

A	ISSUE FOR APPROVAL	DG	JEM	PM	31/07/25
	AMENDMENT	DES	DRN	CKD	DATE



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AZIMUTH: M.G.A.
GDA 2020

DATUM: A.H.D.

ORIGIN: SSM 1112

PLAN No: 110965-04-DD001

PROJECT No:
110965-04

SHEET No:
DD001

A

Plotted: 24 March , 2025 4:29:33 PM File Name: C:\Synergy\W\data\AS\WP04\110965-004 - Stage 2 Lot 2 Trunk Drainage Channel Design_13920\Design\DD\110965-04-DD001.dwg

LEGEND			
DESCRIPTION	PROPOSED	EXISTING	FUTURE
EXTENT OF WORKS			
DRAINAGE LINE & PIT			
DRAINAGE LINE & PIT BY OTHERS			
CONTOURS			
SEWER, MANHOLE			
SANDSTONE LOG/SLEEPER			
RETAINING WALL			
HEADWALL			
PEDESTRIAN FENCE			
SUBSOIL			
SIGNAGE			
SURVEY MARKS - BENCH MARKS			
STATE SURVEY MARKS			
RECOVERY PEGS			
CONCRETE PAVEMENT			
CRUSHED SANDSTONE PAVEMENT			
CRUSHED SANDSTONE TURNING HEAD PAVEMENT			
LANDSCAPE AREAS (REFER LANDSCAPE ARCHITECTS PLANS)			
SCOUR PROTECTION			
VEHICLE CROSSING			

REFERENCE NOTES:

- IRRIGATION PLANS HAVE BEEN UNDERTAKEN (BY OTHERS), NOT SHOWN ON PLANS FOR CLARITY.
- LOT 6 RETAINING WALL HAS BEEN DESIGNED BY OTHERS. REFER TO AT&L PLANS 20-748-C6121 FOR DETAILS.

Survey By:

LAND PARTNERS

SURVEY PLANNERS
Level 2, 23-29 South Street, Rydalmere. NSW 2116
Ph. (02) 9685 2000

Date: 18/07/23 File Name: SY075344.000.1.1.dwg;
SY75369.000.1.1.dwg



UTILITIES SHOWN ARE DIAGRAMMATIC ONLY, CONTRCTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCUVATION GUIDE LINES & STANDARDS.

NOTE: UTILITIES SHOWN MAY NOT INCLUDE ALL SERVICES WITHIN THE LIMIT OF WORKS

GENERAL NOTES

- ALL WORKS WITHIN THE DRAINAGE CORRIDOR ARE TO BE IN ACCORDANCE WITH SYDNEY WATER'S TECHNICAL SPECIFICATION - CIVIL (CURRENT VERSION). ALL WORKS WITHIN THE ROAD RESERVE ARE TO BE IN ACCORDANCE WITH PENRITH CITY COUNCIL'S ENGINEERING CONSTRUCTION SPECIFICATION FOR CIVIL WORKS (CURRENT VERSION).
- SURVEY MARKS: -
 - STATE SURVEY MARKS SHOWN THUS SHALL BE SET IN TOP OF THE KERB AS IT IS BEING LAID, BY THE CONTRACTOR, IN THE INDICATED LOCATIONS. MARKS SHALL BE SUPPLIED BY THE PROJECT SURVEYOR.
 - SURVEY MARKS SHOWN THUS SHALL BE RETAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE SUPERINTENDENT MUST BE NOTIFIED AND CONSENT RECEIVED PRIOR TO THEIR REMOVAL.
- THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST IF NECESSARY.
- THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE WRITTEN PERMISSION OF THE OWNERS. TO BE PROVIDED PRIOR TO THE APPROVAL OF THE PLANS.
- THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.
- NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL'S ENGINEER.
- TREES TO BE RETAINED ON SITE SHALL BE PROTECTED BY SUITABLE STURDY APPROVED PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF SITE WORKS.
- THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES, OUT-HOUSES, CAR BODIES AND DEBRIS ETC.
- PUBLIC RESERVE AREAS SHALL BE CLEARED OF UNDERGROWTH, IMPROVEMENTS AND FENCES AS DIRECTED BY THE ENGINEER.
- FILLING IS TO BE FROM A NOMINATED SOURCE, OF SOUND CLEAN MATERIAL, FREE FROM LARGE ROCK, STUMPS, CONTAMINATED MATTER, INDUSTRIAL AND BUILDING WASTE, ORGANIC MATTER AND OTHER DEBRIS. PLACING OF FILLING ON THE PREPARED AREAS SHALL NOT COMMENCE UNTIL THE AUTHORITY TO DO SO HAS BEEN OBTAINED FROM THE COUNCIL.
- SITE FILL AREAS: - THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
- ALL SITE FILLING TO BE COMPACTED TO 95% STANDARD COMPACTION AND SHALL BE CONTROLLED BY A REGISTERED SOIL LABORATORY IN ACCORDANCE WITH COUNCIL'S "WORKS SPECIFICATION".
- ALL SITE REGRADING AREAS SHALL BE GRADED AT A MINIMUM 1% TO THE ENGINEERS REQUIREMENTS.
- SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.
- VEHICULAR CROSSINGS SHALL BE CONSTRUCTED IN KERB AND GUTTER WHERE SHOWN.
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
- DIMENSIONS OF ANY DETAIL SHALL NOT BE SCALED - DIMENSIONS, IF IN DOUBT, SHALL BE VERIFIED BY THE SUPERINTENDENT.
- ALL CONSTRUCTION AND RESTORATION WORK ON COUNCIL'S ROAD AND FOOTPATH AREA ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE APPROVED DRAWINGS AND COUNCIL'S STANDARD SPECIFICATIONS.

GEOTECHNICAL NOTES:

- ONCE THE EARTHWORKS ARE GRADED TO THE FINISHED DESIGN SURFACE LEVEL, RIP THE SUBGRADE OVER THE CHANNEL FORMATION / WORKS AREA TO A DEPTH OF 150mm AND APPLY 1.0kg OF GYPSUM INTO THE EXPOSED SUBGRADE / TOPSOIL.

STORMWATER NOTES

- STORMWATER DESIGN CRITERIA:
1% AEP MAJOR SYSTEM
20% AEP MINOR SYSTEM
- PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 (1989) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (1998) AND AS/NZS 3500 3.2 (1998).
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- GRATES AND COVERS SHALL CONFORM TO AS 3996.
- AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- ALL STORMWATER PIPES WITHIN ROADS TO BE REINFORCED CONCRETE PIPE (RCP) CLASS 2.
- ALL STORMWATER PITS ARE TO BE AUSPIT OR APPROVED EQUIVALENT. CAST INSITU PITS MAY BE USED, STRUCTURAL CERTIFICATION TO BE PROVIDED BY CONTRACTOR.

SURVEY SET OUT INFORMATION NOTES:

- ALL SITE SET OUT AND CONTROL POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.
- THE INFORMATION DETAILED ON THE CERTIFIED CONSTRUCTION CERTIFICATE PLANS TAKES PRECEDENCE OVER ALL ELECTRONIC INFORMATION PROVIDED. THE ORDER OF PRIORITY FOR USE OF ALL INFORMATION PROVIDED IS AS FOLLOWS:
 - CERTIFIED CONSTRUCTION CERTIFICATE DRAWINGS
 - 2D DRAFTING BASE (ELECTRONIC FILE)
 - 3D DTM (ELECTRONIC FILE)
- ANY DISCREPANCY BETWEEN ANY OF THE INFORMATION CONTAINED WITHIN THESE FILES IS TO BE BROUGHT TO THE ATTENTION OF THE SUPERINTENDENT PRIOR TO CONSTRUCTION WHO WILL SEEK CLARIFICATION AND ISSUE INSTRUCTIONS ON THE APPROPRIATE COURSE OF ACTION.

CIVIL PLAN INDEX

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110965-04-DD007	SYDNEY WATER EASEMENT PLAN	C
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110965-04-DD010	ENGINEERING PLAN SHEET 1	A
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110965-04-DD070	SOIL & WATER MANAGEMENT PLAN SHEET 1	B
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D	ISSUE FOR APPROVAL	DG	JEM	CR	CR	24/03/25	
C	ISSUE FOR APPROVAL	DG	JEM	CR	CR	21/03/25	
B	ISSUE FOR APPROVAL	DG	JEM	PM	PM	03/02/25	
B	ISSUE FOR APPROVAL	DG	JEM	PM	PM	31/01/25	
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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
NOTES, INDEX & LEGEND

PROJECT No:

110965-04

SHEET No:

DD002

AZIMUTH: M.G.A. GDA 2020

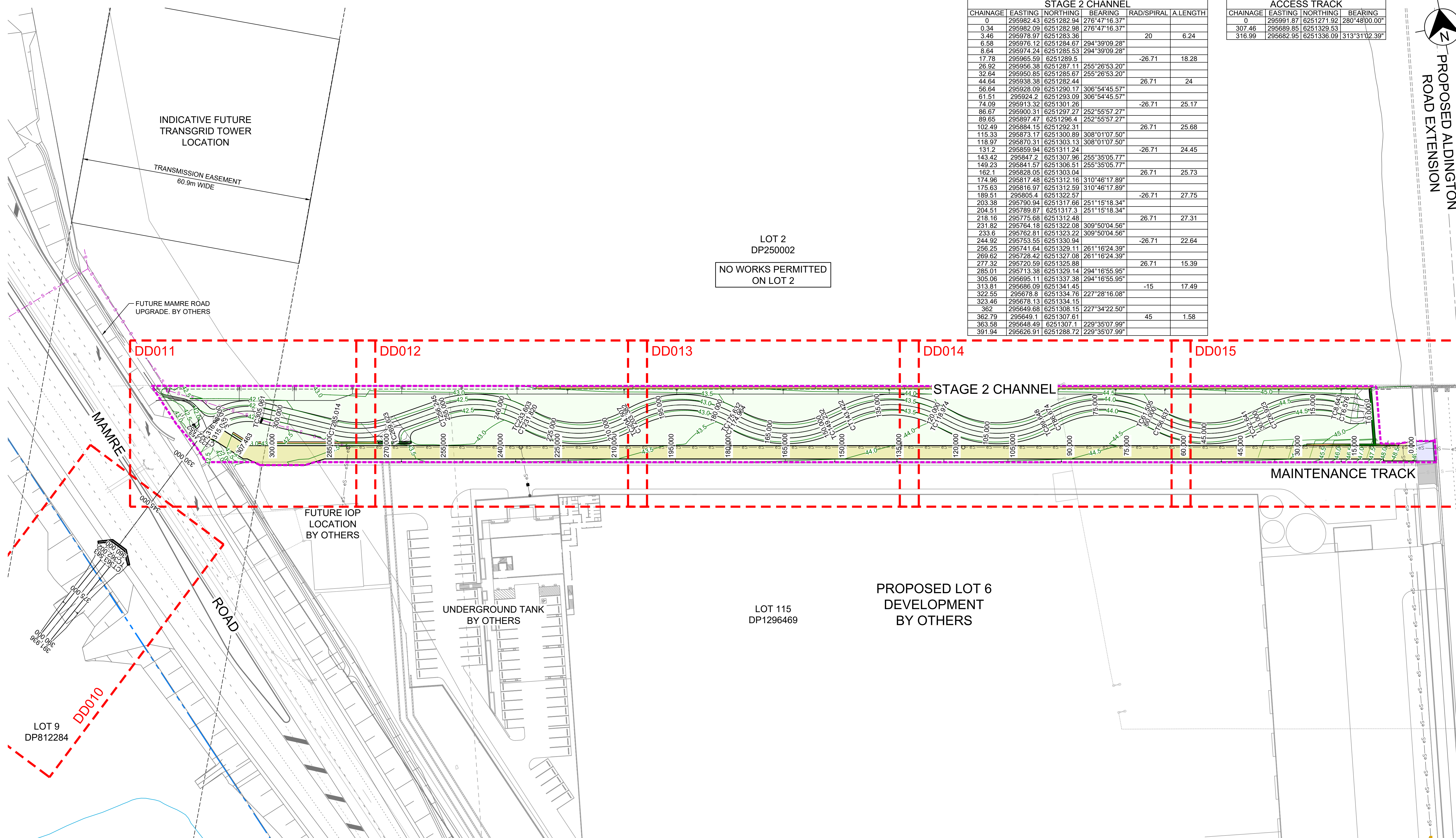
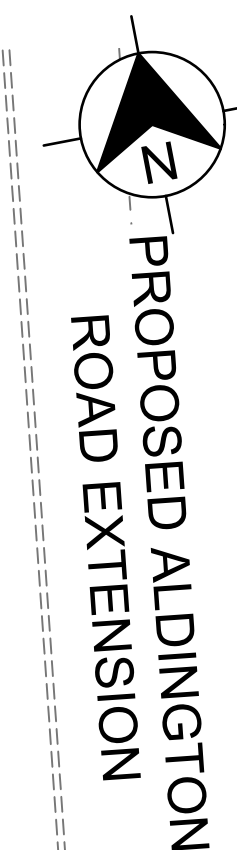
DATUM: A.H.D.

ORIGIN: SSM 1112

PLAN No: 110965-04-DD002

D

STAGE 2 CHANNEL						
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGHT	
0.34	295882.09	6251282.98	276°47'16.37"			
3.46	295878.97	6251283.36	276°47'16.37"	20	6.24	
6.58	295879.12	6251284.67	294°39'09.28"			
8.64	295974.24	6251285.53	294°39'09.28"			
17.78	295965.59	6251289.5		-26.71	18.28	
26.92	295956.38	6251287.11	255°26'53.20"			
32.64	295950.85	6251285.67	255°26'53.20"			
44.64	295938.38	6251282.44		26.71	24	
56.64	295928.09	6251290.17	306°54'45.57"			
61.51	295924.09	6251293.08	306°54'45.57"			
74.09	295912.32	6251301.28		-26.71	25.17	
86.67	295900.31	6251297.27	252°55'57.27"			
89.65	295897.47	6251296.4	252°55'57.27"			
102.49	295884.15	6251292.31		26.71	25.68	
115.33	295873.17	6251300.89	308°01'07.50"			
118.97	295870.31	6251303.13	308°01'07.50"			
131.2	295859.94	6251311.24		-26.71	24.45	
143.42	295847.2	6251307.96	255°35'05.77"			
149.23	295841.57	6251306.51	255°35'05.77"			
162.1	295828.05	6251304.09		26.71	25.73	
174.96	295817.48	6251312.16	310°46'17.89"			
175.63	295816.97	6251312.59	310°46'17.89"			
189.51	295805.4	6251322.57		-26.71	27.75	
203.38	295790.94	6251317.66	251°15'18.34"			
204.51	295789.87	6251317.3	251°15'18.34"			
218.16	295775.68	6251312.48		26.71	27.31	
231.82	295764.18	6251322.08	309°50'04.56"			
233.6	295762.81	6251323.22	309°50'04.56"			
244.02	295750.78	6251313.50		-26.71	22.64	
256.25	295741.64	6251329.11	261°16'24.39"			
269.62	295728.42	6251327.08	261°16'24.39"			
277.32	295720.59	6251325.88		26.71	15.39	
285.01	295713.38	6251329.14	294°16'55.95"			
305.06	295695.11	6251337.38	294°16'55.95"			
313.81	295686.09	6251341.45		-15	17.49	
322.55	295678.8	6251334.76	227°28'16.08"			
323.46	295678.13	6251334.15				
362	295649.68	6251336.15	227°34'22.50"			
366.79	295649	6251337.01		45	1.58	
363.58	295648.49	6251307.1	239°35'07.99"			
381.94	295626.91	6251288.72	229°35'07.99"			



DRAFT ISSUE ONLY
PRELIMINARY DESIGNS SUBJECT TO CHANGE

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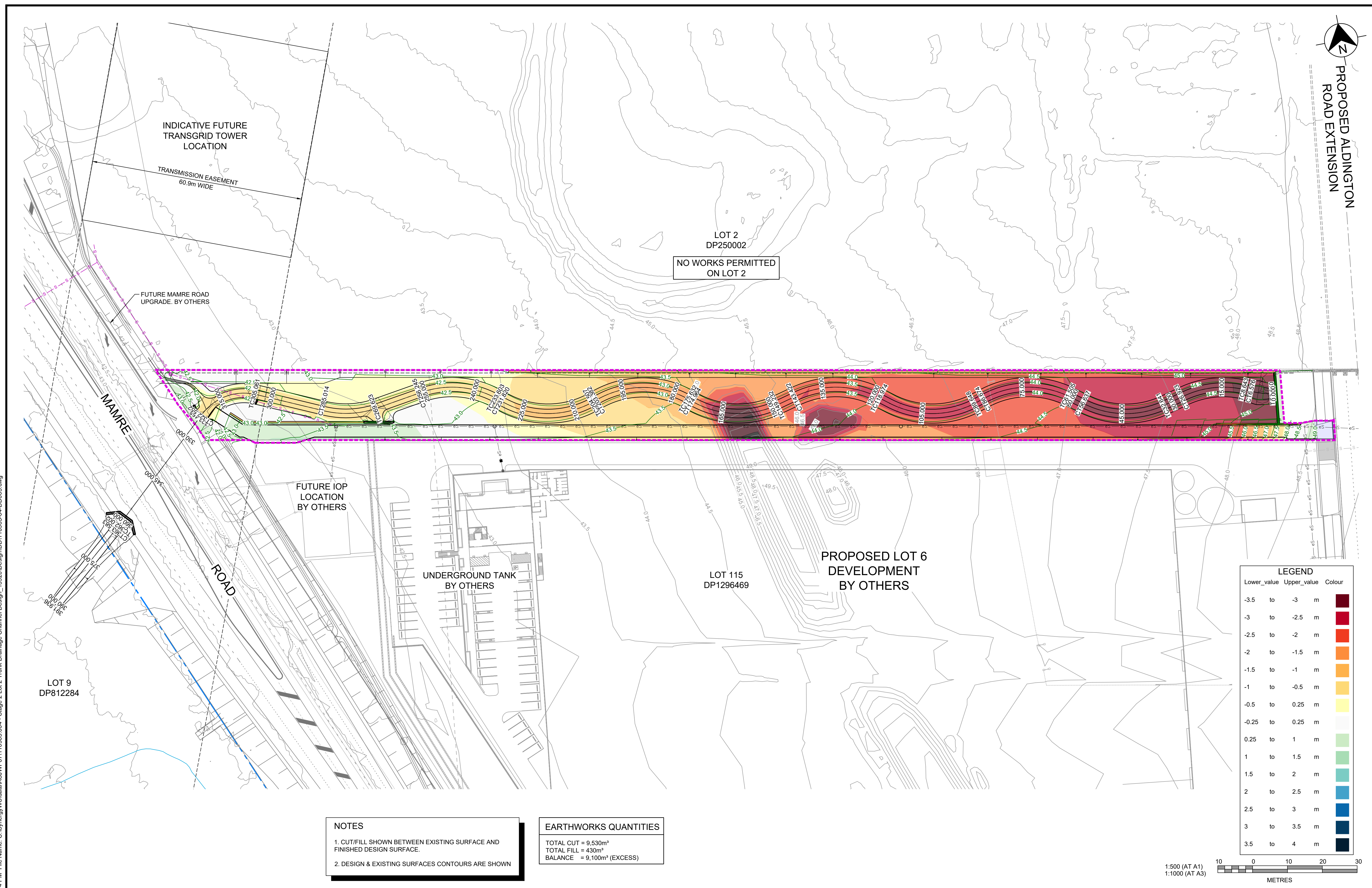
WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
SITE LAYOUT PLAN

PROJECT No:
110965-04

SHEET No:
DD005

AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04-DD005
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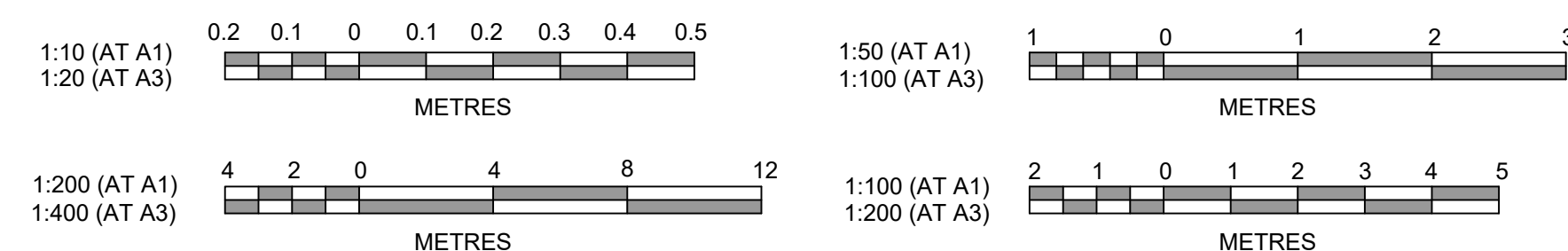
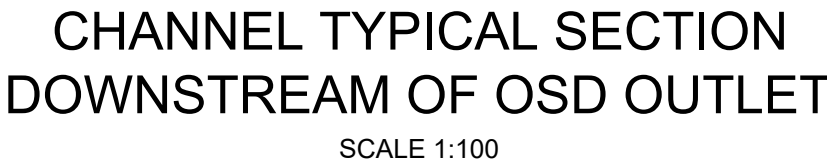
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<p style="text-align: center;">WESTLINK STAGE 2, KEMPS CREEK NATURALISED DRAINAGE CHANNEL WORKS CUT / FILL PLANS</p>				PROJECT No:		110965-04			
				SHEET No:		DD006			
AZIMUTH: M.G.A. GDA 2020		DATUM: A.H.D.		ORIGIN: SSM 1112		PLAN No: 110965-04-DD006		A	

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WESTLINK STAGE 2, KEMPS CREEK NATURALISED DRAINAGE CHANNEL WORKS TYPICAL SECTIONS AND DETAILS

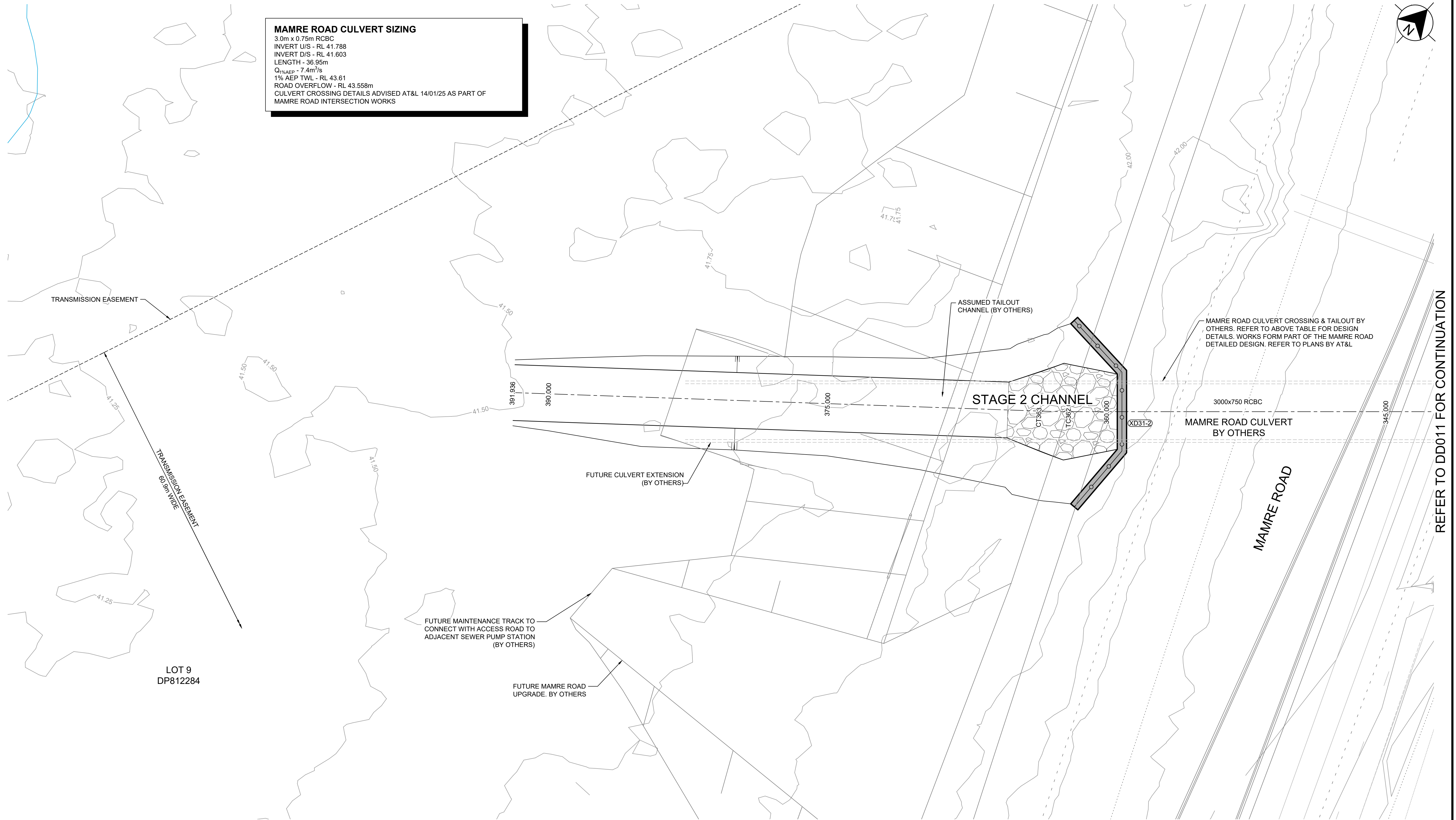
AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04-DD009
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PROJECT No:
110965-04

SHEET No:
DD009

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3.0m x 0.75m RCBC
INVERT U/S - RL 41.788
INVERT D/S - RL 41.603
LENGTH - 36.95m
 $Q_{1\% AEP} = 7.4 \text{ m}^3/\text{s}$
1% AEP TWL - RL 43.61
ROAD OVERFLOW - RL 43.558m
CULVERT CROSSING DETAILS ADVISED AT&L 14/01/25 AS PART OF
MAMRE ROAD INTERSECTION WORKS



REFER TO DD011 FOR CONTINUATION

2 1 0 1 2 3 4 5

1:100 (AT A1)

1:200 (AT A3)

METRES

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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
ENGINEERING PLAN
SHEET 1

AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04-DD010	A
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PROJECT No:
110965-04

SHEET No:
DD010

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Plotted: 21 March 2025 10:14:39 AM File Name: C:\Synergy\WS\data\AS\JWP\07110965.004 - Stage 2 Lot 2 Trunk Drainage Channel Design_13920\Design\DD11 10965-04-DD010.dwg

NOTES:

- ALL WORKS ARE SUBJECT TO STRUCTURAL AND GEOTECHNICAL DESIGN, AS NECESSARY.
- REFER TO DD009 FOR CHANNEL AND MAINTENANCE TRACK TYPICAL CROSS SECTIONS. REFER TO DD036 FOR RETAINING WALL TYPICAL DETAILS.
- ALL BATTERS SHOWN ARE 1:4 UNLESS NOTED OTHERWISE.
- SANDSTONE LOG RETAINING WALLS ARE 1.5m MAX HEIGHT UNLESS OTHERWISE SHOWN. SANDSTONE SLEEPER RETAINING WALLS ARE 3.0m MAX HEIGHT UNLESS OTHERWISE SHOWN.
- FOR COMPACTION SPECIFICATIONS REFER TO GEOTECHNICAL REPORT
- ALL STORMWATER PIPEWORK DESIGNED BY OTHERS. REFER TO PLANS BY AT&L FOR DETAILS

C	ISSUE FOR APPROVAL	DG	JEM	CR	CR	21/03/25
B	ISSUE FOR APPROVAL	DG	JEM	PM	PM	03/02/25
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**WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS**
ENGINEERING PLAN
SHEET 2

AZIMUTH: M.G.A.
GDA 2020

DATUM: A.H.D.

