

FOR BUTTERFLY VALVE PIT
 DETAIL REFER TO DWG 2357-2358
 SETOUT COORDINATE
 E = 482785.243
 N = 7831583.121

DANGER:
 HV-11KV ERGON ENERGY
 OVERHEAD POWERLINE
 CROSSING TO POLE 2126724
 WITH GROUND STAY.

DANGER
 EXISTING GAS MAIN.
 CONTRACTOR TO OBTAIN NQGP
 APPROVAL TO CROSS THE GAS
 MAIN WITH CONSTRUCTION
 VEHICLES. GAS MAIN TO BE
 PROTECTED WHERE REQUIRED.

- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 - FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 - FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 - PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 - DO NOT SCALE OFF DRAWINGS.

CAUTION !!
UNDERGROUND
TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION
 CABLES EXIST IN THIS VICINITY. CONTACT
 SUPPLIER FOR CABLE LOCATIONS. EXTREME
 CARE MUST BE TAKEN WHILST EXCAVATING.

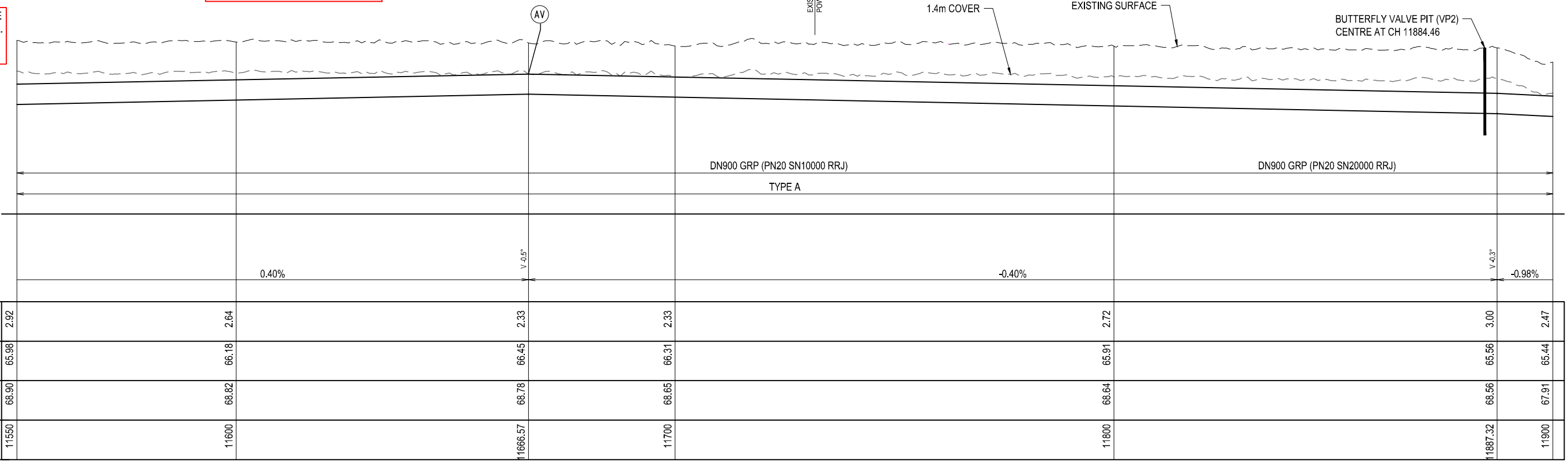
DANGER:
OVERHEAD
POWERLINES
 CONTACT RELEVANT AUTHORITY TO
 OBTAIN ALL APPROVALS FOR WORKS
 UNDERTAKEN IN VICINITY OF
 INFRASTRUCTURE

DANGER:
UNDERGROUND
GAS MAINS
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 SERVICE LOCATIONS.
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LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)

ALL SERVICES OBTAINED BY FEATURE
 SURVEY / DIAL BEFORE YOU DIG DATA.
 ALL INFORMATION TO BE CONFIRMED
 THROUGH DETAILED POTHOLING.

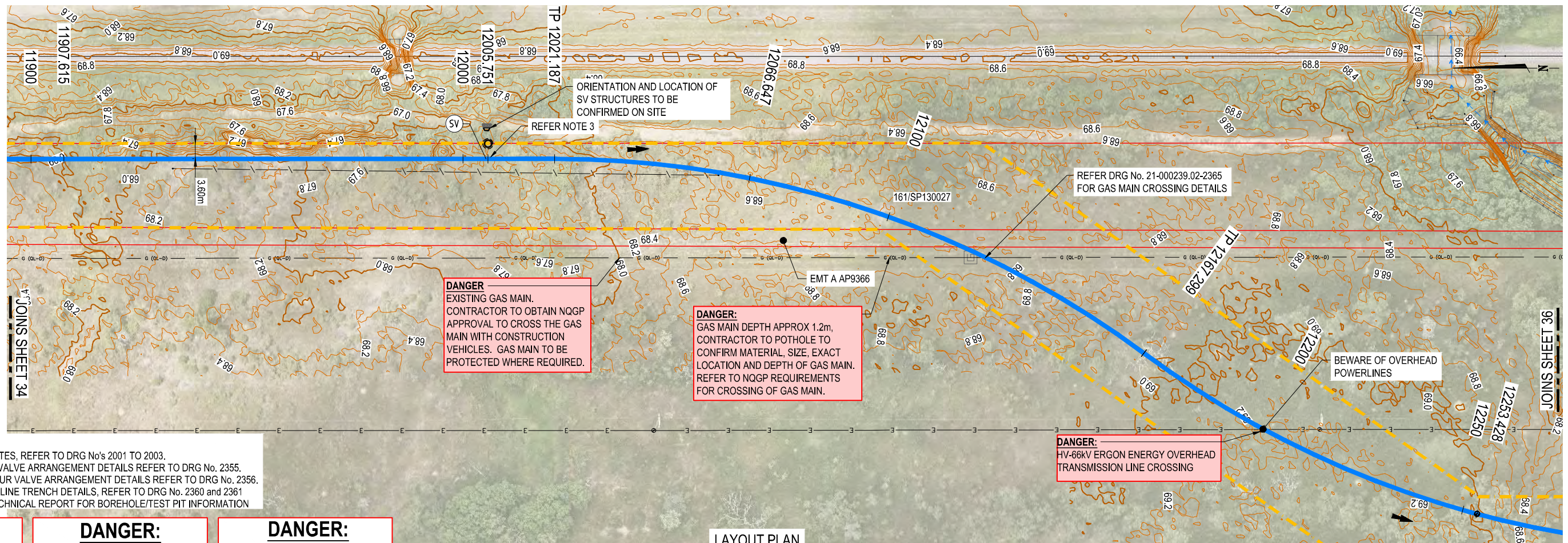


DATUM RL 61.000
 HORIZONTAL DEFLECTION
 VERTICAL GEOMETRY
 PIPELINE GRADE

DEPTH TO INVERT	2.92	2.64	2.33	2.33	2.72	3.00	2.47
PIPE INVERT LEVEL	65.98	66.18	66.45	66.31	65.91	65.56	65.44
SURFACE LEVEL	68.90	68.82	68.78	68.65	68.64	68.56	67.91
CHAINAGE	11550	11600	11666.57	11700	11800	11887.32	11900

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION 0 28.04.23 ISSUE FOR CONSTRUCTION	DRAWN JM	DESIGN MO	DRAWN CHECK Dmp	STATUS FOR CONSTRUCTION	SCALE 1:500 1:1000	CLIENT TOWNSVILLE CITY COUNCIL	PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 34 OF 46
			DESIGN CHECK MO	APPROVED MARCHEL OEGEMA RPEQ 20260	SCALE 1:200 1:400	calibre calibregroup.com	DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02
				FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD				DRAWING No. 2333
								REVISION 0



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DANGER:
OVERHEAD POWERLINES
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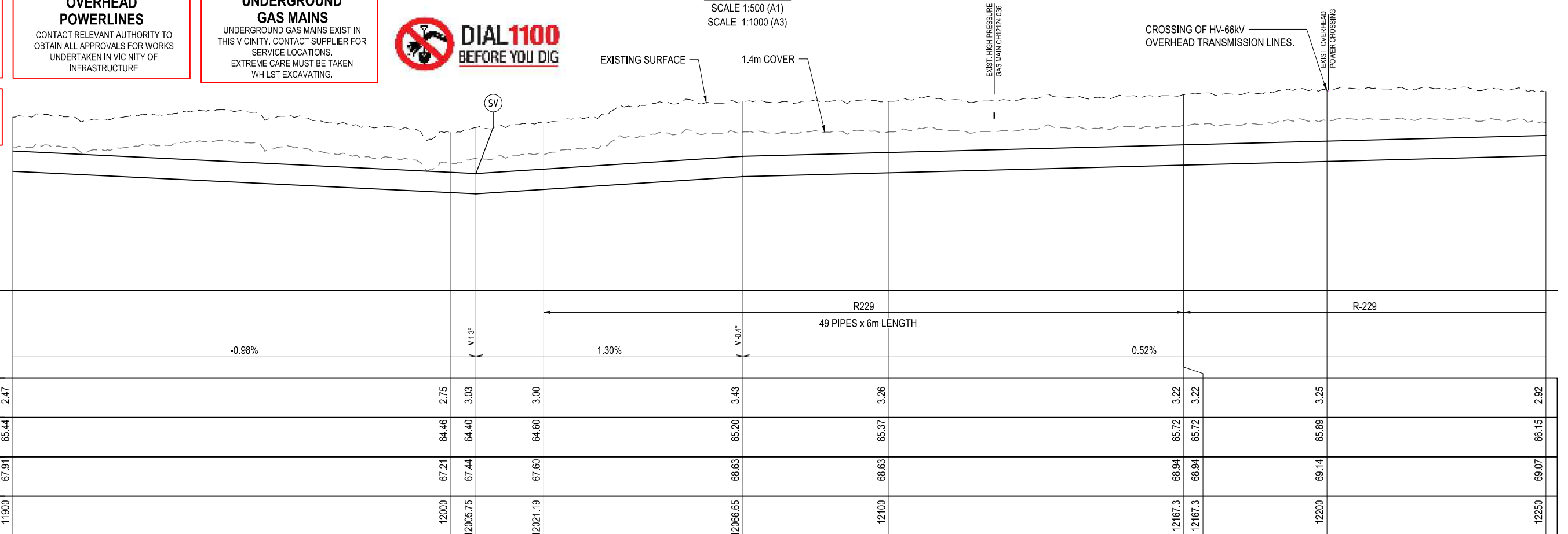
DANGER:
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ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.



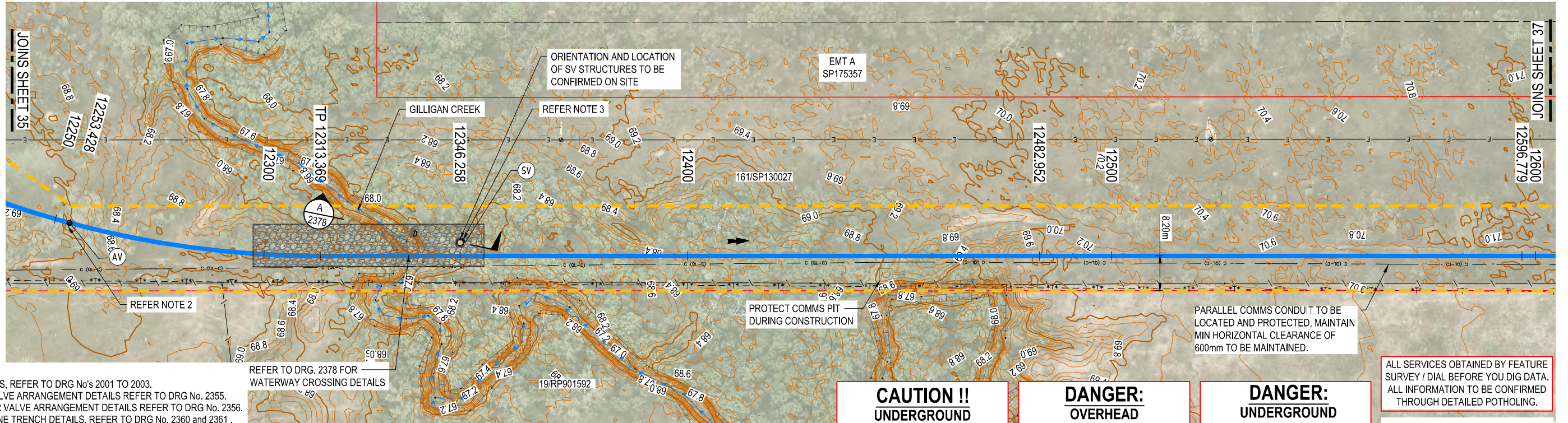
LAYOUT PLAN

SCALE 1:500 (A1)
SCALE 1:1000 (A3)



HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:500 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 35 OF 46
						APPROVED MARCHEL OEGEMA RPEQ 20260	1:200 1:400	City of Townsville	DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2334 REVISION 0



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 5. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION

REFER TO DRG. 2378 FOR WATERWAY CROSSING DETAILS

ORIENTATION AND LOCATION OF SV STRUCTURES TO BE CONFIRMED ON SITE

PROTECT COMMS PIT DURING CONSTRUCTION

PARALLEL COMMS CONDUIT TO BE LOCATED AND PROTECTED, MAINTAIN MIN HORIZONTAL CLEARANCE OF 600mm TO BE MAINTAINED.

CAUTION !!
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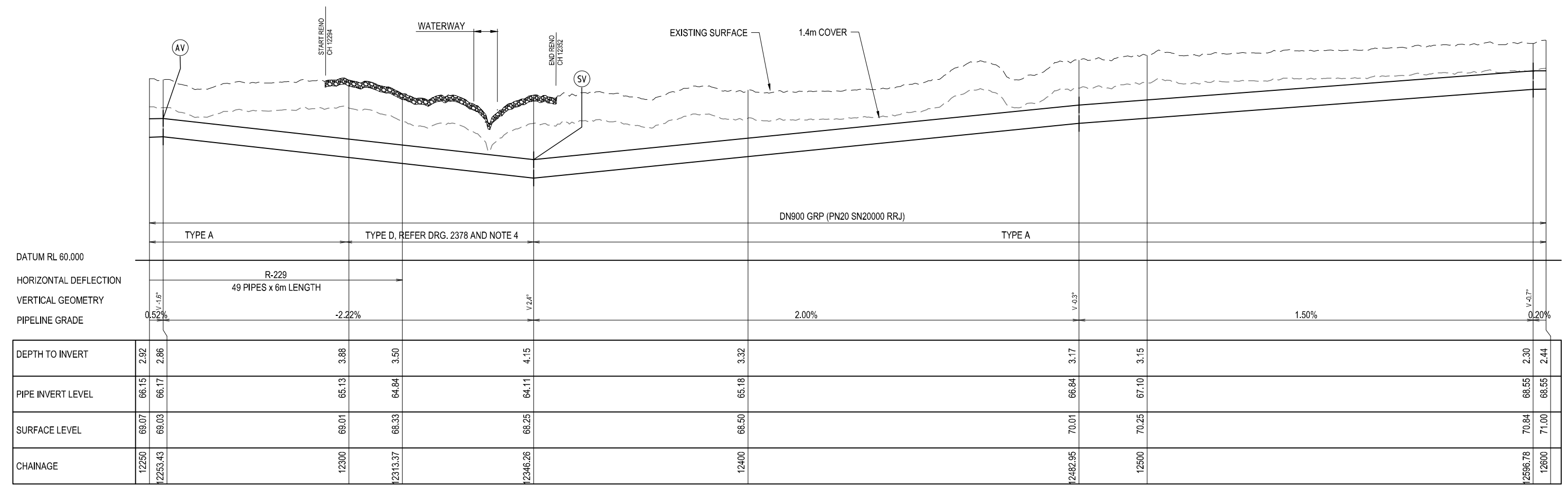
DANGER:
OVERHEAD POWERLINES
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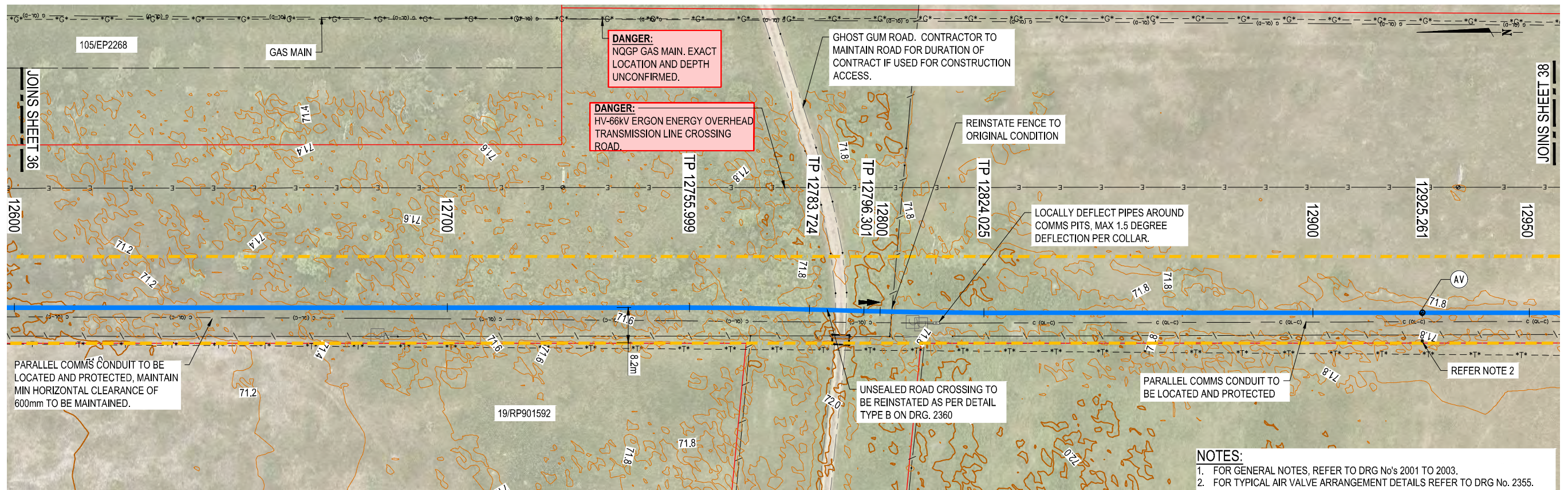


LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)



HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>ISSUE DETAILS</th> <th>DRAWN</th> <th>DESIGN</th> <th>DRAWN CHECK</th> <th>STATUS</th> </tr> <tr> <td>0</td> <td>28.04.23</td> <td>ISSUE FOR CONSTRUCTION</td> <td>JM</td> <td>MO</td> <td>Dmp</td> <td>FOR CONSTRUCTION</td> </tr> </table>	REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	<table border="1"> <tr> <td>APPROVED</td> <td>MARCHEL OEGEMA</td> <td>RPEQ 20260</td> </tr> <tr> <td>FOR & ON BEHALF OF</td> <td colspan="2">CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD</td> </tr> </table>	APPROVED	MARCHEL OEGEMA	RPEQ 20260	FOR & ON BEHALF OF	CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD		<p>SCALE</p> <p>1:500 10 5 0 10 20 A1</p> <p>1:1000</p> <p>1:200 2 0 2 4 6 8 10 A1</p> <p>1:400</p>	<p>CLIENT</p> <p>TOWNSVILLE CITY COUNCIL</p>	<p>PROJECT</p> <p>LANSDOWN ECO - INDUSTRIAL PRECINCT</p>	<p>DRAWING TITLE</p> <p>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 36 OF 46</p>
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS																			
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION																			
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<p>DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>						<table border="1"> <tr> <td>PROJECT No.</td> <td>DRAWING No.</td> <td>REVISION</td> </tr> <tr> <td>21-000239.02</td> <td>2335</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2335	0													
PROJECT No.	DRAWING No.	REVISION																							
21-000239.02	2335	0																							



DANGER:
NQG GP GAS MAIN. EXACT LOCATION AND DEPTH UNCONFIRMED.

DANGER:
HV-66kV ERGON ENERGY OVERHEAD TRANSMISSION LINE CROSSING ROAD.

GHOST GUM ROAD. CONTRACTOR TO MAINTAIN ROAD FOR DURATION OF CONTRACT IF USED FOR CONSTRUCTION ACCESS.

REINSTATE FENCE TO ORIGINAL CONDITION

LOCALLY DEFLECT PIPES AROUND COMMS PITS, MAX 1.5 DEGREE DEFLECTION PER COLLAR.

PARALLEL COMMS CONDUIT TO BE LOCATED AND PROTECTED, MAINTAIN MIN HORIZONTAL CLEARANCE OF 600mm TO BE MAINTAINED.

UNSEALED ROAD CROSSING TO BE REINSTATED AS PER DETAIL TYPE B ON DRG. 2360

PARALLEL COMMS CONDUIT TO BE LOCATED AND PROTECTED

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 2. FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 3. FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 4. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 5. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 6. PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 7. DO NOT SCALE OFF DRAWINGS.

CAUTION !!
UNDERGROUND TELECOMMS CABLES
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DANGER:
OVERHEAD POWERLINES
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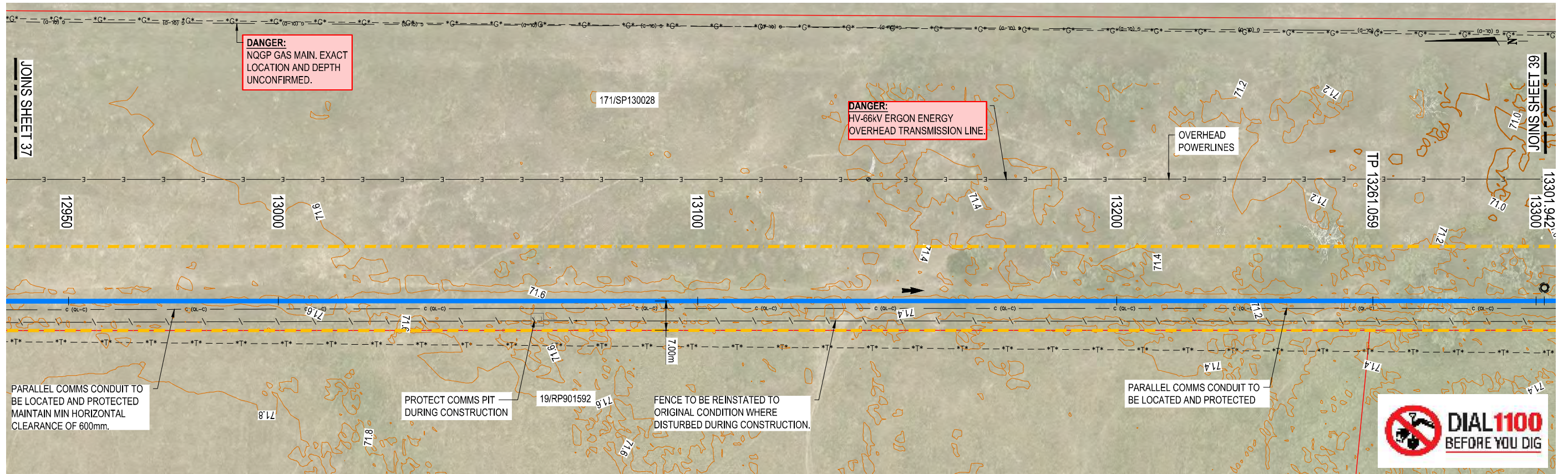
LAYOUT PLAN
SCALE 1:500 (A1)
SCALE 1:1000 (A3)

ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.

