checked	MB	Date	9/02/2018
Designed	JN	Date	9/02/2018
Verified	MB	Date	9/02/2018
Approved		Date	10/01
MB		Date	9/02/2018

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			Revision	
967192-CI-724			A	

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)
	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.

Townsville City Council

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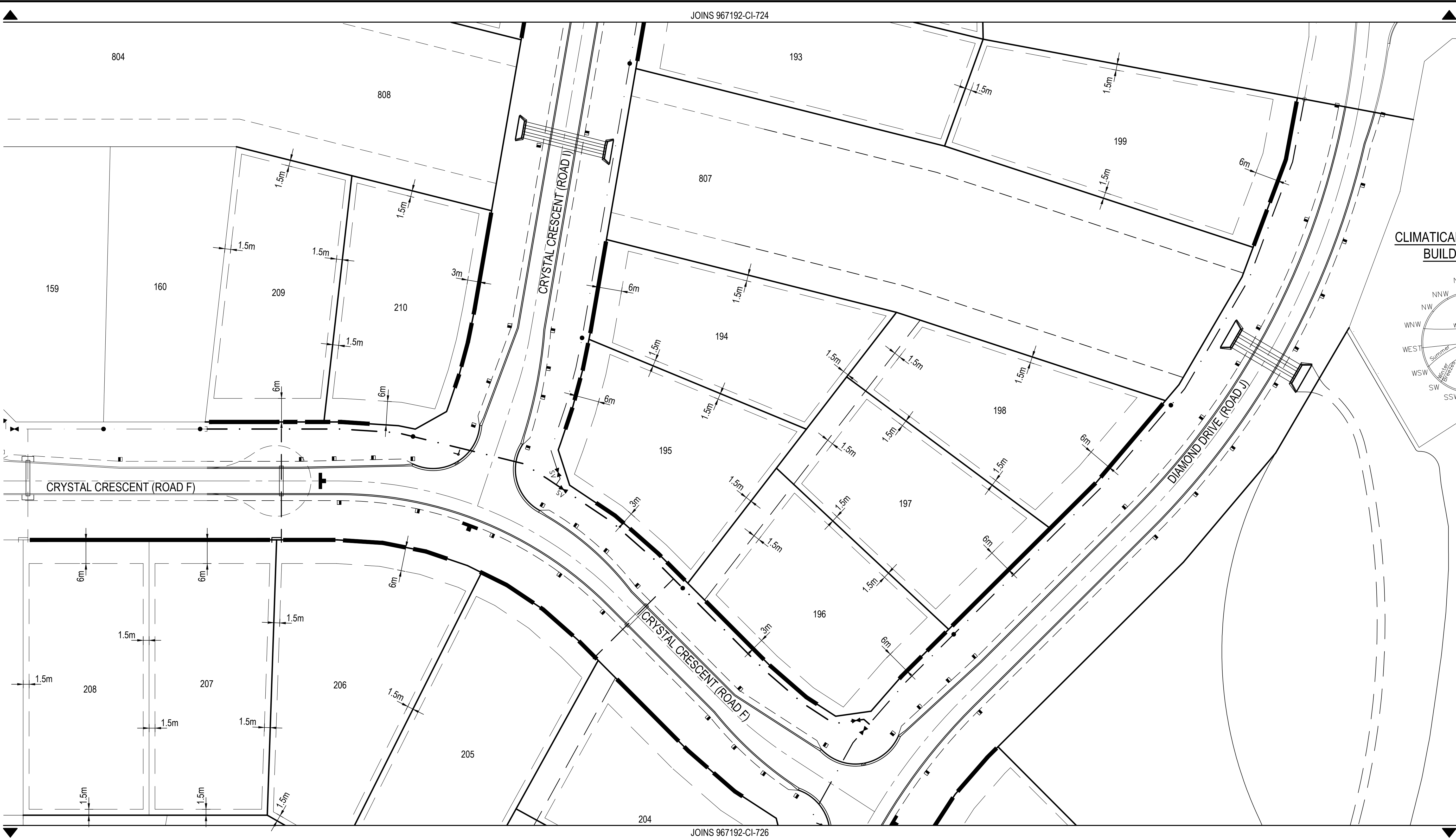
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20/08/2020

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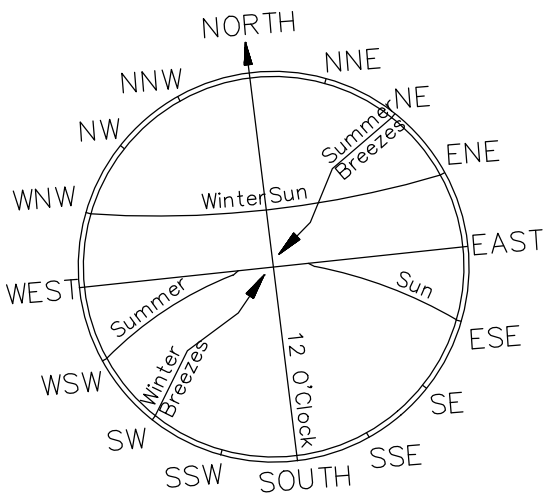
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17/07/2020

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

XREFs: XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\9671\9671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-725.dwg



CLIMATICALLY RESPONSIVE
BUILDING DESIGN



PLAN

SCALE 1500 @ A1

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20/08/2020

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

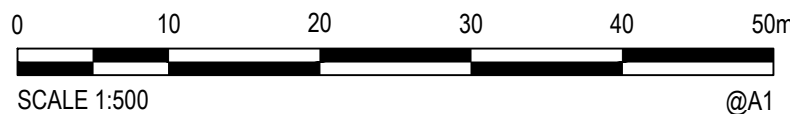
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

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.