ORIGIN: SSM 1112

PLAN No: 110965-04-DD011

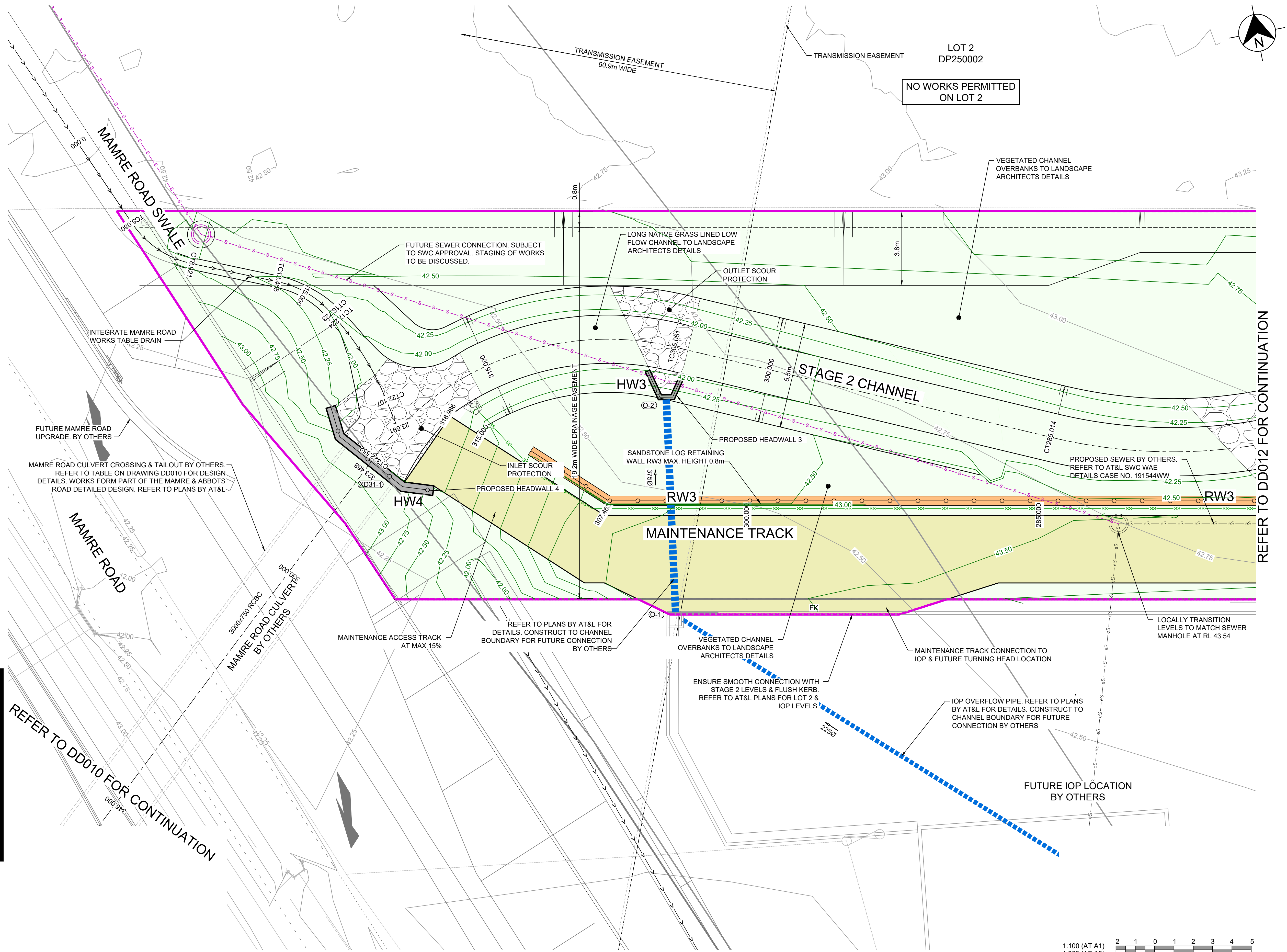
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110965-04

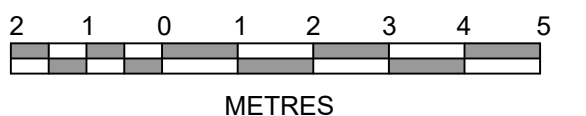
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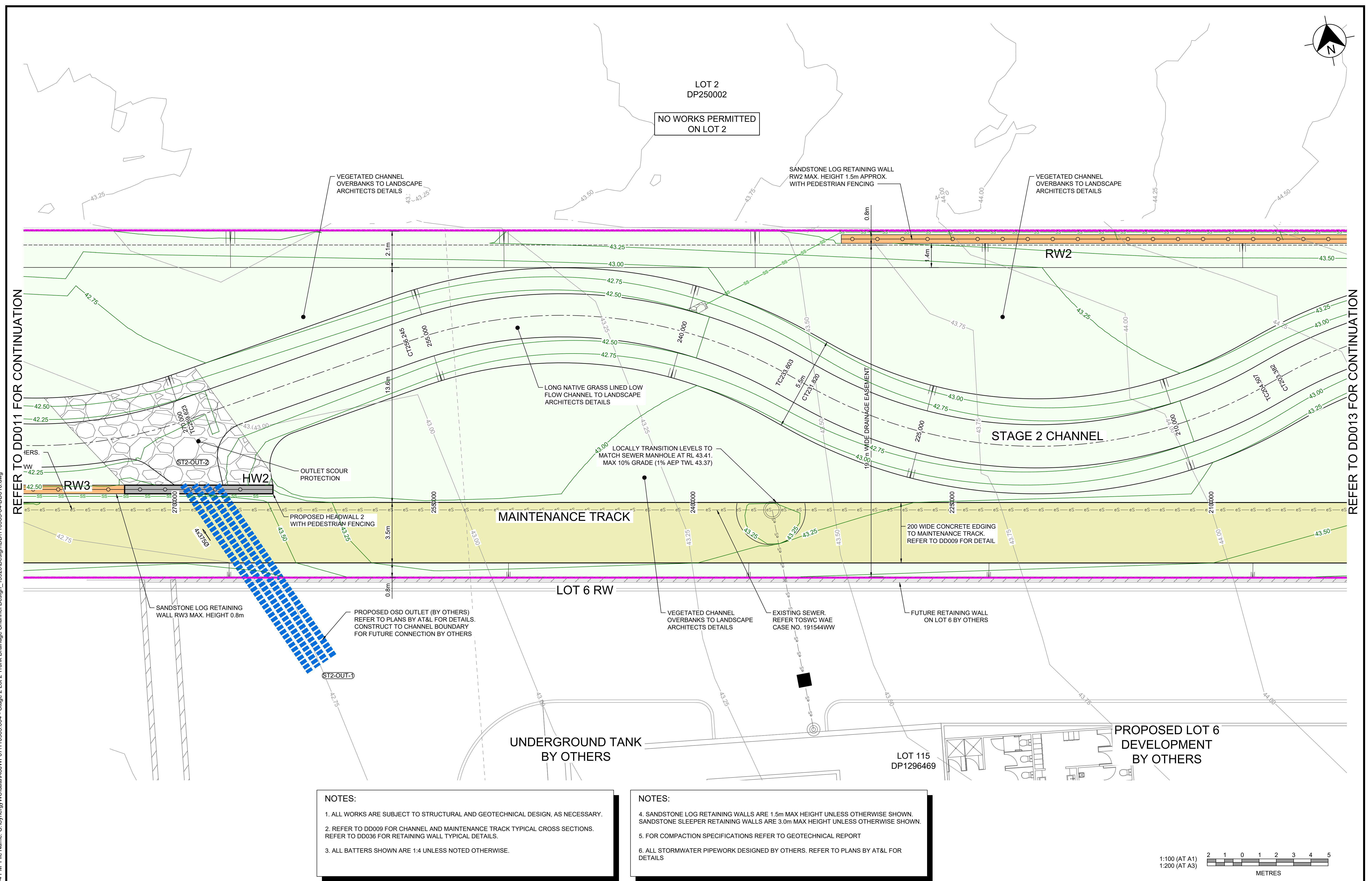


1:100 (AT A1)
1:200 (AT A3)



REFER TO DD012 FOR CONTINUATION

REFER TO DD010 FOR CONTINUATION



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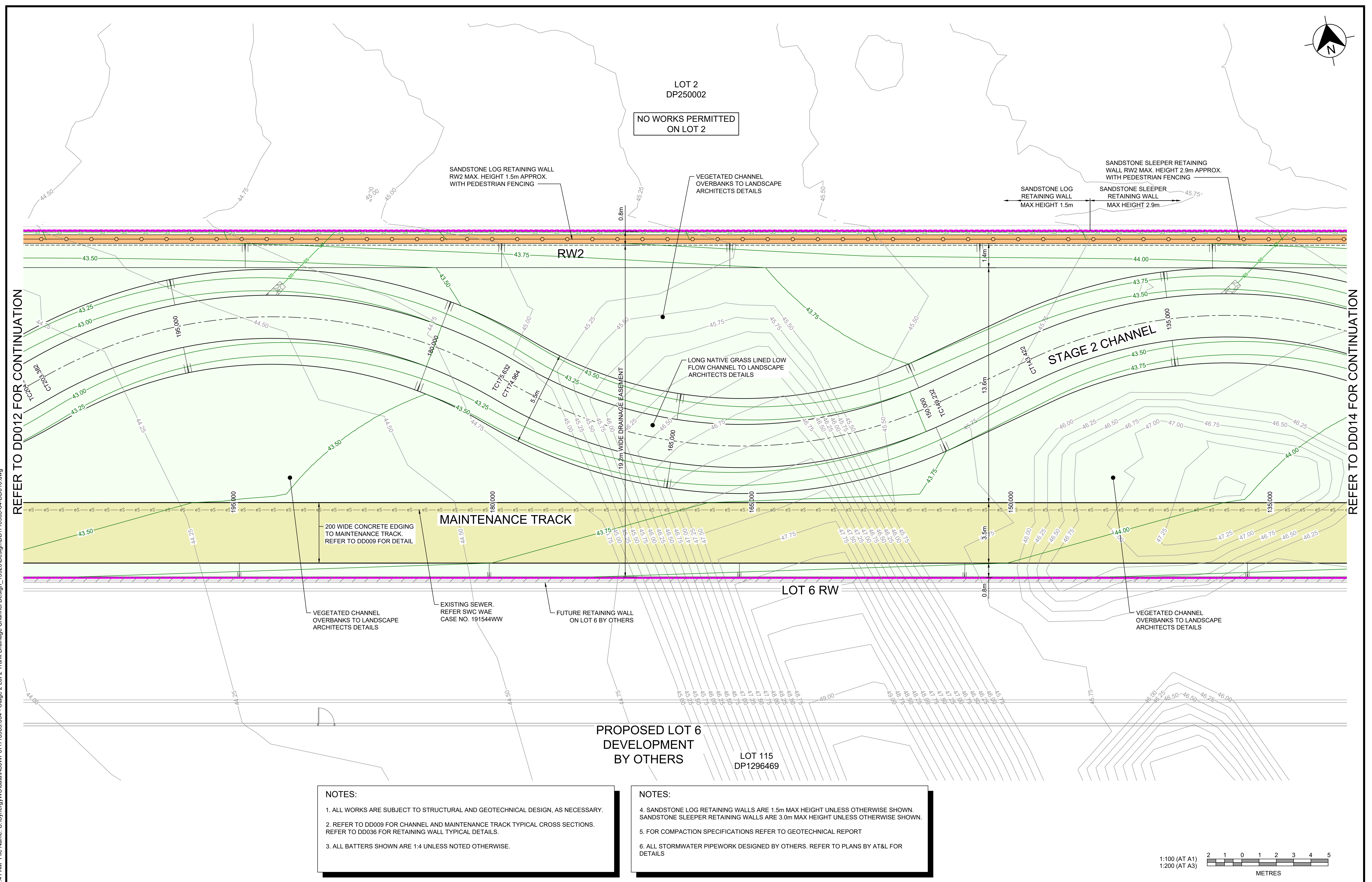
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<p style="text-align: center;">WESTLINK STAGE 2, KEMPS CREEK NATURALISED DRAINAGE CHANNEL WORKS ENGINEERING PLAN SHEET 3</p>			
AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04

PROJECT No: 110965-04	
SHEET No: DD012	
4-DD012	A



B	ISSUE FOR APPROVAL	DG	JEM	CR	CR	21/03/25
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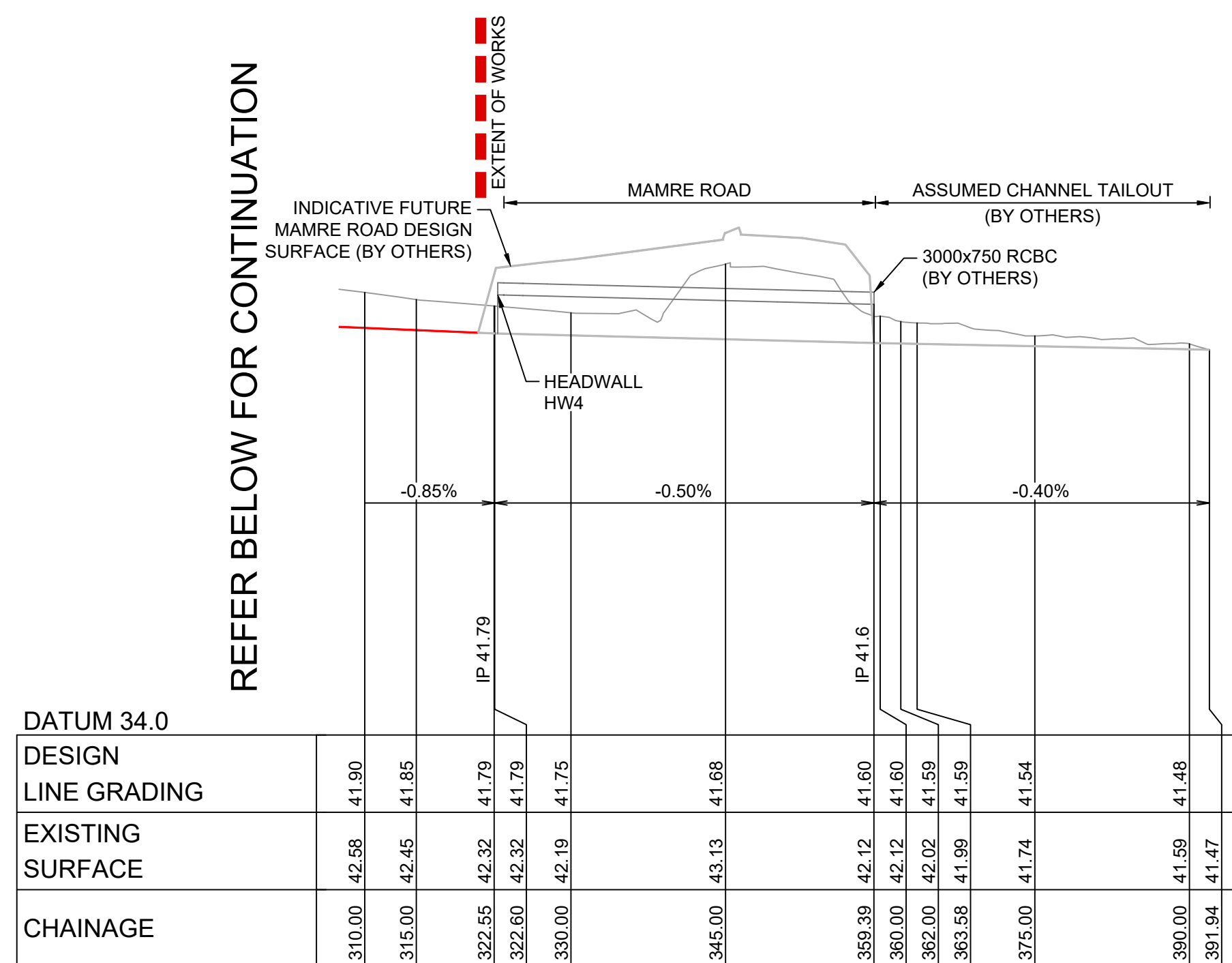
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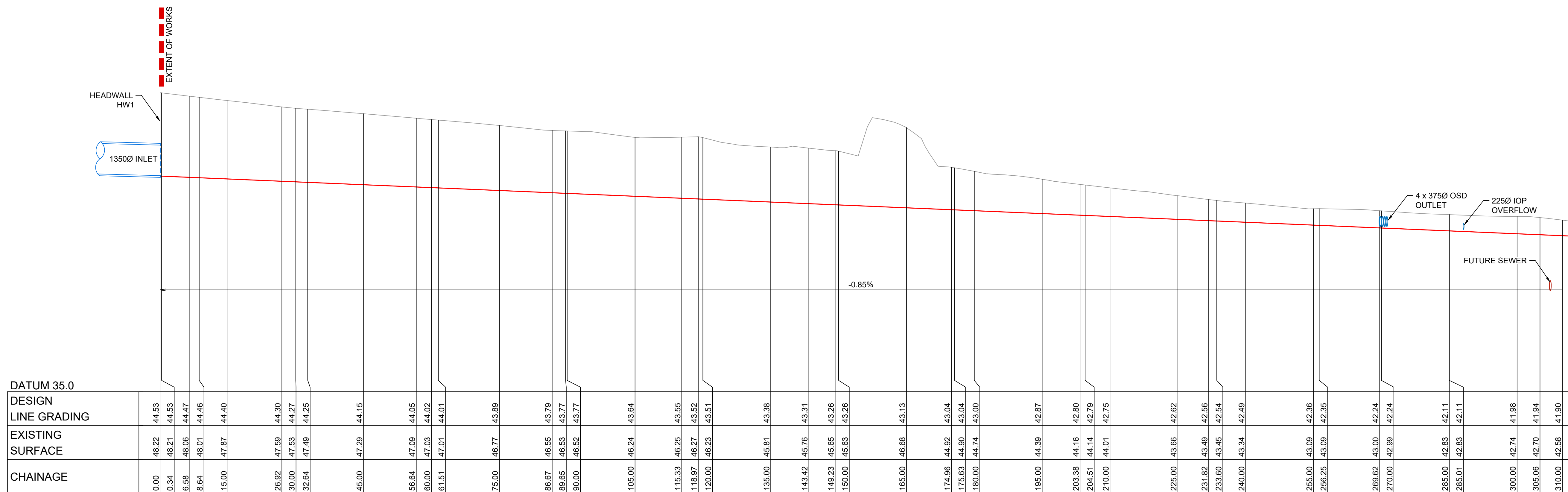
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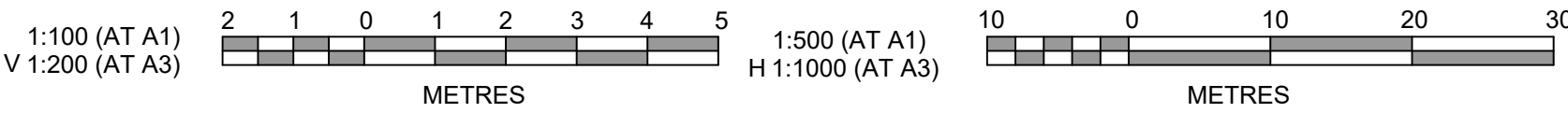
<p style="text-align: center;">WESTLINK STAGE 2, KEMPS CREEK NATURALISED DRAINAGE CHANNEL WORKS</p> <p style="text-align: center;">ENGINEERING PLAN SHEET 4</p>				<p>PROJECT No:</p> <p style="text-align: center; font-size: 1.5em;">110965-04</p>	
				<p>SHEET No:</p> <p style="text-align: center; font-size: 1.5em;">DD013</p>	
<p>AZIMUTH: M.G.A. 2020</p>	<p>DATUM: A.H.D.</p>	<p>ORIGIN: SSM 1112</p>	<p>PLAN No:</p> <p style="text-align: center; font-size: 1.2em;">110965-04-DD013</p>	<p style="text-align: center; font-size: 1.5em;">B</p>	