		EXISTING SURFACE																		
		UNSEALED ROAD																		
		FENCE CROSSING																		
		DEFLECT PROPOSED PIPELINE AROUND EXISTING PARALLEL COMMS PIT																		
		1.4m COVER																		
		AV																		
		DN900 GRP (PN20 SN10000 RRJ)																		
		TYPE A					TYPE B					TYPE A								
							≈4m													
							R931					R-931								
							3 PIPES x 13m LENGTH					3 PIPES x 13m LENGTH								
							0.20%													
							V=0.3°					-0.40%								
DEPTH TO INVERT	2.44																			
PIPE INVERT LEVEL	68.55																			
SURFACE LEVEL	71.00																			
CHAINAGE	00921																			

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:500 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 37 OF 46
						APPROVED MARCHEL OEGEMA RPEQ 20260	1:200 1:400		DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2336 REVISION 0
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD										



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LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)

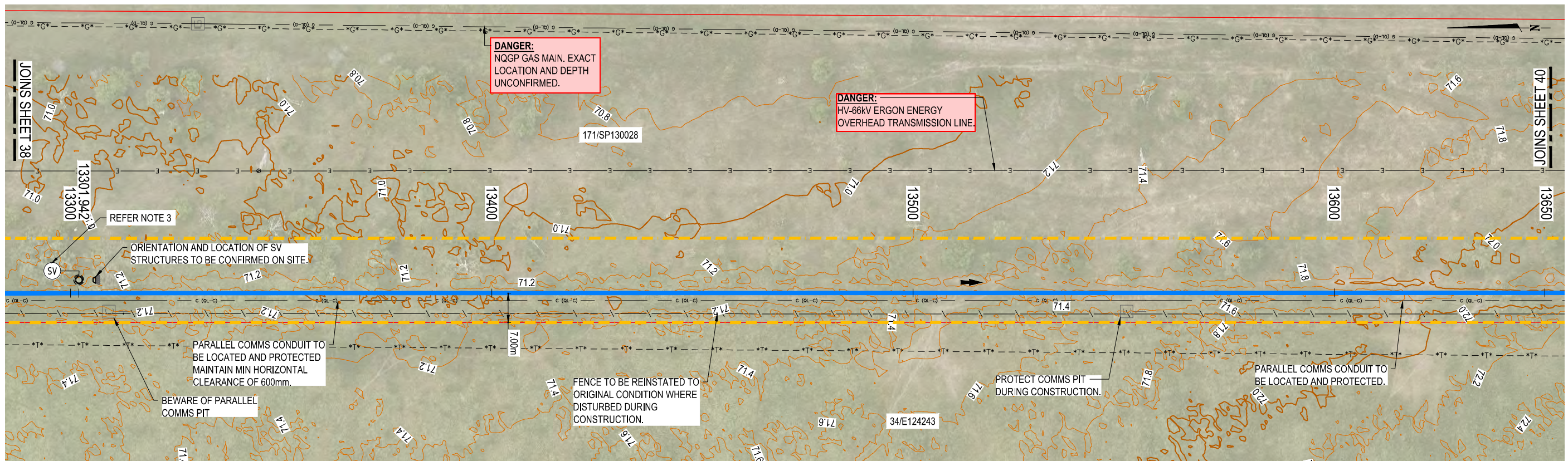
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 - PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 - DO NOT SCALE OFF DRAWINGS.

		EXISTING SURFACE		1.4m COVER	
DATUM RL 63.000					
HORIZONTAL DEFLECTION					
VERTICAL GEOMETRY					
PIPELINE GRADE					
DEPTH TO INVERT	2.50	2.64	2.91	3.23	3.47
PIPE INVERT LEVEL	68.11	68.91	68.51	68.11	67.71
SURFACE LEVEL	71.61	71.54	71.42	71.33	71.17
CHAINAGE	12821	13001	13100	13200	13300

DN900 GRP (PN20 SN10000 RRJ)
TYPE A
-0.40%

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
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REVISION 0 28.04.23 ISSUE FOR CONSTRUCTION	DRAWN JM	DESIGN MO	DRAWN CHECK Dmp	STATUS FOR CONSTRUCTION	SCALE 1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3	CLIENT TOWNSVILLE CITY COUNCIL	PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 38 OF 46	
DESIGN CHECK 				APPROVED MARCHEL OEGEMA RPEQ 20260 		PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT		DRAWING No. 2337 REVISION 0	
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD						DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.		PROJECT No. 21-000239.02	



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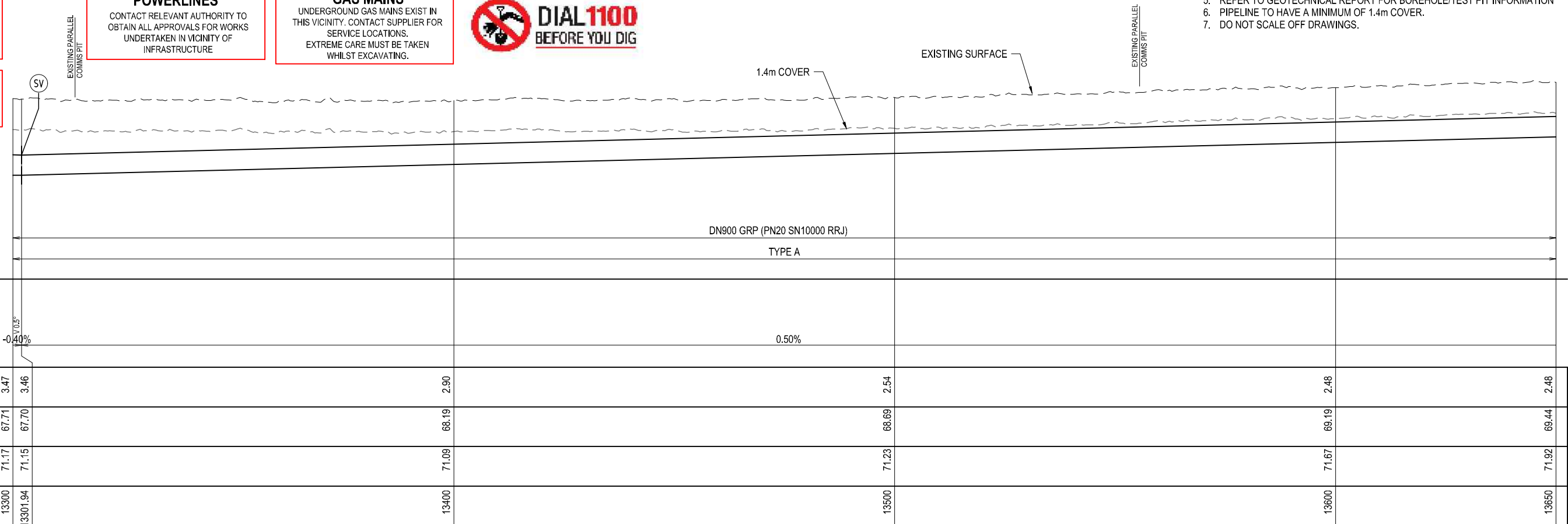
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LAYOUT PLAN
SCALE 1:500 (A1)
SCALE 1:1000 (A3)

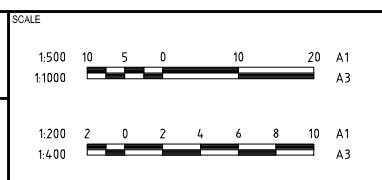
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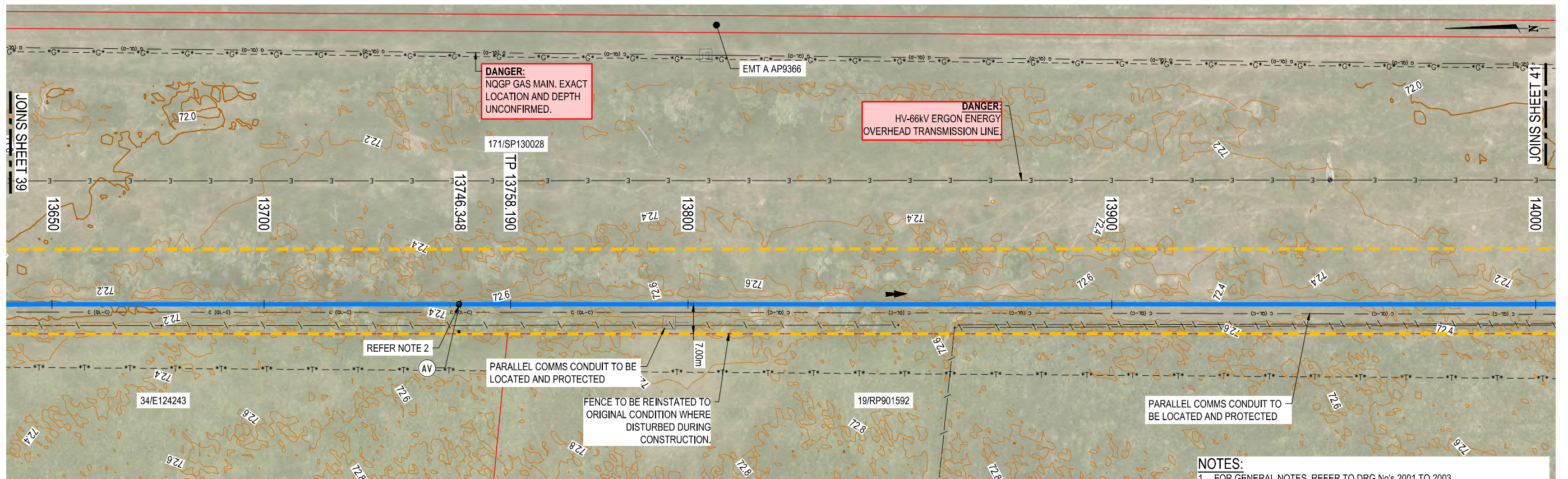
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	DMP	FOR CONSTRUCTION

APPROVED
MARCHÉL OEGEMA
RPEQ 20260
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD



PROJECT
LANSDOWN ECO - INDUSTRIAL PRECINCT
DISCLAIMER
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DRAWING TITLE		
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 39 OF 46		
PROJECT No.	DRAWING No.	REVISION
21-000239.02	2338	0



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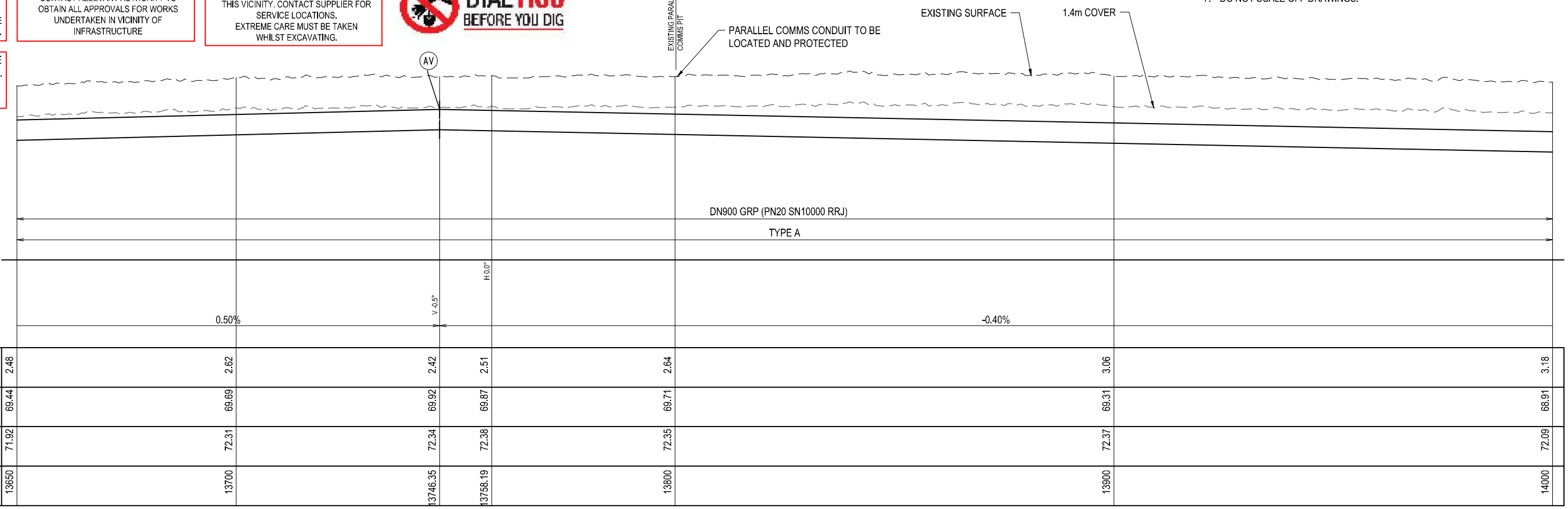
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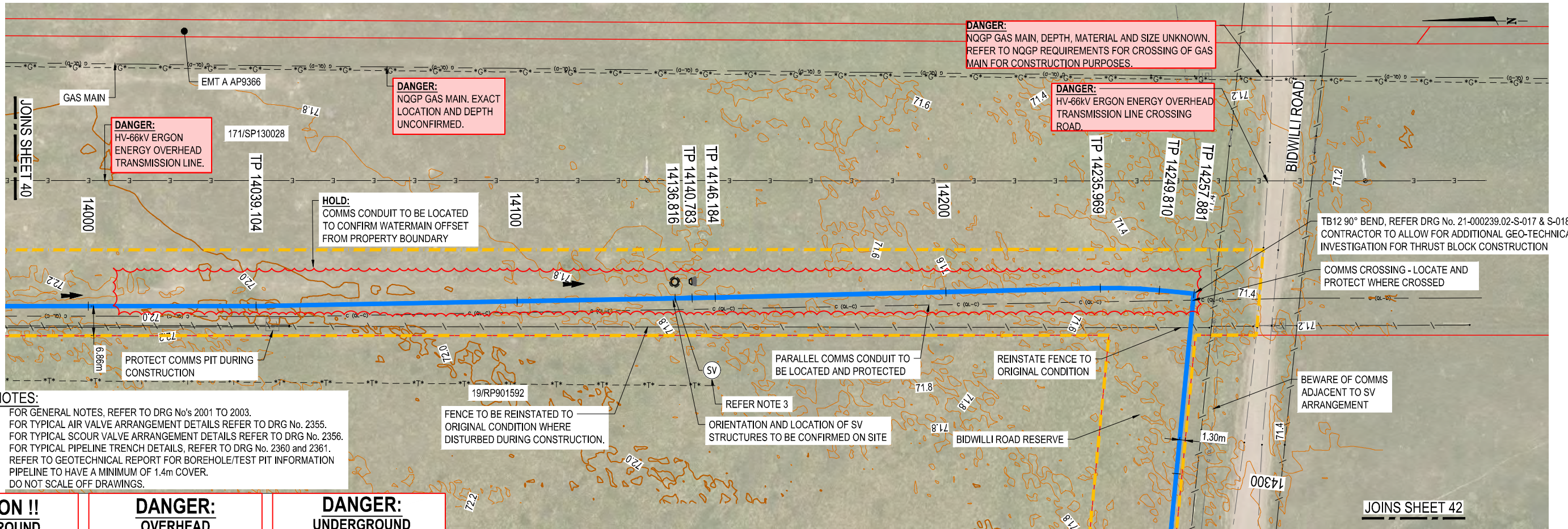


DATUM RL 64.000
 HORIZONTAL DEFLECTION
 VERTICAL GEOMETRY
 PIPELINE GRADE

DEPTH TO INVERT	2.48	2.62	2.42	2.51	2.64	3.06	3.18
PIPE INVERT LEVEL	69.44	69.69	69.92	69.87	69.71	69.31	68.91
SURFACE LEVEL	71.92	72.31	72.34	72.38	72.35	72.37	72.09
CHAINAGE	13651	13701	13746.35	13758.19	13800	13900	14000

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
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REVISION 0 DATE 28.04.23 ISSUE DETAILS ISSUE FOR CONSTRUCTION	DRAWN JM DESIGN MO	DRAWN CHECK Dmp STATUS FOR CONSTRUCTION	DESIGN CHECK APPROVED MARCHEL OEGEMA RPEQ 20260 	SCALE 1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3	CLIENT TOWNSVILLE CITY COUNCIL	PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 40 OF 46 PROJECT No. 21-000239.02 DRAWING No. 2339 REVISION 0
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DANGER: UNDERGROUND GAS MAINS
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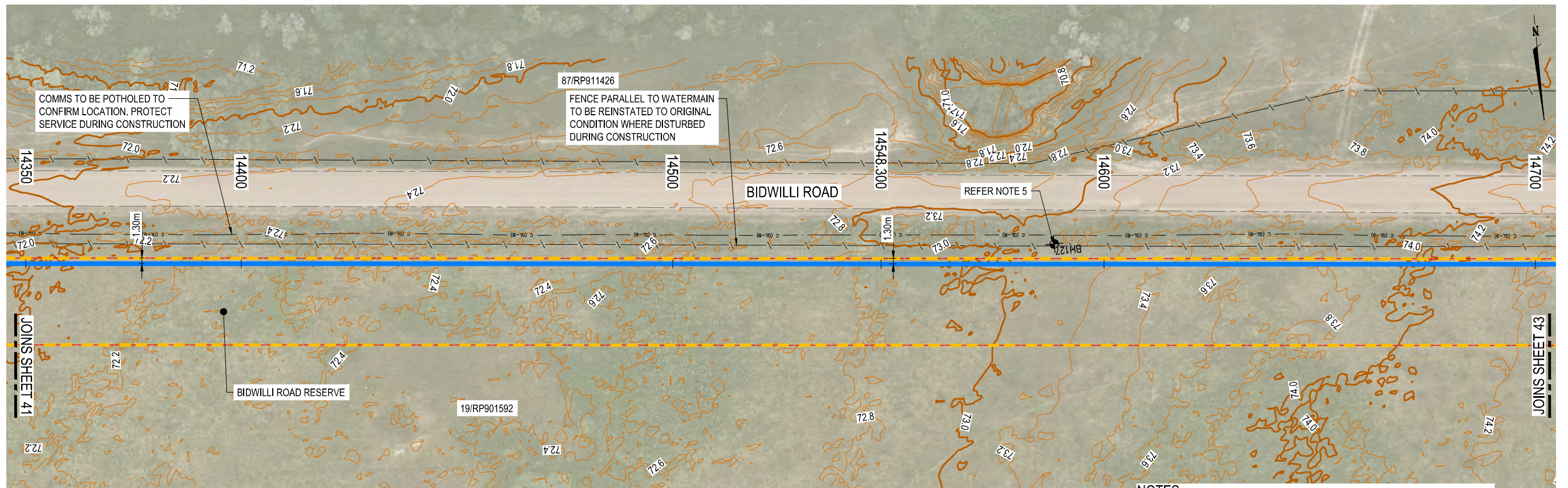
LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)

ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.

DEPTH TO INVERT	PIPE INVERT LEVEL	SURFACE LEVEL	CHAINAGE
3.18	68.91	72.09	14000
3.26	68.75	72.01	14039.1
3.27	68.51	71.78	14100
3.40	68.36	71.75	14136.82
3.30	68.37	71.68	14140.78
3.37	68.40	71.76	14146.18
2.93	68.61	71.54	14200
2.83	68.76	71.58	14235.97
2.68	68.81	71.49	14249.81
2.68	68.84	71.53	14257.88
2.57	69.01	71.58	14300
2.75	69.21	71.96	14350

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION 0 28.04.23 ISSUE FOR CONSTRUCTION	DRAWN JM	DESIGN MO	DRAWN CHECK Dmp	STATUS FOR CONSTRUCTION	SCALE 1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3	CLIENT TOWNSVILLE CITY COUNCIL	PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 41 OF 46
DESIGN CHECK APPROVED MARCHEL OEGEMA RPEQ 20260 				FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD		DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.		PROJECT No. 21-000239.02 DRAWING No. 2340 REVISION 0



LAYOUT PLAN

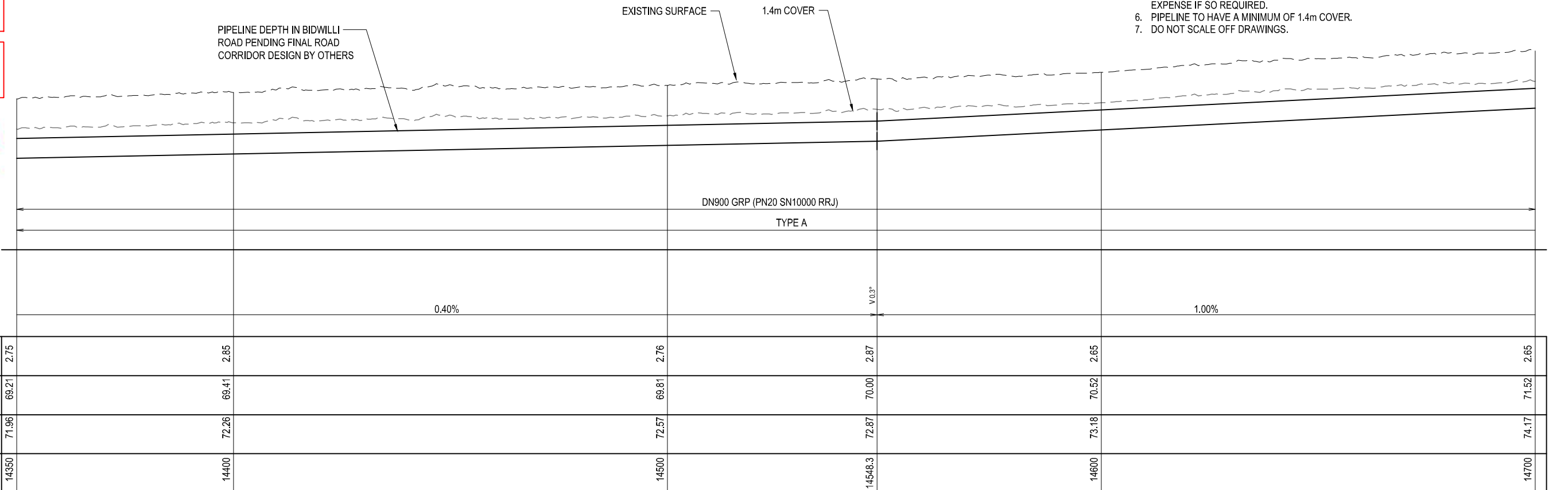
SCALE 1:500 (A1)
SCALE 1:1000 (A3)

NOTES:

1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
2. FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
3. FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
4. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
5. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
6. PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
7. DO NOT SCALE OFF DRAWINGS.

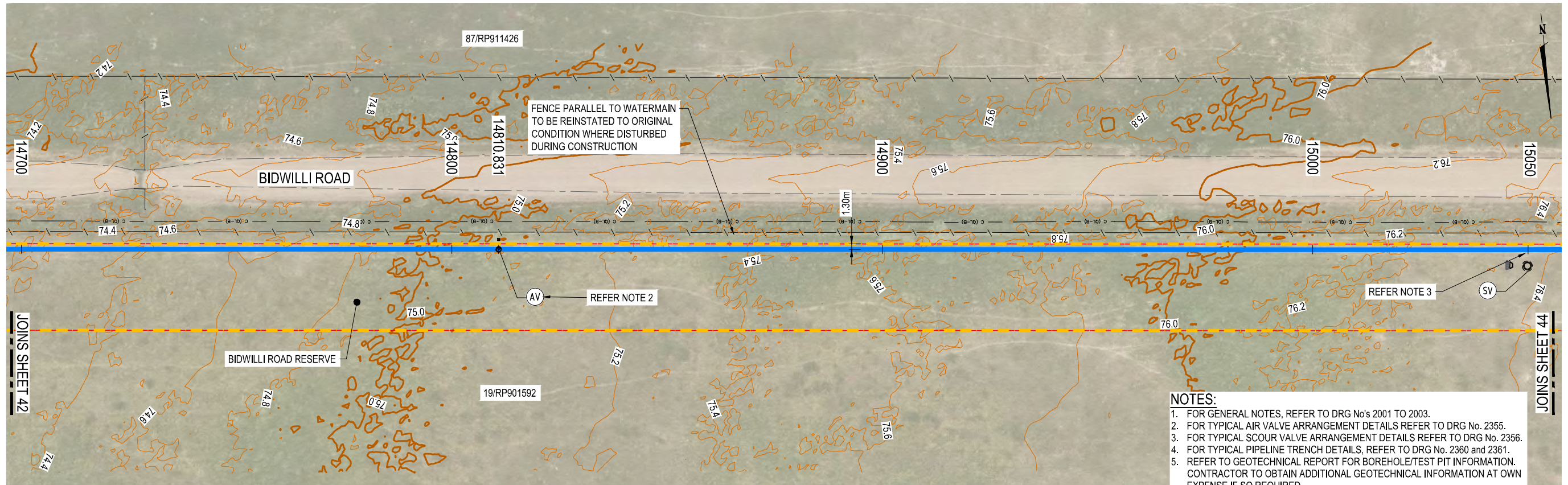
DANGER: UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.



HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	DMP	FOR CONSTRUCTION	1:500 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 42 OF 46
					DESIGN CHECK	APPROVED MARCHÉL OEGEMA RPEQ 20260	1:200 1:400		DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02
										DRAWING No. 2341
						FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD				REVISION 0



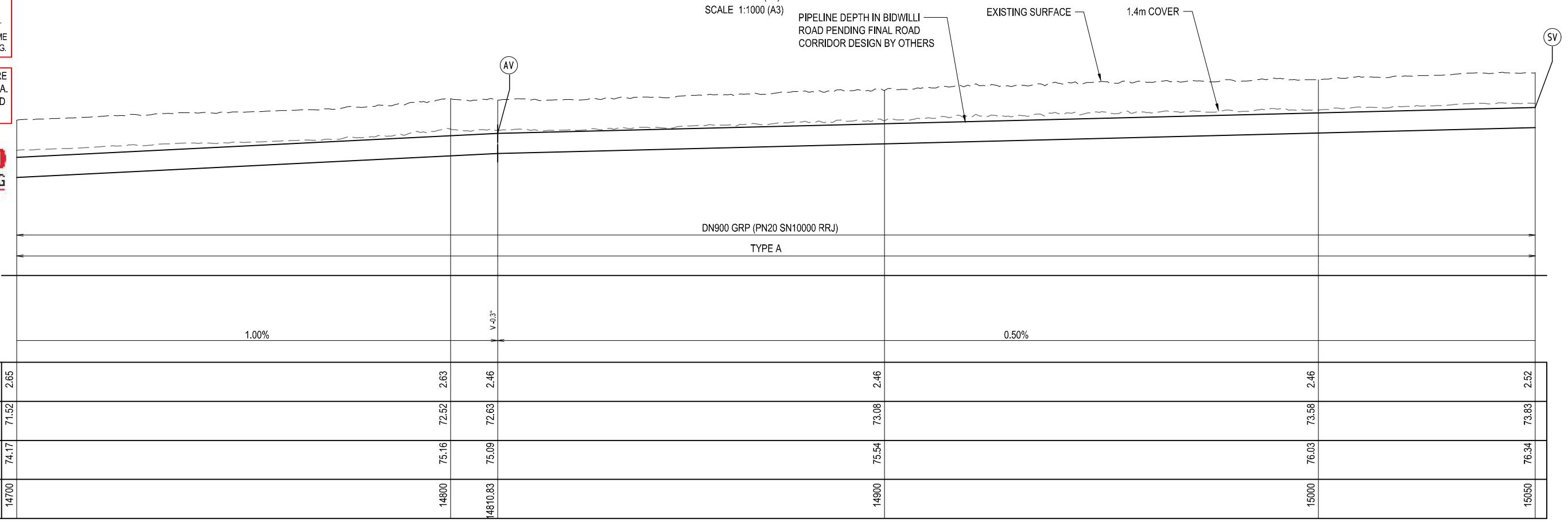
- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 - FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
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DANGER: UNDERGROUND TELECOMMS CABLES
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LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)

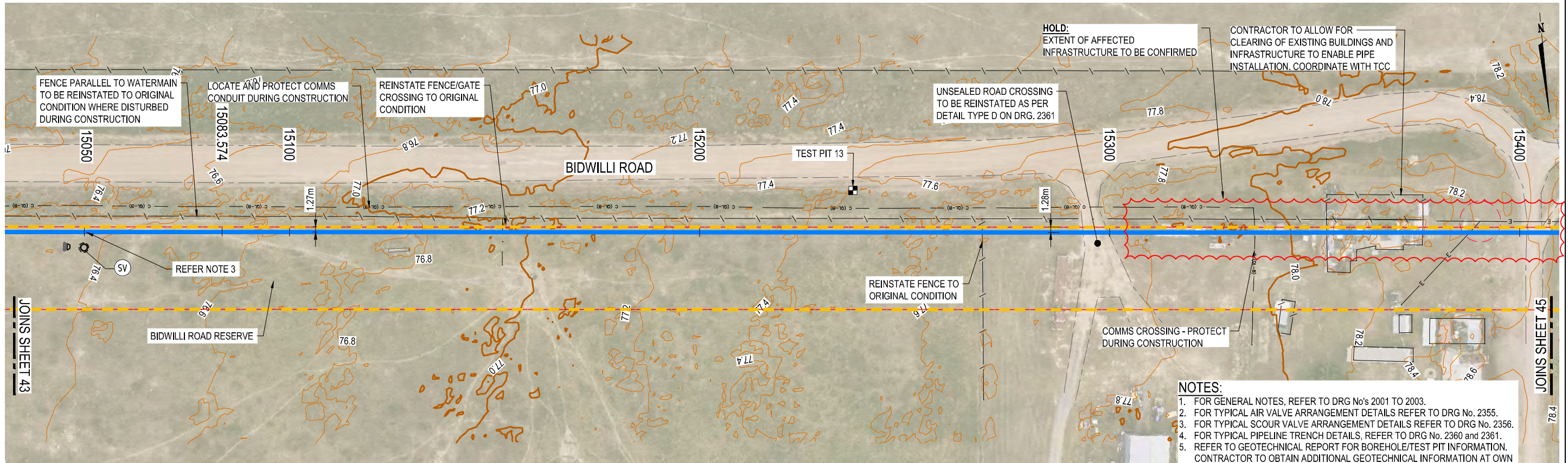


DATUM RL 67.000
 HORIZONTAL DEFLECTION
 VERTICAL GEOMETRY
 PIPELINE GRADE

DEPTH TO INVERT	2.65		2.63	2.46		2.46		2.46	2.52
PIPE INVERT LEVEL	71.52		72.52	72.63		73.08		73.58	73.83
SURFACE LEVEL	74.17		75.16	75.09		75.54		76.03	76.34
CHAINAGE	14700		14800	14810.83		14900		15000	15050

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

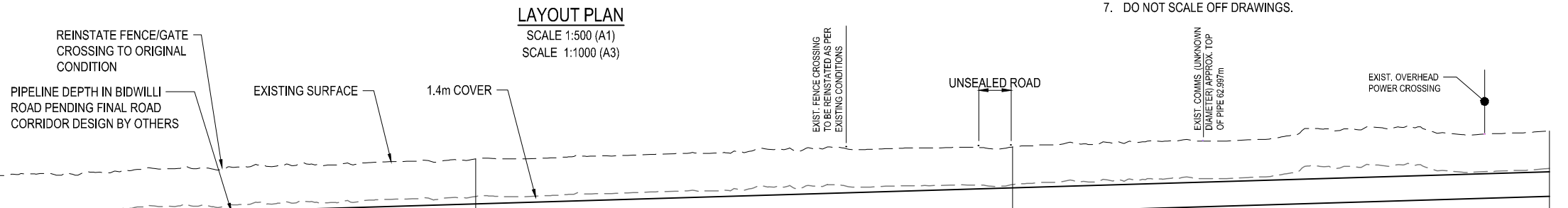
<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>ISSUE DETAILS</th> </tr> <tr> <td>0</td> <td>28.04.23</td> <td>ISSUE FOR CONSTRUCTION</td> </tr> </table>	REVISION	DATE	ISSUE DETAILS	0	28.04.23	ISSUE FOR CONSTRUCTION	<table border="1"> <tr> <th>DRAWN</th> <th>DESIGN</th> </tr> <tr> <td>JM</td> <td>MO</td> </tr> </table>	DRAWN	DESIGN	JM	MO	<table border="1"> <tr> <th>DRAWN CHECK</th> <th>STATUS</th> </tr> <tr> <td>Dmp</td> <td>FOR CONSTRUCTION</td> </tr> </table>	DRAWN CHECK	STATUS	Dmp	FOR CONSTRUCTION	<table border="1"> <tr> <th>SCALE</th> </tr> <tr> <td>1:500 10 5 0 10 20 A1 1:1000</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1 1:400</td> </tr> </table>	SCALE	1:500 10 5 0 10 20 A1 1:1000	1:200 2 0 2 4 6 8 10 A1 1:400	<table border="1"> <tr> <th>CLIENT</th> </tr> <tr> <td>TOWNSVILLE CITY COUNCIL</td> </tr> </table>	CLIENT	TOWNSVILLE CITY COUNCIL	<table border="1"> <tr> <th>PROJECT</th> </tr> <tr> <td>LANSDOWN ECO - INDUSTRIAL PRECINCT</td> </tr> </table>	PROJECT	LANSDOWN ECO - INDUSTRIAL PRECINCT	<table border="1"> <tr> <th>DRAWING TITLE</th> </tr> <tr> <td>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 43 OF 46</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 43 OF 46
REVISION	DATE	ISSUE DETAILS																											
0	28.04.23	ISSUE FOR CONSTRUCTION																											
DRAWN	DESIGN																												
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DRAWING TITLE																													
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 43 OF 46																													
<table border="1"> <tr> <th>DESIGN CHECK</th> <th>APPROVED</th> </tr> <tr> <td>MS</td> <td>MARCHEL OEGEMA RPEQ 20260</td> </tr> </table>			DESIGN CHECK	APPROVED	MS	MARCHEL OEGEMA RPEQ 20260	<table border="1"> <tr> <th>DISCLAIMER</th> </tr> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> </tr> </table>		DISCLAIMER	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	<table border="1"> <tr> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> <tr> <td>21-000239.02</td> <td>2342</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2342	0												
DESIGN CHECK	APPROVED																												
MS	MARCHEL OEGEMA RPEQ 20260																												
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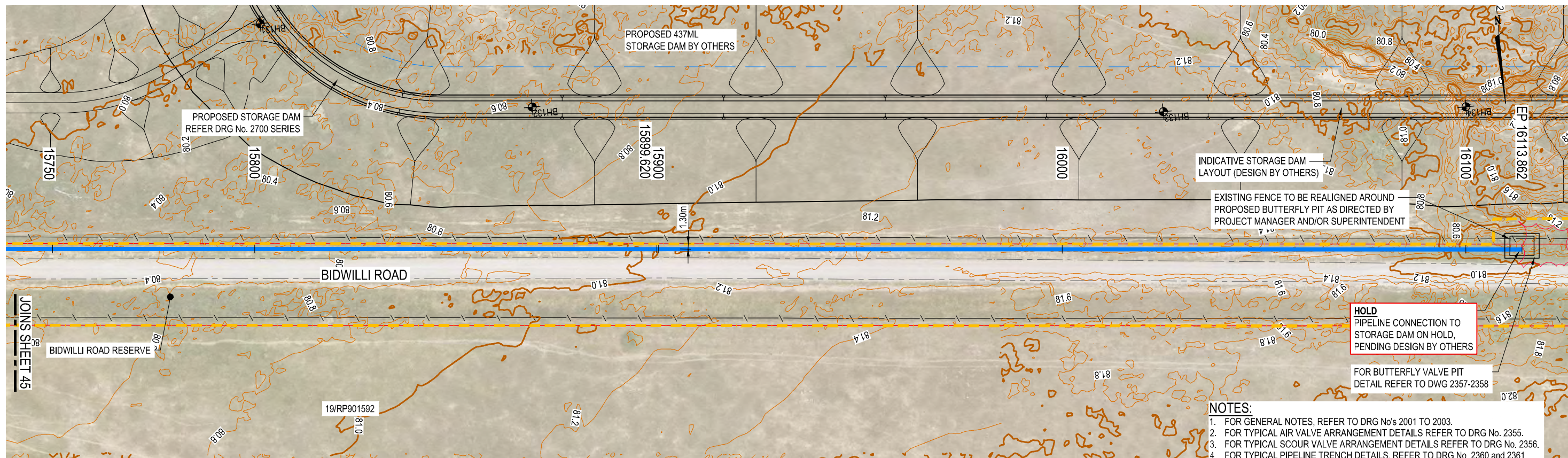
ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.



DEPTH TO INVERT	2.52	2.52	2.57	2.60	2.44	2.44
PIPE INVERT LEVEL	73.83	73.99	74.09	74.69	75.29	75.89
SURFACE LEVEL	76.34	76.51	76.62	77.29	77.74	78.33
CHAINAGE	15051	15083.57	15100	15200	15300	15400

HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION 0 DATE 28.04.23 ISSUE DETAILS ISSUE FOR CONSTRUCTION	DRAWN JM DESIGN MO	DRAWN CHECK DMP DESIGN CHECK MARCHEL OEGEMA	STATUS FOR CONSTRUCTION APPROVED MARCHEL OEGEMA RPEQ 20260	SCALE 1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3	CLIENT TOWNSVILLE CITY COUNCIL	PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 44 OF 46 PROJECT No. 21-000239.02 DRAWING No. 2343 REVISION 0
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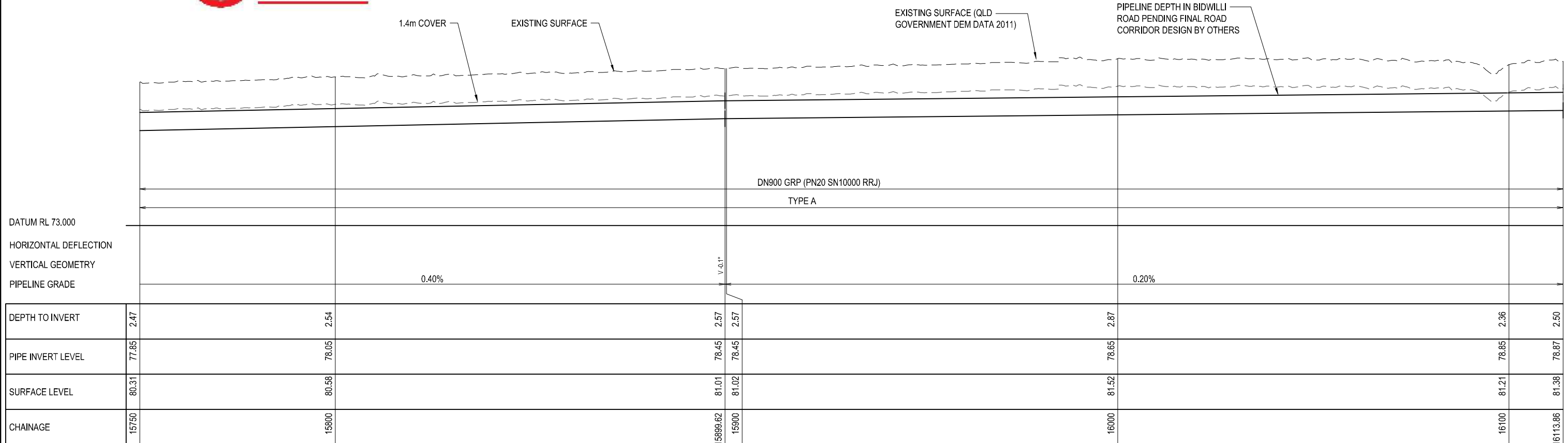


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LAYOUT PLAN
SCALE 1:500 (A1)
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HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE 1:100 (A1) 1:200 (A3)





REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:500 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 46 OF 46
					MARCHEL OEGEMA	RPEQ 20260	1:200 1:400	calibre	DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2345 REVISION 0

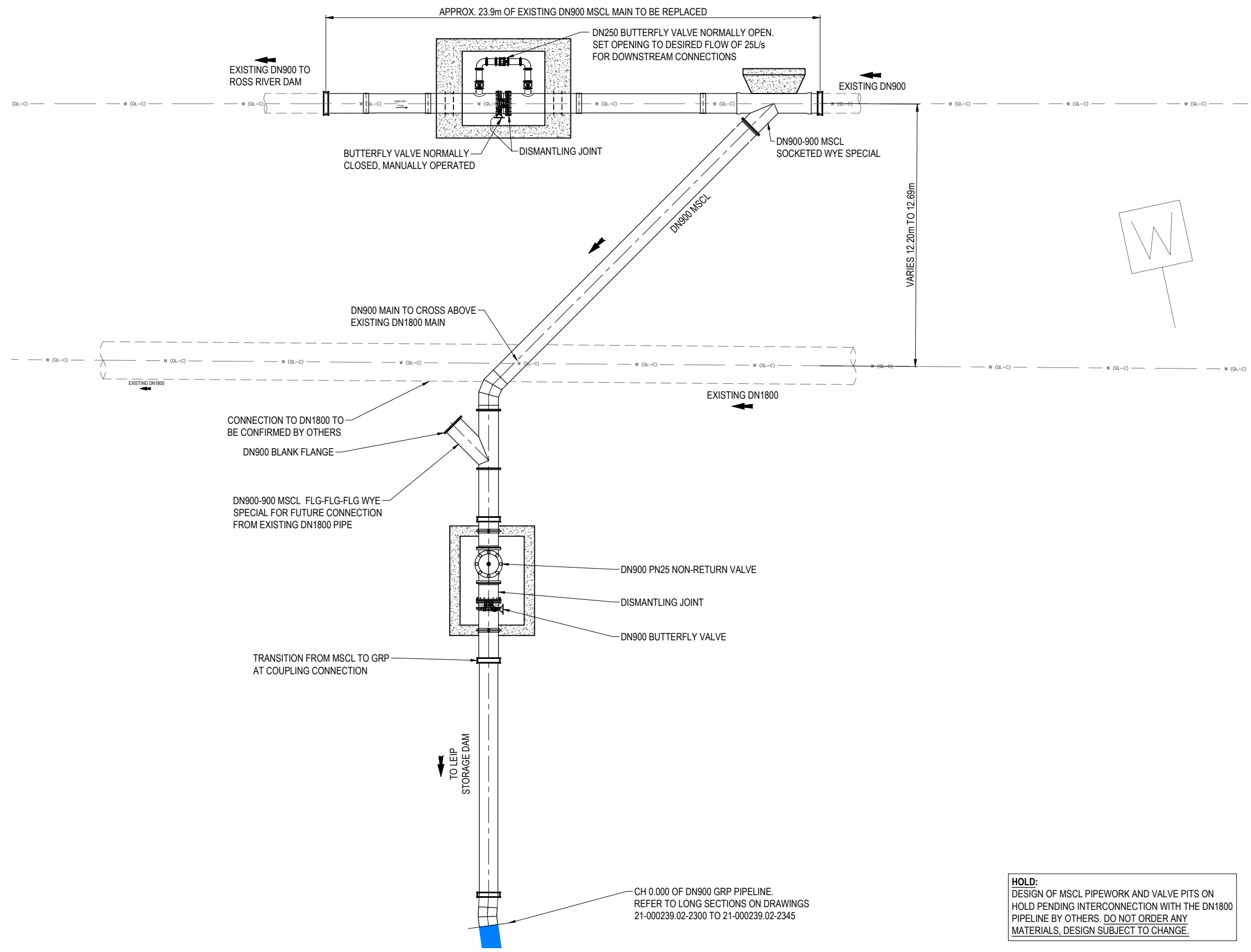
W WM01->W WM01 HORIZONTAL POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	491806.520	7833911.032	47.339	184°09'23.67"			
IP 2	29.260	491804.399	7833881.850	47.397				
TC	65.768	491767.981	7833884.413	47.470	274°01'32.55"			
IP 3	88.839	491744.950	7833886.034	47.516		R = -497.000	46.142	5°19'09.85"
CT	111.910	491721.868	7833885.512	47.563	268°42'22.71"			
TC	121.161	491712.620	7833885.303	47.581	268°42'22.71"			
IP 4	147.004	491686.760	7833884.719	47.633		R = -497.000	51.685	5°57'30.31"
CT	172.846	491661.101	7833881.454	47.684	262°44'52.40"			
TC	180.246	491653.761	7833880.520	47.699	262°44'52.40"			
IP 5	189.895	491644.166	7833879.299	47.719		R = -114.000	19.300	9°41'59.75"
CT	199.545	491634.913	7833876.479	47.738	253°02'52.65"			
TC	276.415	491561.383	7833854.066	47.892	253°02'52.65"			
IP 6	391.010	491450.282	7833820.200	48.121		R = 573.000	229.191	22°55'02.57"
CT	505.606	491334.763	7833832.271	48.297	275°57'55.23"			
IP 7	793.199	491048.727	7833862.160	46.687				
IP 8	819.314	491022.721	7833864.544	46.541				
TC	1160.717	490683.396	7833902.153	45.494	276°19'27.95"			
IP 9	1204.651	490637.431	7833907.247	45.582		R = -114.000	87.867	44°09'41.43"
CT	1248.584	490600.908	7833878.879	45.670	232°09'46.52"			
TC	2011.142	489998.672	7833411.112	44.721	232°09'46.52"			
IP 10	2030.063	489983.590	7833399.398	44.645		R = -114.000	37.844	19°01'11.97"
CT	2048.985	489973.149	7833383.407	44.570	213°08'34.55"			
IP 11	2214.507	489882.653	7833244.814	43.908				
TC	2259.113	489858.279	7833207.457	43.729	213°07'22.17"			
IP 12	2311.124	489829.812	7833163.827	43.521		R = 745.000	104.022	8°00'00.00"
CT	2363.135	489795.550	7833124.583	43.313	221°07'22.17"			
TC	2625.090	489623.268	7832927.251	42.265	221°07'22.17"			
IP 13	2632.460	489618.419	7832921.698	42.236		R = 228.000	14.740	3°42'15.00"
CT	2639.830	489613.222	7832916.469	42.206	224°49'37.17"			
TC	2641.725	489611.886	7832915.125	42.199	224°49'37.17"			
IP 14	2689.282	489576.830	7832879.857	42.009		R = 132.000	95.113	41°17'04.48"
CT	2736.838	489527.218	7832876.484	41.818	266°06'41.64"			
IP 15	2868.810	489395.550	7832867.535	41.290				
TC	2905.868	489364.591	7832847.168	41.142	236°39'34.94"			
IP 16	2926.965	489346.762	7832835.438	41.058		R = -114.000	42.194	21°12'23.32"
CT	2948.062	489334.384	7832818.054	40.973	215°27'11.62"			
IP 17	2983.102	489314.059	7832789.511	40.833				
IP 18	3154.338	489296.068	7832619.222	40.148				
TC	3379.049	489072.749	7832644.195	39.806	276°22'50.98"			
IP 19	3383.684	489068.141	7832644.711	39.820		R = 114.000	9.269	4°39'30.64"
CT	3388.318	489063.589	7832645.599	39.834	281°02'21.62"			
IP 20	3455.268	488997.879	7832658.418	40.034				
TC	3605.273	488850.793	7832687.869	39.960	281°19'21.62"			
IP 21	3611.630	488844.553	7832689.119	39.934		R = -114.000	12.714	6°23'23.48"
CT	3617.987	488838.213	7832689.666	39.909	274°55'58.14"			
IP 22	3663.392	488792.976	7832693.570	39.727				
TC	3691.126	488765.300	7832695.364	39.616	273°42'32.45"			
IP 23	3693.382	488763.048	7832695.510	39.607		R = -114.000	4.512	2°16'03.64"
CT	3695.638	488760.793	7832695.567	39.598	271°26'28.81"			
TC	3807.857	488648.610	7832698.390	39.952	271°26'28.81"			
IP 24	3810.805	488645.663	7832698.464	39.983		R = -114.000	5.895	2°57'46.64"
CT	3813.752	488642.715	7832698.386	40.014	268°28'42.17"			
TC	3859.646	488596.838	7832697.167	40.496	268°28'42.17"			
IP 25	3878.439	488578.009	7832696.667	40.693		R = 228.000	37.586	9°26'42.69"
CT	3897.232	488559.353	7832699.263	40.890	277°55'24.86"			
TC	3960.647	488496.543	7832708.005	41.245	277°55'24.86"			
IP 26	4009.935	488447.680	7832714.806	41.492		R = -931.000	98.577	6°03'59.95"
CT	4059.224	488398.371	7832716.405	41.738	271°51'24.91"			
TC	4072.348	488385.254	7832716.830	41.804	271°51'24.91"			
IP 27	4106.335	488351.269	7832717.932	41.974		R = 931.000	67.975	4°10'59.92"
CT	4140.323	488317.455	7832721.510	42.024	276°02'24.83"			
TC	4475.556	487984.084	7832756.785	41.542	276°02'24.83"			
IP 28	4515.963	487943.812	7832761.047	41.623		R = 497.000	80.815	9°18'59.99"
CT	4556.371	487904.760	7832771.771	41.704	285°21'24.82"			
TC	4725.761	487741.419	7832816.631	41.984	285°21'24.82"			
IP 29	4783.517	487685.473	7832831.996	41.752		R = -497.000	115.513	13°19'00.01"
CT	4841.273	487627.492	7832834.061	41.818	272°02'24.81"			
TC	5366.766	487102.333	7832852.769	44.216	272°02'24.81"			
IP 30	5399.668	487069.437	7832853.941	44.347		R = 931.000	65.805	4°02'59.24"
CT	5432.571	487036.707	7832857.433	44.417	276°05'24.04"			
TC	5626.489	486843.883	7832878.006	44.804	276°05'24.04"			
IP 31	5722.128	486748.448	7832888.189	44.995		R = -931.000	191.278	11°46'17.91"
CT	5817.767	486652.942	7832878.687	45.356	264°19'06.14"			
IP 32	6606.221	485868.362	7832800.629	49.379				
TC	7660.555	484899.682	7833216.897	52.815	293°15'16.15"			
IP 33	7723.609	484841.661	7833241.830	52.941		R = -931.000	126.108	7°45'39.51"
CT	7786.663	484780.805	7833258.699	53.067	285°29'36.64"			
TC	7942.153	484630.966	7833300.235	53.458	285°29'36.64"			
IP 34	7962.387	484611.465	7833305.641	53.539		R = -931.000	40.468	2°29'25.72"
CT	7982.620	484591.746	7833310.194	53.620	283°00'10.92"			