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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		Date	10/08/20
MB		Date	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	A.H.D	Date	2/9/2018	Scale	As Shown	Size	A1	
Drawing Number	967192-CI-725						Revision	A

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

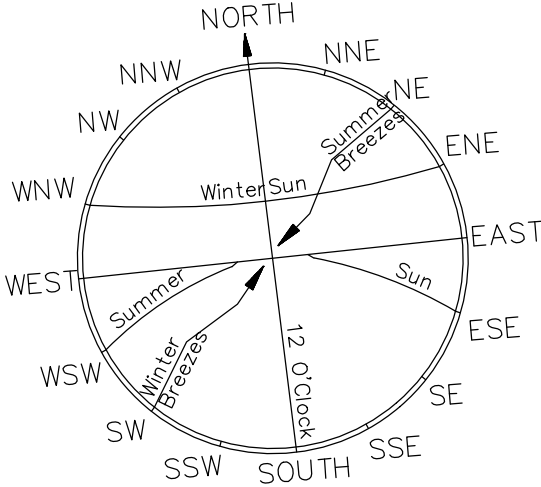
DATE PLOTTED: 2 July 2020 3:39 PM BY: JAMES WONG

XREFs: XR-967192-MASTER
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\96719671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6, 7 & 8\967192-CI-726.dwg



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).
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A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN	MB	MB



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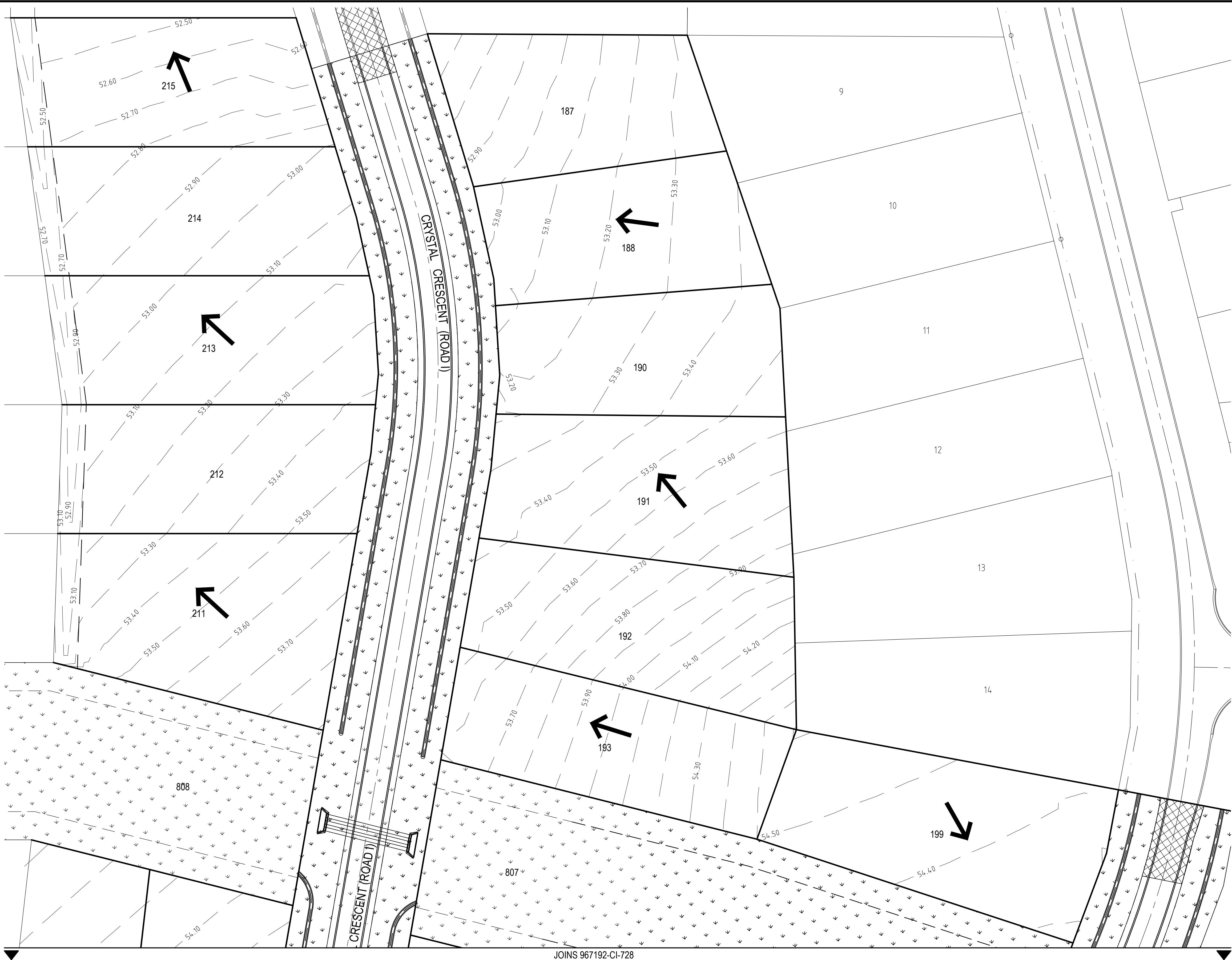
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Drawn	JJ	Date	9/02/2018
Checked	MB	Date	9/02/2018
Designed	JN	Date	9/02/2018
Verified	MB	Date	9/02/2018
Approved		Date	10801
MB		Date	9/02/2018