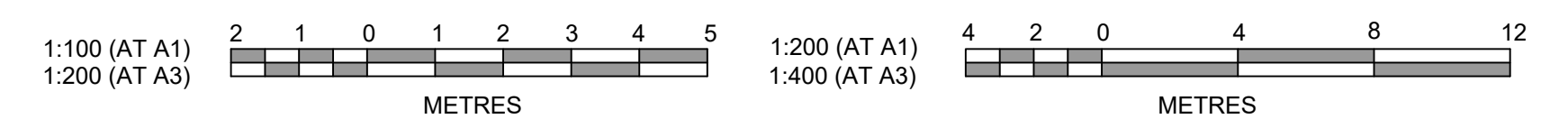
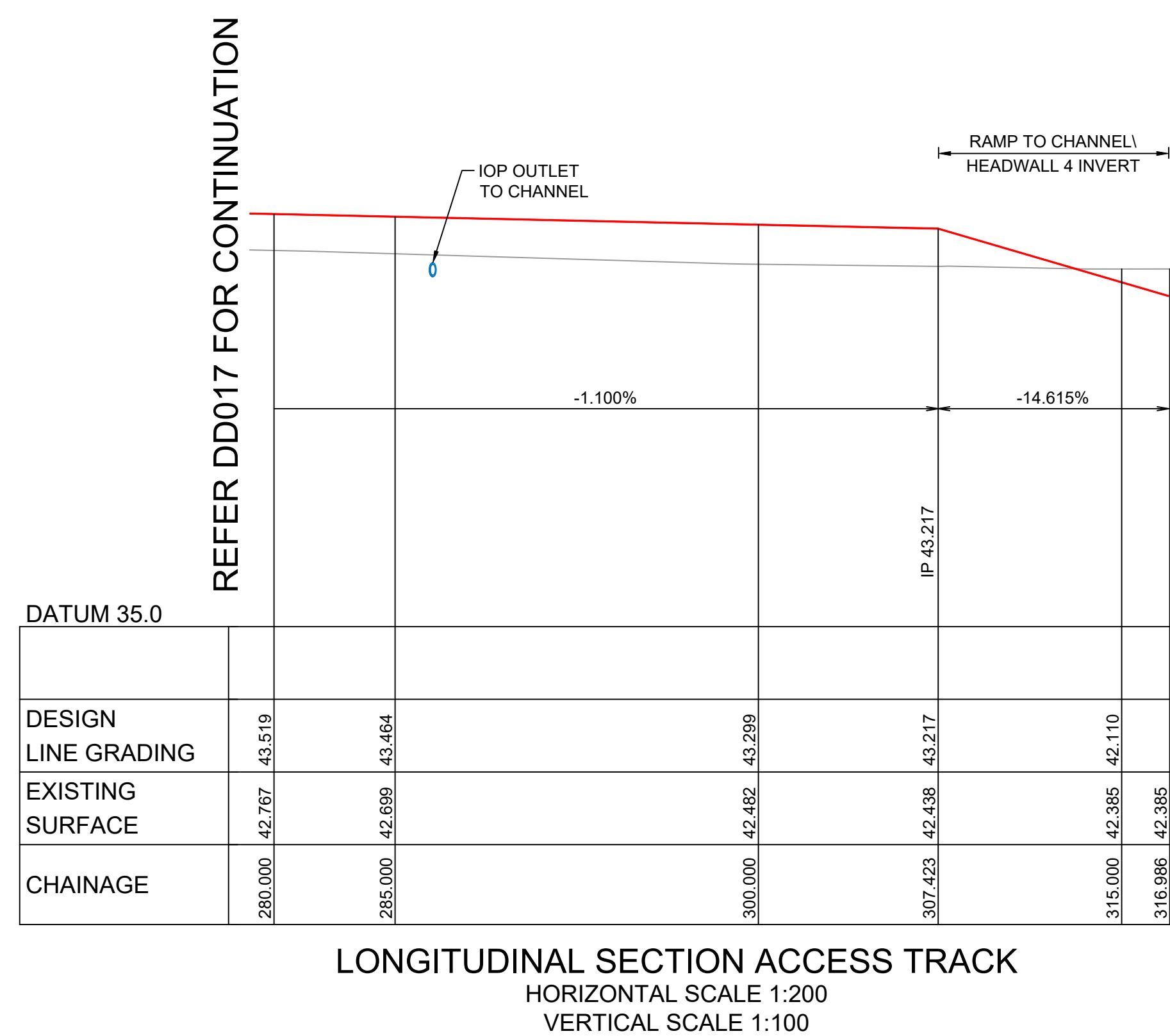
LONGITUDINAL SECTION CHANNEL
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION CHANNEL
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

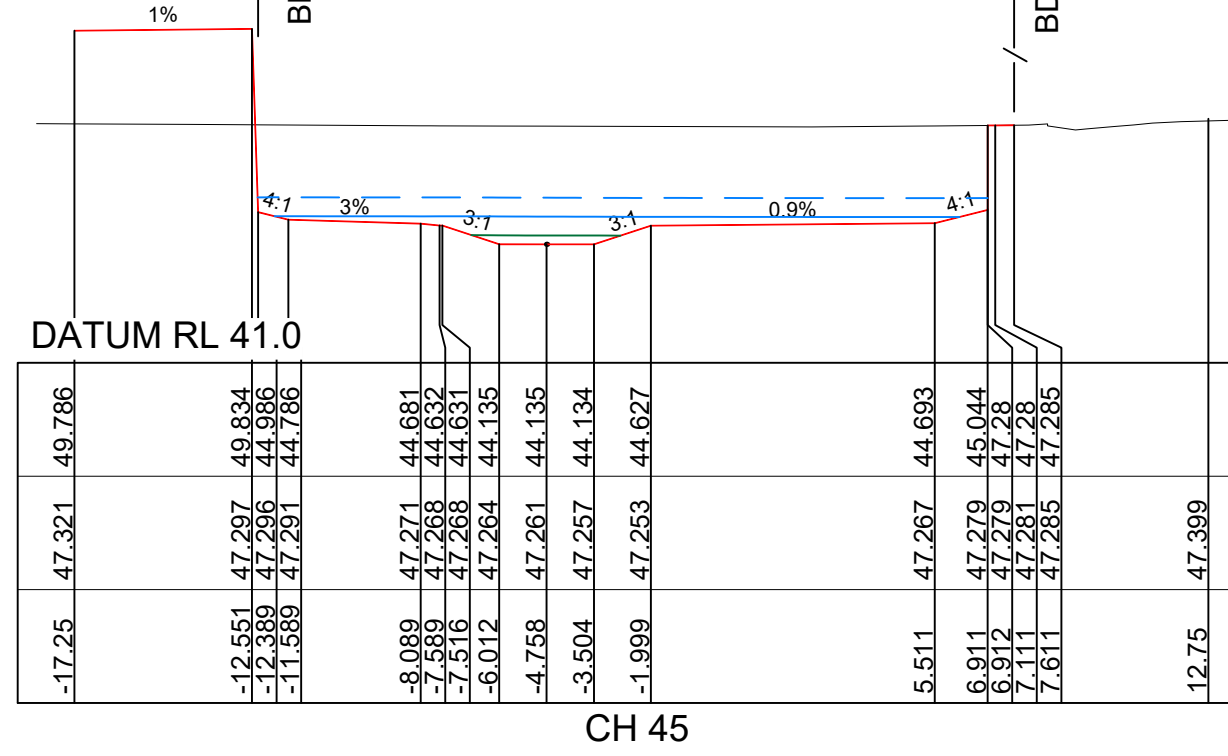
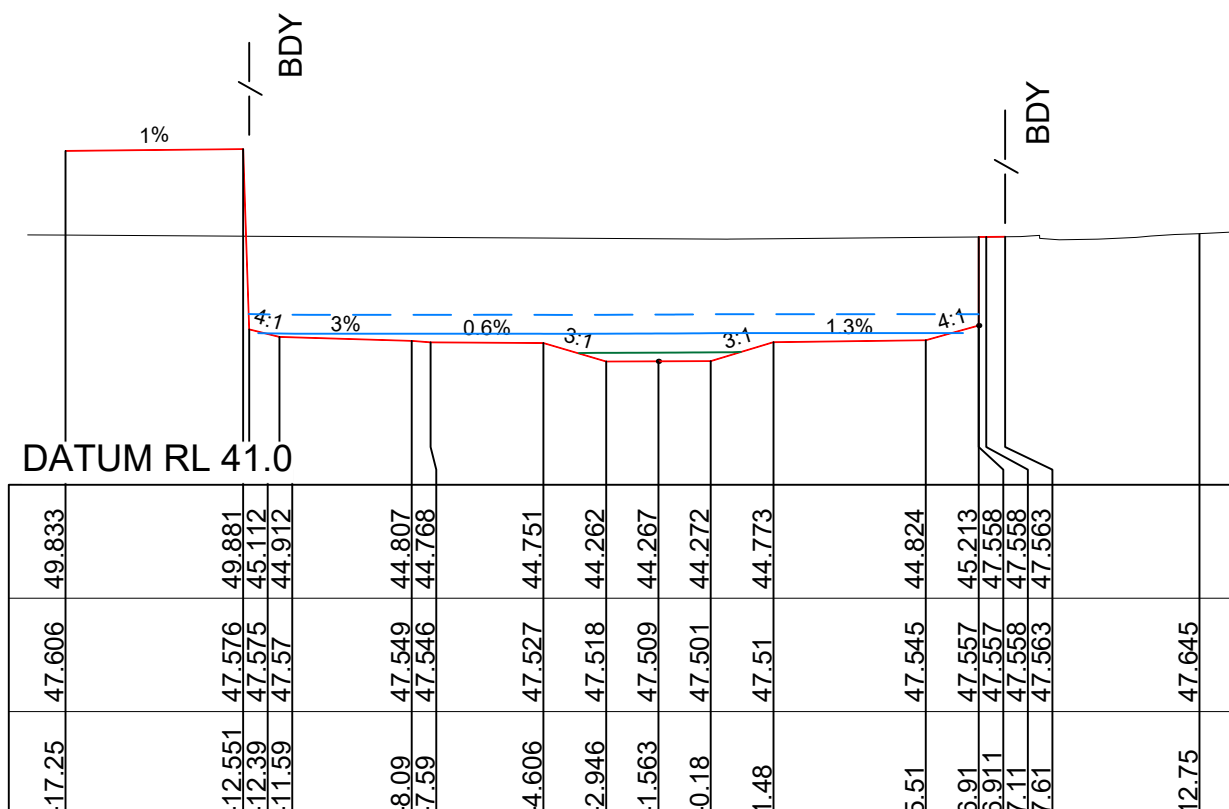
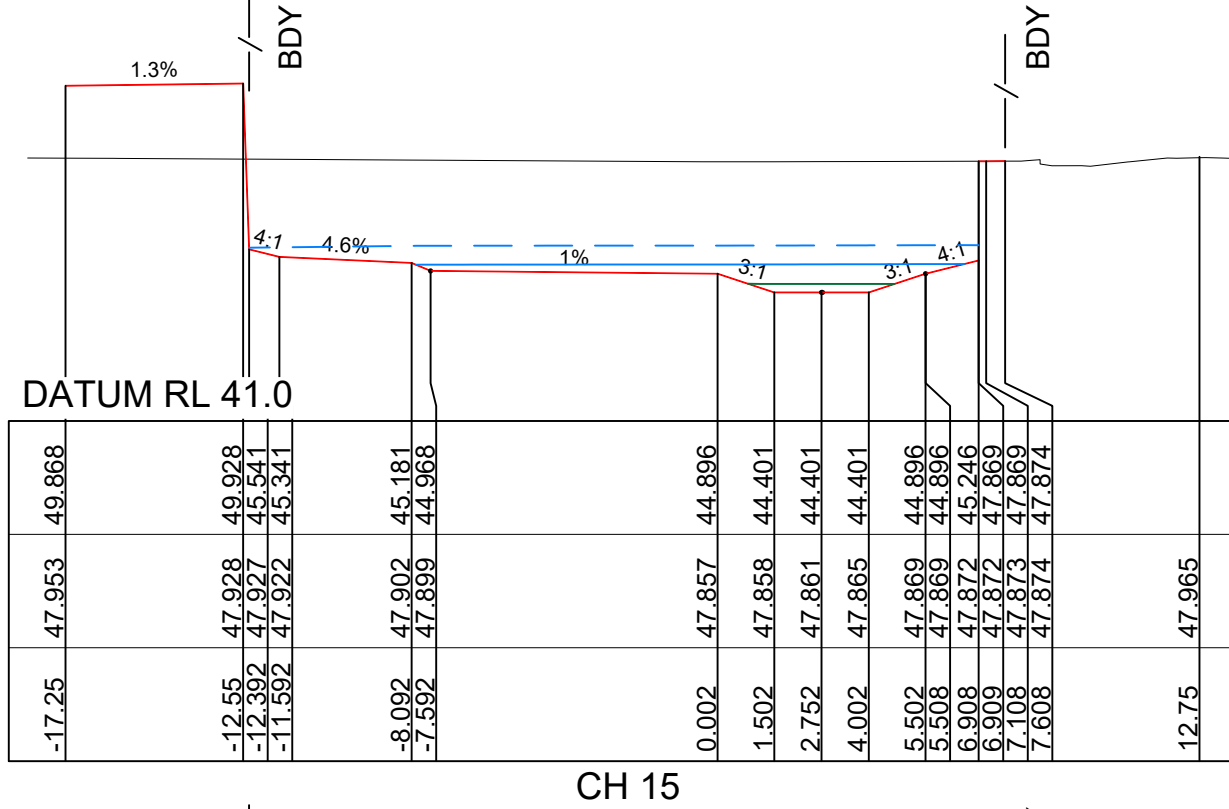
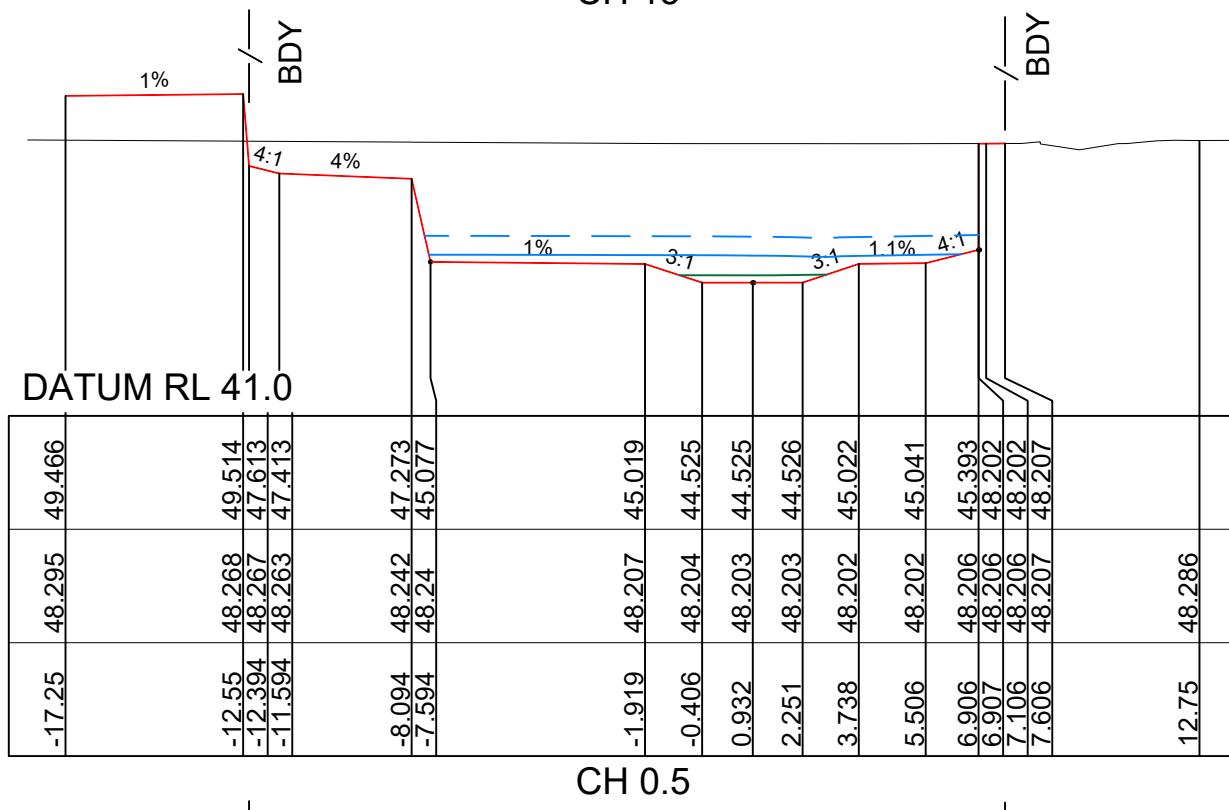
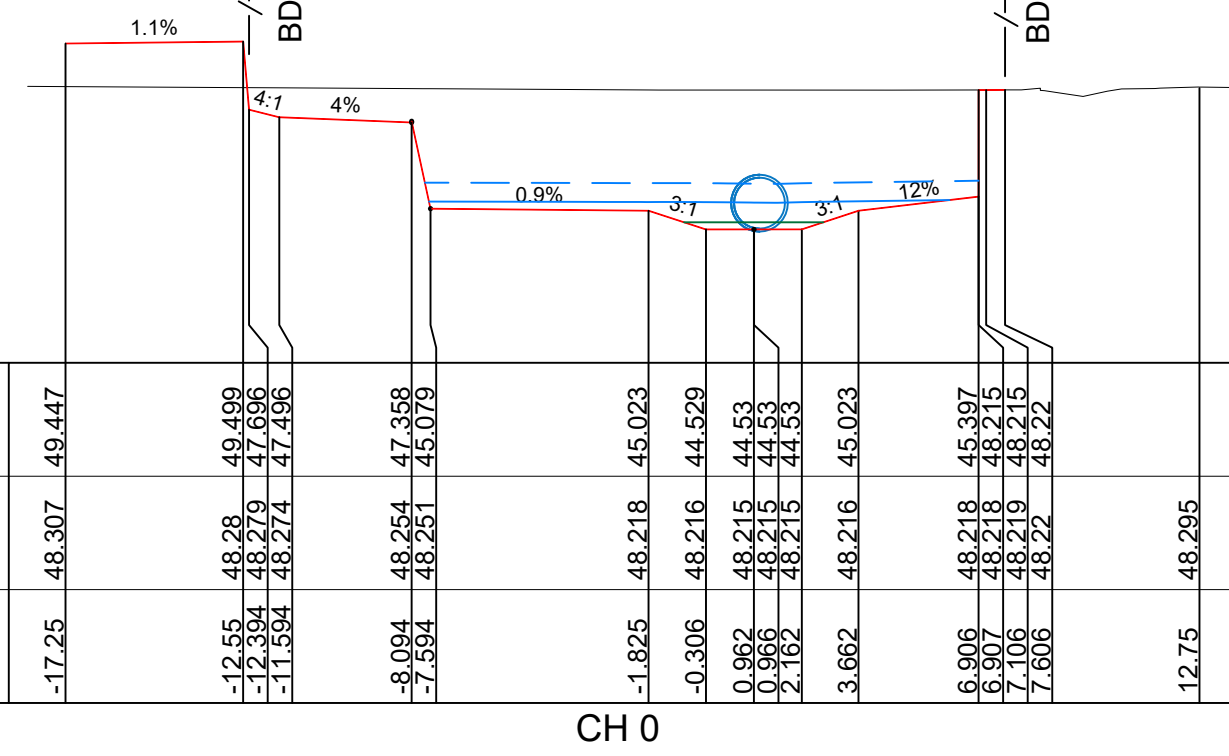