W WM01->W WM01 HORIZONTAL POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
TC	8111.193	484466.471	7833339.124	54.134	283°00'10.92"			
IP 35	8128.624	484449.484	7833343.046	54.204		R = 931.000	34.862	2°08'43.80"
CT	8146.055	484432.657	7833347.602	54.274	285°08'54.72"			
TC	8191.008	484389.266	7833359.349	54.453	285°08'54.72"			
IP 36	8208.574	484372.309	7833363.940	54.524		R = 931.000	35.131	2°09'43.34"
CT	8226.139	484355.537	7833369.167	54.594	287°18'38.05"			
TC	8359.352	484228.358	7833408.805	55.127	287°18'38.05"			
IP 37	8373.772	484214.590	7833413.096	55.185		R = -931.000	28.840	1°46'29.62"
CT	8388.192	484200.696	7833416.958	55.242	285°32'08.43"			
IP 38	8503.699	484089.409	7833447.895	55.704				
IP 39	8529.048	484064.857	7833454.614	55.587		R = -228.000	50.699	12°44'25.76"
CT	8554.398	484039.429	7833455.753	55.359	272°33'50.39"			
TC	8880.386	483713.766	7833470.336	55.503	272°33'50.39"			
IP 40	8897.822	483696.314	7833471.117	55.328		R = 228.000	34.871	8°45'46.78"
CT	8915.257	483679.185	7833474.549	55.154	281°19'37.17"			
IP 41	9476.725	483128.653	7833584.825	59.197				
IP 42	9496.725	483132.581	7833604.436	59.093				
IP 43	9597.229	483034.036	7833624.176	58.570				
TC	9604.705	483032.046	7833616.969	58.531	195°26'04.77"			
IP 44	9636.851	483023.485	7833585.962	58.584		R = 745.000	64.292	4°56'40.31"
CT	9668.998	483012.284	7833555.810	58.648	200°22'45.08"			
IP 45	9795.791	482968.130	7833436.953	58.901				
IP 46	9798.791	482966.659	7833434.339	58.907				
TC	9822.124	482946.297	7833445.733	58.953	299°13'55.14"			
IP 47	9880.541	482894.184	7833474.896	59.070		R = -229.000	116.835	29°13'55.21"
CT	9938.958	482834.466	7833474.896	59.187	269°59'59.93"			
IP 48	9991.764	482781.660	7833474.896	59.292				
TC	10029.231	482781.554	7833437.429	59.580	180°09'46.32"			
IP 49	10040.256	482781.522	7833426.369	59.801		R = 114.000	22.051	11°04'58.11"
CC	10051.282	482779.365	7833415.522	60.021	191°14'44.44"			
IP 50	10062.475	482777.175	7833404.508	60.245		R = -114.000	22.386	11°15'03.68"
IP 51	10073.668	482777.176	7833393.279	60.469				
IP 52	10123.162	482777.069	7833343.785	60.968				
IP 53	10138.291	482776.686	7833328.572	61.044		R = -114.000	30.257	15°12'25.71"
CC	10153.419	482780.307	7833313.791	61.119	166°14'09.83"			
IP 54	10167.082	482783.573	7833300.457	61.188		R = 114.000	27.325	13°44'00.75"
CT	10180.745	482783.580	7833286.728	61.256	179°58'10.58"			
IP 55	10189.432	482783.585	7833278.041	61.299				
IP 56	10491.032	482783.745	7832976.441	60.294				
TC	12021.187	482785.390	7831446.287	64.605	179°56'18.32"			
IP 57	12094.242	482785.471	7831370.648	65.340		R = 229.000	146.111	36°33'24.90"
IP 58	12167.298	482740.484	7831309.841	65.720				
IP 59	12167.299	482740.483	7831309.841					

TRANSFER MAIN BEND LOCATIONS							
CHAINAGE (m)	PN20 SN10000 GRP RRJ (m)			PN20 SN20000 GRP RRJ (m)		SETOUT COORDINATES	
	9° BEND	30° BEND	90° BEND	30° BEND	90° BEND	EASTING	NORTHING
29.26					1	491804.399	7833881.850
2868.81				1		489395.550	7832867.535
2983.10				1		489314.059	7832789.511
3154.34					1	489296.068	7832619.222
6606.22		1				485868.362	7832800.629
9476.725			1			483128.653	7833584.825
9795.791	1					482968.130	7833436.953
9798.791			1			482966.659	7833434.339
14257.881			1			482698.952	7829229.040

TRANSFER MAIN BEND LOCATIONS			
CHAINAGE (m)	MSCL PIPEWORK	SETOUT COORDINATES	
	90° BEND	EASTING	NORTHING
9496.725	1	483132.581	7833604.436
9597.229	1	483034.036	7833624.176
9991.764	1	482781.660	7833474.896

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION		 TOWNSVILLE CITY COUNCIL	 LANSDOWN ECO - INDUSTRIAL PRECINCT	TRANSFER MAIN BEND LOCATIONS PROJECT No. 21-000239.02 DRAWING No. 2348 REVISION 0
					 DESIGN CHECK APPROVED MARCHEL OEGEMA RPEQ 20260  FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD			<small>DISCLAIMER</small> ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.		

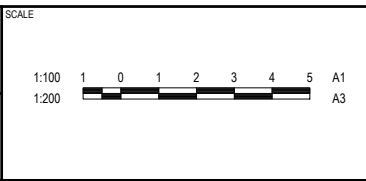


HOLD:
 DESIGN OF MSCL PIPEWORK AND VALVE PITS ON
 HOLD PENDING INTERCONNECTION WITH THE DN1800
 PIPELINE BY OTHERS. DO NOT ORDER ANY
 MATERIALS. DESIGN SUBJECT TO CHANGE.

PLAN
 SCALE 1:100(A1)
 SCALE 1:200(A3)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS
A	22.04.22	CONCEPT DESIGN	JW	MO		FOR INFORMATION ONLY NOT FOR CONSTRUCTION
B	26.10.22	70% DESIGN	VVB	MO		
C	30.01.23	ISSUED FOR TENDER	JM	MO		
D	21.04.23	FINAL IFT	JM	MO	DESIGN CHECK	
E	28.04.23	ISSUE FOR INFORMATION	JM	MO		

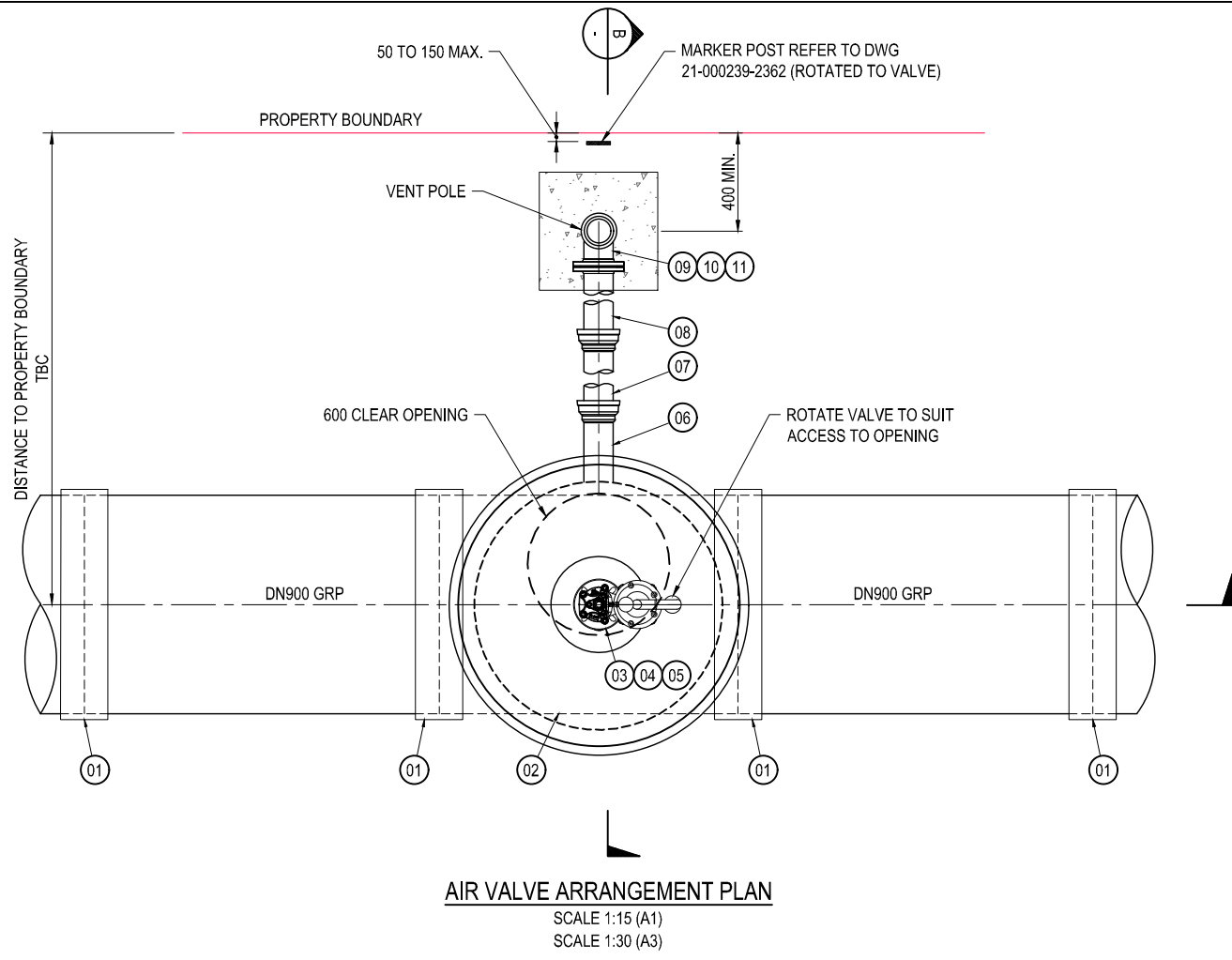
**FOR INFORMATION ONLY
NOT FOR CONSTRUCTION**



**LANSDOWN
 ECO - INDUSTRIAL
 PRECINCT**

DISCLAIMER
 ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO
 CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.

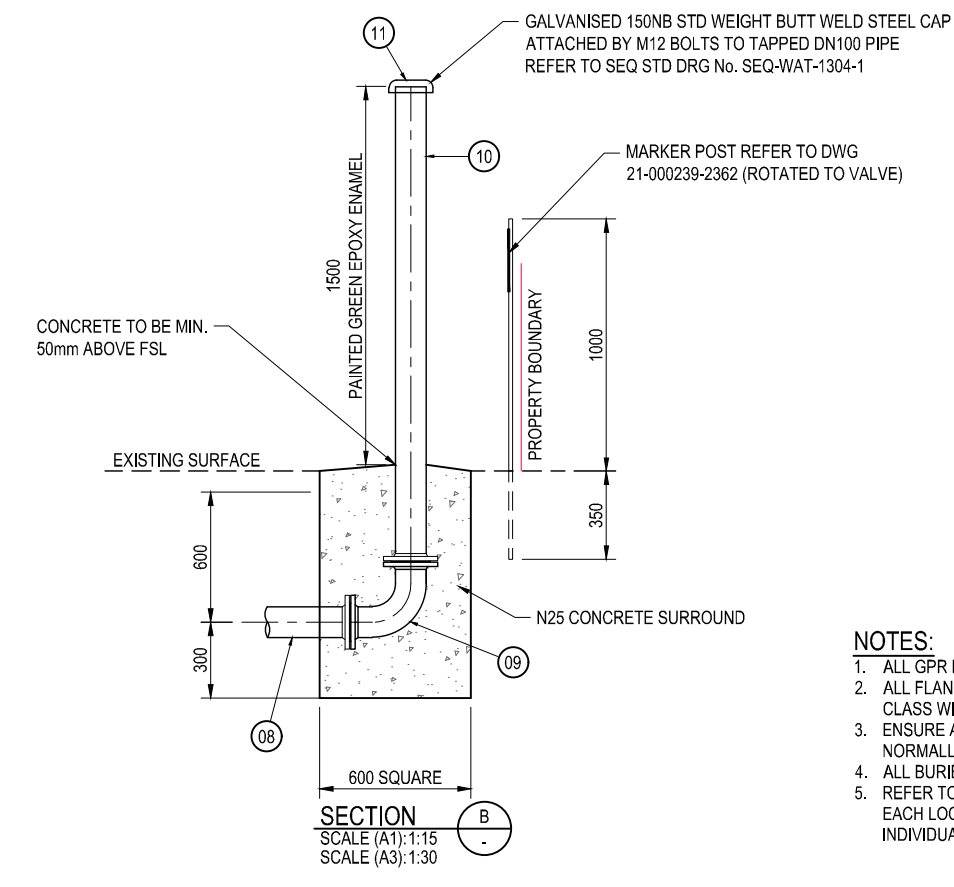
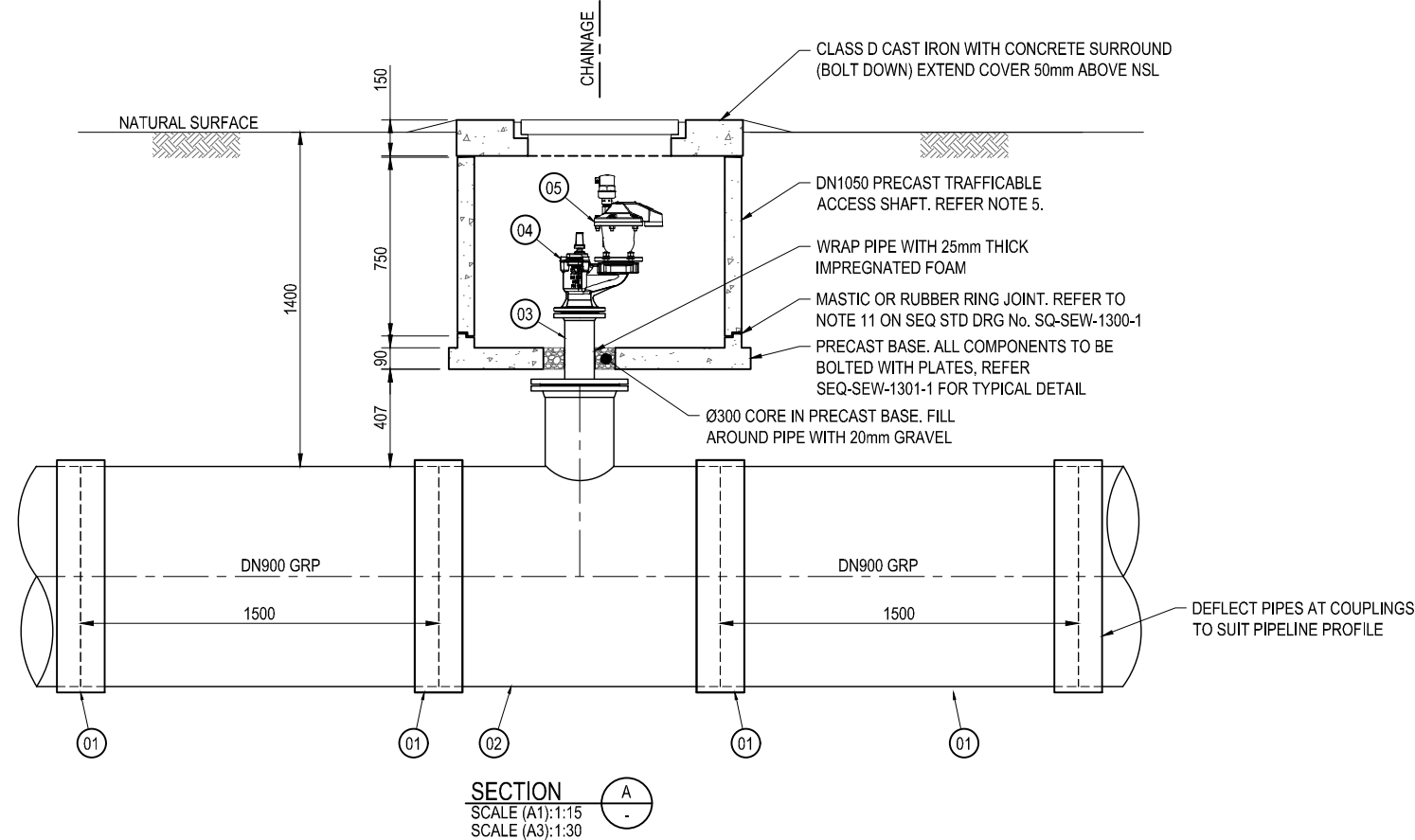
DRAWING TITLE		
HAUGHTON DN900 PIPELINE CONNECTION DETAIL		
PROJECT No.	DRAWING No.	REVISION
21-000239.02	2350	E



PIPE AND FITTINGS SCHEDULE				
ITEM No.	SIZE	MATERIAL	DESCRIPTION	QTY
01	DN900	GRP	PRESSURE COUPLING	2
02	DN900x300	GRP	SP-FL TEE	1
03	DN100	DI FBE	FL-FL PIPE (LENGTH 300mm) c/w DN250 FLANGE ON ONE END	1
04	DN100	DI FBE	AVK SERIES 29/00 VALVE OR PENTAIR HYDRANT AND AIR VALVE ISOLATOR (OR APPROVED EQUIVALENT). REFER NOTE 3	1
05	DN100	DI FBE	ARI D-052 COMBINATION AIR VALVE OR APPROVED EQUIVALENT	1
06	DN100	DI FBE	FL-SOC PIPE (LENGTH 300mm)	1
07	DN100	DI FBE	FL-SOC PIPE (LENGTH 600mm)	1
08	DN100	DI FBE	FL-SP PIPE (LENGTH VARIES)	1
09	DN100	DI FBE	FL-FL 90° BEND	1
10	DN100	DI FBE	FL-SP PIPE (LENGTH 1900mm)	1
11	DN150	GALV. STEEL	BUTT WELD STEEL CAP	1

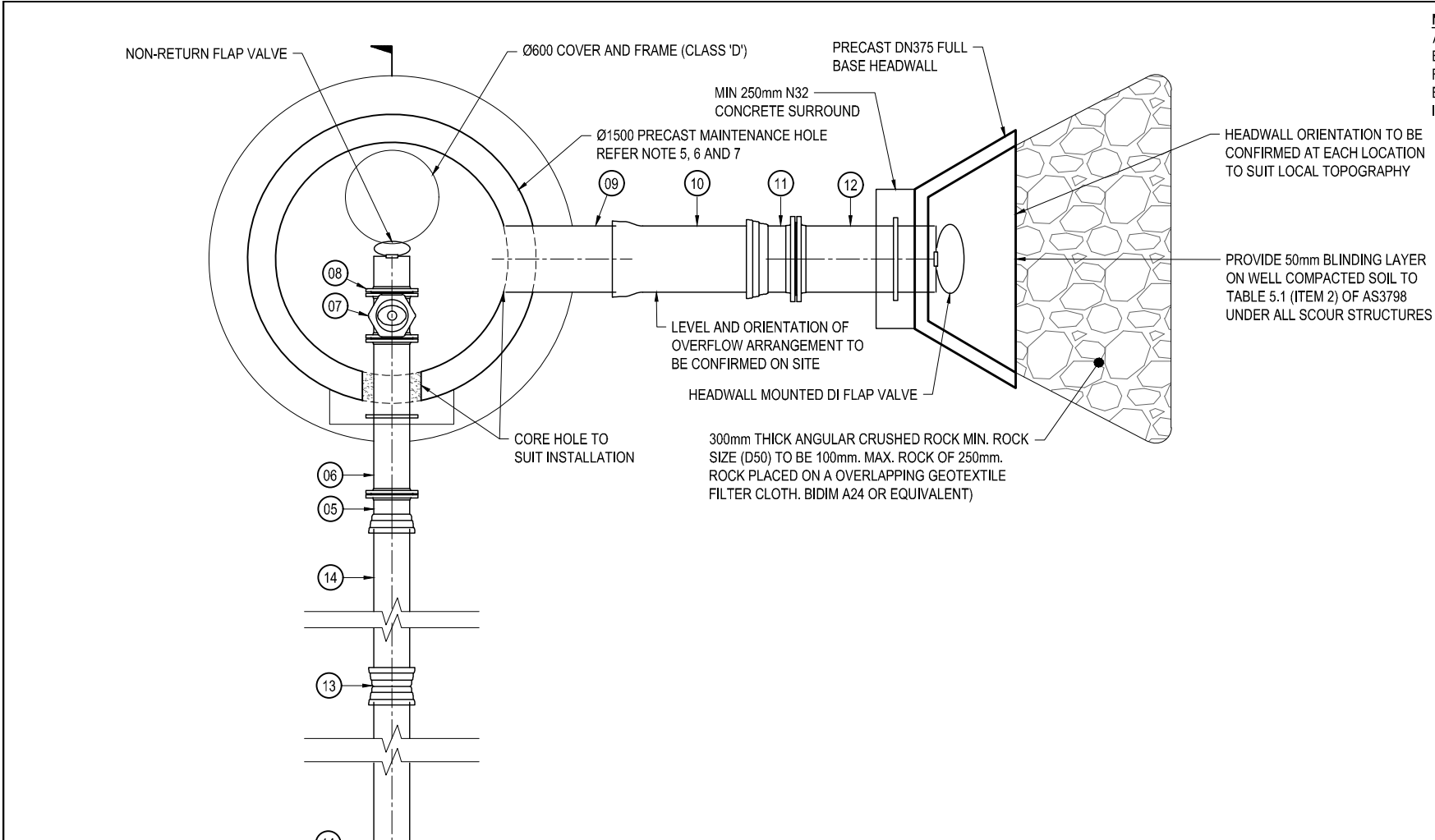
AIR VALVE SETOUT TABLE			
AIR VALVE No.	CHAINAGE	EASTING	NORTHING
AV1	498.59	491341.746	7833831.585
AV2	1433.016	490455.251	7833765.745
AV3	1791.39	490172.223	7833545.912
AV4	2639.83	489613.222	7832916.469
AV5	3530.394	488924.214	7832673.168
AV6	4127.08	488331.048	7832721.761
AV7	4715.953	487750.877	7832814.034
AV8	5600.00	486870.222	7832875.196
AV9	5960.98	486510.434	7832864.509
AV10	7046.77	485463.607	7832974.563
AV11	7786.66	484780.805	7833258.699
AV12	8512.229	484081.141	7833449.993
AV13	8775.30	483818.743	7833465.635
AV14	9460.00	483145.053	7833581.540
AV15	10298.482	482783.643	7833168.991
AV16	11100.00	482784.400	7832367.473
AV17	11666.571	482785.009	7831800.902
AV18	12253.428	482703.325	7831232.702
AV19	12925.261	482694.927	7830561.557

AIR VALVE SETOUT TABLE			
AIR VALVE No.	CHAINAGE	EASTING	NORTHING
AV20	13746.348	482695.664	7829740.470
AV21	14810.831	482148.562	7829282.194
AV22	15500	481462.585	7829348.441

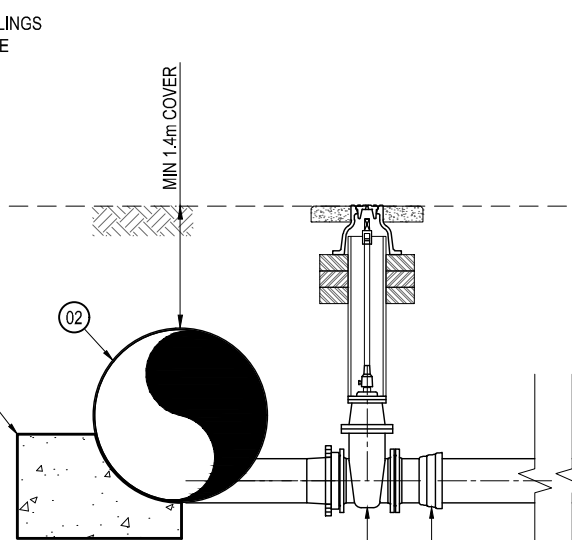
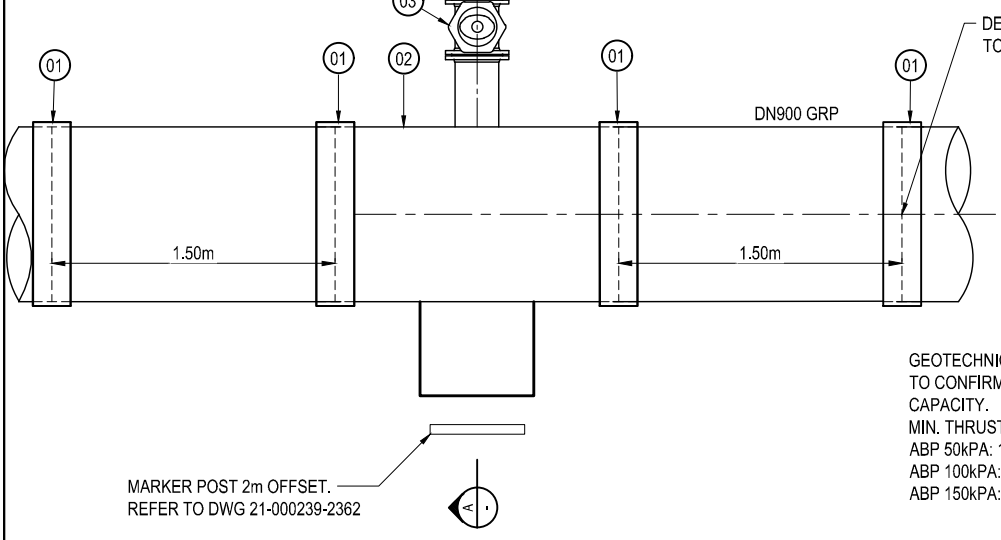


- NOTES:**
1. ALL GRP PIPES AND FITTINGS TO BE PN20 RATED.
 2. ALL FLANGED DI PIPEWORK TO BE FLANGE CLASS WITH PN35 FLANGES TO AS4087 FIG B6.
 3. ENSURE ALL AIR VALVE ISOLATORS ARE NORMALLY OPEN.
 4. ALL BURIED DI PIPEWORK TO BE PE SLEEVED. REFER TO LONGSECTIONS FOR PIPE DEPTH AT EACH LOCATION. PIT SHAFT LENGTHS TO SUIT INDIVIDUAL INSTALLATIONS