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
Datum	A.H.D
Date	2/9/2018
Scale	As Shown
Size	A1
Drawing Number	967192-CI-726
Revision	A

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



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

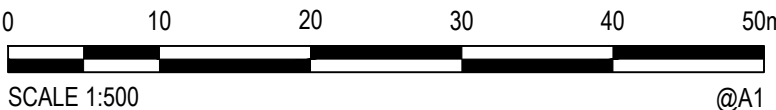
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20/08/2020

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17/07/2020

JOINS 967192-CI-728

PLAN

SCALE 1:500 @ A1

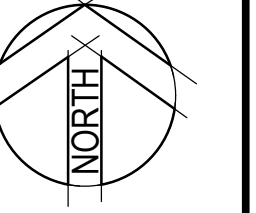


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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD						
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES				
Designed JN	Date 9/02/2018		Datum			Date	Scale	Size
Verified MB	Date 9/02/2018		A.H.D			2/9/2018	As Shown	A1
Approved	10801	Title	Drawing Number		Revision			
		SOIL EROSION & SEDIMENT CONTROL PLAN SHEET 1 OF 3	967192-CI-727		A			
MB	9/02/2018							

XREFs: XR-967192-MASTER; XR-967192-DESIGN-CONTOURS-STG7			
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\9600\96719671-92 - Mount Margaret\ENGINEERING\DRAWINGS\STAGE 6.7 & 8\967192-CI-727.dwg			
A	9/02/2018	FOR OPERATIONAL WORKS APPROVAL	JN MB MB
Rev.	Date	Description	Des. Verif. Appd.



NOTES

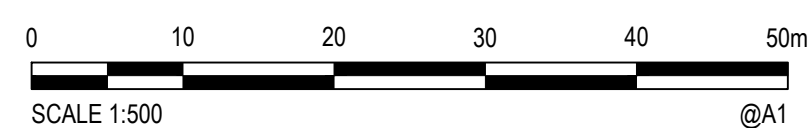
1. REFER TO AUS-SPEC CONSTRUCTION SPECIFICATION C211 FOR DETAILS DURING CONSTRUCTION.
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4. ALL MEASURES FOR EROSION AND SEDIMENTATION CONTROL SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR IN SUCH A MANNER SO AS NOT TO PRESENT A POTENTIAL HAZARD TO ANY PERSON OR PROPERTY.