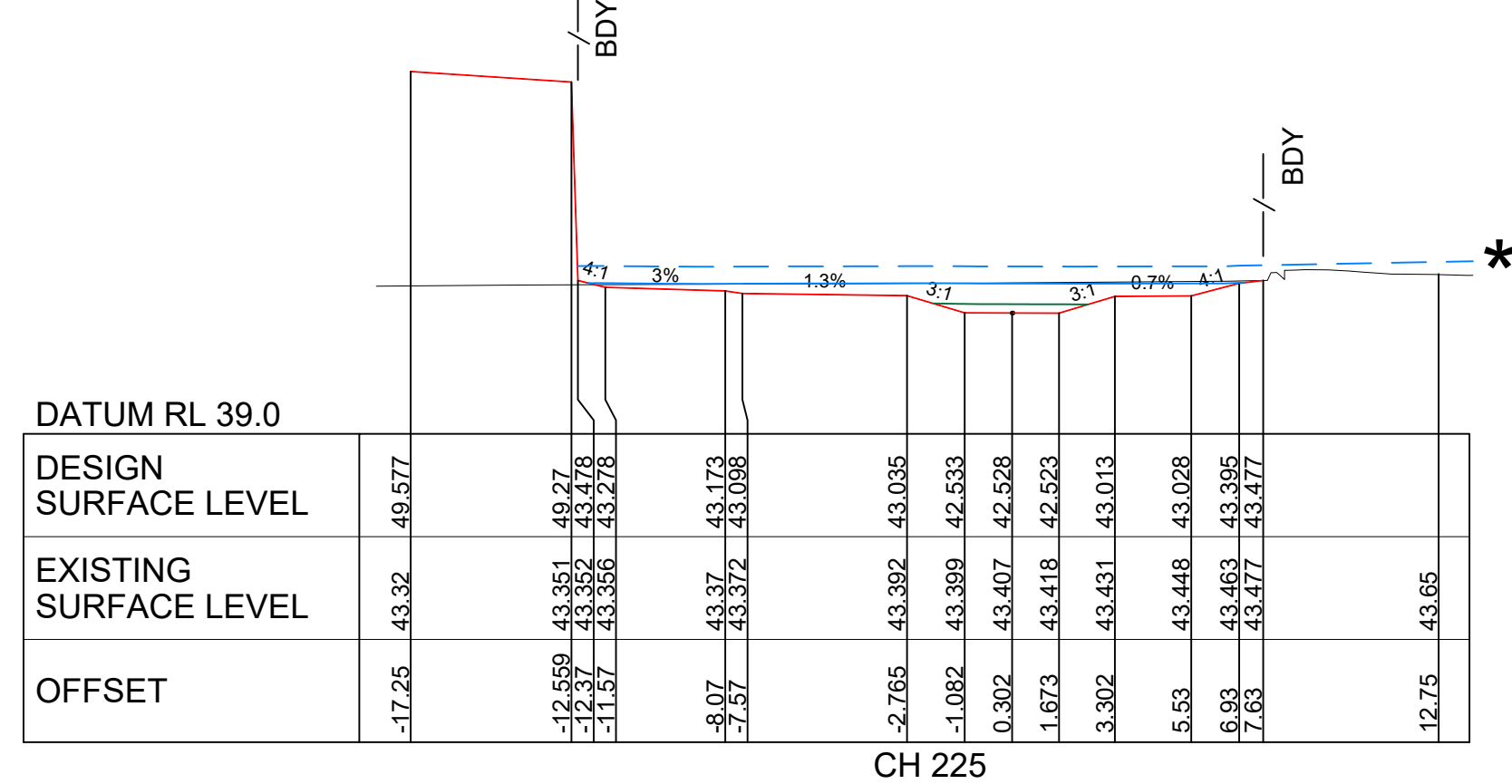
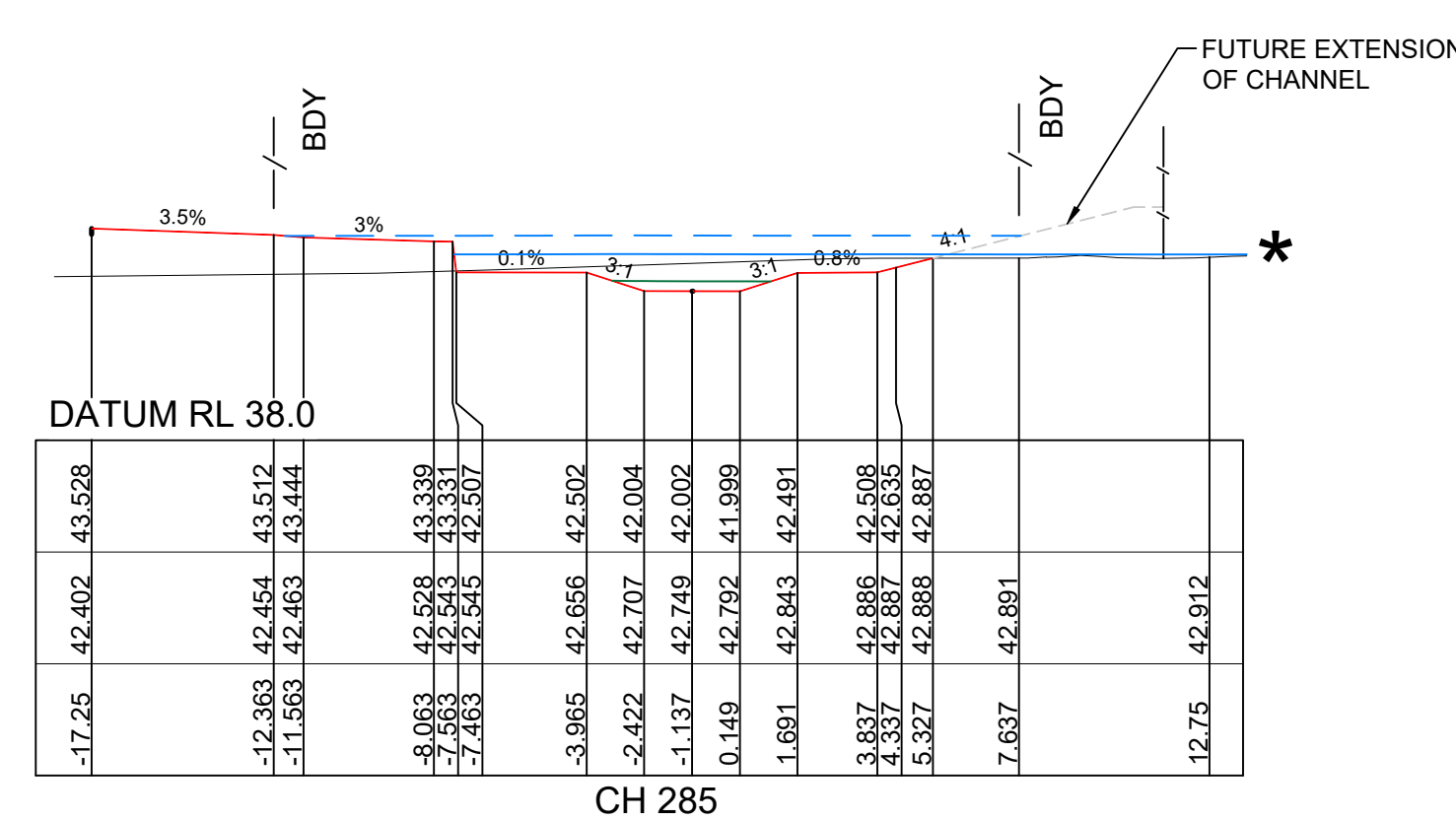
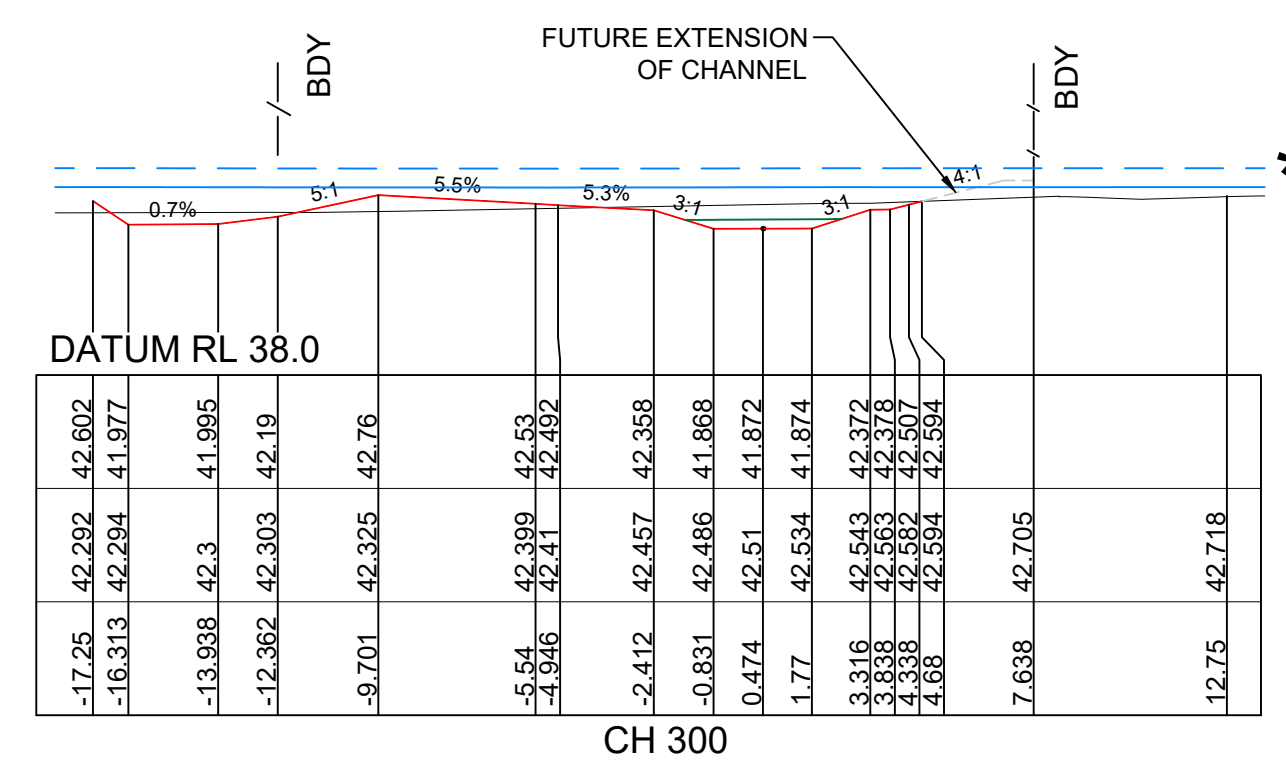
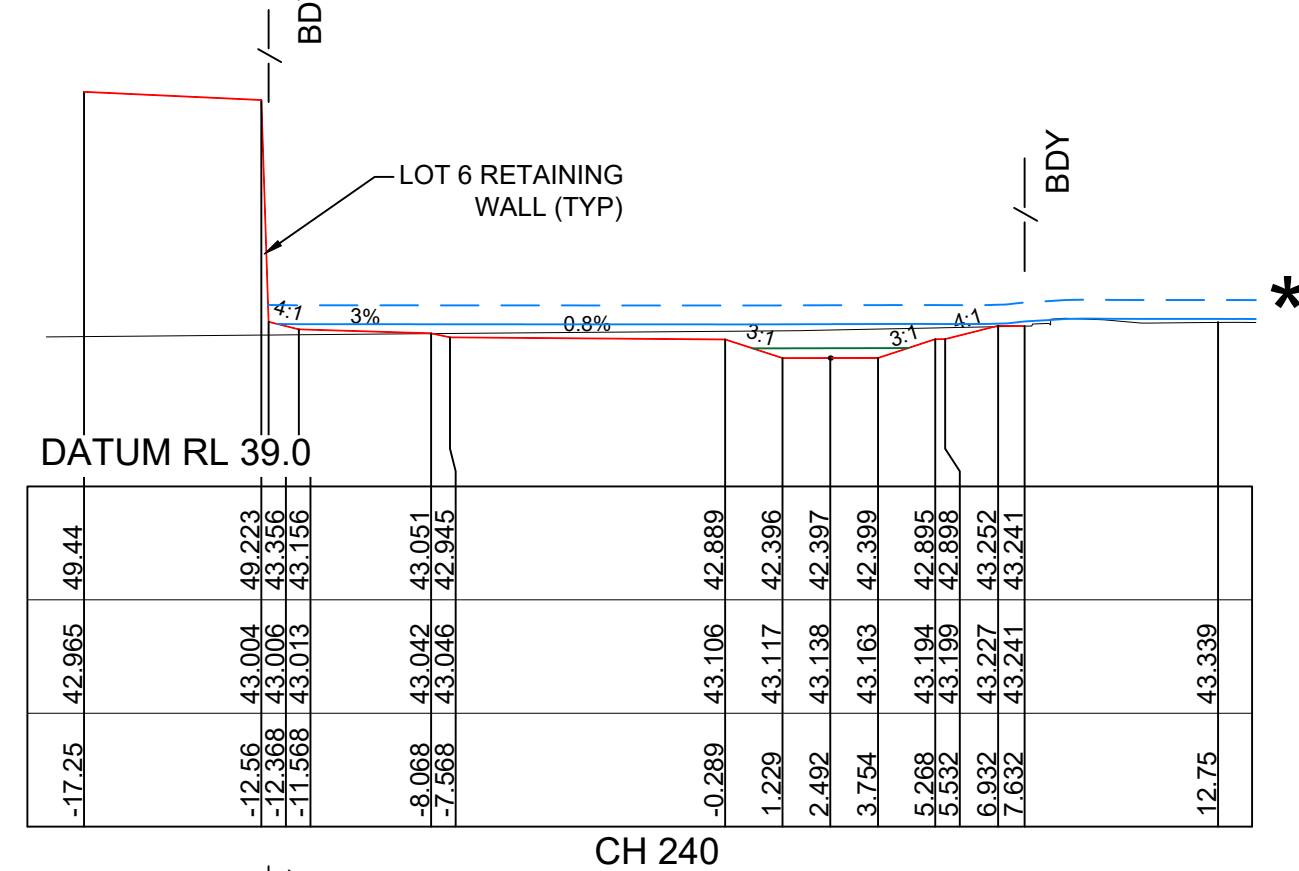
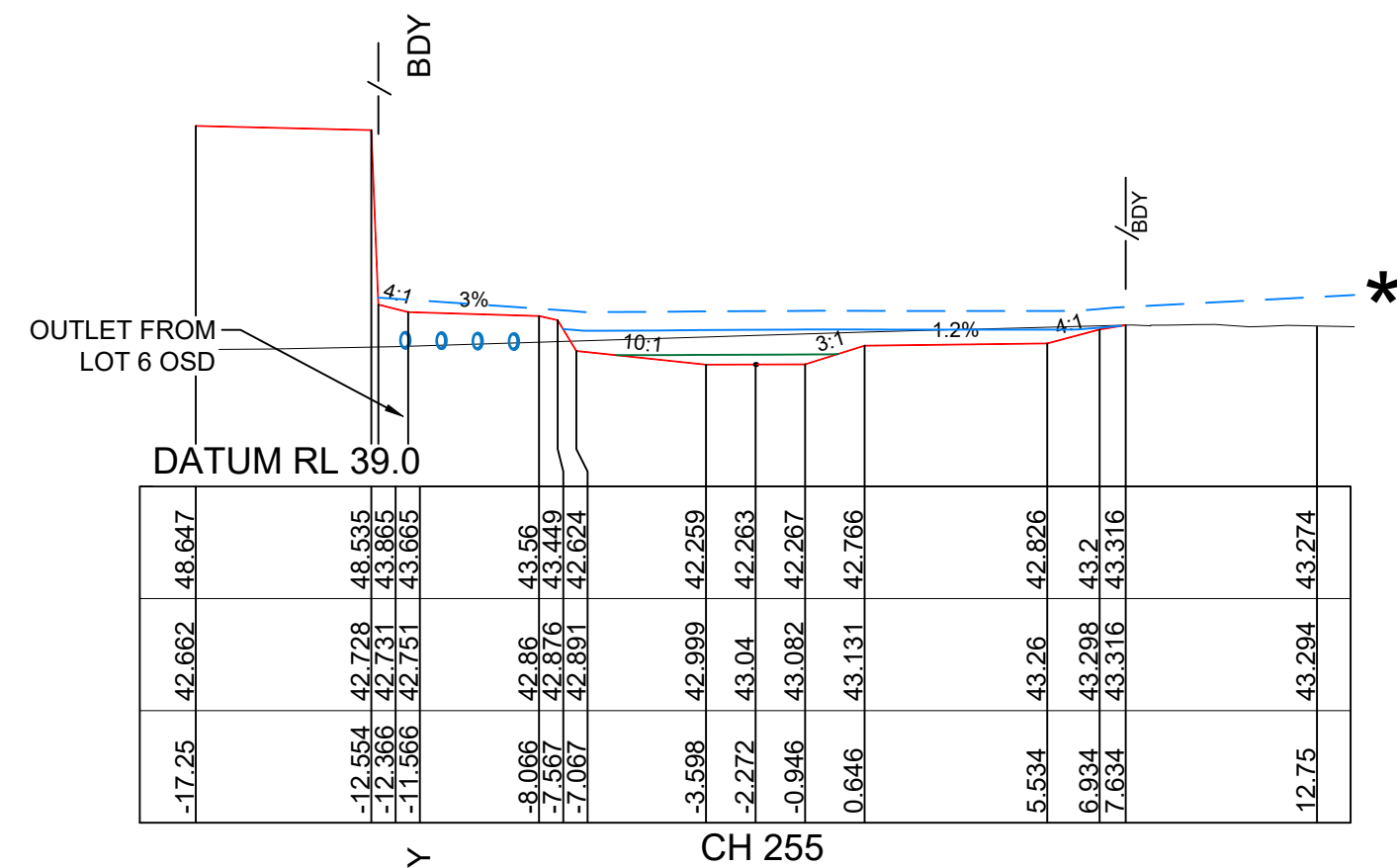
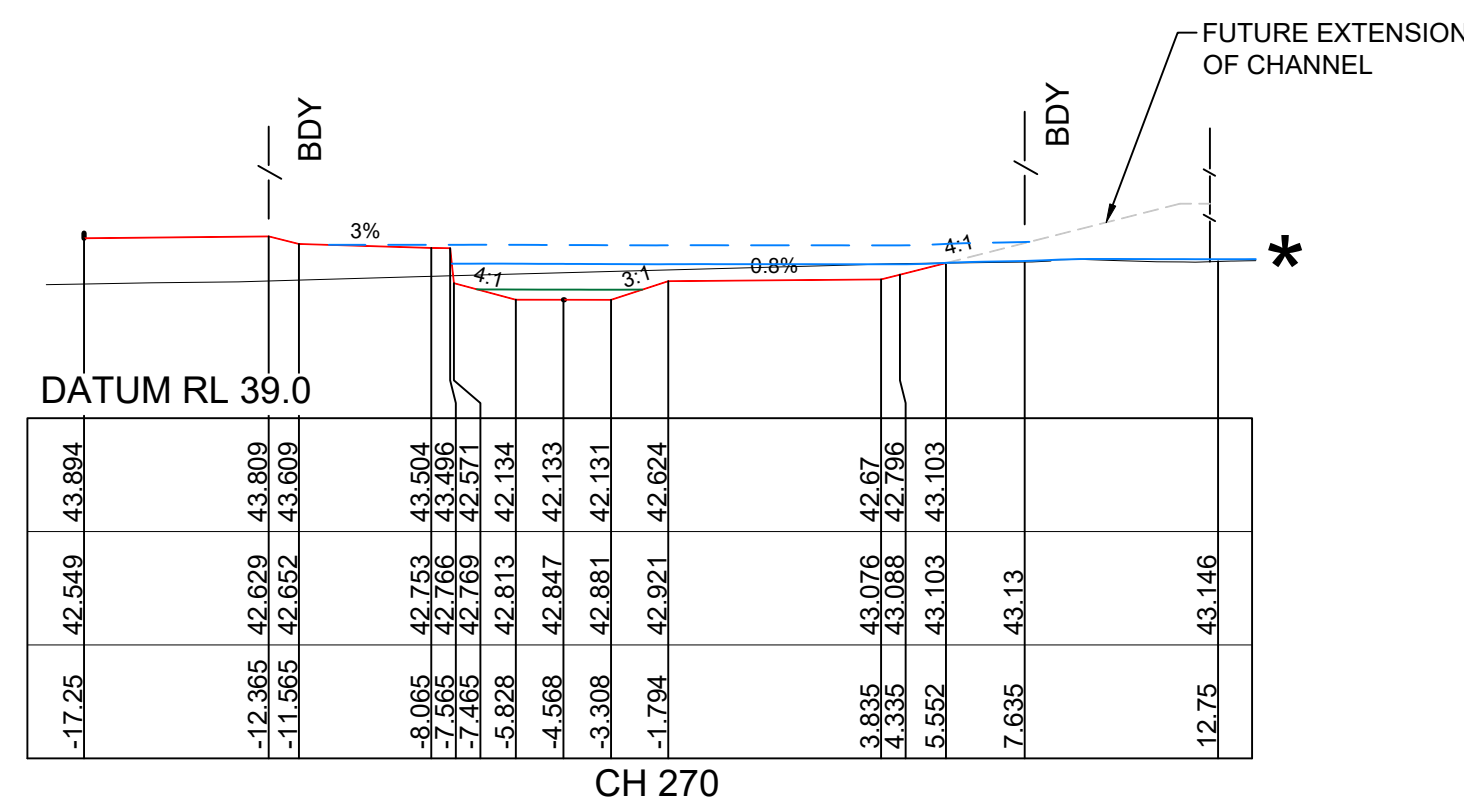
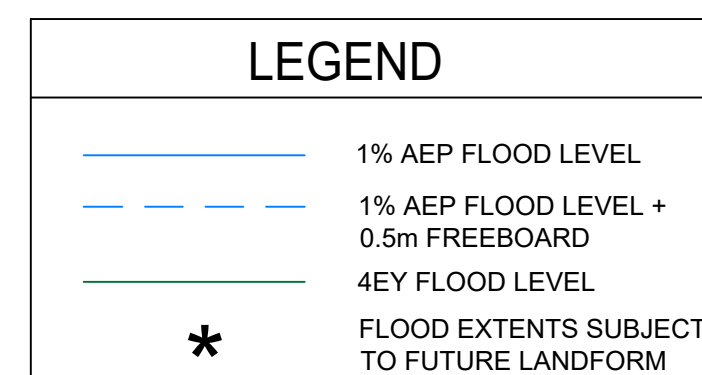
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																		SHEET No: DD016																	
B ISSUE FOR APPROVAL						DG JEM CR CR 21/03/25																													
A ISSUE FOR APPROVAL						DG JEM PM PM 31/01/26																													
AMENDMENT						DES DRN CKD APR DATE												AZIMUTH: M.G.A. GDA 2020																	
																		DATUM: A.H.D.																	
																		ORIGIN: SSM 1112																	
																		PLAN No: 110965-04-DD016																	
																		B																	

[illegible]

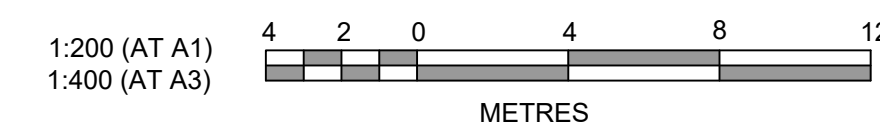
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DESIGN SURFACE LEVEL
EXISTING SURFACE LEVEL
OFFSET





STAGE 2 CHANNEL



B	ISSUE FOR APPROVAL	DG	JEM	CR	CR	21/03/25			
A	ISSUE FOR APPROVAL	DG	JEM	PM	PM	31/01/25			
	AMENDMENT	DES	DRN	CKD	APR	DATE			



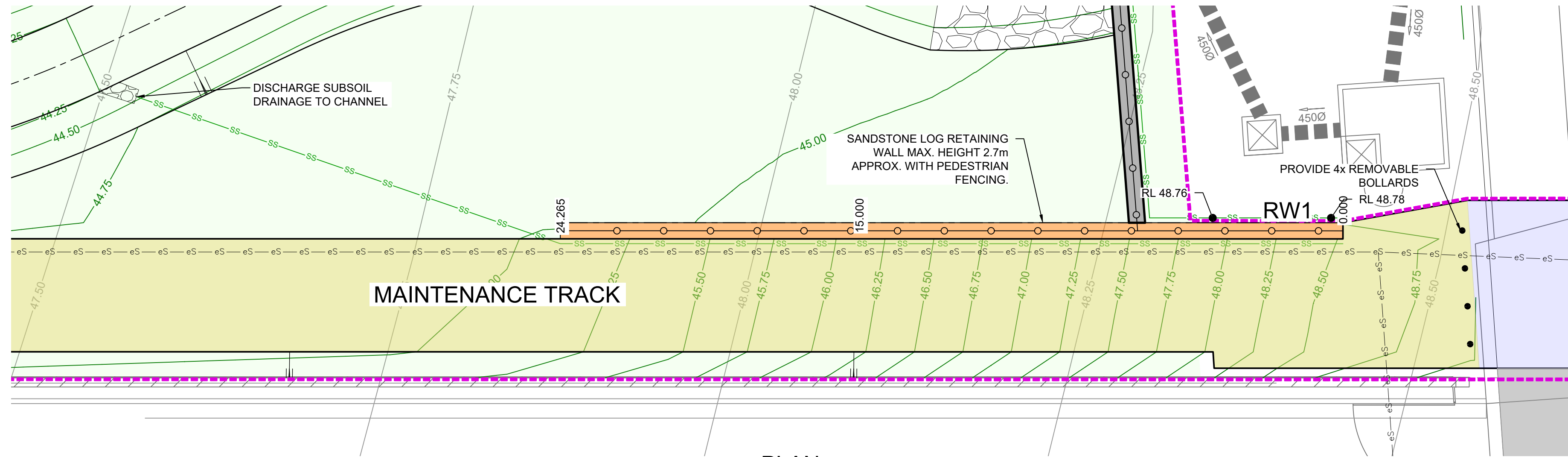
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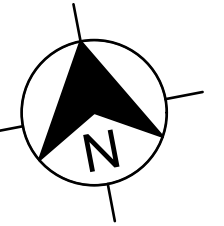
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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
CROSS SECTIONS
SHEET 2

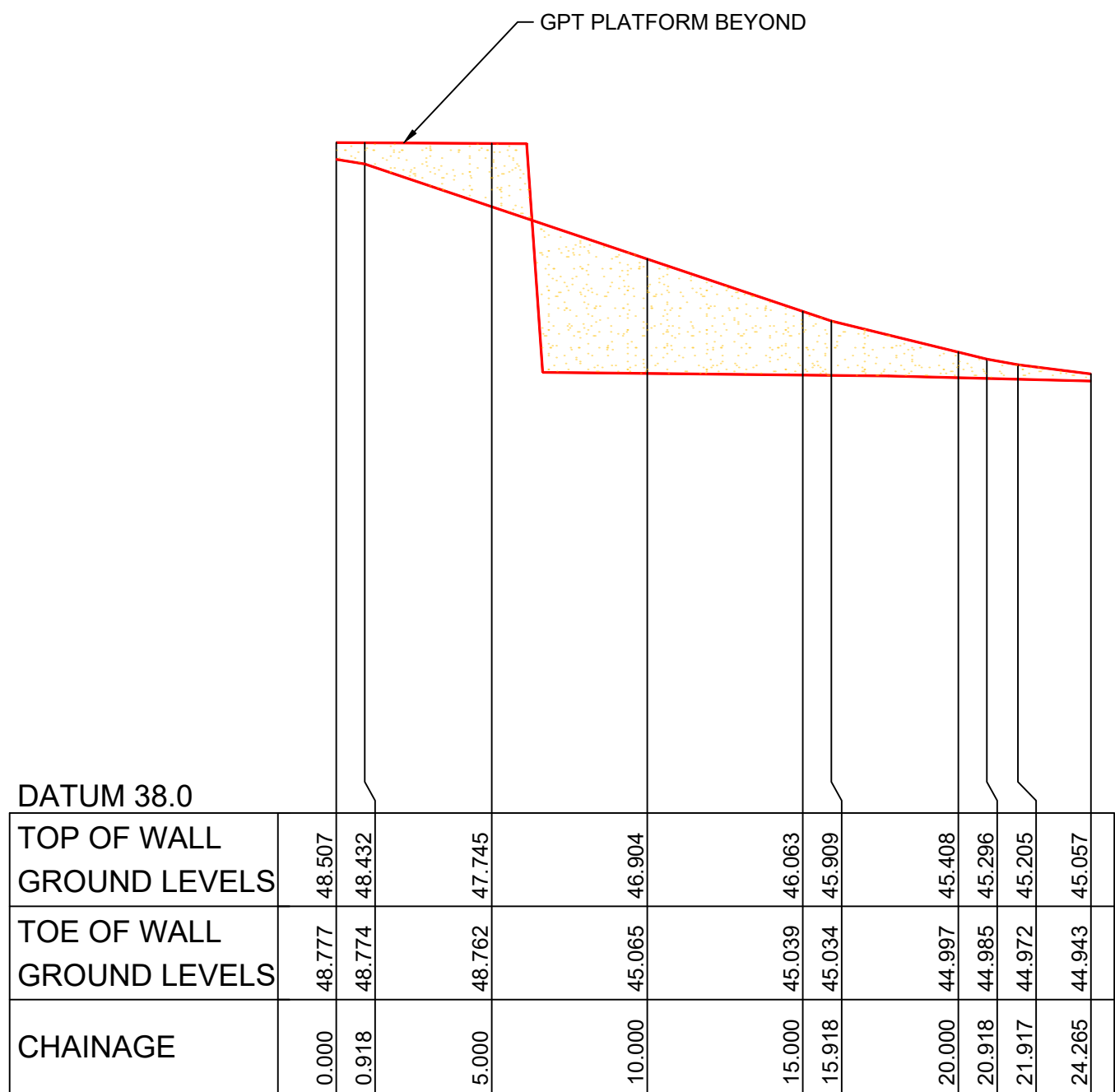
AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04-DD021
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RW1			
CHAINAGE	EASTING	NORTHING	BEARING
0	295987.96	6251273.17	280°48'00.00"
24.26	285964.12	6251277.72	280°48'00.00"



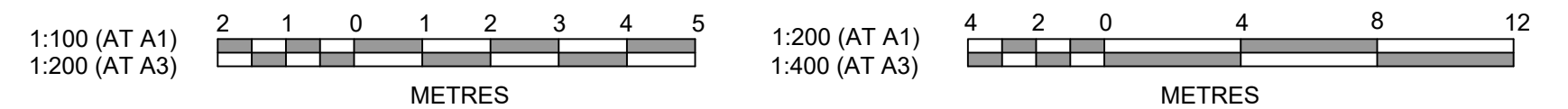
PLAN
SCALE 1:100



DATUM 38.0	
TOP OF WALL	48.507
GROUND LEVELS	48.432
TOE OF WALL	48.774
GROUND LEVELS	48.745
CHAINAGE	45.065
	45.039
	45.034
	45.009
	45.408
	45.296
	45.205
	45.057

LONGITUDINAL SECTION RETAINING WALL RW1
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

NOTE:
- REFER TO PLANS BY CLS CONSULTING
ENGINEERS FOR STRUCTURAL DESIGN



Plotted: 18 March 2025 8:36:51 AM File Name: C:\Synergy\WS\data\AS\WP07110965-04 - Stage 2 Lot 2 Trunk Drainage Channel Design_13920\Design\DD110965-04-DD030.dwg

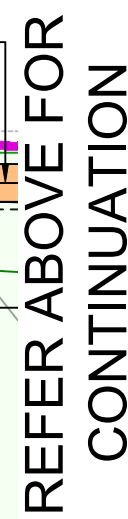
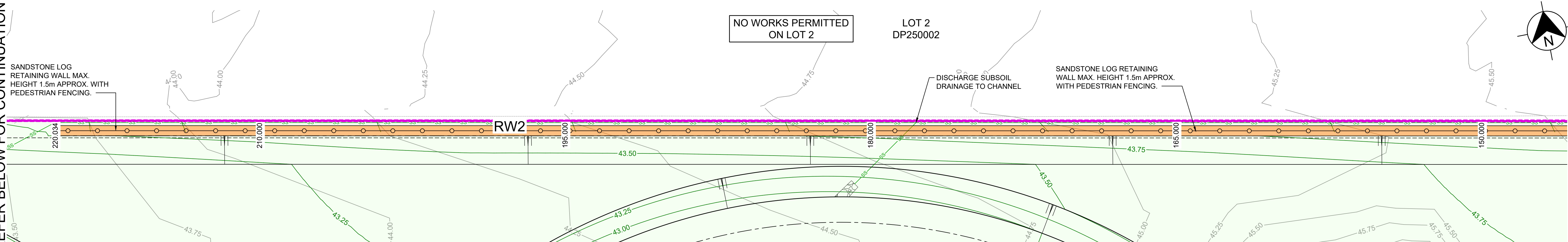
A	ISSUE FOR APPROVAL	DG	JEM	PM	PM	31/01/25
	AMENDMENT	DES	DRN	CKD	APR	DATE

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WESTLINK STAGE 2, KEMPS CREEK NATURALISED DRAINAGE CHANNEL WORKS RETAINING WALL PLAN AND SECTIONS SHEET 1				PROJECT No: 110965-04	
				SHEET No: DD030	
AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04-DD030	A	



1:100 (AT A1)

1:200 (AT A3)

2 1 0 1 2 3 4 5

METRES

PROJECT No: 110965-04	
SHEET No: DD031	
04-DD031	A

NOTE:

- REFER TO PLANS BY CLS CONSULTING ENGINEERS FOR STRUCTURAL DESIGN
- RW2 IS TO BE BOTH SANDSTONE LOG UP TO 1.5m HIGH AND SANDSTONE SLEEPER WALL FOR HEIGHTS GREATER THAN 1.5m. REFER TO SHEET No. DD036 FOR DETAILS.