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:15 1:30	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	AIR VALVE ARRANGEMENT DETAILS
					DESIGN CHECK	APPROVED				
					Marchel OEGEMA	RPEQ 20260				
					FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD					
								 calbregroup.com	DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	
								PROJECT No.	DRAWING No.	REVISION
								21-000239.02	2355	0



SCOUR VALVE ARRANGEMENT PLAN
SCALE 1:20 (A1)
SCALE 1:40 (A3)

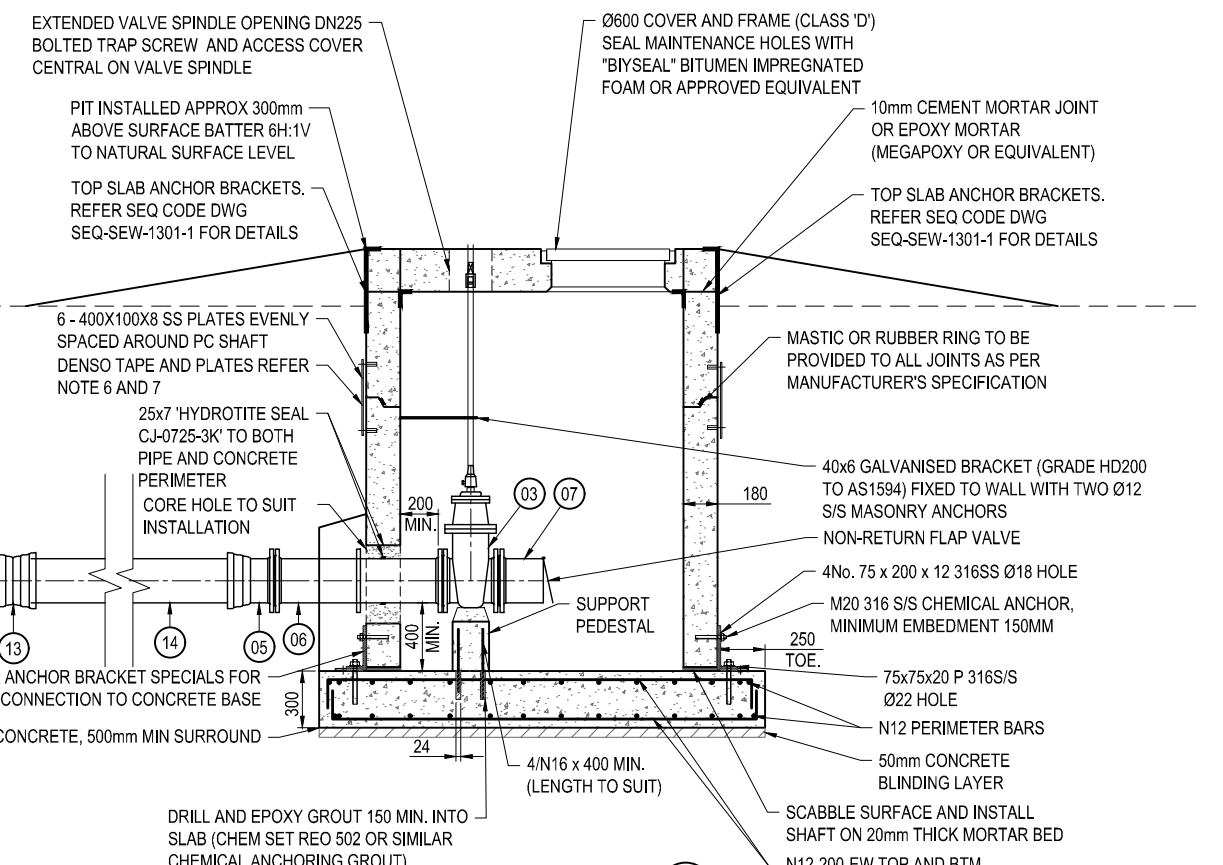


NOTE:
ALLOW FOR 5 x 45 DEGREE DN200 DI BEND WHERE DEFLECTIONS ARE REQUIRED. ADD THRUST BLOCKS BEHIND DI BENDS WHERE INSTALLED

PIPE AND FITTINGS SCHEDULE				
ITEM No.	SIZE	MATERIAL	DESCRIPTION	QTY
01	DN900	GRP	PRESSURE COUPLING PRINCIPAL SUPPLIED	4
02	DN900x200	GRP	SCOUR TEE SP-FL PRINCIPAL SUPPLIED	1
03	DN200	DI FBE	FL-FL SLUICE VALVE c/w EXTENSION SPINDLE AND VALVE BOX, REFER SD-350 AND SD-355	1
04	DN200	DI FBE	FL-SP PIPE CONNECTOR	1
05	DN200	DI FBE	FL-SOC CONNECTOR	2
06	DN200	DI FBE	FL-FL PIPE (LENGTH 1000mm WITH THRUST FLANGE CENTRALLY)	1
07	DN200	DI FBE	FL-FL SLUICE VALVE c/w EXTENSION SPINDLE	1
08	DN200	DI FBE	FL-SP PIPE (LENGTH 250mm) c/w DI BOLT DOWN FLAP VALVE	1
09	DN375	DI FBE	SP-SP PIPE (LENGTH 900mm)	1
10	DN375	DI FBE	SOC-SP PIPE (SEE NOMINAL LENGTH IN SETOUT TABLE BELOW)	1
11	DN375	DI FBE	FL-SOC CONNECTOR	1
12	DN375	DI FBE	FL-SP PIPE (LENGTH 900mm) c/w BOLT DOWN FLAP VALVE	1
13	DN200	DI FBE	SOC-SOC CONNECTOR	1
14	DN200	DI FBE	SP-SP ROCKER PIPE	2

SCOUR VALVE SETOUT TABLE

SCOUR VALVE No.	CHAINAGE	EASTING	NORTHING	NATURAL SURFACE LEVEL	PIPE IL	FLOOR RL	NOMINAL LENGTH TO OUTLET HEADWALL
SV1	1047.054	490796.367	7833889.632	48.24	45.267	44.867	2.70
SV2	1625.452	490303.274	7833647.702	48.004	45.268	44.868	2.70
SV3	3379.510	489072.289	7832644.247	43.424	39.248	38.848	2.70
SV4	3770.000	488686.455	7832697.438	43.351	39.555	39.155	4.40
SV5	4332.431	488126.414	7832741.725	43.969	41.256	40.856	17.70
SV6	4800.000	487668.631	7832830.882	45.266	41.687	41.287	9.00
SV7	6060.235	486411.665	7832854.682	48.521	43.666	43.266	14.40
SV8	7300.000	485230.945	7833074.544	54.779	52.096	51.696	2.30
SV9	8585.000	484008.857	7833457.122	58.346	55.084	54.684	9.20
SV10	8960.000	483635.314	7833483.336	58.539	54.707	54.307	3.00
SV11	9606.338	483031.610	7833615.395	61.024	58.523	58.123	2.25
SV12	10570.000	482783.830	7832897.473	63.237	60.305	59.905	2.80
SV13	12005.751	482785.373	7831461.711	67.435	64.404	64.004	2.50
SV14	12346.258	482695.607	7831140.546	68.252	64.107	63.707	9.72
SV15	13301.942	482695.265	7830184.876	71.155	67.698	67.298	2.70
SV16	14136.816	482697.785	7829350.001	71.755	68.359	67.959	2.70
SV17	15050.000	481910.501	7829305.184	76.341	73.826	73.426	2.70



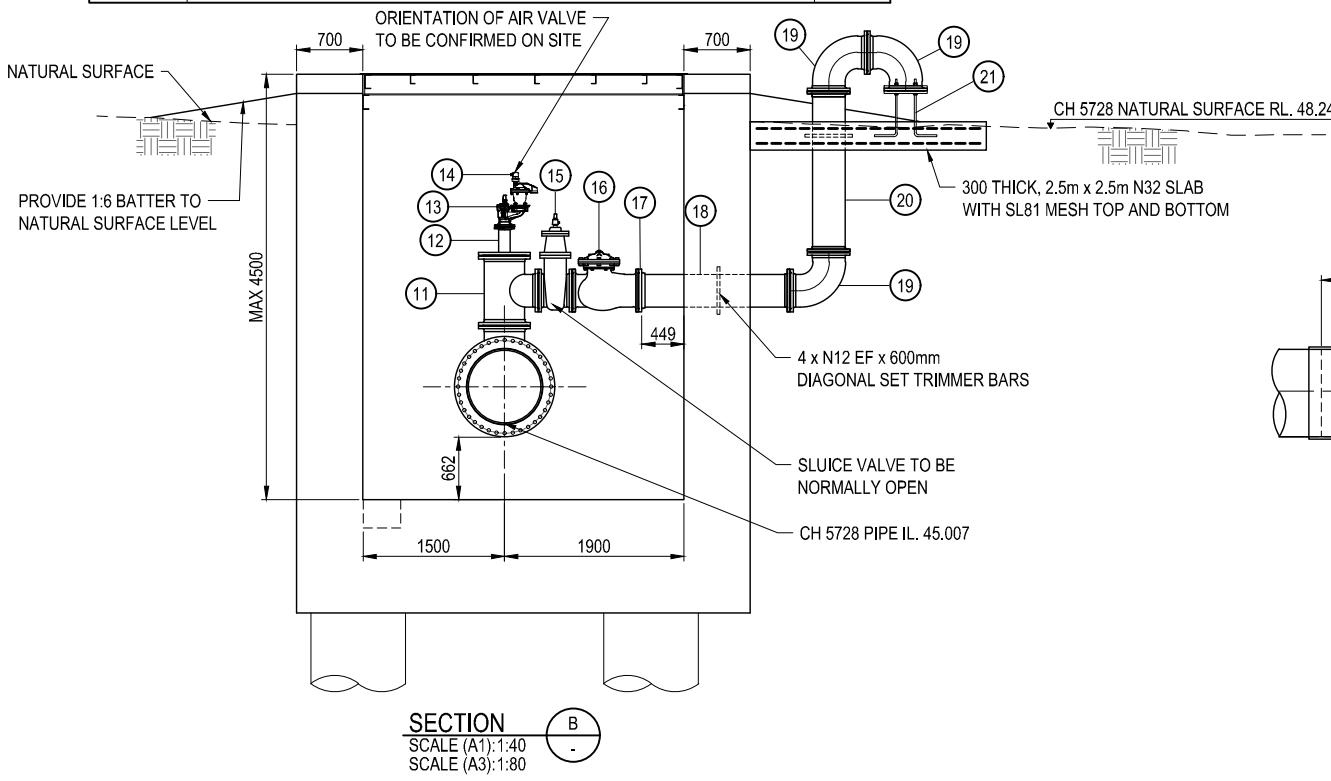
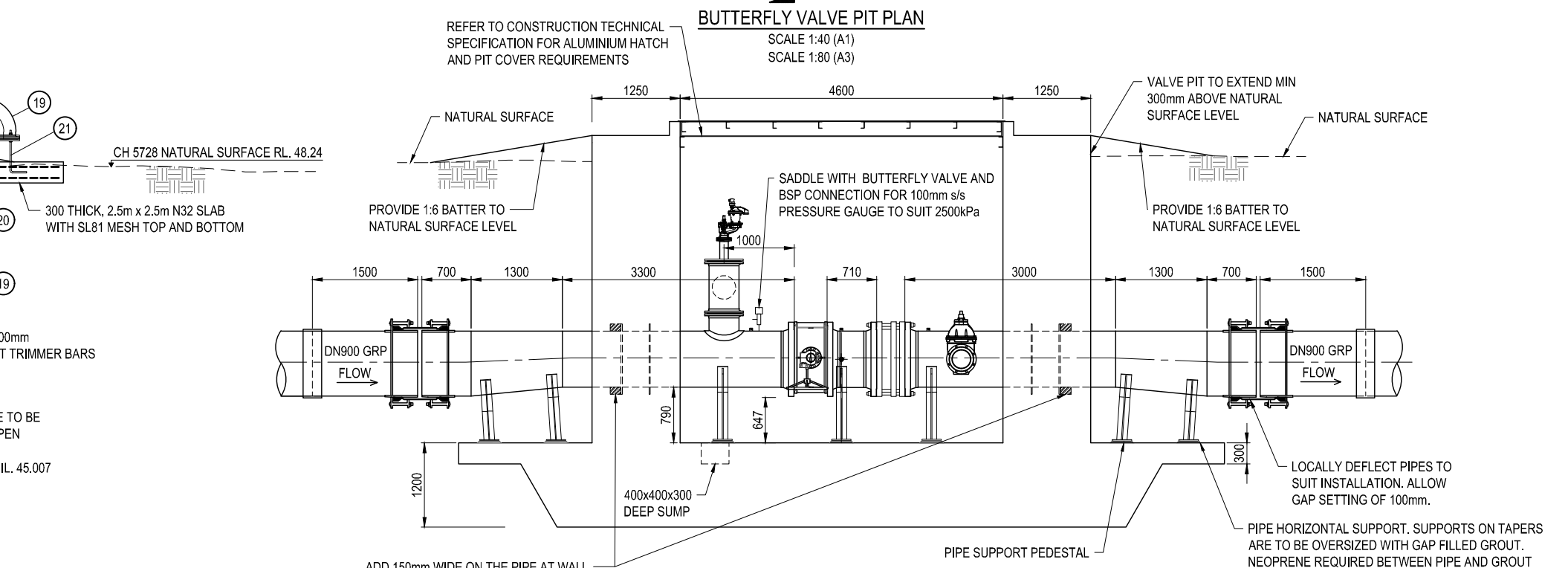
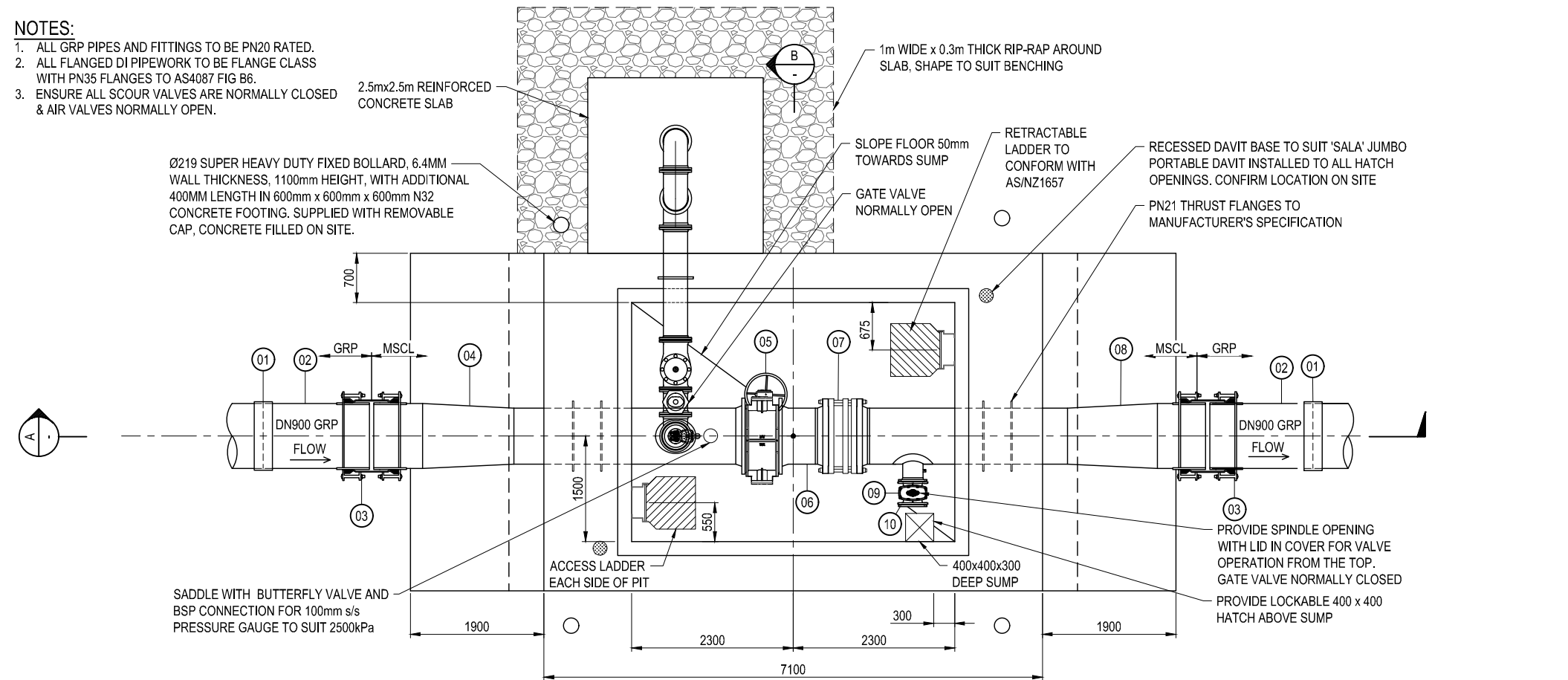
SECTION A-A
SCALE (A1): 1:20
SCALE (A3): 1:40

- NOTES:**
- ALL GRP PIPES AND FITTINGS TO BE PN20 RATED.
 - ALL FLANGED DI PIPEWORK TO BE FLANGE CLASS WITH PN35 FLANGES TO AS4087 FIG B6.
 - ENSURE ALL SCOUR VALVES ARE NORMALLY CLOSED.
 - ALL BURIED DI PIPEWORK TO BE SLEEVED.
 - REFER TO LONGSECTIONS FOR PIPE DEPTH AT EACH LOCATION, PIT SHAFT LENGTHS TO SUIT INDIVIDUAL INSTALLATIONS
 - 400x100x8 316SS PLATES (6 OFF) EVENLY SPACED AROUND P.C RING JOINTS. 2-M16 x 100 LONG SS CHEMSET ANCHORS PER PLATE.
 - AT PRECAST JOINTS PROVIDE 150 WIDE DENSO TAPE (DENSOPOL 60 SYSTEM, 1.5mm THICK) CENTRAL ON JOINT WITH MINIMUM 0.5m OVERLAP AT ENDS.

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>ISSUE DETAILS</th> <th>DRAWN</th> <th>DESIGN</th> <th>DRAWN CHECK</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>28.04.23</td> <td>ISSUE FOR CONSTRUCTION</td> <td>JM</td> <td>MO</td> <td>Dmp</td> <td>FOR CONSTRUCTION</td> </tr> </tbody> </table>	REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	<p>APPROVED MARCHEL OEGEMA RPEQ 20260</p> <p>FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD</p>	<p>SCALE</p> <p>1:20 1:40</p>	<p>CLIENT</p> <p>TOWNSVILLE CITY COUNCIL</p>	<p>PROJECT</p> <p>calibre calibregroup.com</p>	<p>DRAWING TITLE</p> <p>SCOUR VALVE ARRANGEMENT DETAILS</p>	<p>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>	<p>PROJECT No. 21-000239.02</p> <p>DRAWING No. 2356</p> <p>REVISION 0</p>
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS															
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION															

PIPEWORK FITTING SCHEDULE		
ITEM No.	DESCRIPTION	QTY
01	DN900 PN20 GRP COUPLING	2
02	DN900 GRP PN20 SN20000 ROCKER PIPE 1500mm LONG	2
03	DN900 PN21 NOVA SIRIA WIDE RANGE LSN10D, DOUBLE BOLT COUPLING (OR SIMILAR APPROVED)	2
04	OD 924 - 800 x 10mm w.t. x 5000 LONG MSCL ECCENTRIC TAPER SPECIAL FL-SP. (SHOP WELDED) C/W 2 No. THRUST FLANGES, RAISED FACE WELD NECK FLANGE SPECIAL TO AS/NZS4331.1 TO SUIT FITMENT TO ITEM 5. DN800 x DN375 x 5mm w.t. MSCL FLANGED TEE C/W COMPENSATING PLATE. AND SADDLE WITH BUTTERFLY VALVE AND BSP CONNECTION 500mm FROM FACE OF FLANGE AS SHOWN FOR 100mm s/s PRESSURE GAUGE TO SUIT 2500kPa. FLANGE DRILLING TO AS4087 PN35	1
05	DN800 PN25 SEAL ON DISC BUTTERFLY VALVE AVFI FL-FL GEAR OPERATED. FLANGE DRILLING TO PN25 AS/NZS 4331.1. GEARBOX TO SUIT VERTICAL INSTALLATION OD HANDWHEEL.	1
06	OD 800 x 10mm w.t. x 710mm LONG MSCL PIPE FL-FL TO SUIT FITMENT TO ITEMS 5 AND 7	1
07	DN800 PN20 AVFI AFD10 THRUST TYPE DISMANTLING JOINT. FLANGE DRILLING TO PN20 AS/NZS 4331.1	1
08	OD 924 - 800 x 10mm w.t. x 5000 LONG MSCL ECCENTRIC TAPER SPECIAL FL-SP. C/W 2 No. THRUST FLANGES, RAISED FACE WELD NECK FLANGE SPECIAL TO AS/NZS4331.1 TO SUIT FITMENT TO ITEM 7. DN250 x 5mm w.t. MSCL FLANGED TEE C/W COMPENSATING PLATE. FLANGE DRILLING TO AS4087 PN35.	1
09	DN250 PN35 METAL SEATED DI SLUICE VALVE. FLANGE DRILLING TO AS4087 PN35	1
10	DN250 PN35 DI FBE BLANK FLANGE	1
11	FL-FL-FL 375 x 300 DI FBE TEE	1
12	FL-FL PIPE (LENGTH 300mm) C/W DN375/DN100 FLANGES	1
13	AVK SERIES 29/00 VALVE OR PENTAIR HYDRANT AND AIR VALVE ISOLATOR (OR APPROVED EQUIVALENT). PN20 MIN	1
14	ARI D-052 COMBINATION AIR VALVE OR APPROVED EQUIVALENT	1
15	DN300 FL-FL SLUICE VALVE C/W EXTENSION SPINDLE, PN35 METAL SEATED	1
16	DN300 BERMAD 73Q PRESSURE RELIEF VALVE, PN20	1
17	DN300 PN20 UNI-FLANGE WITH 316SS BOLTS	1
18	DN300 FL-SP DI FBE PIPE LENGTH 1600mm LONG WITH THRUST FLANGE CENTRALLY PLACED IN THE PIPE	1
19	DN300 FL-FL 90° BEND	3
20	DN300 FL-FL DI FBE PIPE LENGTH 1700mm LONG WITH THRUST FLANGE 460mm FROM FLANGE END	1
21	M20 OVER LENGTH ANCHOR BOLTS C/W LOOSE FLANGE (DI WITH CLASS 8.8 FASTENERS)	4

- NOTES:**
- ALL GRP PIPES AND FITTINGS TO BE PN20 RATED.
 - ALL FLANGED DI PIPEWORK TO BE FLANGE CLASS WITH PN35 FLANGES TO AS4087 FIG B6.
 - ENSURE ALL SCOUR VALVES ARE NORMALLY CLOSED & AIR VALVES NORMALLY OPEN.



NOTE:
REFER TO DRG. No. 21-000239.02-2359 FOR VALVE PIT SETOUT COORDINATES TABLE.