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

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17/07/2020

						</	



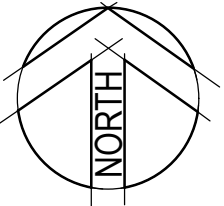
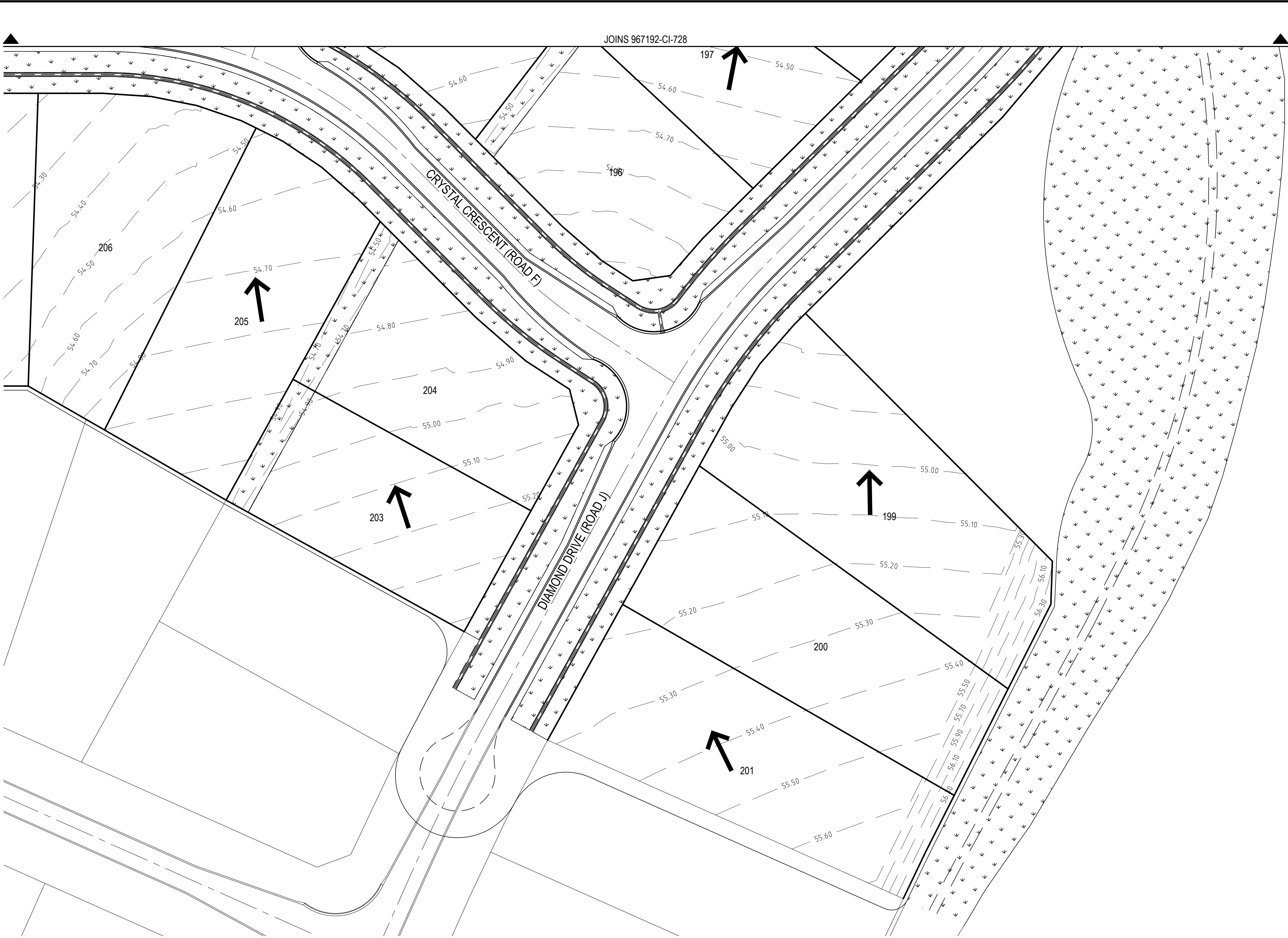
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Drawn JJ	Date 9/02/2018	Client	MOUNT MARGARET DEVELOPMENTS PTY LTD			
Checked MB	Date 9/02/2018	Project	MOUNT MARGARET, ALICE RIVER STAGE 7		Status	FOR APPROVAL
Designed JN	Date 9/02/2018				NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Verified MB	Date 9/02/2018				Datum A.H.D	Date 2/9/2018
Approved	10801	Title	SOIL EROSION & SEDIMENT CONTROL PLAN SHEET 2 OF 3		Scale As Shown	Size A1
MB	9/02/2018				Drawing Number 967192-CI-728	Revision A

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

XREFs: XR-967192-MASTER; XR-967192-DESIGN-CONTOURS-STG7
CAD File: S:\PROJECTS\TOWNSVILLE OFFICE\967192\967192-CI-729.dwg



NOTES

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



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Designed	JN	Date	9/02/2018
Verified	MB	Date	9/02/2018
Approved		Date	10801
MB		Date	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	A.H.D	Date	2/9/2018	Scale	As Shown	Size	A1
Drawing Number							Revision
967192-CI-729							A

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- 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

- 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.