REFER BELOW FOR CONTINUATION

[illegible]

LONGITUDINAL SECTION RETAINING WALL RW2

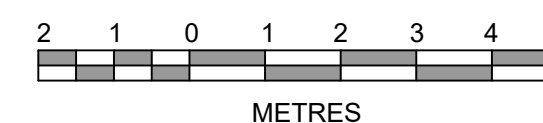
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

DATUM 37.0		
CHAINAGE	TOP OF WALL GROUND LEVELS	
	6	0
	10.000	45.397
	3.518	45.369
	4.518	45.361
	5.000	45.357
	5.518	45.353
	6.518	45.345
	10.000	45.317
	15.000	45.277
	20.000	45.238
	23.518	45.214
	24.518	45.214
	25.000	45.214
	25.518	45.214
	30.000	45.212
	35.000	45.210
	40.000	45.146
	45.000	45.077
	50.000	45.009
	52.518	44.974
	53.518	44.960
	54.518	44.946
	55.000	44.940
	55.518	44.933
	60.000	44.873
	65.000	44.828
	68.518	44.796
	69.518	44.787
	70.000	44.783
	70.518	44.778
	75.000	44.737
	80.000	44.721
	82.518	44.719
	83.518	44.718
	85.000	44.716
	90.000	44.711
	92.518	44.694
	93.518	44.692
	95.000	44.664
	100.000	44.602
	105.000	44.541
	106.518	44.522
	108.518	44.510
	108.518	44.498
	109.518	44.485
	110.000	44.479
	114.518	44.424
	115.000	44.418
	115.518	44.412
	120.000	44.356
	125.000	44.295
	130.000	44.252
	130.518	44.251
	131.518	44.249
	132.518	44.247
	133.518	44.245
	135.000	44.242
	140.000	44.231

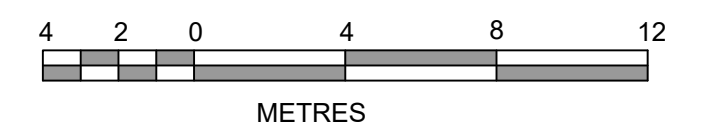
LONGITUDINAL SECTION RETAINING WALL RW2

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

1:100 (AT A1)
1:200 (AT A3)



1:200 (AT A1)
1:400 (AT A3)



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	AMENDMENT	DES	DRN	CKD	APR
					DATE



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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
RETAINING WALL PLAN AND SECTIONS
SHEET 3

PROJECT No:

110965-04

SHEET No:

No:
DD032

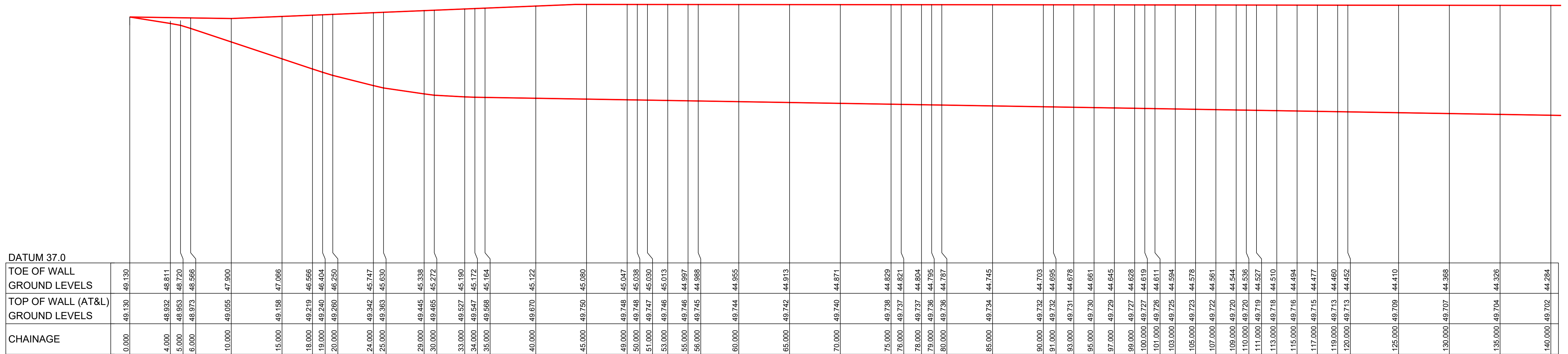
AZIMUTH: M.G.A.
GDA 2020

DATUM: A.H.D.

ORIGIN: SSM 1112

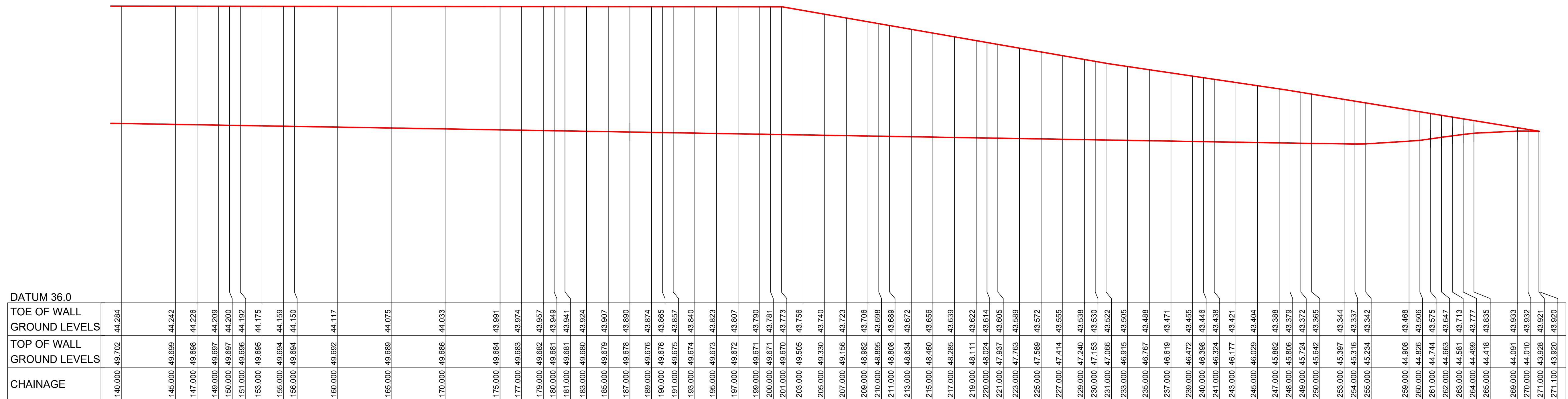
PLAN No: 110965-04-DD032

A



LONGITUDINAL SECTION RETAINING WALL (LOT 6 RW) (BY OTHERS)

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

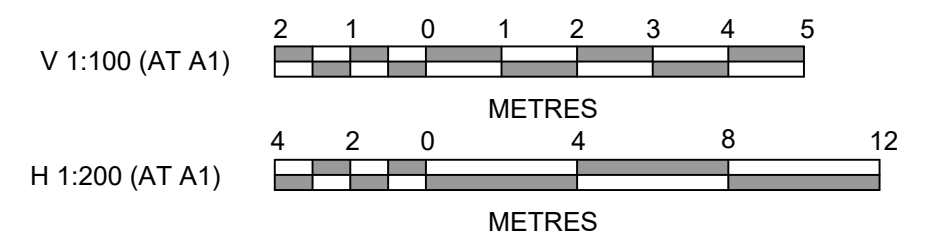


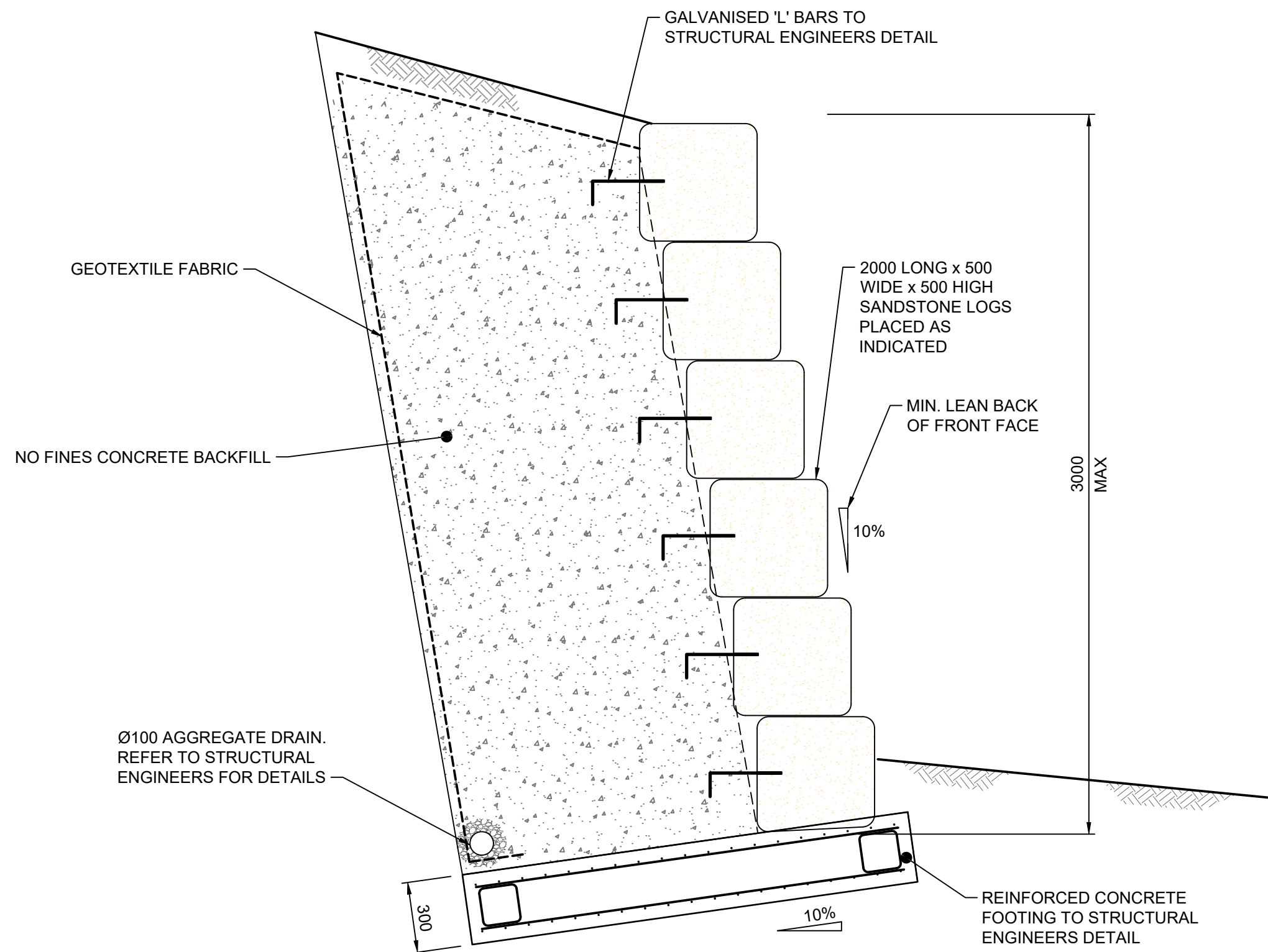
LONGITUDINAL SECTION RETAINING WALL (LOT 6 RW) (BY OTHERS)

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

DRAFT ISSUE ONLY
PRELIMINARY DESIGNS SUBJECT TO CHANGE

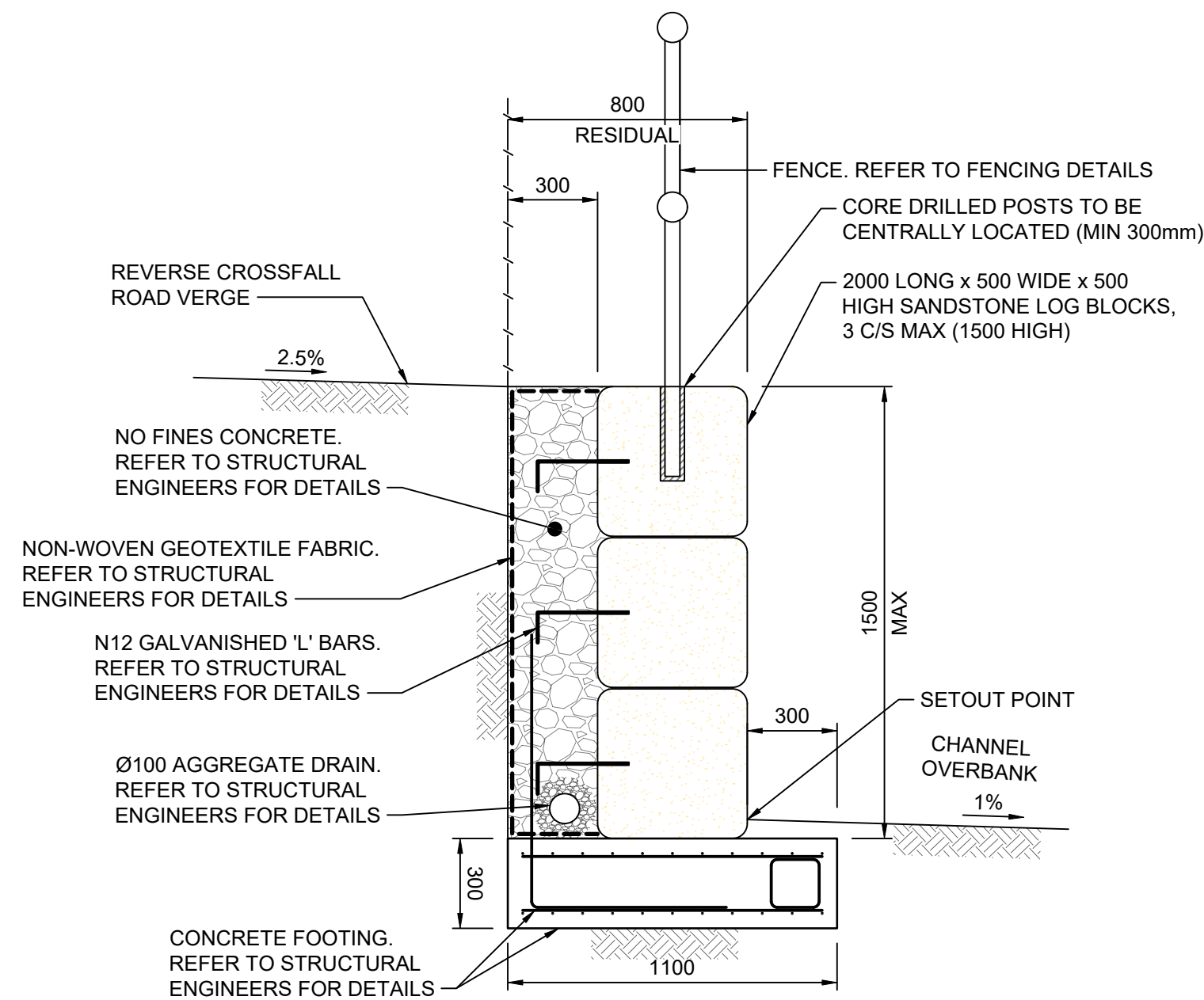
NOTE:
- RETAINING WALL FOR LOT 6 IS DESIGNED BY OTHERS. WALL IS LOCATED OUTSIDE OF SYDNEY WATER EASEMENT WITHIN LOT 6. PROVIDED FOR INFORMATION ONLY

[illegible]



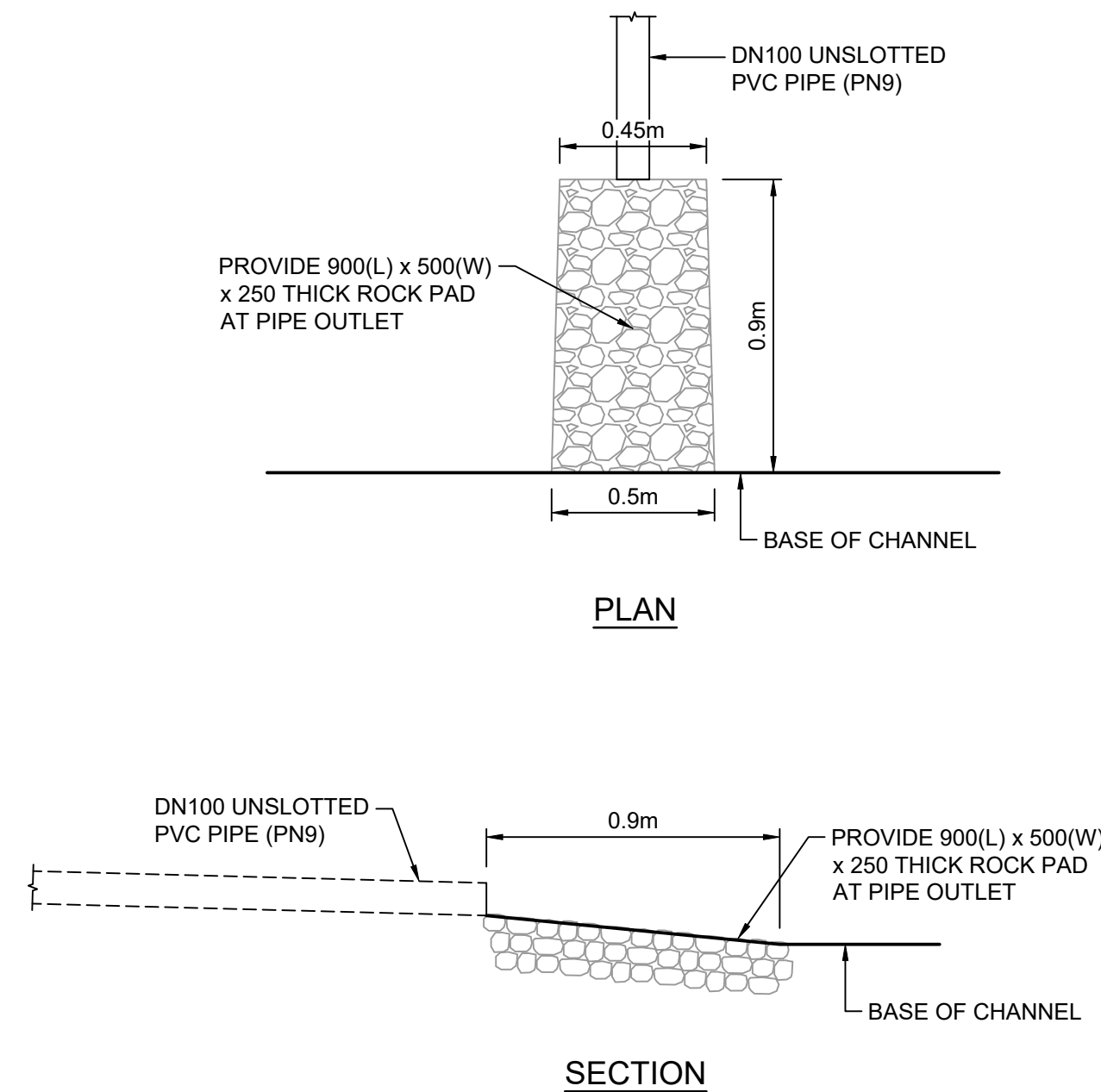
TYPICAL SECTION (RW1 & RW3)
SANDSTONE LOG RETAINING WALL (3m MAX. HEIGHT)

SCALE 1:20



TYPICAL SECTION (RW2 ONLY)
SANDSTONE SLEEPER RETAINING WALL

SCALE 1:20



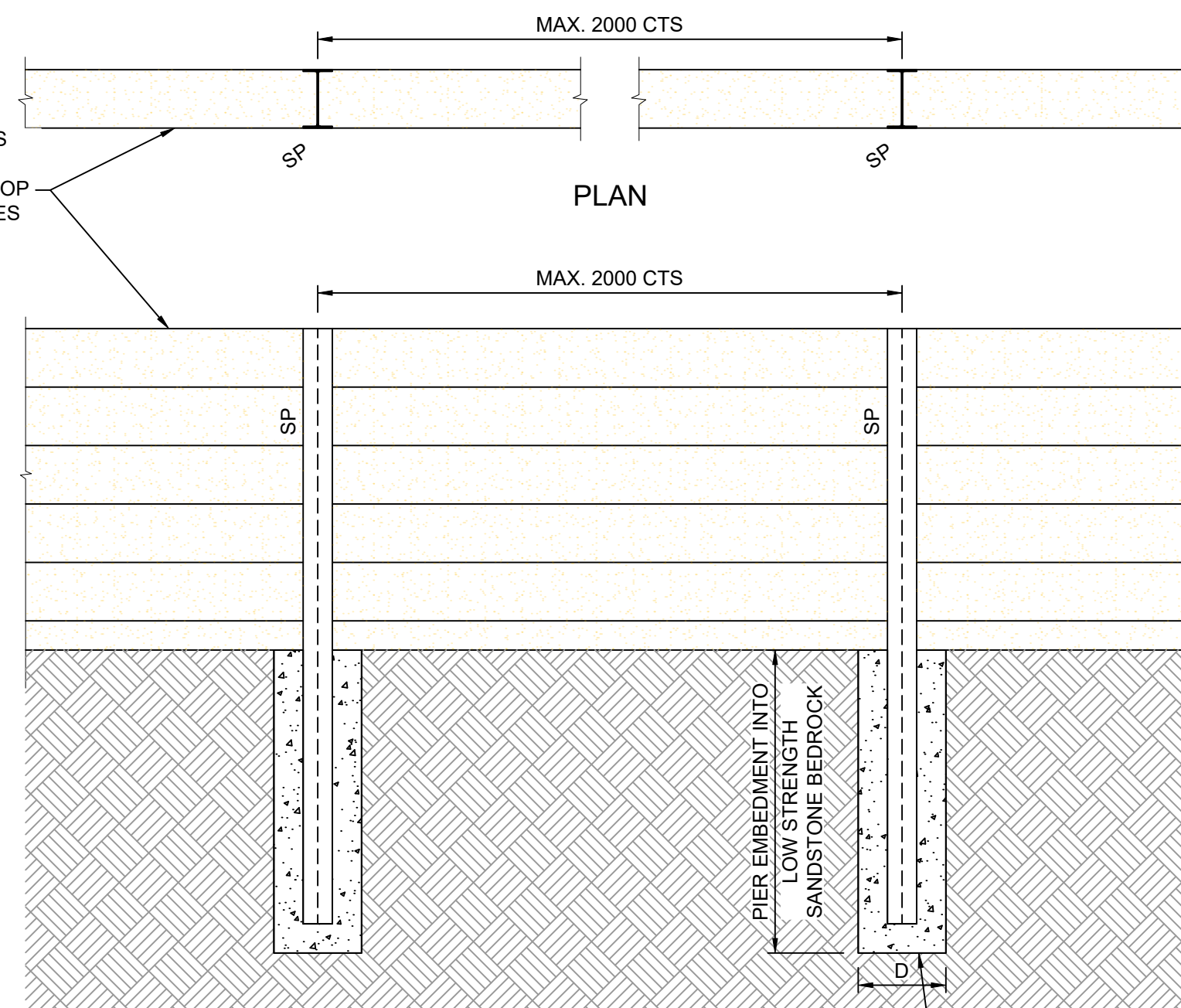
TYPICAL SUBSOIL OUTLET TO CHANNEL DETAIL