PIPEWORK FITTING SCHEDULE		
ITEM No.	DESCRIPTION	QTY
01	DN900 PN20 GRP COUPLING	1
02	DN900 GRP PN20 SN10000 ROCKER PIPE 1500mm LONG	1
03	DN900 PN21 NOVA SIRIA WIDE RANGE LSN10D, DOUBLE BOLT COUPLING (OR SIMILAR APPROVED)	1
04	OD 924 - 800 x 10mm w.t. x 5600LONG MSCL ECCENTRIC TAPER SPECIAL FL-SP (SHOP WELDED) C/W 2 No. THRUST FLANGES, RAISED FACE WELD NECK FLANGE SPECIAL TO AS/NZS4331.1 TO SUIT FITMENT TO ITEM 6. DN800 x DN375 x 5mm w.t. MSCL FLANGED TEE C/W COMPENSATING PLATE, AND SADDLE WITH BUTTERFLY VALVE AND BSP CONNECTION 500mm FROM FACE OF FLANGE AS SHOWN FOR 100mm s/s PRESSURE GAUGE TO SUIT 2500kPa. FLANGE DRILLING TO AS4087 PN35	1
05	DN800 MSCLTEE FL-FL-FL	1
06	DN800 PN20 AVFI AFD10 THRUST TYPE DISMANTLING JOINT, FLANGE DRILLING TO PN20 AS/NZS 4331.1	2
07	DN800 FL-FL PIPE 600mm LONG	2
08	DN800 PN25 SEAL ON DISC BUTTERFLY VALVE AVFI FL-FL GEAR OPERATED, FLANGE DRILLING TO PN25 AS/NZS 4331.1. GEARBOX TO SUIT VERTICAL HANDWHEEL INSTALLATION	2
09	DN800 MSCL FL-FL PIPE 2400mm LONG C/W 2 No. THRUST FLANGES, RAISED FACE WELD NECK FLANGE SPECIAL TO AS/NZS4331.1	1
10	DN800 BLANK FLANGE	2
11	DN800 MSCL FL-FL PIPE 2200mm LONG, C/W 2 No. THRUST FLANGES, RAISED FACE WELD NECK FLANGE SPECIAL TO AS/NZS4331.1. PLACED 1040mm FROM FACE OF FLANGE.	1
12	FL-FL DI FBE PIPE (LENGTH 300mm) C/W DN375/DN100 FLANGES	1
13	AVK SERIES 29/00 VALVE OR PENTAIR HYDRANT AND AIR VALVE ISOLATOR (OR APPROVED EQUIVALENT), PN20 MIN	1
14	ARI D-052 COMBINATION AIR VALVE OR APPROVED EQUIVALENT	1

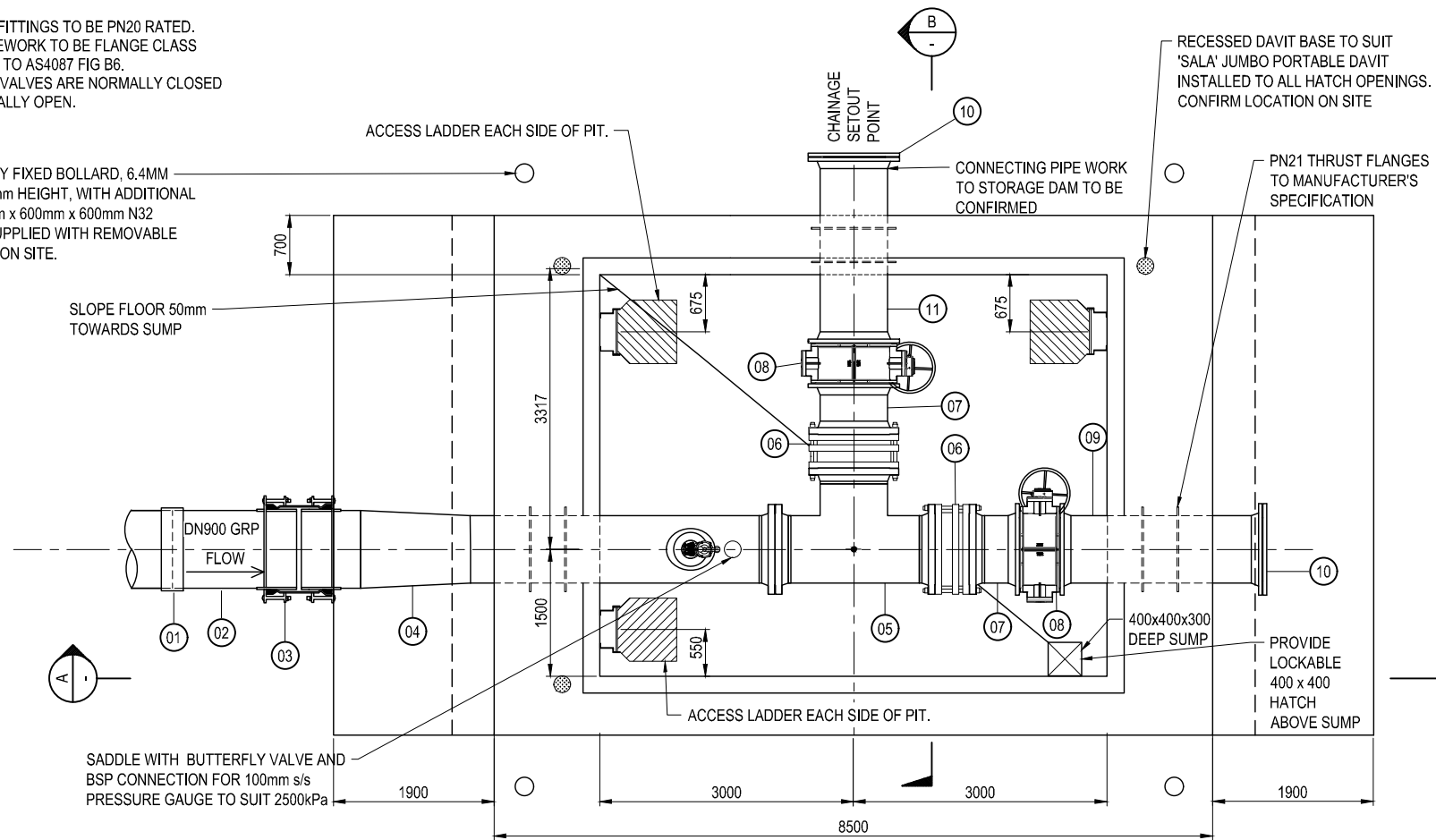
BUTTERFLY VALVE SETOUT TABLE

BUTTERFLY VALVE No.	CHAINAGE	EASTING	NORTHING
1	5728.00	486742.616	7832883.179
2	11884.46	482785.244	7831582.682
3	16121.48	480843.982	7829408.146

NOTES:

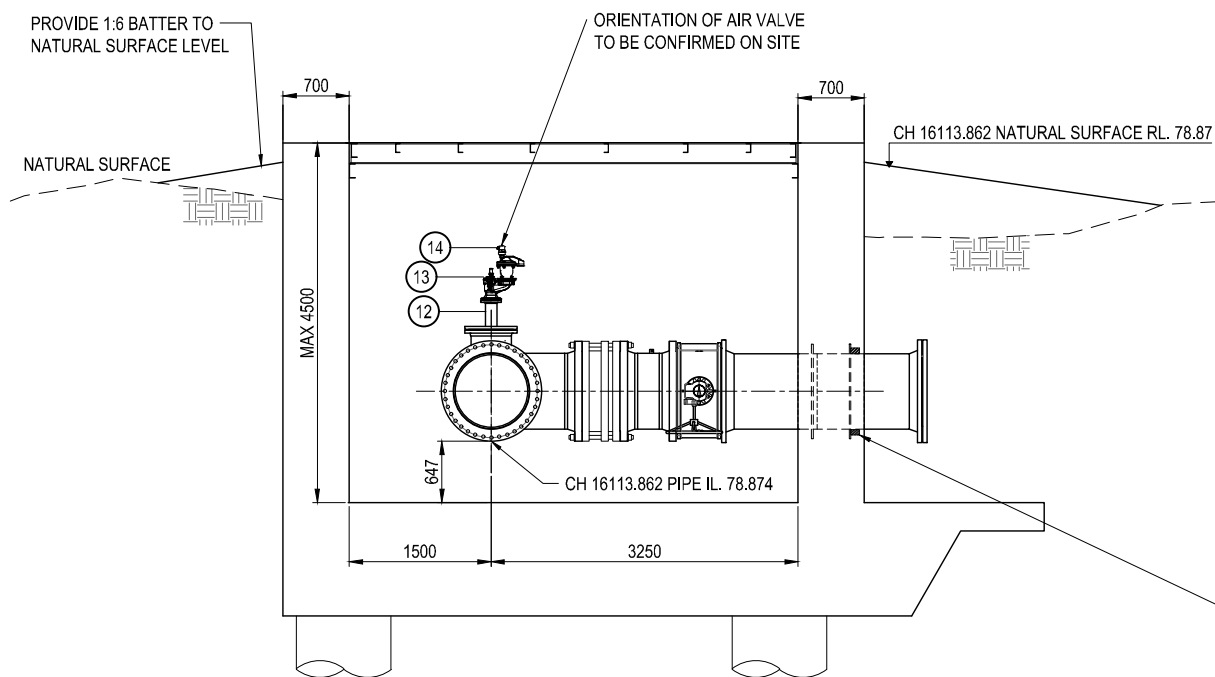
- ALL GRP PIPES AND FITTINGS TO BE PN20 RATED.
- ALL FLANGED DI PIPEWORK TO BE FLANGE CLASS WITH PN35 FLANGES TO AS4087 FIG B6.
- ENSURE ALL SCOUR VALVES ARE NORMALLY CLOSED & AIR VALVES NORMALLY OPEN.

Ø219 SUPER HEAVY DUTY FIXED BOLLARD, 6.4MM WALL THICKNESS, 1100mm HEIGHT, WITH ADDITIONAL 400MM LENGTH IN 600mm x 600mm x 600mm N32 CONCRETE FOOTING, SUPPLIED WITH REMOVABLE CAP, CONCRETE FILLED ON SITE.



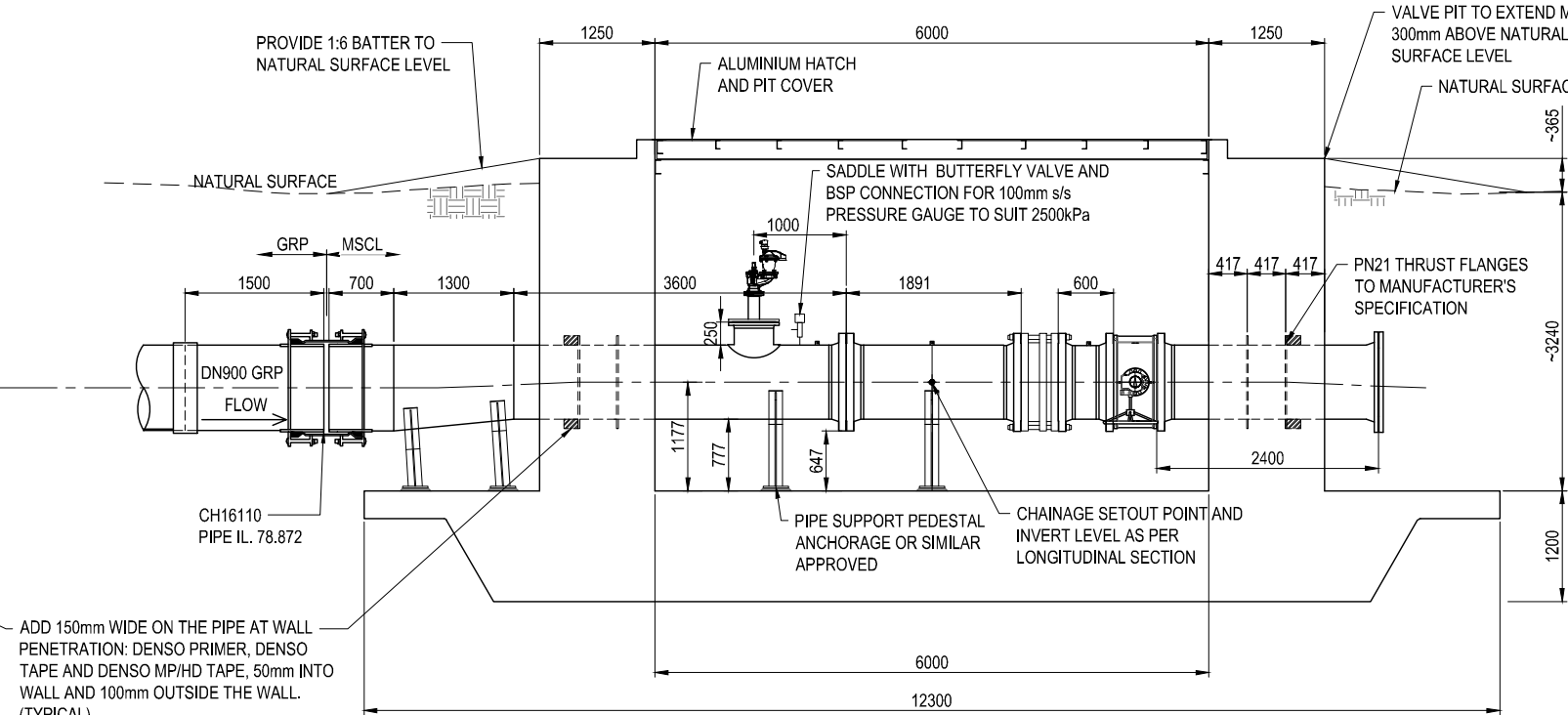
BUTTERFLY VALVE PIT PLAN

SCALE 1:40 (A1)
SCALE 1:80 (A3)



SECTION B

SCALE (A1): 1:40
SCALE (A3): 1:80



SECTION A

SCALE (A1): 1:40
SCALE (A3): 1:80

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:40 1:80	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	BUTTERFLY VALVE PIT (VP3) DETAIL SHEET 3 OF 3
						APPROVED MARCHEL OEGEMA RPEQ 20260		calibre calbregroup.com	DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2359 REVISION 0

TABLE 1 - TRENCH AND BACKFILL MATERIAL

FILL ZONE	LEGEND	ZONE DESCRIPTION
ZONE A		BEDDING - SINGLE-SIZE AGGREGATE AS PER AS2566.2 APPENDIX G. SIZE 10mm. BEDDING AGGREGATE FREE FROM ORGANIC MATTER. COMPACTED TO AN LWD E _{vd} OF 7.5MPa FOR 10mm AGGREGATE
ZONE B		BEDDING - SINGLE-SIZE AGGREGATE AS PER AS2566.2 APPENDIX G. SIZE 10mm. BEDDING AGGREGATE FREE FROM ORGANIC MATTER. COMPACTED TO AN LWD E _{vd} OF 7.5MPa FOR 10mm AGGREGATE
ZONE C		GENERAL BACKFILL - TRENCH SPOIL FREE OF STONES LARGER THAN 100mm AND ANY CONSTRUCTION WASTE, COMPACTED TO: <ul style="list-style-type: none"> MINIMUM OF 90% FOR NORMAL CONSTRUCTION AND 95% FOR UNDER ROADS OF STANDARD MAXIMUM DRY DENSITY AT ±2% OF OPTIMUM MOISTURE CONTENT. LAYER THICKNESS NOT TO EXCEED 300mm
ZONE D		TOP SOIL - SURFACE LAYER OF SOIL CONTAINING ORGANIC MATTER PREVIOUSLY STRIPPED PRIOR TO TRENCHING - UNCOMPACTED U.N.O
ZONE E		PAVEMENT MATERIAL AS SPECIFIED ON THE DRAWING (BASE TO SURFACE LEVEL FOR UNSEALED ROAD) <ul style="list-style-type: none"> 200mm BASE TO BE CBR80 TYPE 2.1, ON 200mm SUB-BASE TO BE CBR45 TYPE 2.3, ON TRENCH FILL MATERIAL AS SPECIFIED. MINIMUM 100% STANDARD MAXIMUM DRY DENSITY

NOTES

GENERAL

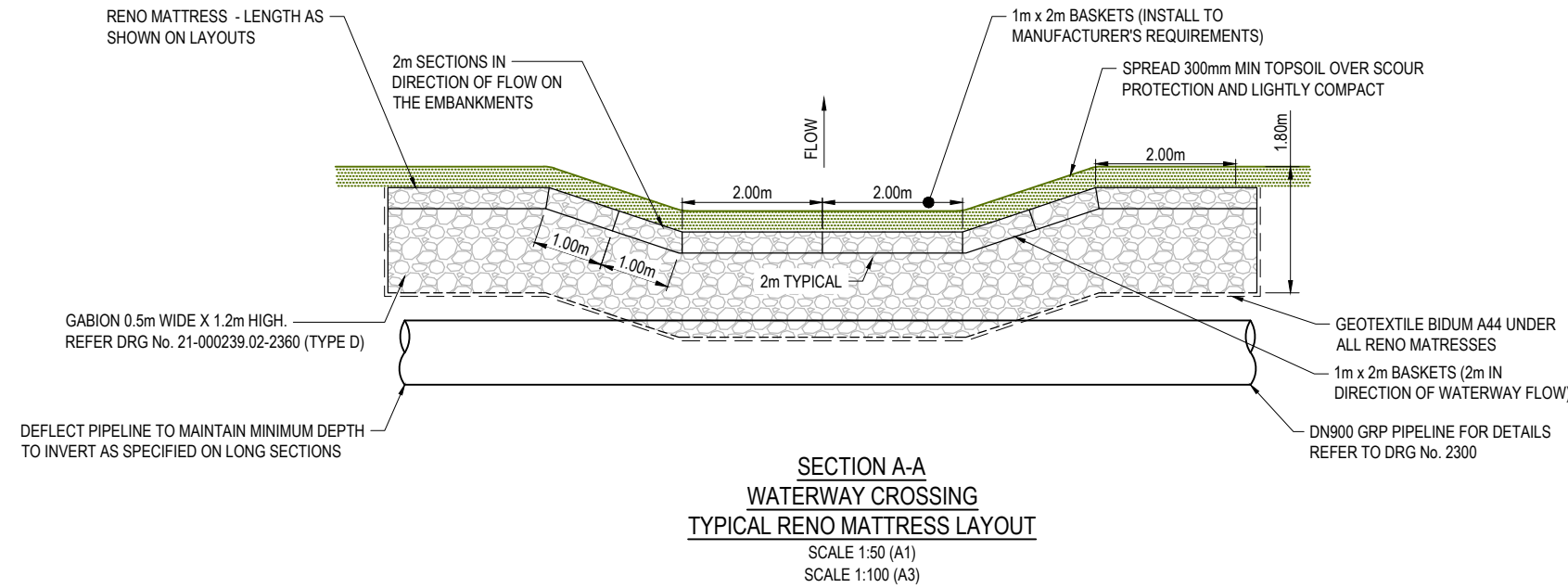
G1 FOR GENERAL NOTES REFER TO DRG No's 2001 AND 2002.

MATERIALS

- M1 PIPE EMBEDMENT MATERIAL SHALL BE A 10mm SINGLE SIZE AGGREGATE COMPLYING WITH WSA PS-351 AND TABLE G2 OF AS2566.2. GEOTEXTILE SURROUND REQUIRED, REFER NOTE M3.
- M2 ADDITIONAL CRUSHED ROCK BEDDING SHALL BE A 30mm NOMINAL SIZE CRUSHED ROCK COMPLYING WITH TABLE G2 OR G3 OF AS2566.2.
- M3 GEOTEXTILE TO BE USED WHERE INDICATED AND WHERE TRENCH FILL IS SAND OR FINE CLAY MATERIAL. LAY MATERIAL FLAT AGAINST FLOOR AND WALLS WITH A 600 MIN. OVERLAP AT ALL JOINTS. GEOTEXTILE SHALL BE TYPE BIDIM A24 OR APPROVED EQUIVALENT.
- M4 IF TRENCH EXCAVATED MATERIAL IS NOT SUITABLE, IMPORTED MATERIAL SHALL BE USED. IMPORTED BACKFILL MATERIAL SHALL HAVE A SOAKED CBR VALUE OF NOT LESS THAN 15% AND A MAXIMUM PARTICLE SIZE OF 50mm WITH A MAXIMUM SHRINK / SWELL INDEX OF 1%. REFER TO GEOTECHNICAL REPORT PROVIDED. DO NOT USE MEDIUM TO HIGH PLASTICITY MATERIAL AS BACKFILL MATERIAL.
- M5 PAVEMENT GRADING B OR C AS CONTAINED IN THE DTMR TECHNICAL SPECIFICATION MRTS05 "UNBOUND PAVEMENTS".
- M6 PRIMING COAT SHALL BE APPLIED BETWEEN THE BASE AND THE ASPHALT LAYER.
- M7 ASPHALT SHALL COMPLY WITH THE REQUIREMENTS OF THE DTMR TECHNICAL SPECIFICATION MRTS30 "DENSE GRADED ASPHALT PAVEMENTS".
- M8 MARKER TAPE SHALL BE PLACED ABOVE THE PIPE EMBEDMENT. THE TAPE SHALL BE COLOURED AND PROVIDED WITH A DESCRIPTION OF THE WATER PRODUCT WITHIN.
- M9 REMOVE ANY TOPSOIL, DELETERIOUS, SOFT OR FIRM, WET OR HIGHLY COMPRESSIBLE SOILS OR MATERIALS RICH IN ORGANICS OR ROOT MATTER.
- M10. WHERE FILL IS REQUIRED/SPECIFIED, PLACE APPROVED FILLING IN LAYERS NOT EXCEEDING 300mm LOOSE THICKNESS, WITH EACH LAYER COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% STANDARD WITHIN 2% OF OMC DURING AND AFTER COMPACTION. SUITABLE FILLING WOULD COMPRISE A LOW PLASTICITY CLEAN FILLING FREE OF UNSUITABLE MATERIALS AND WITH A MINIMUM CBR VALUE OF 8%. WHERE THE FILL IS TO BE TRAFFICABLE, CAP THE FILL WITH 200mm OF TYPE 2.3 (CBR 45) CRUSHED ROCK PAVEMENT GRAVEL COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 100% STANDARD.
- M11. SEAL OR COVER ANY COMPACTED CLAY FOUNDATION SOIL CLOSE TO ANY FOOTING FORMATION LEVELS WITH A MINIMUM 150mm OF SELECT GRANULAR FILL (MINIMUM CBR 15%) AS SOON AS PRACTICABLE, TO REDUCE THE OPPORTUNITY FOR OCCURRENCE OF DESICCATION AND CRACKING. UNDERTAKE 'LEVEL 1' INSPECTION AND TESTING, AS DETAILED IN AS3798-2007 (REF. 3), ON THE FILLING.

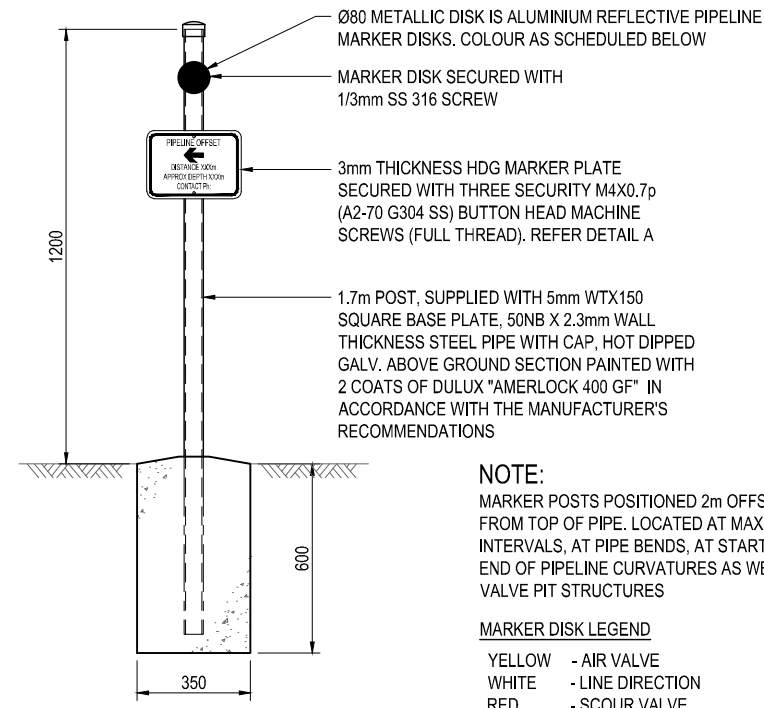
CONSTRUCTION

- C1 FOR EACH BEDDING ZONE, PIPE EMBEDMENT MATERIAL SHALL BE PLACED IN THE TRENCH TO THE DEPTH SHOWN ON THE DRAWINGS AND COMPACTED IN 150mm LAYERS FOR THE FULL WIDTH OF THE TRENCH BY TWO PASSES OF A VIBRATING PLATE. ENSURE BEDDING IS DEEP ENOUGH THAT PIPE JOINT PROJECTIONS (COUPLINGS, FLANGES) DO NOT TOUCH TRENCH FLOOR.
- C2 TRENCH FLOOR BASE TO BE FIRM TO SUPPORT BEDDING MATERIAL AND MINIMISE SETTLEMENT. ADDITIONAL CRUSHED ROCK BEDDING SHALL BE PROVIDED WHERE THE ENGINEER'S REPRESENTATIVE CONSIDERS THE BOTTOM OF THE TRENCH TO BE TOO SOFT OR WET TO PROVIDE ADEQUATE SUPPORT FOR THE PIPE. THE ADDITIONAL BEDDING SHALL BE WRAPPED IN GEOTEXTILE. THE DEPTH OF THE ADDITIONAL BEDDING SHALL BE AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE.
- C3 A) TRENCH FILL ABOVE THE BEDDING MATERIALS SHOULD BE PLACED IN LAYERS NOT EXCEEDING 200mm LOOSE THICKNESS, WITH EACH LAYER COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AND MOISTURE CONTENT WITHIN 2% OF STANDARD OPTIMUM MOISTURE CONTENT (OMC), AS DETERMINED BY TEST 5.1.1 OF AS1289.
B) COMPACTION OF FILLING WITHIN 0.5m OF DESIGN SUBGRADE LEVEL FOR PAVEMENTS SHOULD BE INCREASED TO A MINIMUM DRY DENSITY RATIO OF 100% RELATIVE TO STANDARD COMPACTION.
- C4 EXCAVATE AND COMPACT TRENCH FLOOR TO PROVIDE FLAT FIRM BASE TO SUPPORT BEDDING MATERIAL AND MINIMISE PIPELINE SETTLEMENT.
- C5 THE DEVIATION OF THE FINISHED SURFACE LEVEL TO THE EXISTING ROAD SHALL NOT EXCEED 5mm.
- C6 REINSTATEMENT OF KERB TO BE MINIMUM 5m (2.5m EITHER SIDE OF CUT IN).
- C7 SAWCUT EXISTING ASPHALT SURFACE - MIN 50mm DEPTH. APPLY BITUMEN EMULSION JOINT SEAL. RESURFACE WITH 50mm DENSE GRADED ASPHALT 14mm MIX WITH TACK COAT.
- C8 REFER TO GEOTECHNICAL REPORT FOR INFORMATION ON SUB-SURFACE CONDITIONS AND ALLOWABLE TEMPORARY BATTER SLOPES.
- C9 WHERE DEEP TRENCH EXCAVATION IS UNDERTAKEN. SUB-CONTRACTOR TO PROVIDE SHORING BOXES TO SUIT WALL SUPPORT REQUIREMENTS. SHORING TO CONFORM WITH AS4744.1-200.
- C10 LEAN MIX CONCRETE SHALL CONSIST OF A GRADED SAND AND GRAVEL AGGREGATE OF 20mm MAXIMUM SIZE WITH THE ADDITION OF 5% BY MASS OF PORTLAND CEMENT OR 1 PART PORTLAND CEMENT TO 19 PARTS OF GRADED AGGREGATE AND SUFFICIENT WATER TO ENSURE SLUMP OF LESS THAN 12mm.



REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:50 1:100	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	TRENCH REINSTATEMENT DETAILS
					MARCHEL OEGEMA	RPEQ 20260		calibre	DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2361 REVISION 0

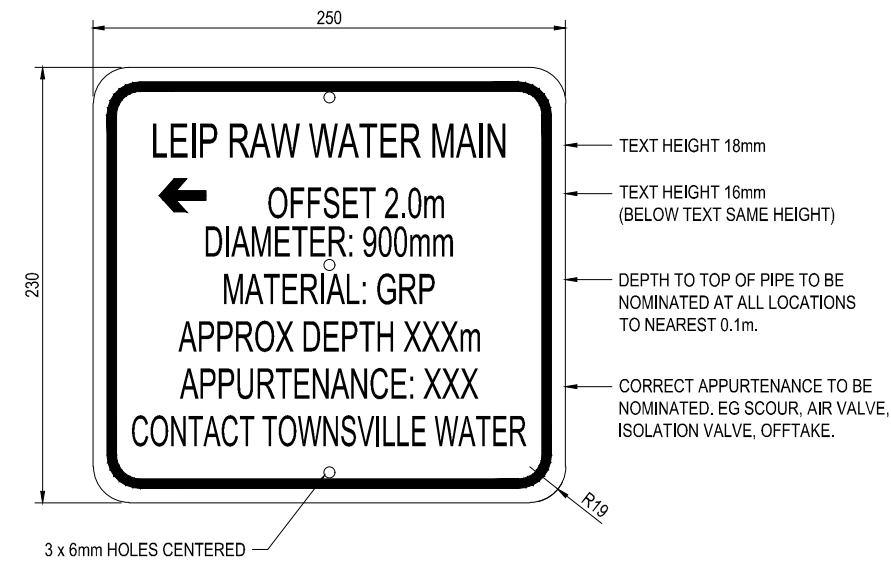
NOTES
 1. ALL MEASUREMENTS ARE IN MILLIMETERS.



NOTE:
 MARKER POSTS POSITIONED 2m OFFSET FROM TOP OF PIPE. LOCATED AT MAX 100m INTERVALS, AT PIPE BENDS, AT START AND END OF PIPELINE CURVATURES AS WELL AS VALVE PIT STRUCTURES

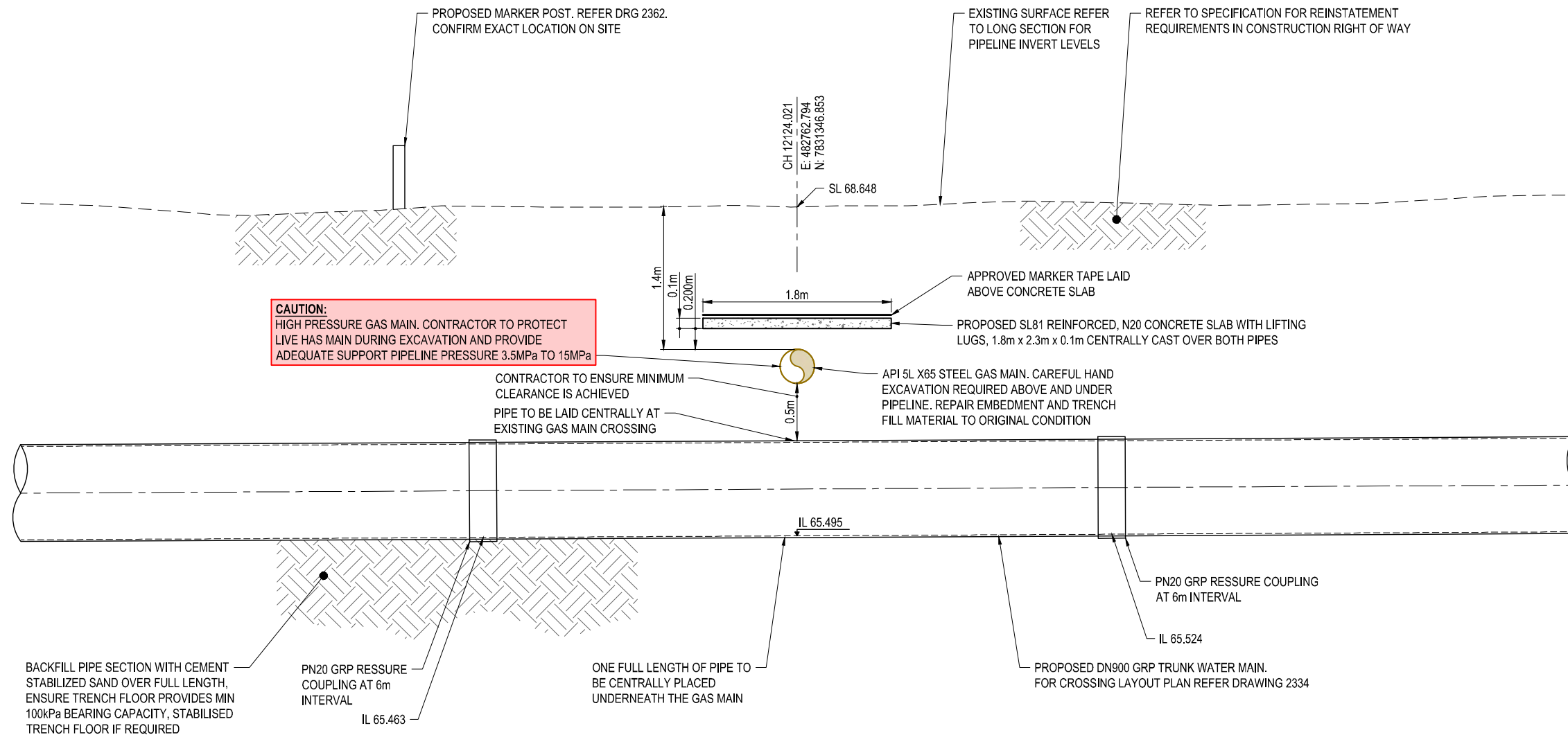
MARKER DISK LEGEND
 YELLOW - AIR VALVE
 WHITE - LINE DIRECTION
 RED - SCOUR VALVE
 BLUE - SECTION ISOLATION VALVE

PIPELINE DETAIL A MARKER POST
 SCALE 1:10 (A1)
 SCALE 1:20 (A3)



PIPELINE MARKER PLATE
 SCALE 1:2 (A1)
 SCALE 1:4 (A3)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
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					DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260				
						FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD				
									DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2362 REVISION 0



CAUTION:
HIGH PRESSURE GAS MAIN. CONTRACTOR TO PROTECT LIVE HAS MAIN DURING EXCAVATION AND PROVIDE ADEQUATE SUPPORT PIPELINE PRESSURE 3.5MPa TO 15MPa

DANGER: UNDERGROUND GAS MAINS
UNDERGROUND GAS MAINS EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR SERVICE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

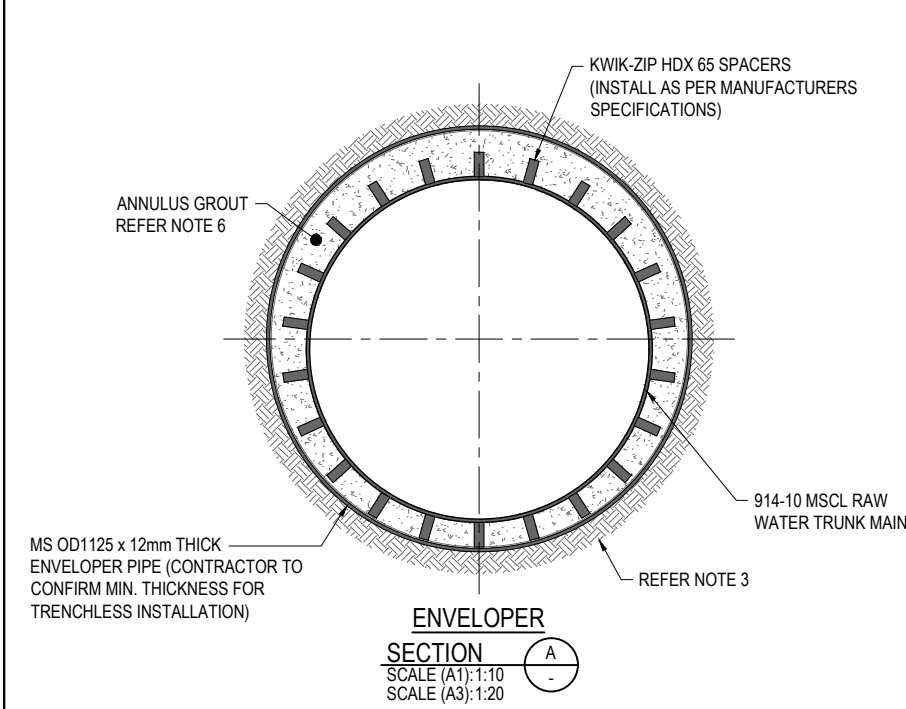
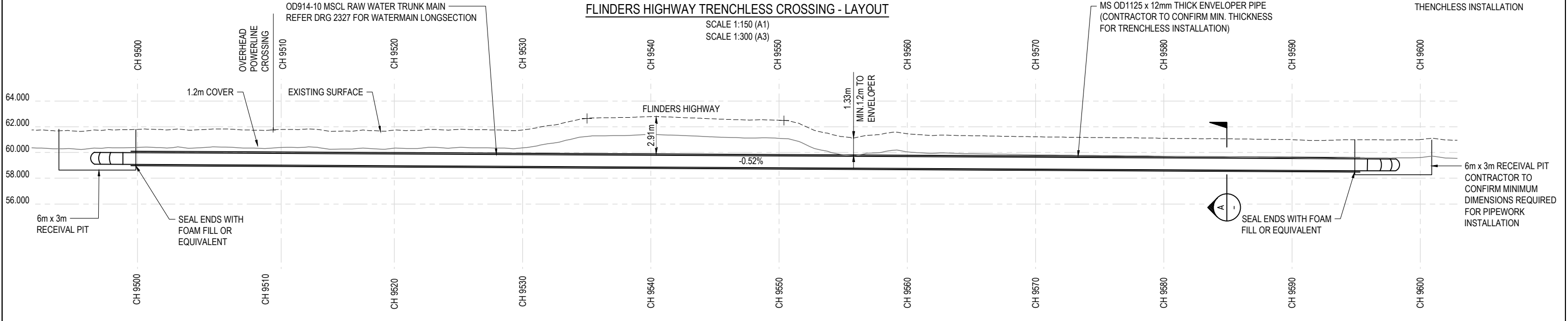
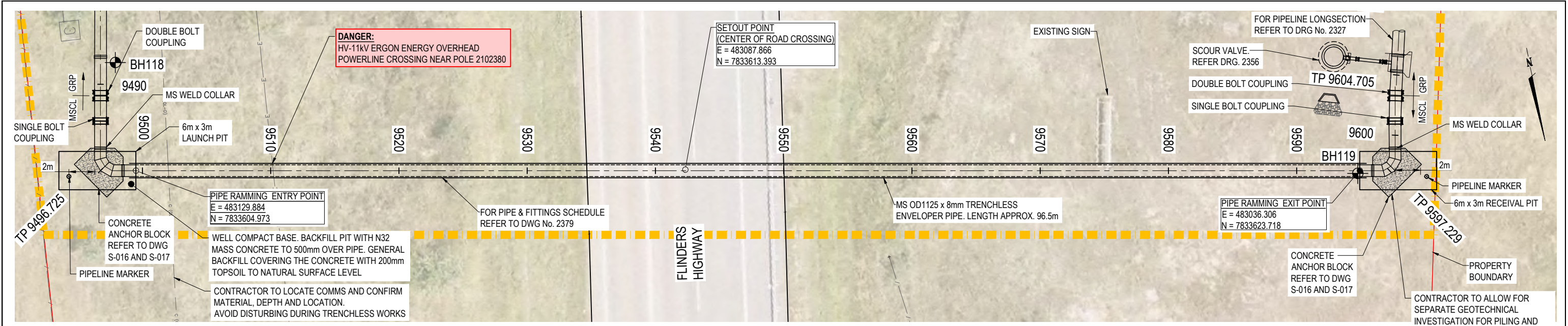
ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.



NQGP GAS PIPE CROSSING ARRANGEMENT
SCALE 1: 25 (A1)
SCALE 1: 50 (A3)

- NOTES:**
- OBTAIN CURRENT DBYD INFORMATION PRIOR TO ANY CONSTRUCTION COMMENCING WITHIN PROXIMITY OF THE HAS MAIN. POTHOLE BY NO-DESTRUCTIVE MEANS.
 - REFER TO DRG 2334 FOR PIPELINE LONG SECTION AND ELEVATION.
 - REFER TO TECHNICAL SPECIFICATION FOR INSTALLATION REQUIREMENTS ACROSS GAS MAIN.
 - REFER TO NQGP REQUIREMENTS AND OBTAIN APPROVAL AND PERMIT FROM NQGP PRIOR TO CONSTRUCTION IN THE VICINITY OF THE GAS MAIN.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:25 0.25 0 0.25 0.5 0.75 1.0 1.25 A1 1:50 A3	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	NQGP GAS PIPE CROSSING DETAIL
					DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260				
						<i>Moama</i>				
						FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD				
									DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	PROJECT No. 21-000239.02 DRAWING No. 2365 REVISION 0



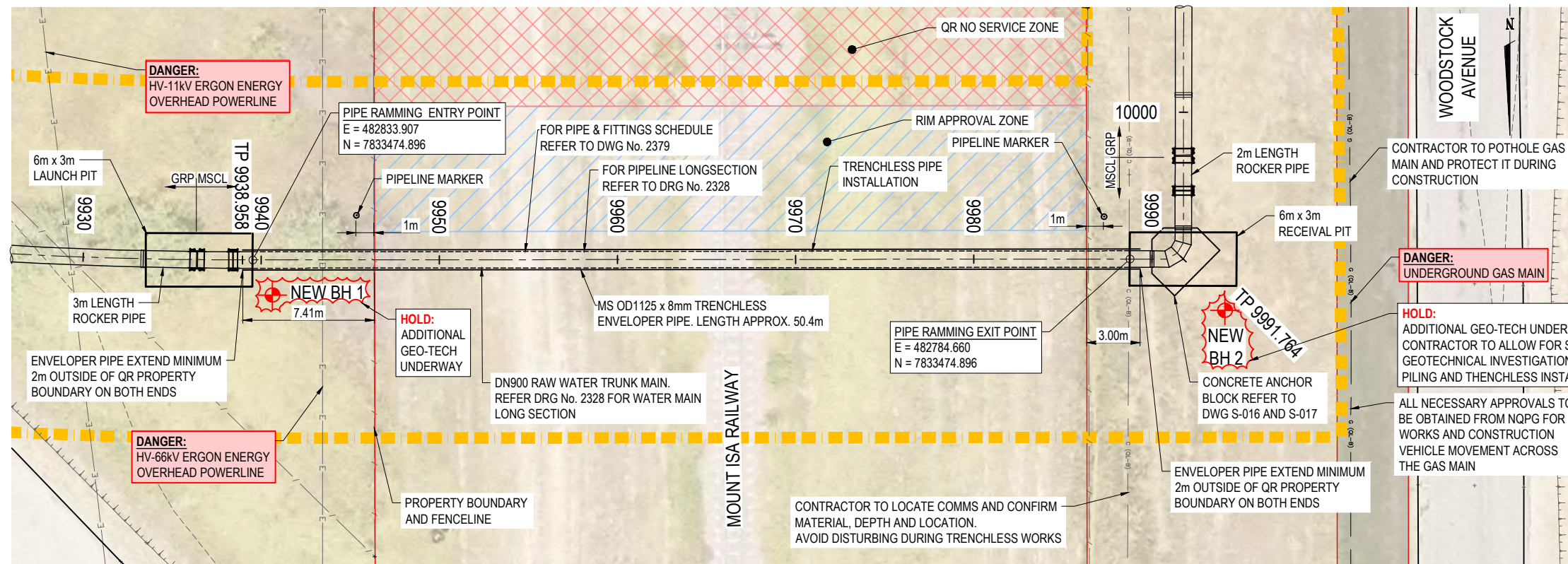
CAUTION !!
UNDERGROUND
TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

DANGER:
OVERHEAD
POWERLINES
 CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE



- NOTES**
- FOR TYPICAL PIPE ENCASING DETAILS REFER TO STD DRG No. SEQ-SEW-1403-1.
 - FOR PIPE & FITTING SCHEDULE TMR CROSSING TRENCHLESS CROSSING REFER TO DWG No. 21-000239-2379.
 - CONTRACTOR TO CONFIRM HEALTH AND SAFETY REGULATIONS WITH THE RELEVANT AUTHORITY.
 - THE DIAMETER OF THE BOREHOLE MUST NOT EXCEED THE DIAMETER OF THE PIPE OR SERVICE BY MORE THAN 50mm. IF THE DIAMETER OF THE BORED HOLE EXCEEDS 200mm, THE CAVITY BETWEEN THE PIPE OR SERVICE AND THE HOLE MUST BE FILLED OR PRESSURE GROUTED WITH FLOWABLE MATERIAL AS APPROVED BY THE DEPARTMENT'S DISTRICT DIRECTOR, OR HIS DELEGATE. THIS REQUIREMENT WILL BE REVIEWED BY THE DEPARTMENT ON A CASE BY CASE BASIS DEPENDENT ON THE MATERIAL OR CLASS OF ENVELOPING PIPE BEING INSTALLED.
 - ALL SOIL FROM TRENCHLESS ACTIVITIES TO BE TREATED AS CONTAMINATED SOIL AND IS TO BE DISPOSED OF TO AN APPROVED LANDFILL SITE.
 - ENCASING PIPE TO WATER MAIN PIPE GROUT MIX IS A FLOWABLE 1MPa MINIMUM GROUT WITH A LOW HEAT OF HYDRATION WITH AGGREGATE BEING A FINE WELL ROUNDED SAND AND PLASTICISERS MAY BE USED. THE MIX DESIGN TO BE APPROPRIATE FOR THE SPECIFIC PIPE MATERIALS AND SITE CONDITIONS AND SHALL BE APPROVED BY THE SUPERINTENDENT.
 - REFERENCE IS MADE TO THE DOUGLAS PARTNERS GEOTECHNICAL REPORT. BOREHOLES 118 AND 119 ARE CLOSEST TO THE PROPOSED ROAD CROSSING AND NEAR THE HIGHWAY INTERSECTION WITH WOODSTOCK GIRU RD.
- NO GROUNDWATER WAS OBSERVED
 - VERY DENSE ALLUVIAL SOILS OBSERVED, (GC) GRAVEL, BROWN, FINE TO COARSE, SUB-ANGULAR MATERIAL AT 1.7M TO 3.1M

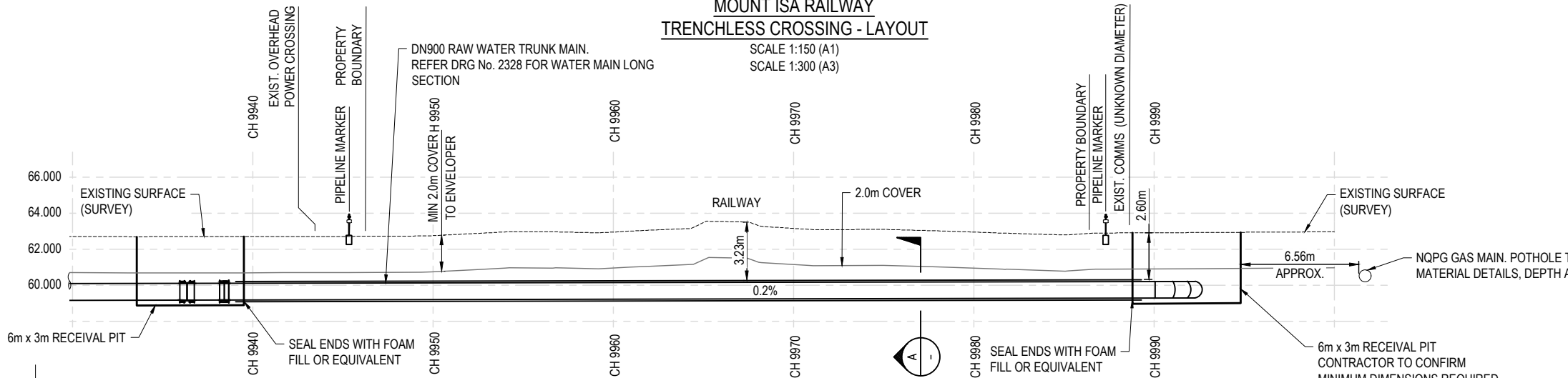
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					DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260	1:10 1:20			PROJECT No. 21-000239.02 DRAWING No. 2370 REVISION 0
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD							DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.			