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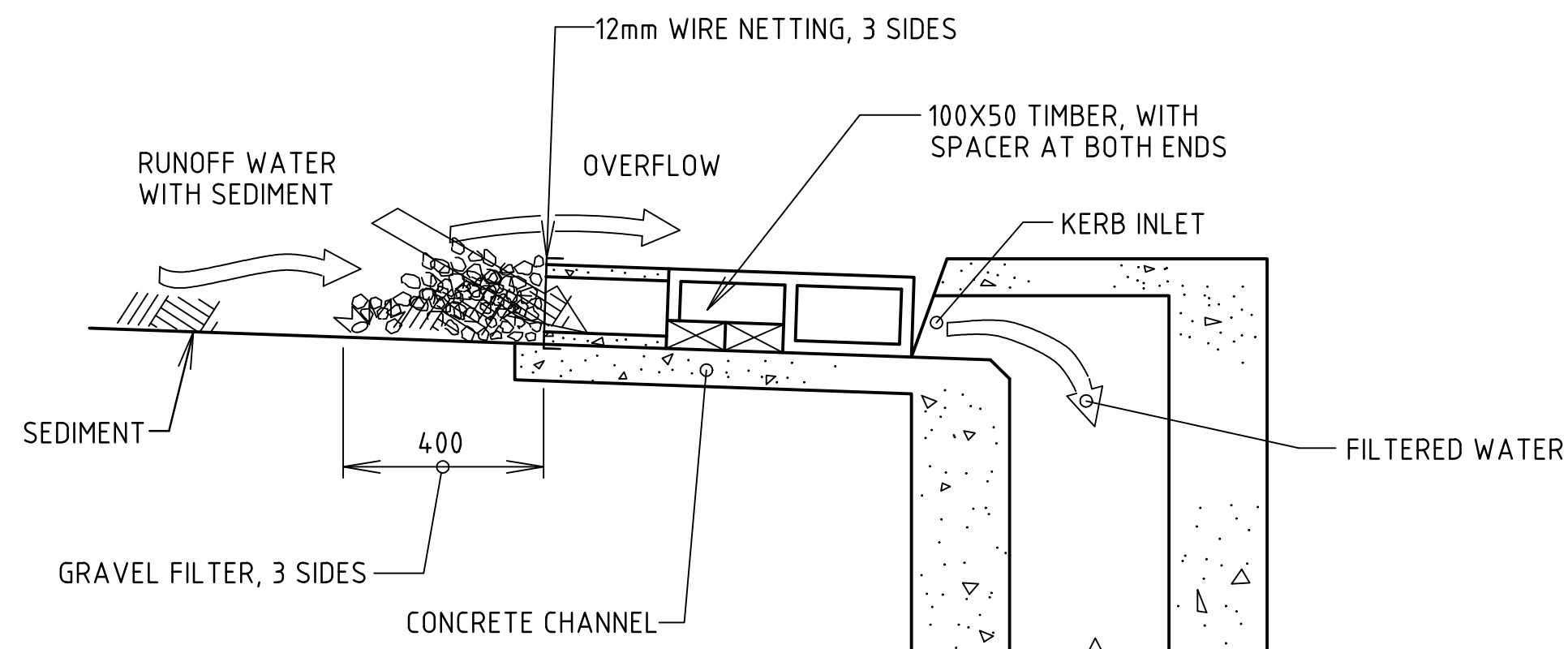
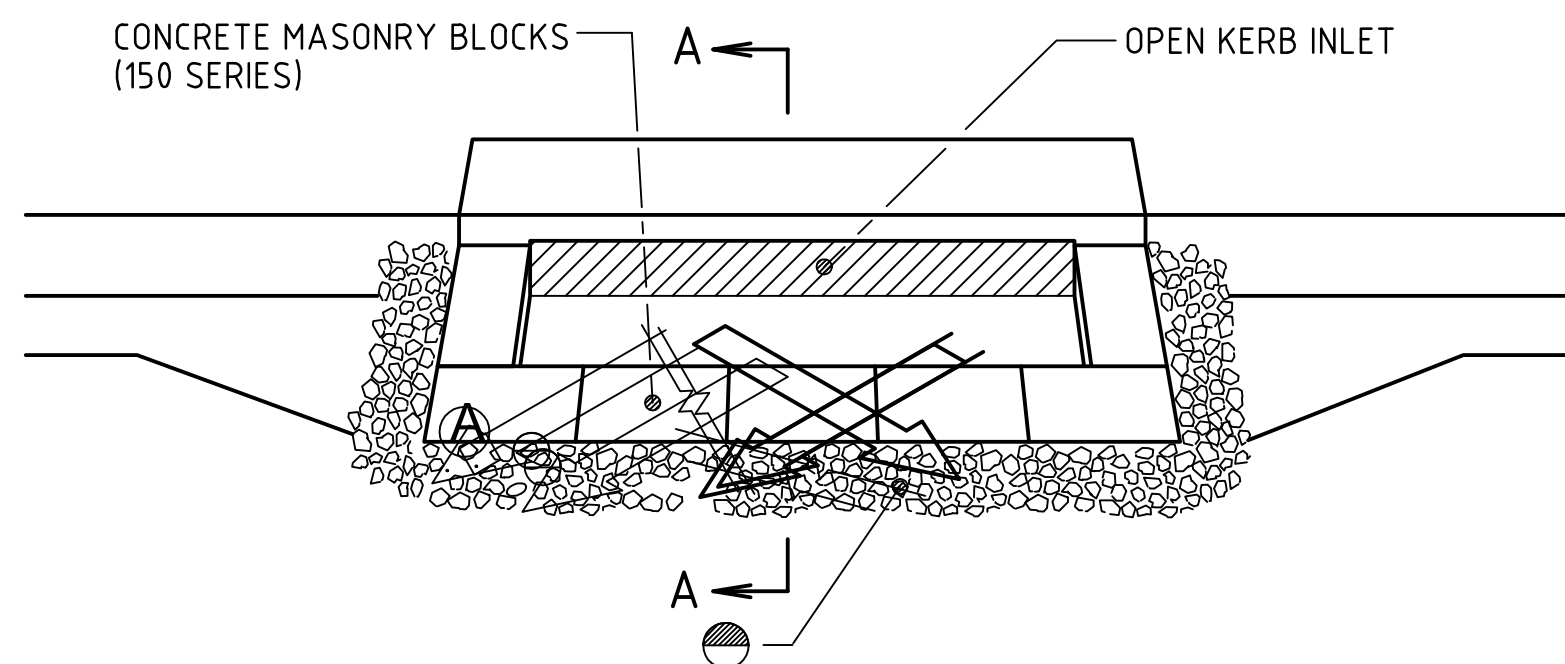