SCALE 1:20

RETAINING WALL STRUCTURAL MEMBER DATA

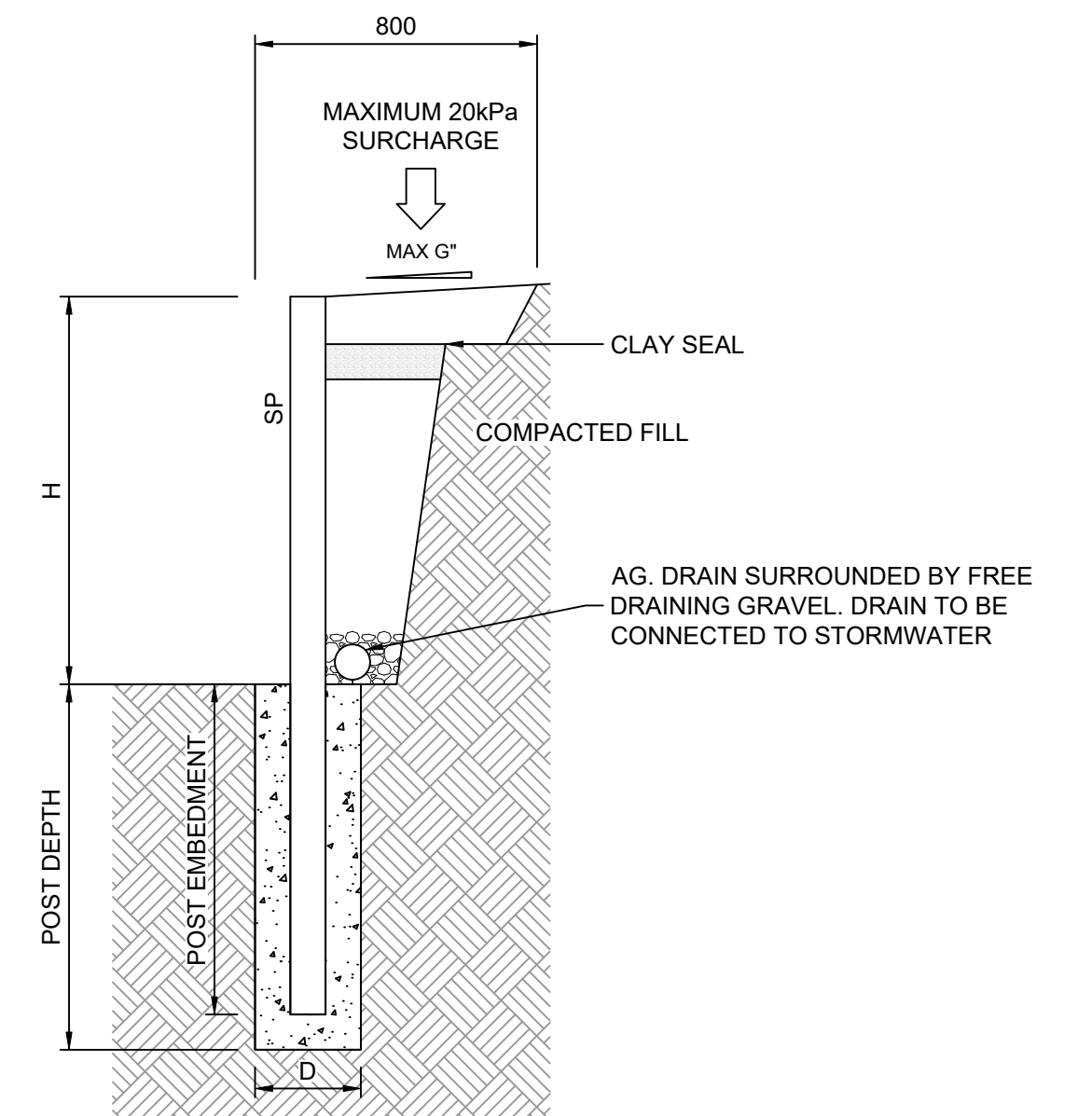
HEIGHT	DESCRIPTION	SIZE	COMMENTS	PIER DIAMETER	PIER EMBEDMENT INTO LOW STRENGTH SANDSTONE BEDROCK	POST EMBEDMENT
2800	STEEL POST (SP)	310 UB 40.4	GALVANISED GRADE 300 PLUS	600	1900	1800
3200	STEEL POST (SP)	360 UB 44.7	GALVANISED GRADE 300 PLUS	600	2200	2100
3600	STEEL POST (SP)	410 UB 53.7	GALVANISED GRADE 300 PLUS	750	2300	2200
4000	STEEL POST (SP)	460 UB 67.1	GALVANISED GRADE 300 PLUS	750	2500	2400
4400	STEEL POST (SP)	530 UB 82.0	GALVANISED GRADE 300 PLUS	750	2800	2700

SANDSTONE SLEEPERS TO MANUFACTURER'S SPECIFICATIONS & DETAILS. SLEEPERS TO BE DOUBLED UP 1.6M BELOW TOP OF WALL OR ALTERNATELY, PROVIDE NO FINES CONCRETE BACKFILL (MIN. 400mm WIDE)



ELEVATION

f_c 20MPa MASS CONCRETE BORED PIERS TO EXTEND INTO LOW STRENGTH SANDSTONE WITH ALLOWABLE BEARING CAPACITY OF 1000kPa MIN. REFER TO TABLE FOR PIER SIZE & EMBEDMENT DEPTH.



SECTION

TYPICAL DETAIL (RW2 ONLY)
SANDSTONE SLEEPER RETAINING WALL

1:20 (AT A1)
0.4 0.2 0 0.4 0.8 1.2 1.6 2.0
METRES

DRAFT ISSUE ONLY
PRELIMINARY DESIGNS SUBJECT TO CHANGE

NOTE:
- REFER TO PLANS BY CLS CONSULTING ENGINEERS FOR STRUCTURAL DESIGN



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STATUS:

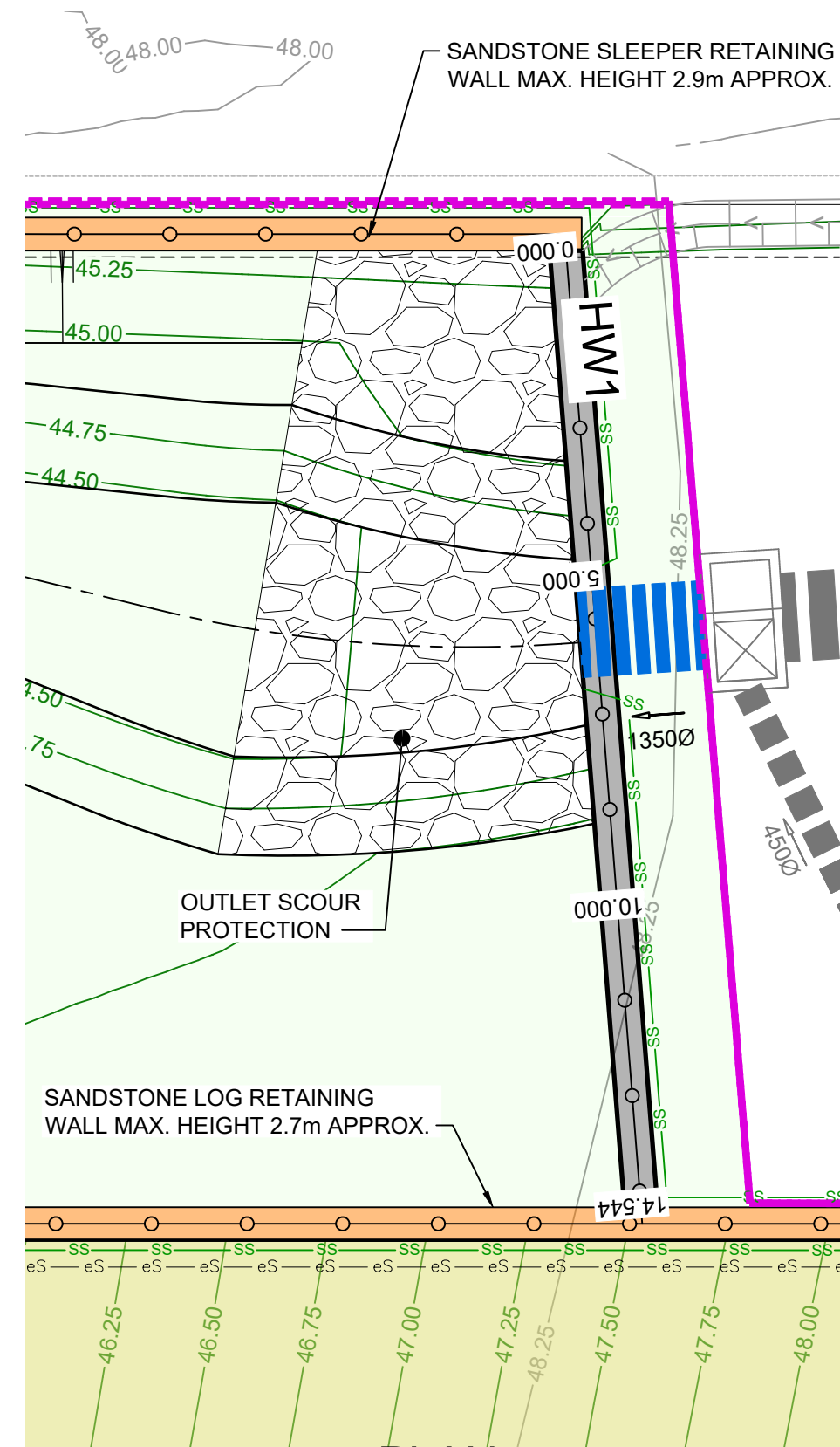
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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
RETAINING WALL DETAILS

PROJECT No:
110965-04
SHEET No:
DD036

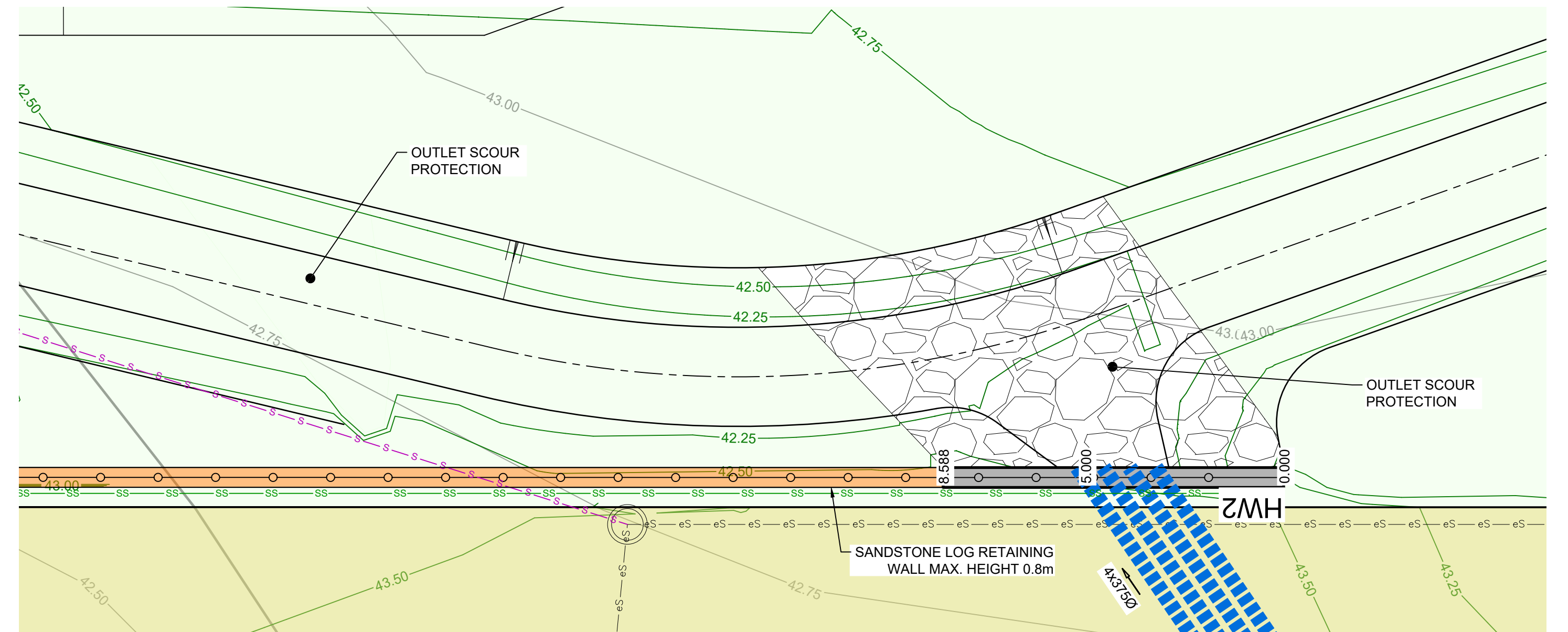
AZIMUTH: M.G.A. GDA 2020 DATUM: A.H.D. ORIGIN: SSM 1112 PLAN No: 110965-04-DD036 B



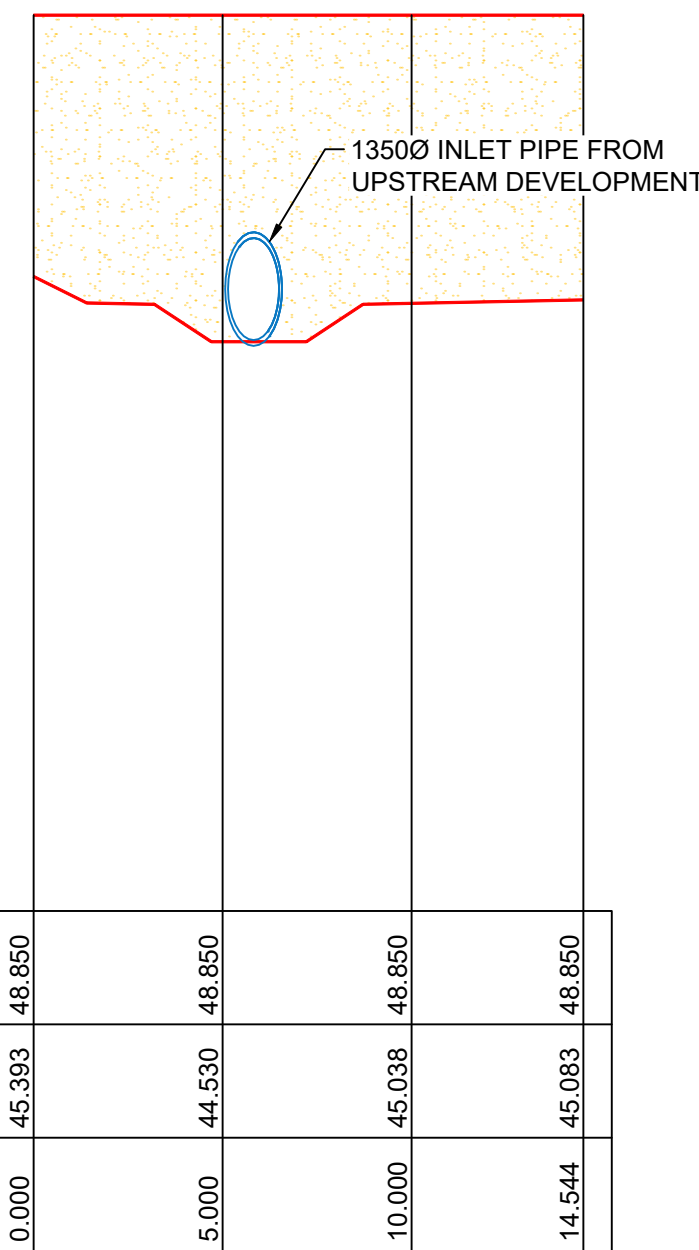
PLAN
SCALE 1:100

HW1			
CHAINAGE	EASTING	NORTHING	BEARING
0	295983.04	6251288.87	186°19'08.62"
14.54	295981.44	6251274.42	186°19'08.62"

HW2			
CHAINAGE	EASTING	NORTHING	BEARING
0	295732.44	6251322.42	280°47'37.92"
8.59	295724	6251324.03	280°47'37.92"



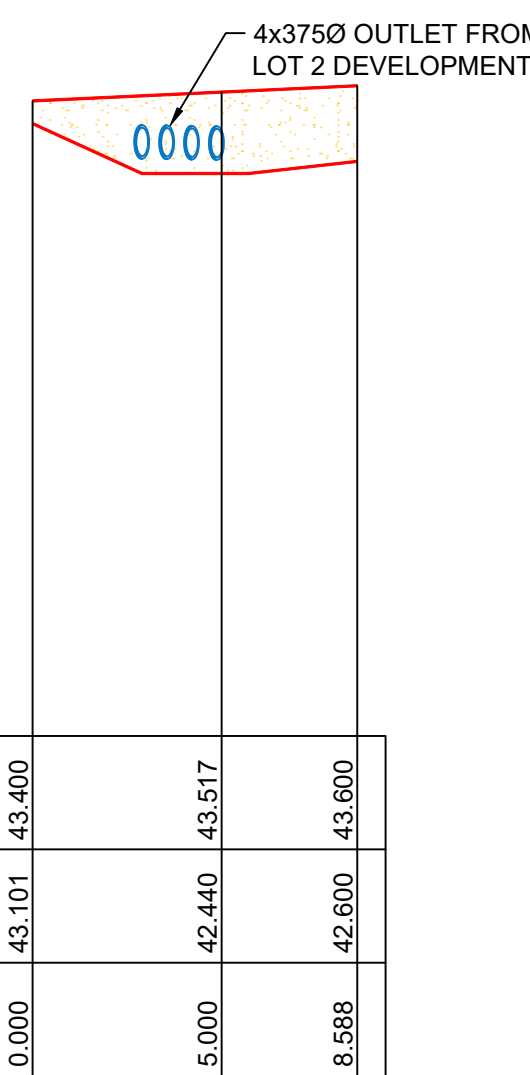
PLAN
SCALE 1:100



DATUM 37.0				
TOP OF WALL	48.850	48.850	48.850	48.850
GROUND LEVELS	45.393	44.530	45.038	45.083
TOE OF WALL				
GROUND LEVELS				
CHAINAGE	0.000	5.000	10.000	14.544

LONGITUDINAL SECTION HW1

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100



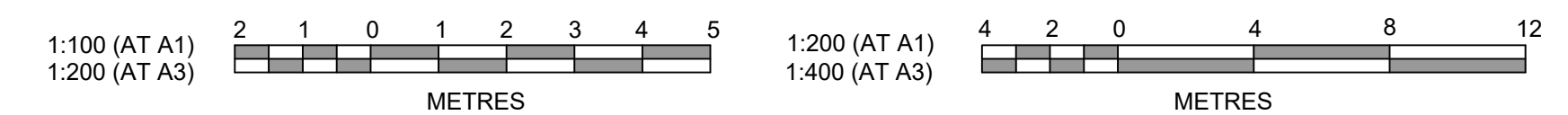
DATUM 35.0			
TOP OF WALL	43.400	43.517	43.600
GROUND LEVELS	43.101	42.440	42.600
TOE OF WALL			
GROUND LEVELS			
CHAINAGE	0.000	5.000	8.588

LONGITUDINAL SECTION HW2

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

DRAFT ISSUE ONLY
PRELIMINARY DESIGNS SUBJECT TO CHANGE

- NOTE:
- HEADWALLS ARE TO BE SANDSTONE LOG.
 - REFER TO STRUCTURAL ENGINEERS DRAWINGS BY CLS FOR HEADWALL & RETAINING WALL DETAILS.



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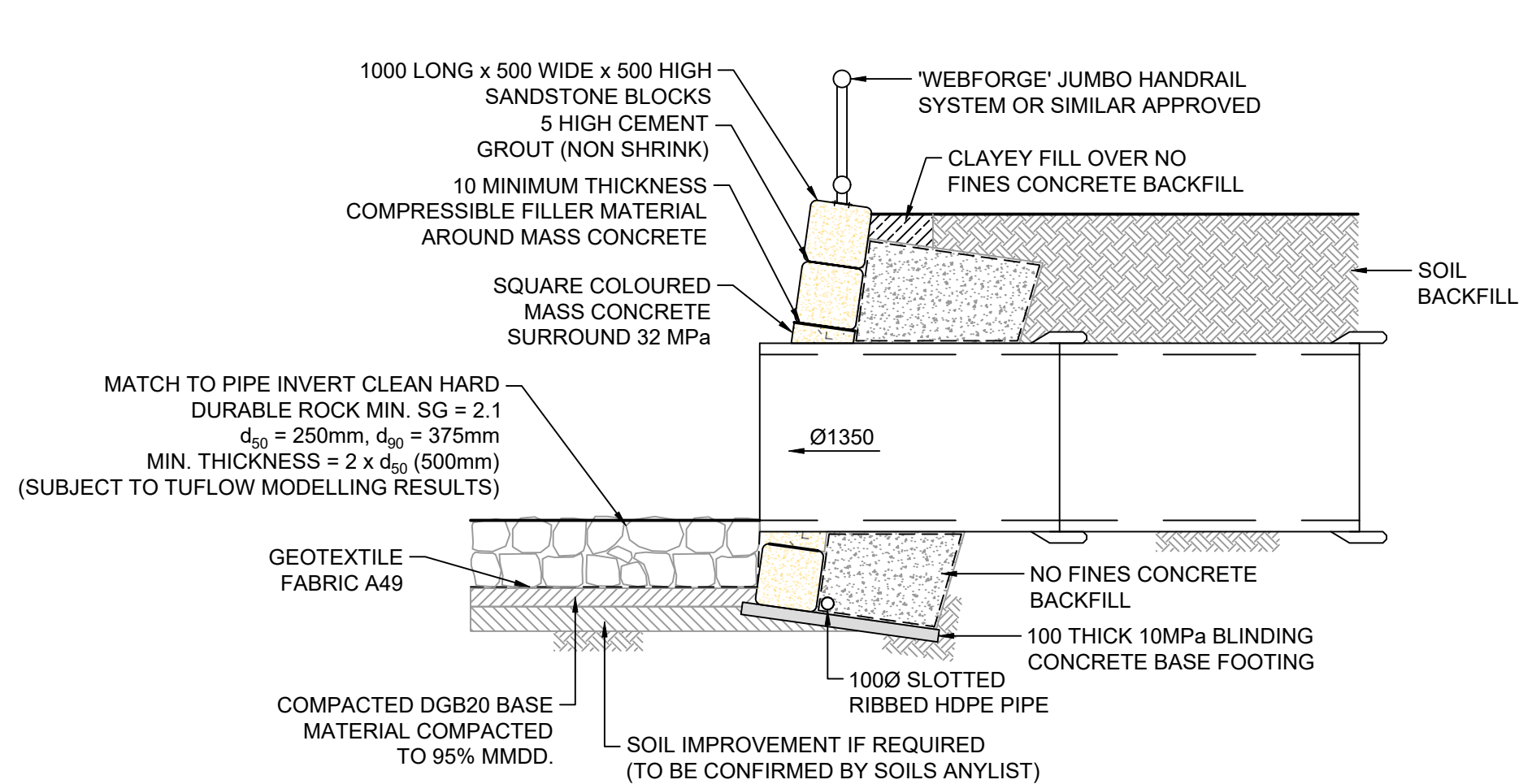
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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
HEADWALL PLAN AND SECTIONS
SHEET 1

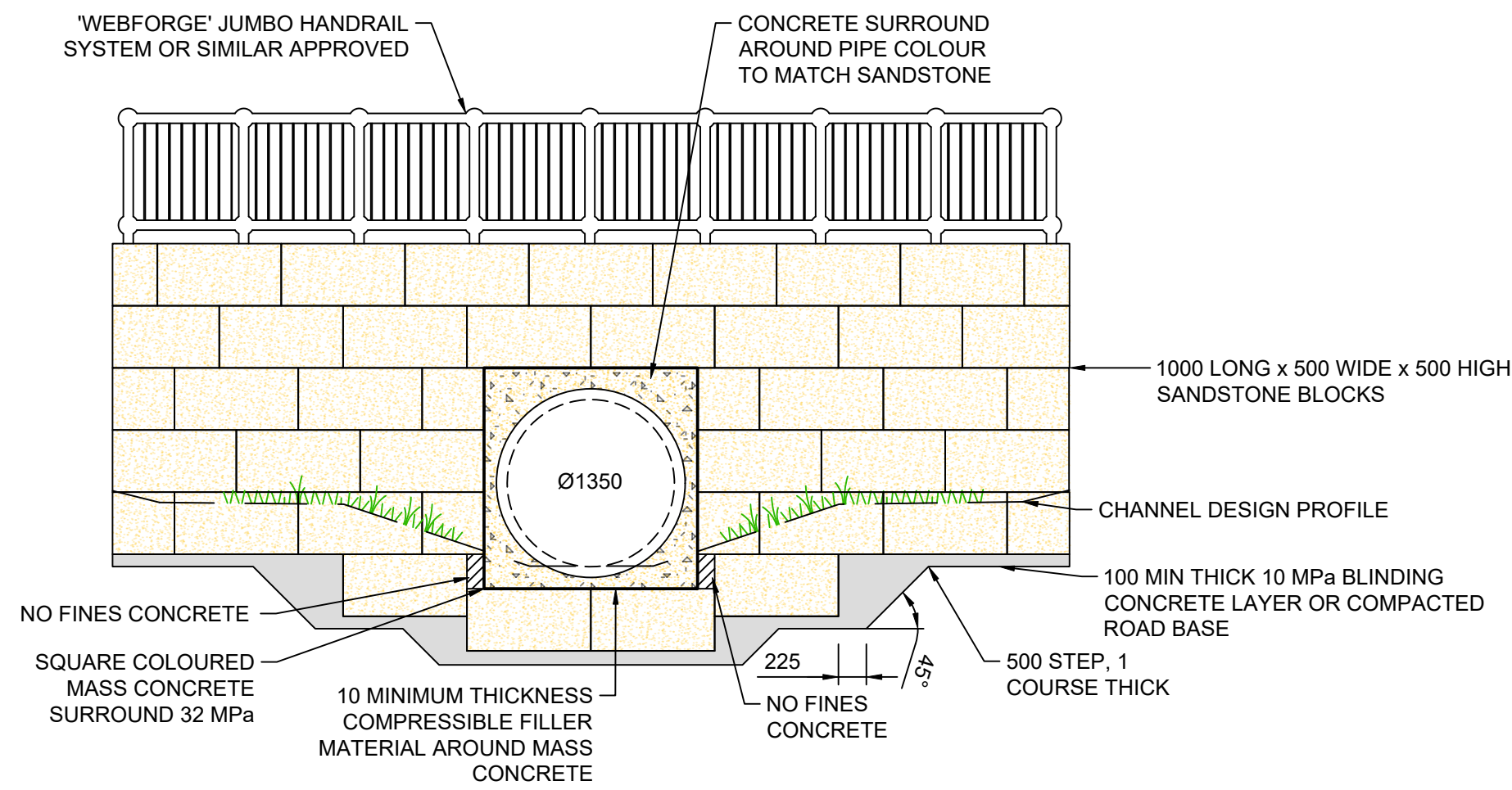
PROJECT No:
110965-04
SHEET No:
DD040

AZIMUTH: M.G.A. GDA 2020 DATUM: A.H.D. ORIGIN: SSM 1112 PLAN No: 110965-04-DD040 B

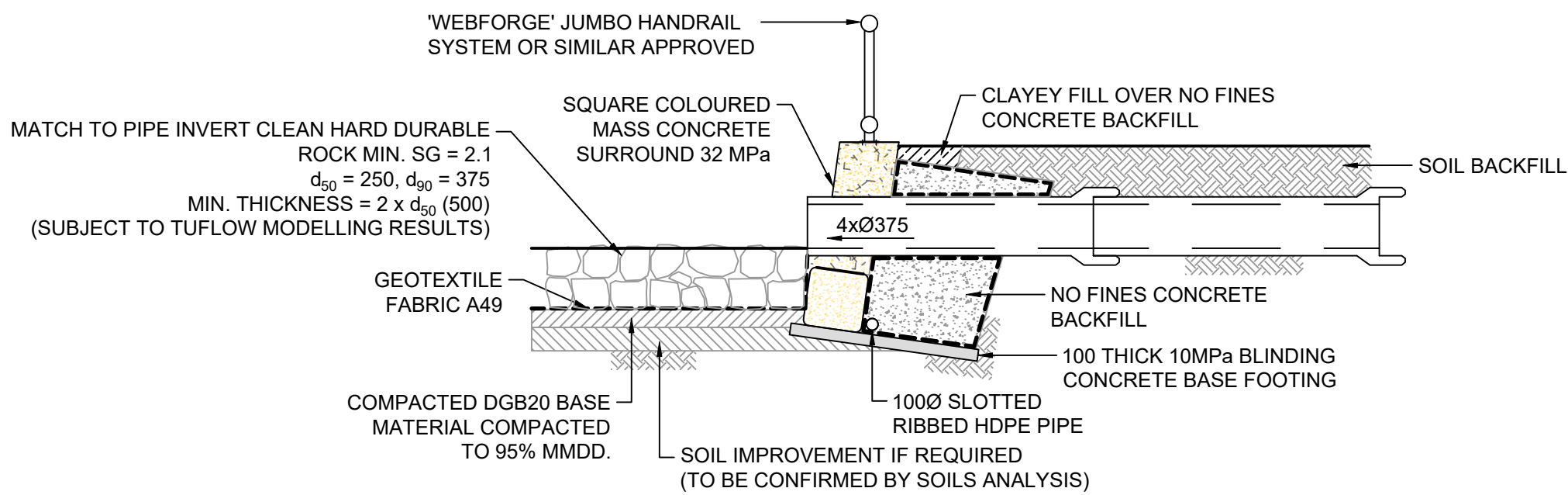
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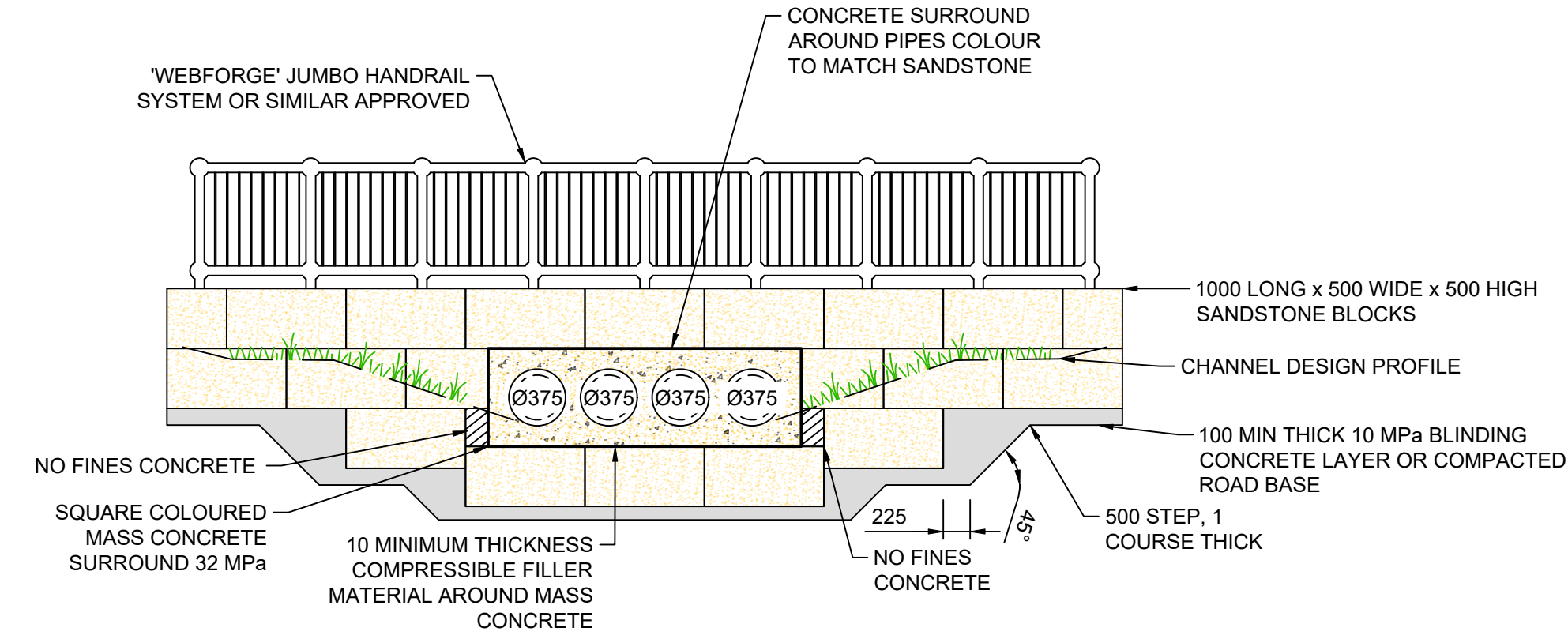
HEADWALL (HW1) OUTLET
SECTION
NOT TO SCALE



HEADWALL (HW1) OUTLET
ELEVATION
NOT TO SCALE



HEADWALL (HW2) OUTLET
SECTION
NOT TO SCALE



HEADWALL (HW2) OUTLET
ELEVATION
NOT TO SCALE

NOTE:
• HEADWALLS ARE TO BE SANDSTONE LOG.
• REFER TO STRUCTURAL ENGINEERS DRAWINGS BY CLS FOR HEADWALL & RETAINING WALL DETAILS.

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5
METRES



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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
HEADWALL DETAILS

PROJECT No:

110965-04

SHEET No:

DD042

AZIMUTH: M.G.A.
GDA 2020

DATUM: A.H.D.

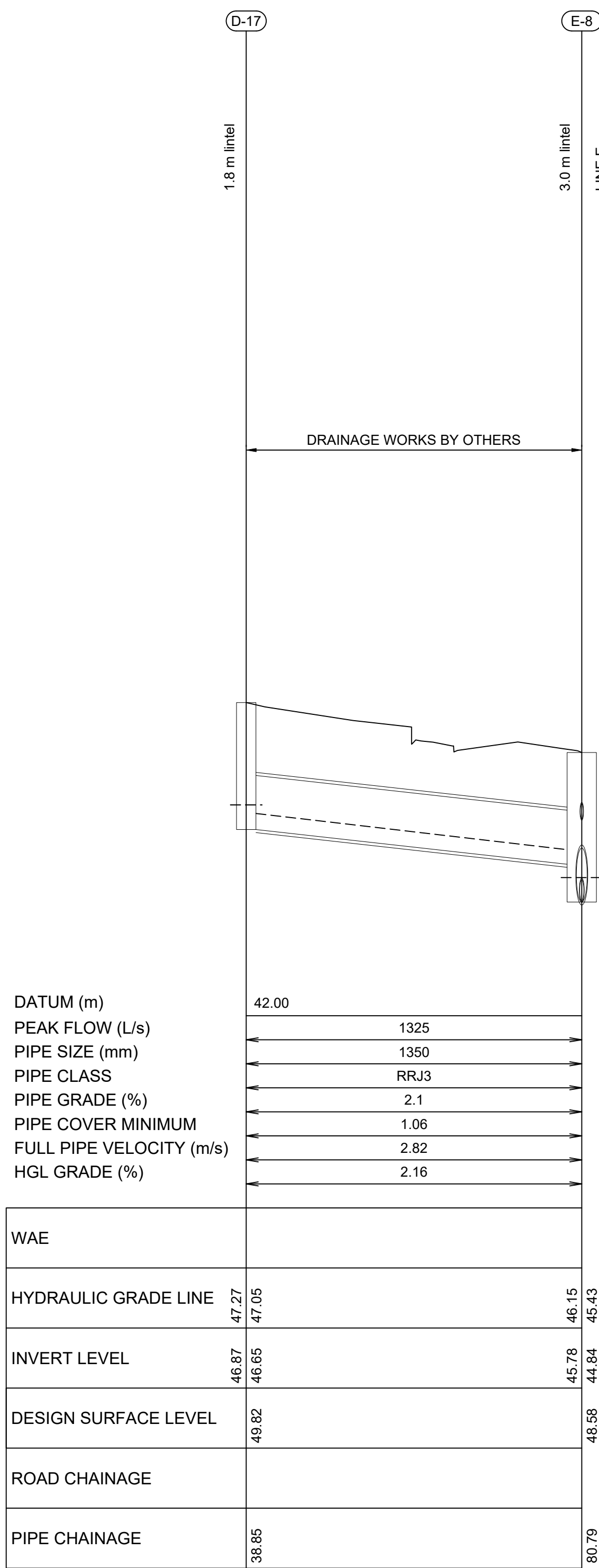
ORIGIN: SSM 1112

PLAN No: 110965-04-DD042

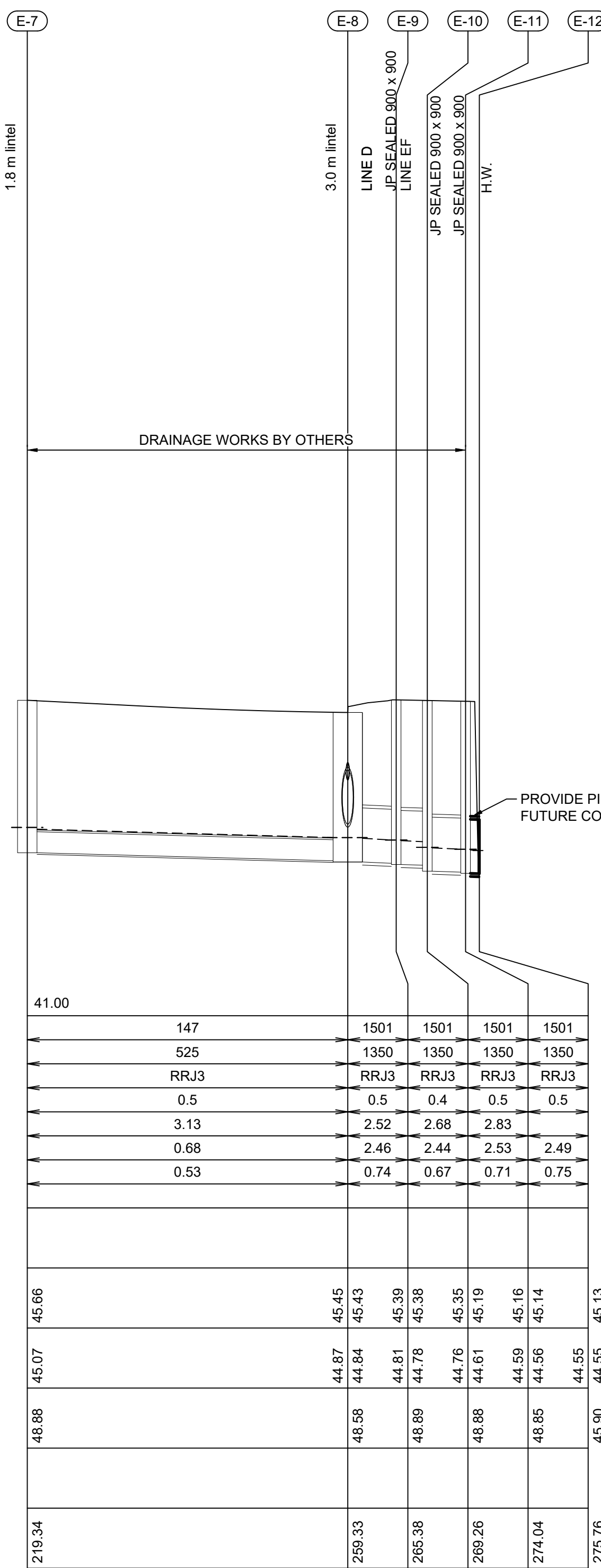
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	AMENDMENT	DES	DRN	CKD	APR	DATE

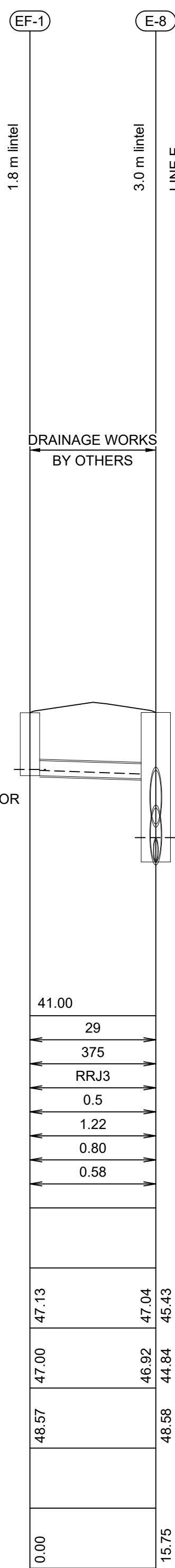
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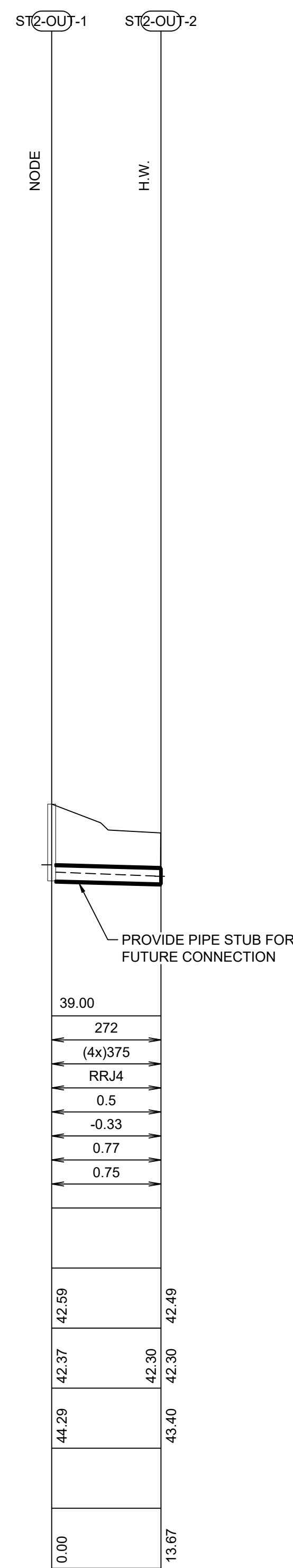
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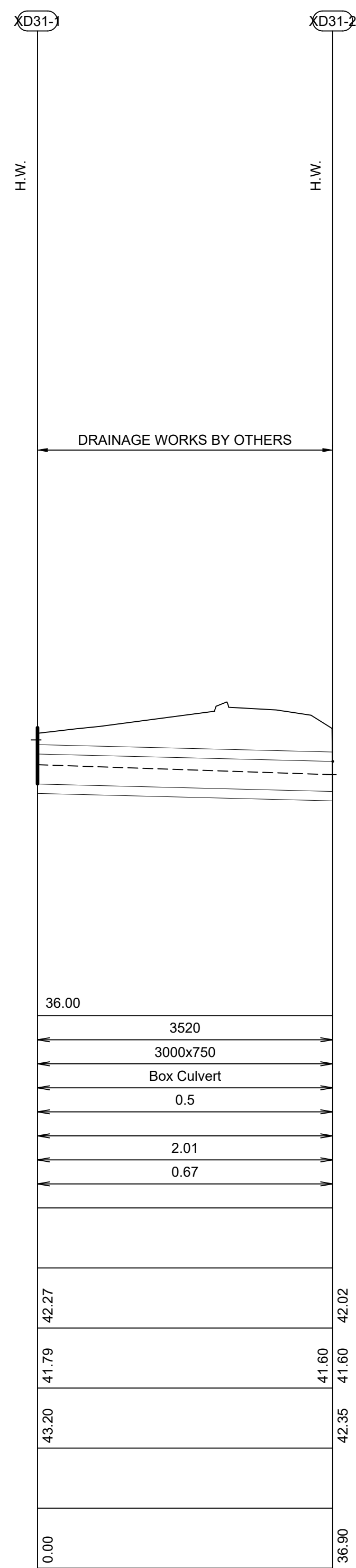
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LINE EF



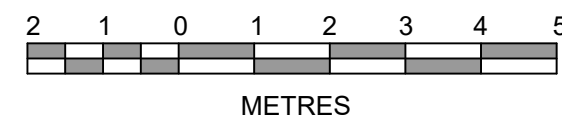
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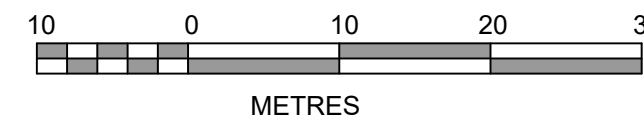
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NOTE:
ALL HYDRAULIC INFORMATION
PROVIDED BY AT&L

V 1:100 (AT A1)
V 1:200 (AT A3)



H 1:500 (AT A1)
H 1:1000 (AT A3)



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**WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS**
DRAINAGE LONGITUDINAL SECTIONS

PROJECT No:

110965-04

SHEET No:

DD060

AZIMUTH:

M.G.A.
GDA 2020

DATUM: A.H.D.

ORIGIN: SSM 1112

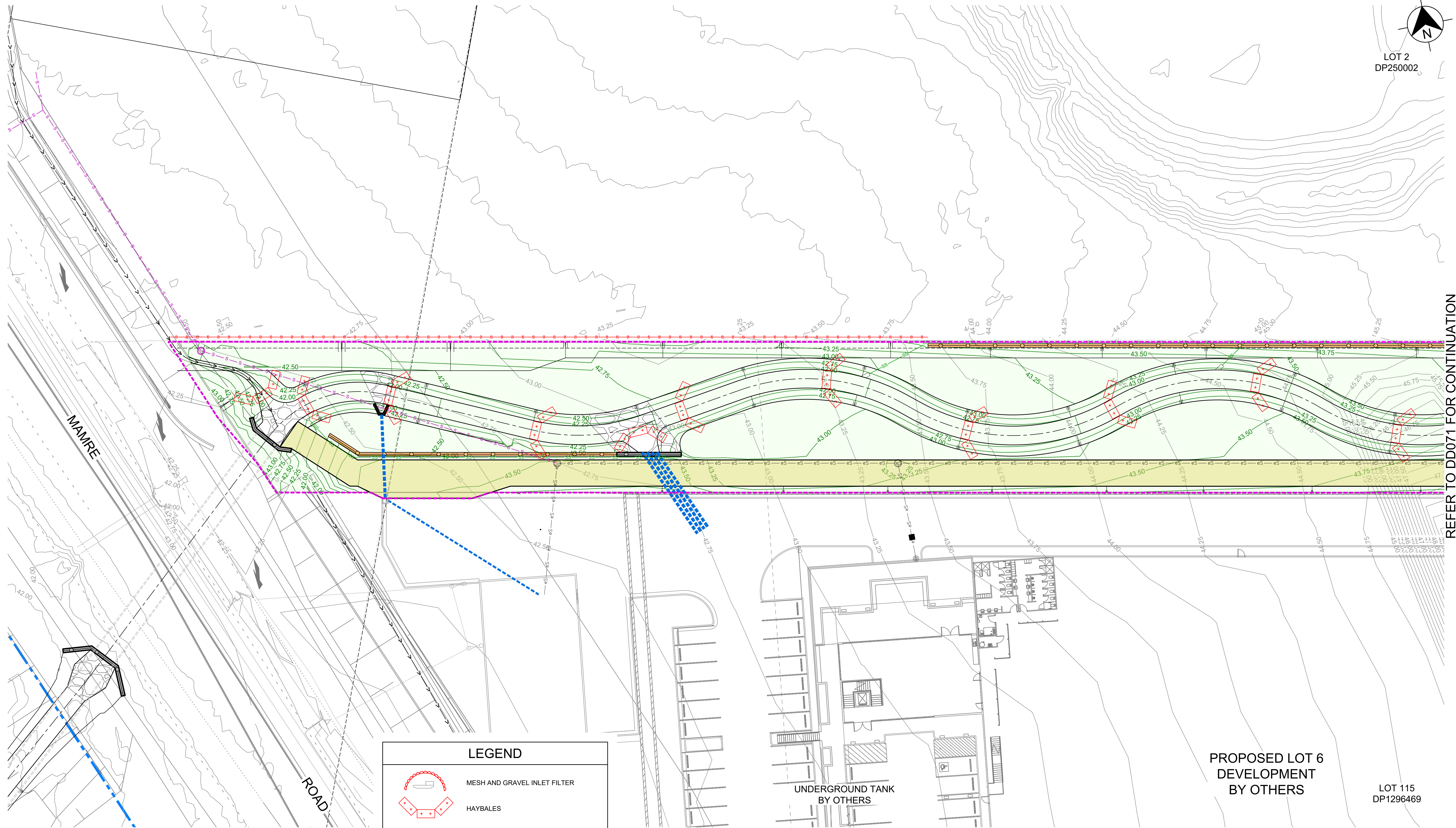
PLAN No:

110965-04-DD060

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A	ISSUE FOR APPROVAL	DG	JEM	PM	PM	31/01/25
	AMENDMENT	DES	DRN	CKD	APR	DATE






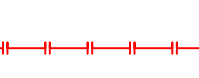
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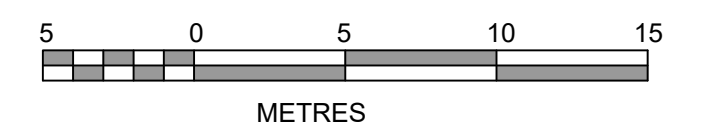
PROPOSED LOT 6
DEVELOPMENT
BY OTHERS