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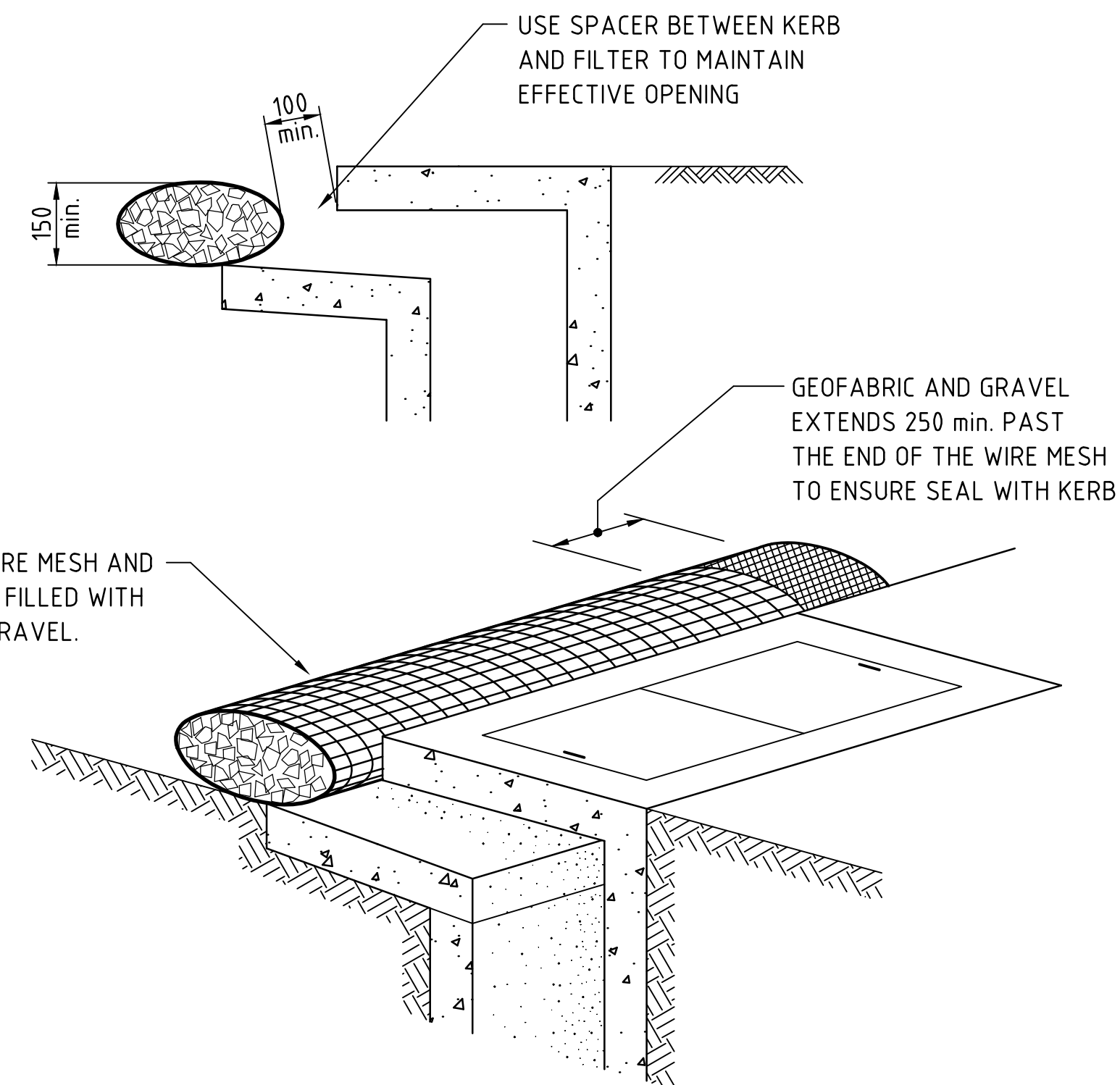


Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD				
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Designed JN	Date 9/02/2018					
Verified MB	Date 9/02/2018	Title SOIL EROSION, SEDIMENT CONTROL DETAILS SHEET 1 OF 2	Datum A.H.D	Date 2/9/2018	Scale As Shown	Size A1
Approved	10801		Drawing Number 967192-CI-730			
MB	9/02/2018		Revision A			

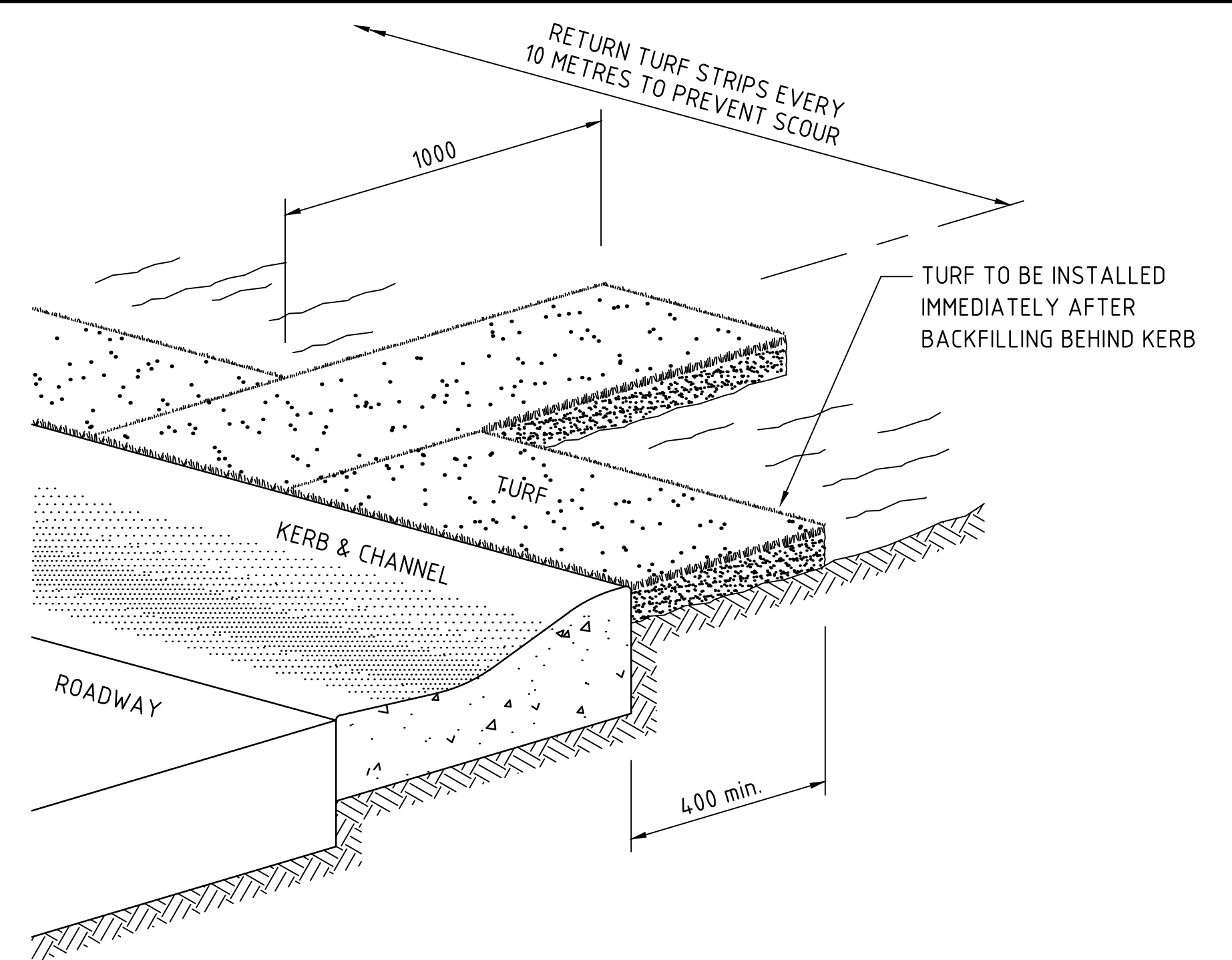
ON GRADE KERB INLET SEDIMENT TRAP



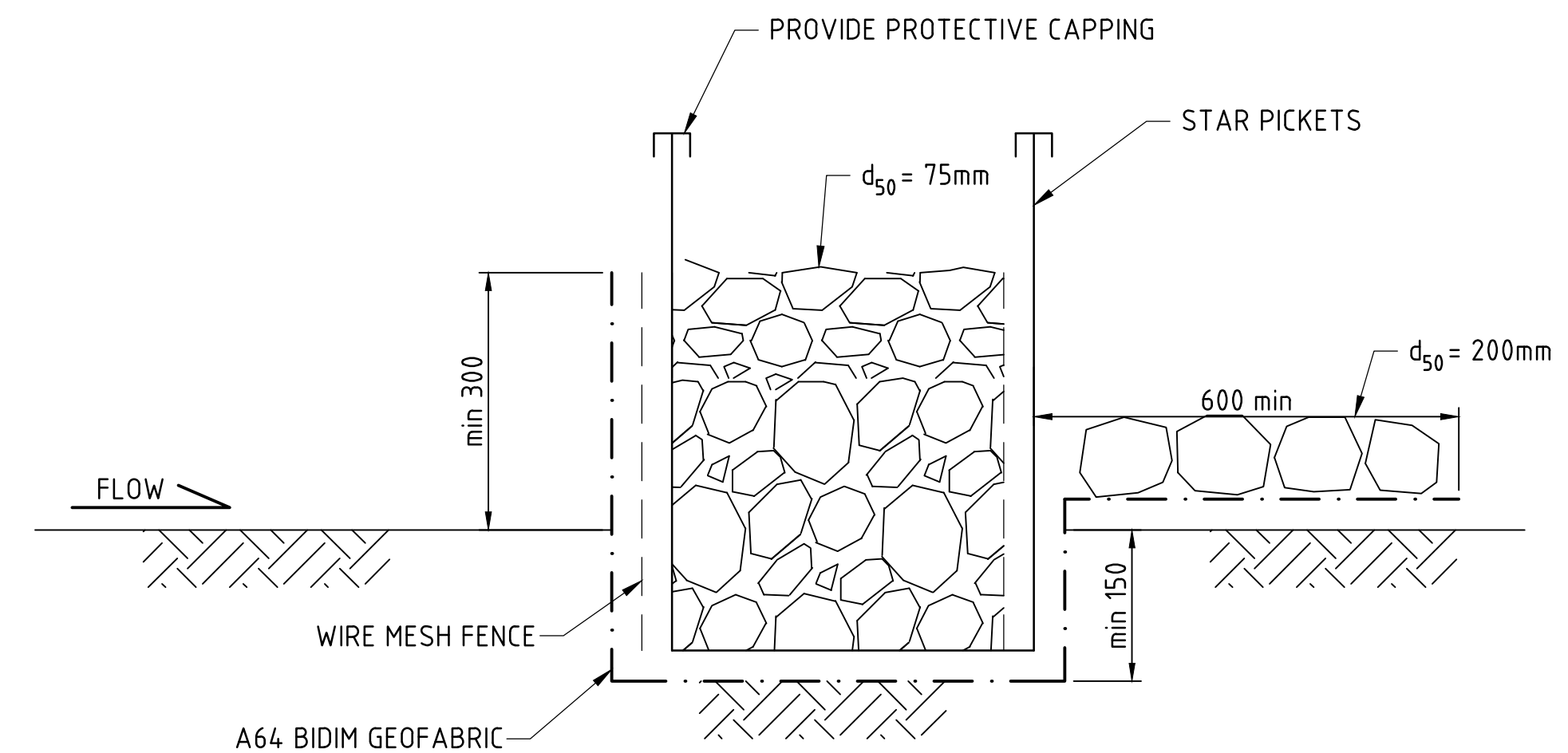
SECTION A-A
SAG INLET SEDIMENT TRAP, ST-1
A STABILISED BYPASS 'OVERLAND FLOW PATH'
SHOULD EXIST ADJACENT TO INLET IN GENUINE SAGS.



FILTER TO SIDE INLET GULLY PIT
NOT TO SCALE



TURF STRIPS TO KERBLINE
NOT TO SCALE



CHECK DAM SECTION DETAIL
NOT TO SCALE

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.

LEGEND

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

[illegible]

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Drawn JJ	Date 9/02/2018	Client MOUNT MARGARET DEVELOPMENTS PTY LTD
Checked MB	Date 9/02/2018	Project MOUNT MARGARET, ALICE RIVER STAGE 7