LOT 115
DP1296469

LEGEND

	MESH AND GRAVEL INLET FILTER
	HAYBALES
	STABILISED SITE ACCESS & WHEEL WASH BAY
	STOCKPILE
	CATCH DRAIN
	SEDIMENT FENCE

1:250 (AT A1)
1:500 (AT A3)



B	ISSUE FOR APPROVAL	DG	JEM	PM	03/02/25
A	ISSUE FOR APPROVAL	DG	JEM	PM	31/01/25
	AMENDMENT	DES	DRN	CKD	APR DATE



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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
SOIL & WATER MANAGEMENT PLAN
SHEET 1

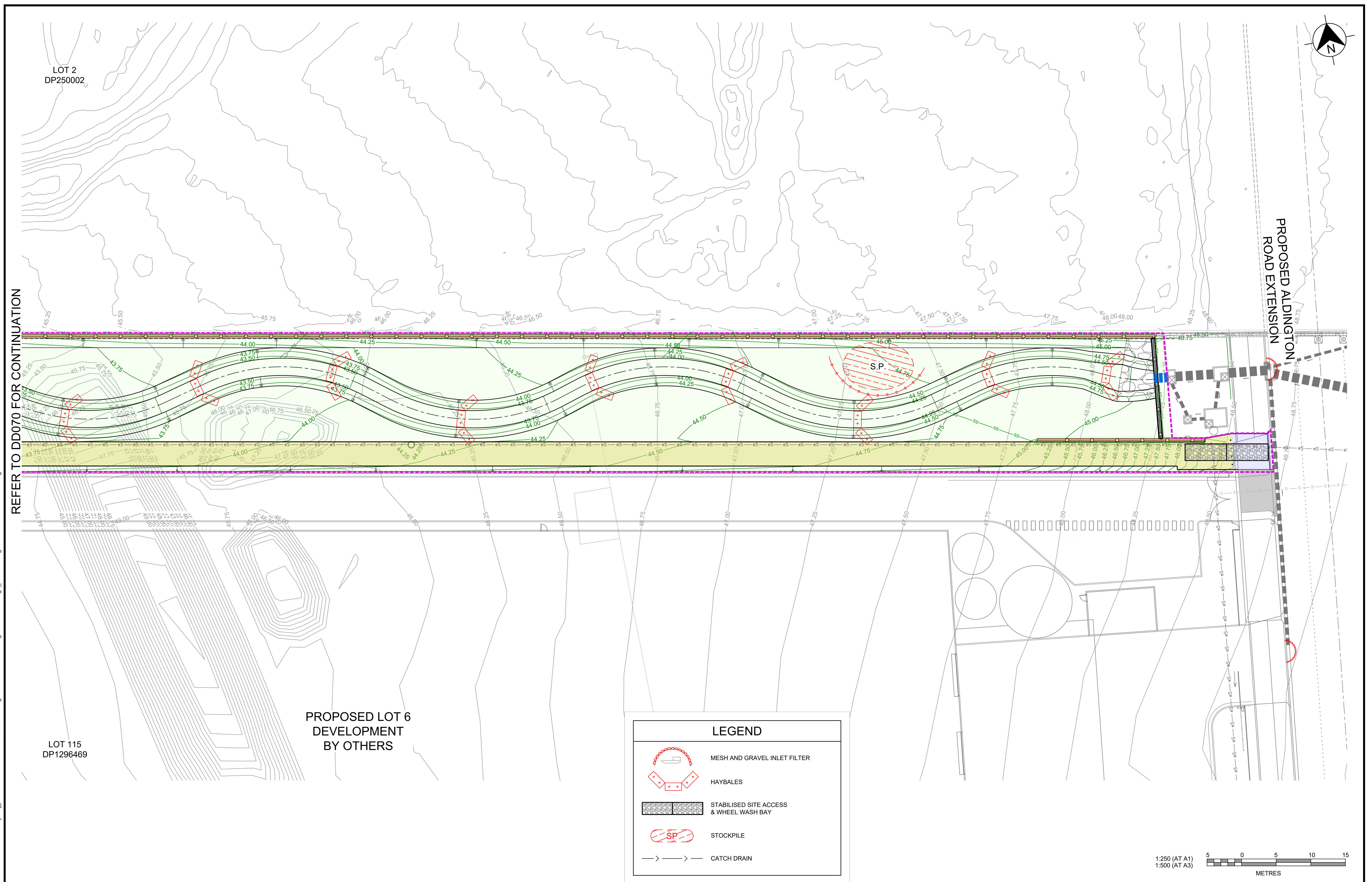
PROJECT No:

PROJECT NO. 110965-04

SHEET No:
DD070

AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No: 110965-04-DD070	B
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	AMENDMENT	DES	DRN	CKD	APR
					DATE



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<p align="center">WESTLINK STAGE 2, KEMPS CREEK NATURALISED DRAINAGE CHANNEL WORKS</p> <p align="center">SOIL & WATER MANAGEMENT PLAN</p> <p align="center">SHEET 2</p>				PROJECT No: <p align="center">110965-04</p>	
				SHEET No: <p align="center">DD071</p>	
AZIMUTH: M.G.A. GDA 2020	DATUM: A.H.D.	ORIGIN: SSM 1112	PLAN No:	<p align="center">110965-04-DD071</p>	<p align="center">A</p>

SOIL AND WATER MANAGEMENT NOTES

GENERAL NOTES:

1.

ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED TO THE REQUIREMENTS OF THE " SOILS AND CONSTRUCTION - VOLUME 1, 4TH EDITION, MARCH 2004 ".
2.

TOPSOIL FROM ALL AREAS TO BE DISTURBED SHALL BE STOCKPILED AND LATER RESPREAD TO AID REVEGETATION IN THOSE AREAS.
3.

ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS EARLY AS POSSIBLE DURING DEVELOPMENT.
4.

ALL TAIL-OUT DRAINS SHALL BE COUCH GRASSED AND TRAPEZOIDAL IN SECTION. STRAW BALES SHALL BE PLACED AS A SEDIMENT CONTROL DEVICE WHERE REQUIRED.
5.

VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING DEVELOPMENT CONFINING ACCESS WHERE POSSIBLE TO PROPOSED OR EXISTING ROAD ALIGNMENTS. AREAS TO BE LEFT UNDISTURBED SHALL BE MARKED OFF.
6.

ROADS SHALL BE PAVED AS EARLY AS POSSIBLE AFTER FORMATION.
7.

DISTURBANCE OF VEGETATION SHALL BE LIMITED TO FILL AREAS, ROADWAYS AND DRAINAGE LINES. NO LOT GRADING SHALL BE CARRIED OUT IN UNDISTURBED AREAS WITHOUT CONSULTATION WITH COUNCIL'S ENGINEER.
8.

ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.
9.

ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MAXIMUM 60% FULL OF SOLID MATERIALS, INCLUDING DURING THE MAINTENANCE PERIOD.
10.

THE SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND COUNCIL'S WRITTEN GUIDELINES FOR THE DEVELOPMENT OF LAND.
11.

CONTRACTORS SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS SPECIFIED ON THE PLAN AND IN ACCORDANCE WITH THE GUIDELINES SHOWN IN "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION 4TH EDITION" ("THE BLUE BOOK").
12.

ALL CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR REDUCING THE SOIL EROSION AND POLLUTION OF DOWNSLOPE AREAS.
13.

THE SOIL EROSION HAZARD ON THE SITE IS TO BE KEPT AS LOW AS POSSIBLE AND GENERALLY IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

LAND USE	LIMITATION	COMMENTS
CONSTRUCTION AREAS	DISTURBANCE TO BE NO FURTHER THAN 5m (PREF 2m) FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON THESE PLANS	ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE ZONES - WHERE APPROPRIATE THE CONSTRUCTION AREAS ARE TO BE IDENTIFIED WITH BARRIER FENCING (DOWNSLOPE) OR SIMILAR MATERIAL.
ACCESS AREAS	LIMITED TO A MAXIMUM WIDTH OF 10m	THE SITE MANAGER SHALL DETERMINE AND MARK THE LOCATION OF THESE ZONES ONSITE. THEY CAN VARY IN POSITION TO BEST CONSERVE THE EXISTING VEGETATION AND PROTECT DOWNSTREAM AREAS WHILE BEING CONSIDERATE OF THE NEEDS OF EFFICIENT WORKS ACTIVITIES. ALL SITE WORKERS SHALL CLEARLY RECOGNISE THEIR BOUNDARIES. WHERE APPROPRIATE THE ACCESS AREAS ARE TO BE MARKED WITH BARRIER MESH, SEDIMENT FENCING OR SIMILAR MATERIALS.
REMAINING LANDS	ENTRY PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH	THINNING OF GROWTH MAY BE REQUIRED FOR FIRE HAZARD REDUCTION.

- NOTE:
WORKS WITHIN WATERWAYS AND CREEKS SHALL BE RESTRICTED AS DIRECTED - ALL LANDS WITHIN CREEKS AND WATERWAYS SHALL HAVE A GROUNDCOVER MORE THAN 70%, USING MATERIALS THAT CAN CATER FOR CONCENTRATED FLOWS.
14.

WORKS ARE TO BE UNDERTAKEN IN THE FOLLOWING SEQUENCE. EACH SUBSEQUENT STAGE IS NOT TO COMMENCE UNTIL THE PREVIOUS ONE IS COMPLETE:-

a.

INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN AND TO DETAIL(SD) 6-8.

b.

CONSTRUCT STABILISED SITE ACCESS AS SHOWN ON THE PLAN AND TO DETAIL (SD) 6-14.

c.

CONSTRUCT LOW FLOW EARTH BANKS WHERE SHOWN ON THE PLAN AND TO DETAIL (SD) 5-5.

d.

PROVIDE TEMP. ACCESS TO THE SEDIMENT BASIN(S)AND PROTECT THIS WITH SEDIMENT FENCING (SD) 6-8 OR BARRIER FENCING AND EARTH BANKS (SD) 5-5.

e.

PLACE SEDIMENT FENCING (SD) 6-8 DOWNSLOPE OF LANDS TO BE DISTURBED FOR CONSTRUCTION OF THE SEDIMENT BASINS.

f.

CONSTRUCT SEDIMENT BASIN(S) GENERALLY IN ACCORDANCE WITH (SD) 6-4

g.

STABILISE LAND SURFACES DISTURBED BY CONSTRUCTION OF THE SEDIMENT BASIN(S) AS SOON AS FINAL LEVELS ARE ESTABLISHED

h.

CLEAR THE SITE AND STRIP AND STOCKPILE THE TOPSOIL IN THE LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE SITE SUPERINTENDENT TO DETAIL (SD) 4-1.

i.

UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS.

j.

GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 14 DAYS OF COMPLETION OF CONSTRUCTION WORKS.

k.

REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
15.

CLEARLY VISIBLE BARRIER FENCING SHALL BE INSTALLED WHERE DIRECTED BY THE SITE SUPERINTENDENT TO CONTROL AND PROHIBIT UNNECESSARY SITE DISTURBANCE
16.

EARTH BATTERS SHALL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER THAN:-

a.

2(h) - 1(v) WHERE SLOPE LENGTH IS LESS THAN 7m

b.

2.5(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 7m AND 10m

c.

3(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 10m AND 12m

d.

4(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 12m AND 18m

e.

5(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 18m AND 27m

f.

6(h) - 1(v) WHERE SLOPE LENGTH IS GREATER THAN 27m

SLOPE LENGTHS CAN BE SHORTENED BY USING LOW FLOW EARTH BANKS AS CATCH DRAINS ABOVE THE EARTH BATTER AREA.

17.

PROTECTION FROM EROSION FORCES SHALL BE UNDERTAKEN ON ALL LANDS. GROUND COVER TO BE IN PLACE WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION AND BEFORE THEY ARE ALLOWED TO CARRY ANY CONCENTRATED FLOWS.
18.

TEMPORARY GROUND COVER SHOULD BE MINIMUM 70%. FOOT AND VEHICULAR TRAFFIC SHALL BE KEPT AWAY FROM REHABILITATED AREAS.
19.

WHERE POSSIBLE THE CONSTRUCTION PROGRAM IS TO SCHEDULE WORKS SUCH THAT LAND DISTURBANCE ACTIVITIES ARE COMPLETED IN LESS THAN 6 MONTHS. REVEGETATION WORKS MUST BE CARRIED OUT AS STIPULATED IN THE RELEVANT COUNCIL GUIDELINES / SPECIFICATIONS SUCH THAT A SATISFACTORY GROUND COVER IS PROVIDED TO AT LEAST 60% OF THE DISTURBED AREA WITHIN 10 DAYS AND AT LEAST 70% OF THE DISTURBED AREA WITHIN A FURTHER 60 DAYS..
20.

SEDIMENT FENCES (SD) 6-8 SHALL:-

a.

BE INSTALLED WHERE SHOWN ON THE PLAN AND AS DIRECTED AT THE DISCRETION OF THE SITE SUPERINTENDENT DURING THE COURSE OF CONSTRUCTION TO CONTAIN THE COARSER SEDIMENT FRACTIONS AS NEAR AS POSSIBLE TO THEIR SOURCE.

b.

HAVE A CATCHMENT AREA NOT EXCEEDING 720sq.m. AND A STORAGE DEPTH OF AT LEAST 0.6m.

c.

PROVIDE AN UPSLOPE RETURN OF 1m AT INTERVALS ALONG THE FENCE WHERE THE CATCHMENT AREA EXCEEDS 720sq.m. TO LIMIT THE DISCHARGE REACHING EACH SECTION TO 50litres/sec IN A MAX. 10yr Tc DISCHARGE.
21.

STOCKPILES (SD) 4-1 SHALL BE LOCATED AS SHOWN ON THE PLANS AND AT THE DISCRETION OF THE SITE SUPERINTENDENT.
22.

DURING WINDY WEATHER LARGE UNPROTECTED AREAS ARE TO BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL. IN THE EVENT WATER IS NOT AVAILABLE IN SUFFICIENT QUANTITIES SOIL BINDERS AND/OR DUST RETARDANTS SHALL BE USED OR THE SURFACE SHALL BE LEFT IN A CLODDY STATE THAT RESISTS REMOVAL BY WIND.
23.

STOCKPILES SHALL NOT BE LOCATED WITHIN 5m OF HAZARD AREAS, INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS OR DRIVEWAYS.
24.

THE SEDIMENT RETENTION BASINS (SD) 6-4 SHALL:-

a.

BE CONSTRUCTED WHERE SHOWN ON THE PLANS.

b.

BE FLOCCULATED (APPENDIX E MANAGING URBAN STORMWATER SOILS & CONSTRUCTION 4TH ED.) BEFORE DISCHARGE OCCURS (UNLESS THE DESIGN STORM EVENT IS EXCEEDED)

c.

HAVE ONE OR MORE PEGS PLACED ON THE FLOOR TO CLEARLY INDICATE THE LEVEL AT WHICH DESIGN CAPACITY OCCURS AND WHEN SEDIMENT SHALL BE REMOVED.
25.

STORED CONTENTS OF THE BASINS SHALL BE TREATED WITH GYPSUM (APPENDIX E MANAGING URBAN STORMWATER SOILS & CONSTRUCTION 4TH ED.) OR OTHER FLOCCULATING AGENTS WHERE THEY CONTAIN MORE THAN 50mg/litre OF SUSPENDED SOLIDS. TREATMENT SHALL BE AS FOLLOWS:-

a.

LOWER SUSPENDED SOLIDS TO LESS THAN 50mg/litre WITHIN 24hrs OF FILLING

b.

THE BASINS SHALL THEN BE ALLOWED TO STAND 36 TO 48hrs FOR FLOCCULATED PARTICLES TO SETTLE

c.

THE BASINS SHALL THEN BE DRAINED SO THAT FULL STORAGE CAPACITY IS REGAINED WITHOUT DISCHARGING SEDIMENT FROM THE SITE.
26.

SEDIMENT REMOVED FROM ANY TRAPPING DEVICE SHALL BE DISPOSED IN LOCATIONS WHERE FURTHER EROSION AND CONSEQUENT POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS SHALL NOT OCCUR.
27.

WATER SHALL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE (ie THE CATCHMENT HAS BEEN LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN TREATED IN AN APPROVED DEVICE) NEVERTHELESS STORMWATER INLETS SHALL BE PROTECTED (SD) 6-11 & 6-12.
28.

TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED.
29.

ACCEPTABLE BINS SHALL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES SHALL BE PROVIDED AT LEAST ONCE A WEEK.

STOCKPILE NOTES:

1.

SPOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE.
2.

IF STOCKPILES ARE TO BE IN PLACE FOR LONGER THAN 14 DAYS THEN THEY SHALL BE STABILIZED BY COVERING WITH A MULCH OR WITH TEMPORARY VEGETATION.
3.

FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE RESPREAD TO A MINIMUM DEPTH OF 100mm ON THE BARE SOIL SURFACES AND REVEGETATED.

SEDIMENTATION CONTROL DEVICES:

1.

ALL STRAW BALES SHALL BE BOUND WITH WIRE. STRAW BALES SHALL BE PLACED END TO END IN A SINGLE ROW AND EMBEDDED INTO THE SOIL TO A DEPTH OF 100mm. EACH BALE SHALL BE SECURELY ANCHORED WITH TWO STEEL STAKES DRIVEN 600mm INTO THE GROUND AND LOCKED ON THE BALE CENTRELINE.
2.

SILT FENCES SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR SIMILAR) BETWEEN POSTS AT 2.5m CENTRES. FABRIC SHALL BE BURIED 150mm ALONG ITS LOWER EDGE.
3.

PROVIDE STRIP OF TURF MIN. 300mm WIDE BEHIND KERB + 1m WIDE AROUND ALL SURFACE INLET PITS

SITE INSPECTION AND MAINTENANCE:

1.

A SELF-AUDITING PROGRAM SHALL BE ESTABLISHED BASED ON A INSPECTION TEST PLAN (ITP) OR LOG BOOK. A SITE INSPECTION USING THE ITP SHALL BE MADE BY THE SITE MANAGER:-

a.

AT LEAST WEEKLY

b.

IMMEDIATELY BEFORE SITE CLOSURE

c.

IMMEDIATELY FOLLOWING RAINFALL EVENTS IN EXCESS OF 5mm IN ANY 24hr PERIOD.

THE SELF AUDIT SHALL INCLUDE:-

- a.

RECORDING THE CONDITION OF EVERY 'BEST MANAGEMENT PRACTICE' EMPLOYED
- b.

RECORDING MAINTENANCE REQUIREMENTS (IF ANY) FOR EACH 'BEST MANAGEMENT PRACTICE'
- c.

RECORDING THE VOLUMES OF SEDIMENT REMOVED FROM SEDIMENT RETENTION SYSTEMS WHERE APPLICABLE
- d.

RECORDING THE SITE WHERE SEDIMENT IS DISPOSED
- e.

FORWARDING A SIGNED DUPLICATE OF THE COMPLETED CHECK SHEET TO THE PROJECT MANAGER/DEVELOPER FOR THEIR INFORMATION.

2.

IN ADDITION A SUITABLY QUALIFIED PERSON SHALL BE RESPONSIBLE FOR OVERSEEING THE INSTALLATION AND MAINTENANCE OF ALL SOIL AND WATER MANAGEMENT WORKS ON THE SITE. THE PERSON SHALL BE REQUIRED TO SPEND A MINIMUM OF:-

- a.

2hrs ONSITE EACH FORTNIGHT UP UNTIL COMPLETION OF ROAD AND DRAINAGE WORKS AND/OR THE COMMISSIONING OF SEDIMENT BASIN(S)/WATER QUALITY CONTROL FACILITIES, AND DURING THE DECOMMISSIONING OF SAME AND/OR FINAL SITE STABILISATION. TO PROVIDE A SHORT MONTHLY WRITTEN REPORT.
- b.

ONE HOUR ONSITE EACH 2 MONTHS DURING THAT PHASE WHERE THE DEVELOPERS RESPONSIBILITIES ARE LIMITED TO MAINTENANCE OF THE SDS DEVICES AND/OR SEDIMENT BASINS (ie DURING THE STAGE WHEN BUILDING WORKS CAN BE UNDERTAKEN) TO PROVIDE A SHORT WRITTEN REPORT EACH 4 MONTHS

THE RESPONSIBLE PERSON SHALL ENSURE THAT:-

- a.

THIS PLAN IS BEING IMPLEMENTED CORRECTLY
- b.

REPAIRS ARE BEING UNDERTAKEN AS REQUIRED
- c.

ESSENTIAL MODIFICATIONS TO THIS PLAN ARE BEING MADE IF AND WHEN NECESSARY. EACH REPORT SHALL CERTIFY THAT WORKS HAVE BEEN CARRIED OUT ACCORDING TO THE APPROVED PLANS.

3.

WASTE BINS SHALL BE EMPTIED AS NECESSARY, DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT
4.

PROPER DRAINAGE OF THE SITE SHALL BE MAINTAINED. DRAINS (INCLUDING INLET AND OUTLET WORKS) SHALL BE CHECKED TO ENSURE THAT THEY ARE OPERATING AS INTENDED,ESPECIALLY THAT:-

- a.

NO LOW POINTS EXIST WHICH CAN OVERTOP IN A LARGE STORM EVENT.
- b.

AREAS OF EROSION ARE REPAIRED (e.g LINED WITH SUITABLE MATERIAL) AND/OR VELOCITY OF FLOW IS REDUCED APPROPRIATELY THROUGH CONSTRUCTION OF SMALL CHECK DAMS OR INSTALLING ADDITIONAL DIVERSIONS UPSLOPE
- c.

BLOCKAGES ARE CLEARED (THESE MIGHT OCCUR BECAUSE OF SEDIMENT POLLUTION, SAND/SOIL/SPOIL BEING DEPOSITED IN OR TOO CLOSE TO THEM, BREACHED BY VEHICLE WHEELS etc)

5.

SAND/SOIL/SPOIL MATERIALS PLACED CLOSER THAN 2m FROM HAZARD AREAS SHALL BE REMOVED SUCH HAZARD AREAS INCLUDE ANY AREAS OF HIGH VELOCITY WATER FLOWS (eg WATERWAYS AND GUTTERS) PAVED AREAS AND DRIVEWAYS.
6.

RECENTLY STABILISED LANDS SHALL BE CHECKED TO ENSURE THAT THE EROSION HAZARD HAS BEEN EFFECTIVELY REDUCED. ANY REPAIRS SHALL BE INITIATED AS APPROPRIATE.
7.

EXCESSIVE VEGETATIVE GROWTH SHALL BE CONTROLLED THROUGH MOWING OR SLASHING.
8.

ALL SEDIMENT DETENTION SYSTEMS SHALL BE KEPT IN GOOD WORKING CONDITION. IN PARTICULAR ATTENTION SHALL BE GIVEN TO:-

a.

RECENT WORKS TO ENSURE THAT THEY HAVE NOT RESULTED IN DIVERSION OF SEDIMENT LADEN WATER AWAY FROM THEM.

b.

DEGRADABLE PRODUCTS TO ENSURE THAT THEY ARE REPLACED AS REQUIRED

c.

SEDIMENT REMOVAL TO ENSURE THE DESIGN CAPACITY OR LESS REMAINS IN THE SETTLLING ZONE.

9.

ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS SHALL BE CONSTRUCTED AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS (ie MAKE ONGOING CHANGES TO THIS PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECTED TO CHANGES IN CONDITIONS AT THE WORKS SITE OR ELSEWHERE IN THE CATCHMENT.

10.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN A FUNCTIONING CONDITION UNTIL ALL EARTHWORKS ACTIVITIES ARE COMPLETED AND THE SITE STABILISED.
11.

WATERS IN SEDIMENT RETENTION BASIN(S) THAT OCCUPY MORE THAN 1/4 OF THE DESIGN CAPACITY DURING THAT STAGE OF THE WORKS UP UNTIL COMMISSIONING OF THE BASIN(s) SHALL BE:-

- a.

TREATED WITH A FLOCCULATING AGENT (APPENDIX E MANAGING URBAN STORMWATER SOILS & CONSTRUCTION 4TH ED.)
- b.

DISCHARGED WITHIN 5 days FROM THE CONCLUSION OF ANY STORM EVENT LARGE ENOUGH TO FILL THE BASIN TO THAT LEVEL.

12.

LITTER, DEBRIS AND COARSE SEDIMENT SHALL BE REMOVED FROM THE GROSS POLLUTANT TRAPS AND TRASH RACKS AS REQUIRED.

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WESTLINK STAGE 2, KEMPS CREEK
NATURALISED DRAINAGE CHANNEL WORKS
SOIL & WATER MANAGEMENT NOTES

PROJECT No:
110965-04
SHEET No:
DD072

AZIMUTH: M.G.A. GDA 2020

DATUM: A.H.D.

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