Designed JJ	Date 9/02/2018	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES
Verified MB	Date 9/02/2018	
Approved	10801	
MB	9/02/2018	Title SOIL EROSION, SEDIMENT CONTROL DETAILS SHEET 2 OF 2 Datum A.H.D Date 2/9/2018 Scale As Shown Size A1 Drawing Number 967192-CI-731 Revision A

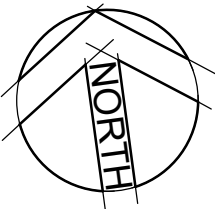
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20/08/2020

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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

LEGEND

- EXISTING CATCHMENT BOUNDARY
- CATCHMENT BOUNDARY
- CATCHMENT NUMBER
- DIRECTION OF FLOW

ALICE RIVER

MT MARGARET

PLAN
SCALE 1:2000 @ A1

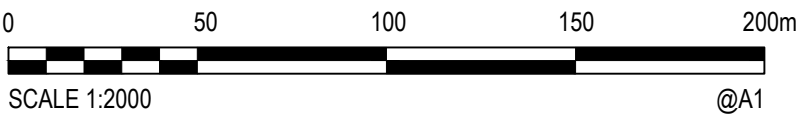
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Verified	MB	Date	9/02/2018
Approved		Date	10/08/2018
MB		Date	9/02/2018

Client	MOUNT MARGARET DEVELOPMENTS PTY LTD		
Project	MOUNT MARGARET, ALICE RIVER STAGE 7		
Title	Q50 DRAINAGE CATCHMENT 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			Revision	
967192-CI-732			A	