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MOUNT ISA RAILWAY TRENCHLESS CROSSING - LAYOUT

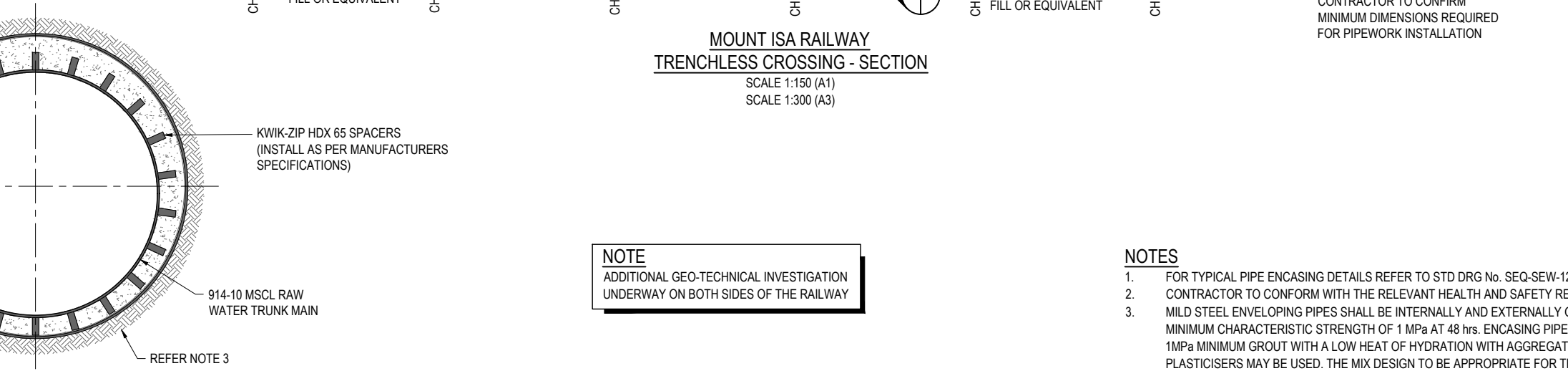


DANGER: UNDERGROUND GAS MAINS
UNDERGROUND GAS MAINS EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR SERVICE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

DANGER: OVERHEAD POWERLINES
CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

MOUNT ISA RAILWAY TRENCHLESS CROSSING - SECTION



NOTE
ADDITIONAL GEO-TECHNICAL INVESTIGATION UNDERWAY ON BOTH SIDES OF THE RAILWAY

- NOTES**
- FOR TYPICAL PIPE ENCASING DETAILS REFER TO STD DRG No. SEQ-SEW-1214-1.
 - CONTRACTOR TO CONFORM WITH THE RELEVANT HEALTH AND SAFETY REGULATIONS.
 - MILD STEEL ENVELOPING PIPES SHALL BE INTERNALLY AND EXTERNALLY GROUTED WITH A FLOWABLE MATERIAL WITH A MINIMUM CHARACTERISTIC STRENGTH OF 1 MPa AT 48 hrs. ENCASING PIPE TO WATERMAIN PIPE GROUT MIX IS A FLOWABLE 1MPa MINIMUM GROUT WITH A LOW HEAT OF HYDRATION WITH AGGREGATE BEING A FINE WELL ROUNDED SAND AND PLASTICISERS MAY BE USED. THE MIX DESIGN TO BE APPROPRIATE FOR THE SPECIFIC PIPE MATERIALS AND SITE CONDITIONS AND SHALL BE APPROVED BY THE SUPERINTENDENT.
 - ALL SOIL FROM TRENCHLESS ACTIVITIES TO BE TREATED AS CONTAMINATED SOIL AND IS TO BE DISPOSED OF TO AN APPROVED LANDFILL SITE.
 - CARRIER PIPE TO BE FULLY WELDED. PIPELINE COATING TO CONFORM WITH AS4321 AND CEMENT MORTAR LINING WITH AS1281

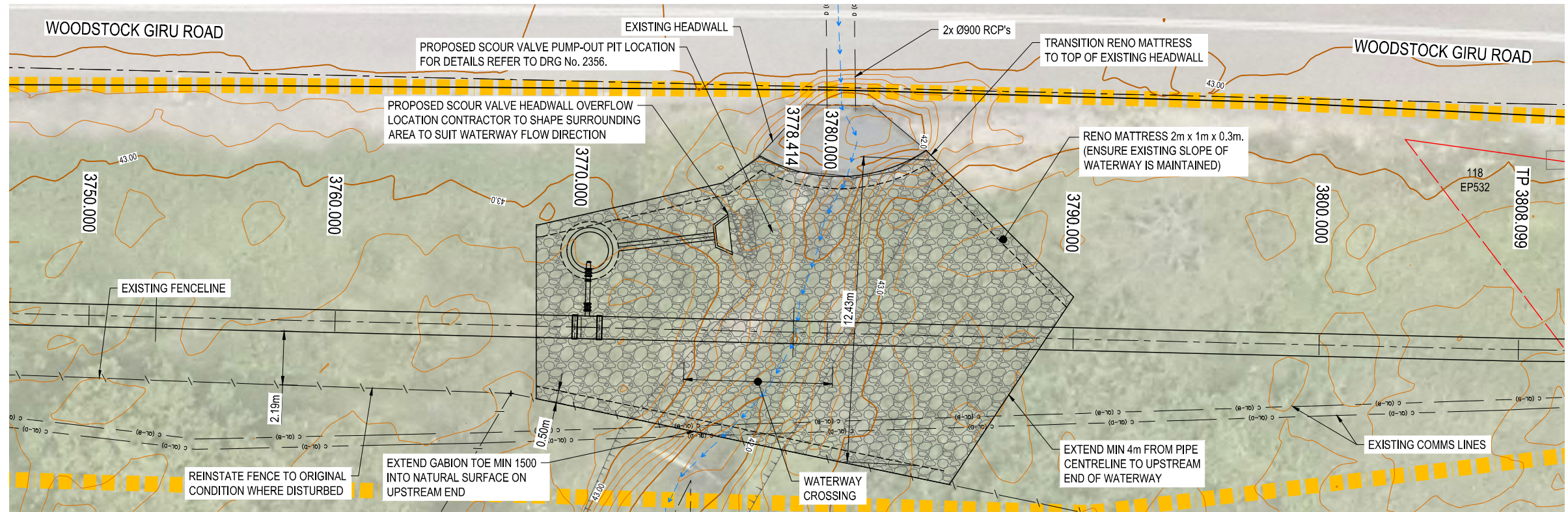
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						APPROVED MARCHEL OEGEMA RPEQ 20260	1:10 1:20			PROJECT No. 21-000239.02 DRAWING No. 2371 REVISION 0
						FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD			DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	

CAUTION !!
UNDERGROUND
GAS MAINS
 UNDERGROUND GAS MAINS EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR SERVICE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !!
OVERHEAD
ELECTRICAL CABLES
 OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

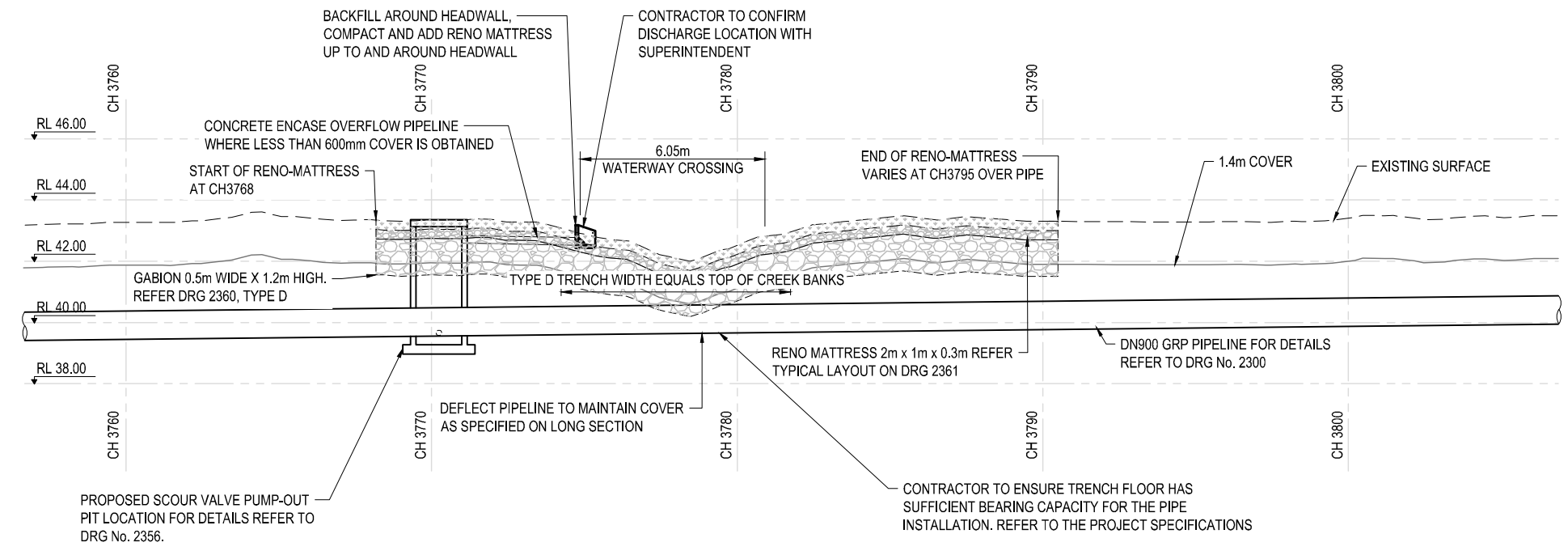
CAUTION !!
UNDERGROUND
TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

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CH3778 WATERWAY CROSSING - LAYOUT

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



CH3778 WATERWAY CROSSING - SECTION

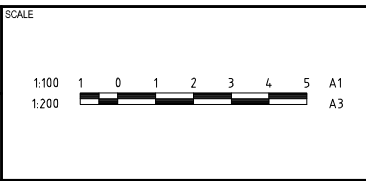
SCALE 1:100 (A1)
 SCALE 1:200 (A3)

NOTES

1. RENO MATTRESS TO BE 300mm MIN DEPTH IN PVC COATED STEEL WIRE MESH. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND FILL IN ACCORDANCE TO AS2784, WITH 125mm MIN AND 200mm MAX SIZE ROCK.
2. REFER DRG 2360 FOR RENO-MATTRESS TRENCH EMBEDMENT AND BACKFILL DETAILS.
3. ALLOW FOR TEMPORARY PUMP OUT OF WATER AND DIVERSION OF WATER STREAM AS REQUIRED.

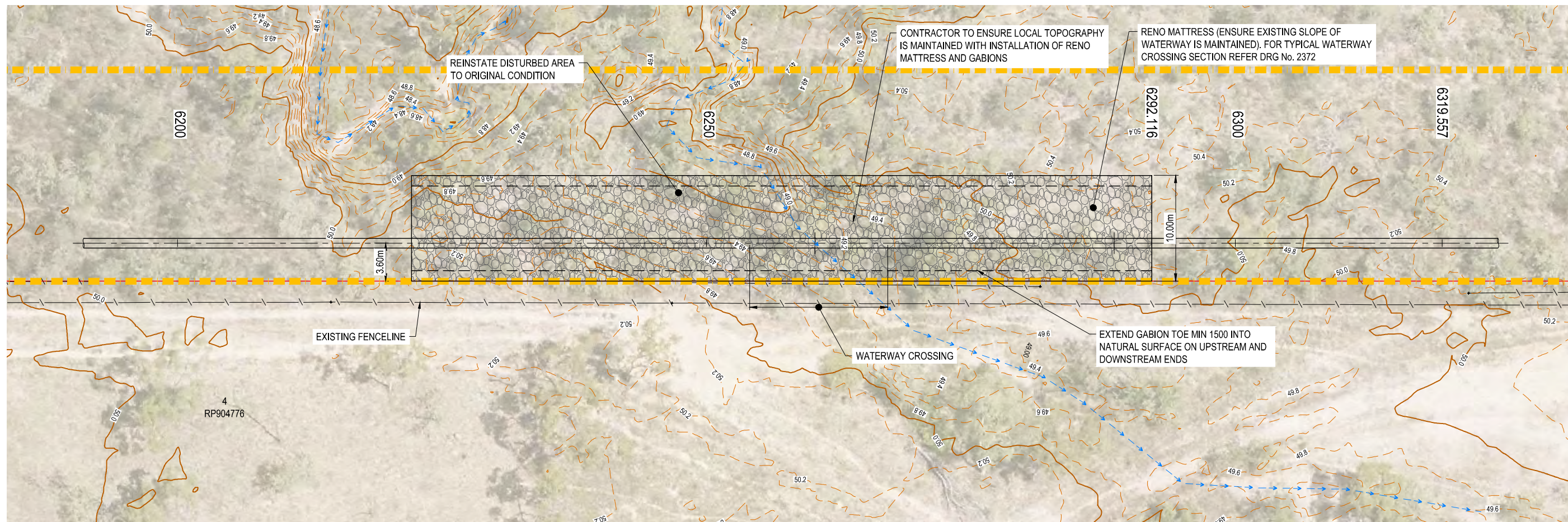
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION

DESIGN CHECK: APPROVED
 MARCHEL OEGEMA RPEQ 20260
 Moagoma
 FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD



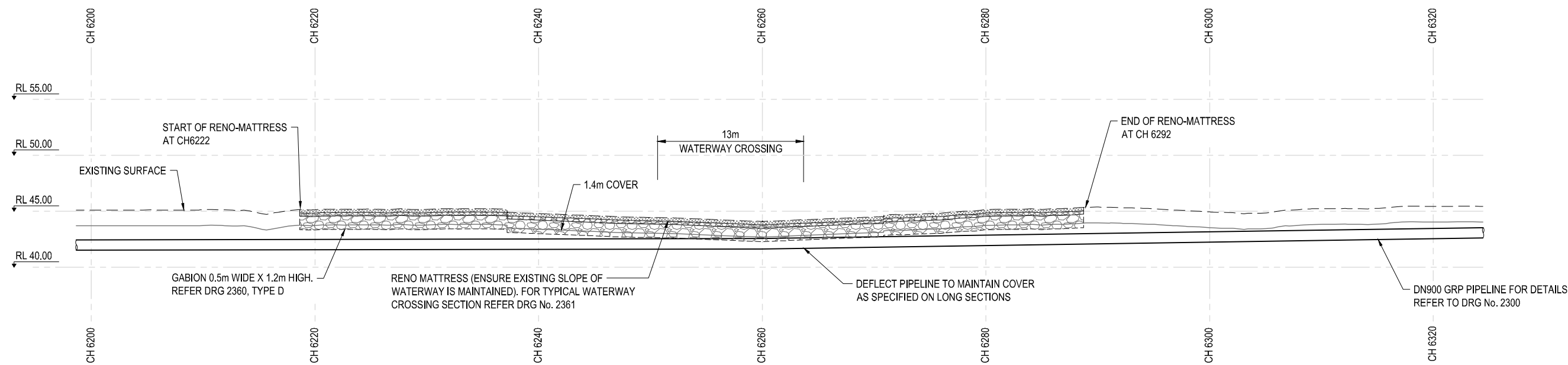
PROJECT: **LANSDOWN ECO - INDUSTRIAL PRECINCT**
 DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.

CH3778 WATERWAY CROSSING		
PROJECT No. 21-000239.02	DRAWING No. 2372	REVISION 0



CH6260 WATERWAY CROSSING - LAYOUT

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



CH6260 WATERWAY CROSSING - SECTION

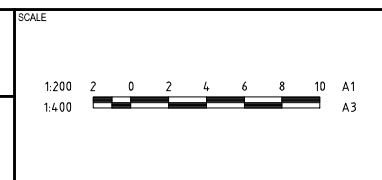
SCALE 1:200 (A1)
SCALE 1:400 (A3)

NOTES

1. RENO MATTRESS TO BE 300mm MIN DEPTH IN PVC COATED STEEL WIRE MESH. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND FILL IN ACCORDANCE TO AS2784, WITH 125mm MIN AND 200mm MAX SIZE ROCK.
2. REFER DRG 2360 FOR RENO-MATTRESS TRENCH EMBEDMENT AND BACKFILL DETAILS.
3. ALLOW FOR TEMPORARY PUMP OUT OF WATER AND DIVERSION OF WATER STREAM AS REQUIRED.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION

DESIGN CHECK	APPROVED	MARCHEL OEGEMA	RPEQ 20260
		<i>Moama</i>	
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD			



CLIENT

TOWNSVILLE CITY COUNCIL

calibre
calbregroup.com

PROJECT

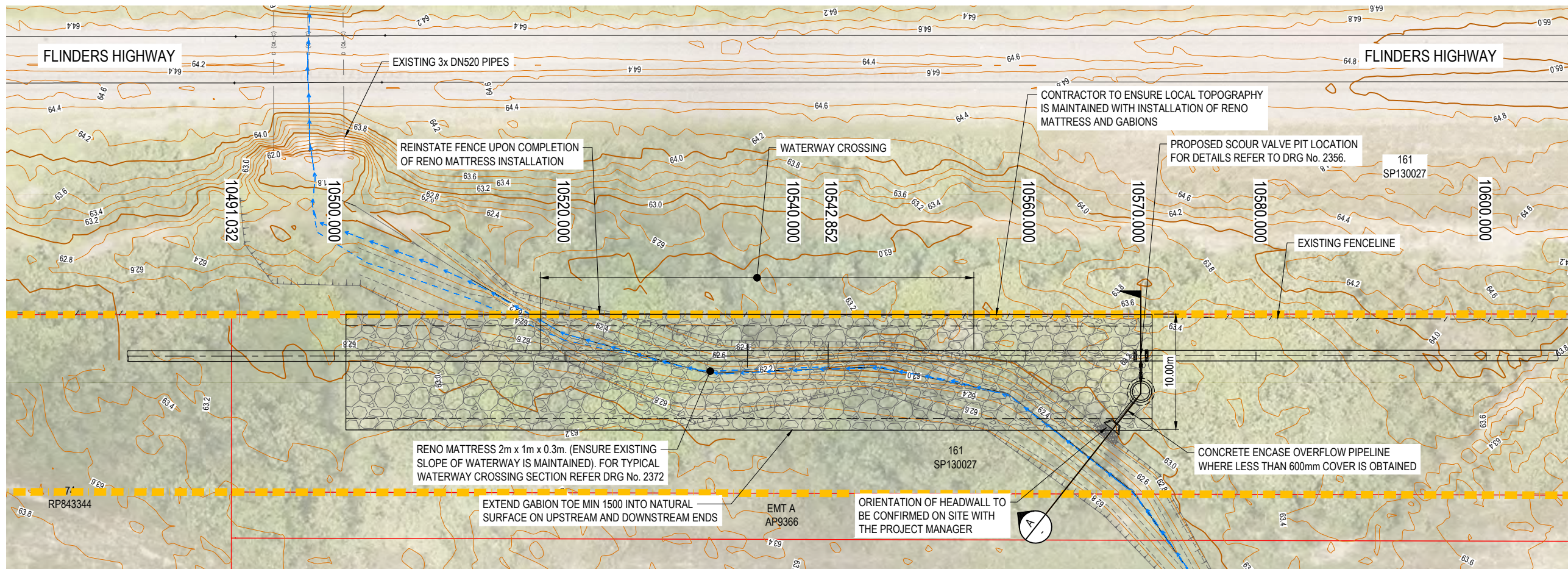
**LANSDOWN
ECO - INDUSTRIAL
PRECINCT**

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.

DRAWING TITLE

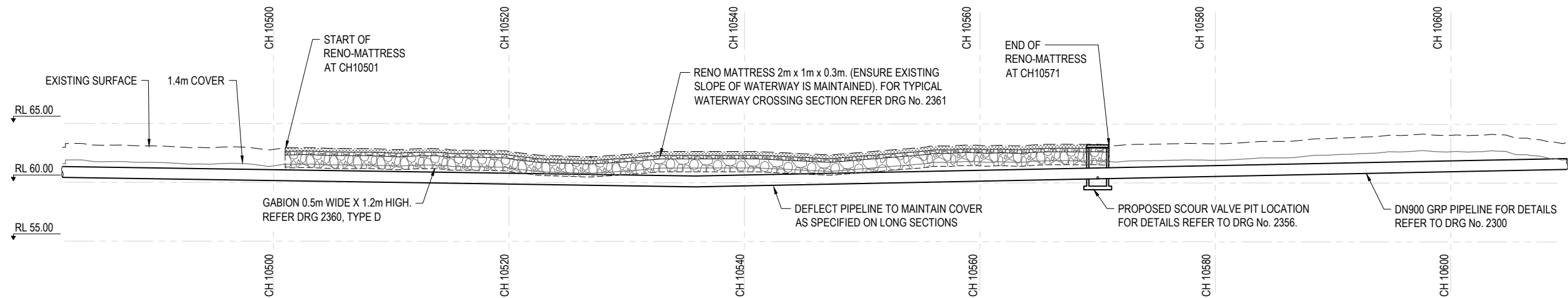
**CH6260
WATERWAY
CROSSING**

PROJECT No.	DRAWING No.	REVISION
21-000239.02	2374	0



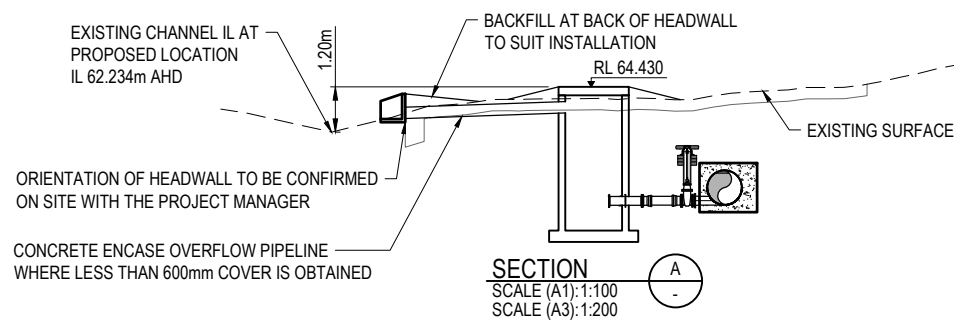
CH10540 WATERWAY CROSSING - LAYOUT

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



CH10540 WATERWAY CROSSING - SECTION

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

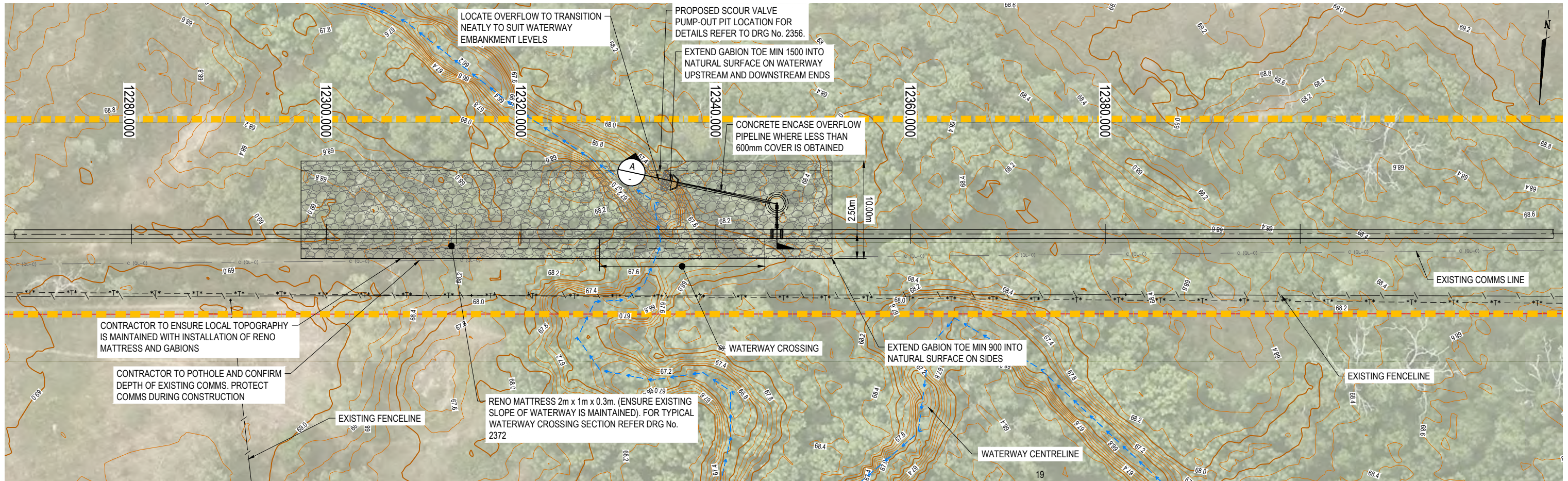


SECTION A-A
SCALE (A1): 1:100
SCALE (A3): 1:200

NOTES

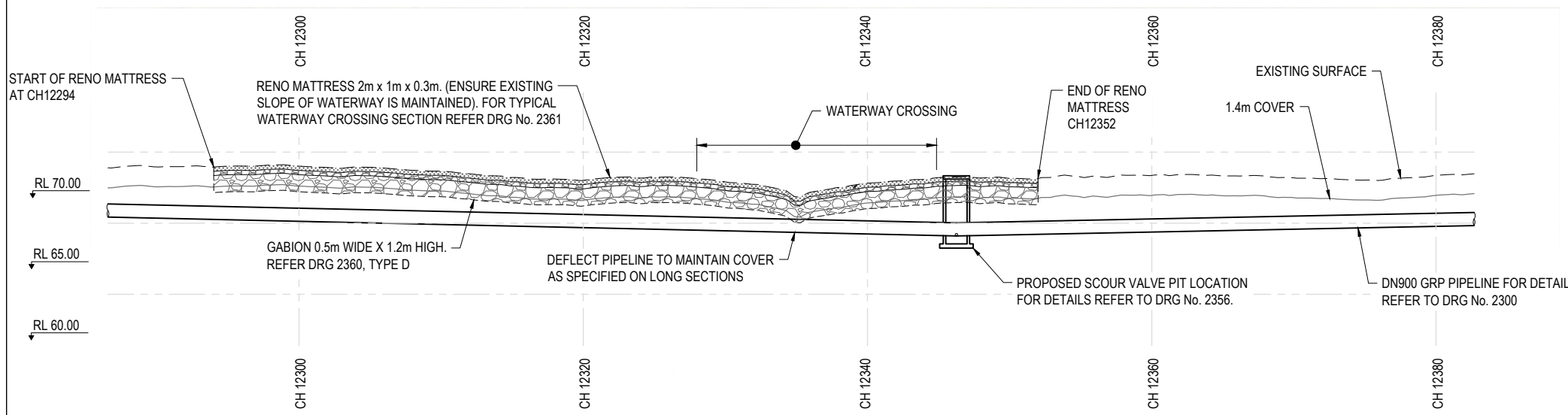
1. RENO MATTRESS TO BE 300mm MIN DEPTH IN PVC COATED STEEL WIRE MESH. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND FILL IN ACCORDANCE TO AS2784, WITH 125mm MIN AND 200mm MAX SIZE ROCK.
2. REFER DRG 2360 FOR RENO-MATTRESS TRENCH EMBEDMENT AND BACKFILL DETAILS.
3. ALLOW FOR TEMPORARY PUMP OUT OF WATER AND DIVERSION OF WATER STREAM AS REQUIRED.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:200 2 0 2 4 6 8 10 A1 1:400 A3	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	CH10540 WATERWAY CROSSING
					DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260	1:100 1 0 1 2 3 4 5 A1 1:200 A3			PROJECT No. 21-000239.02 DRAWING No. 2377 REVISION 0
							FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD		DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	



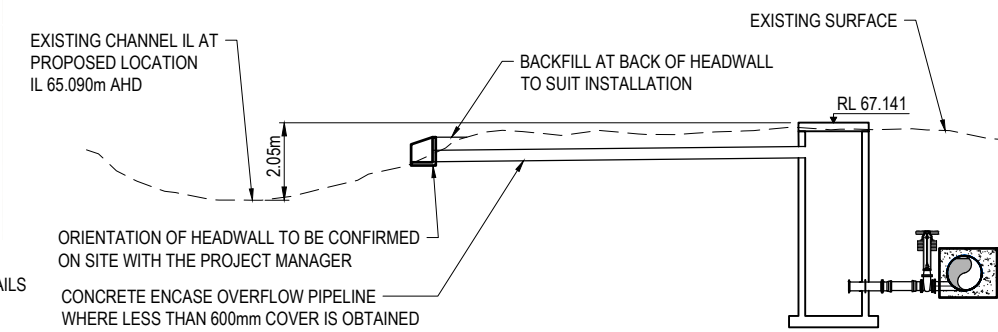
CH12335 WATERWAY CROSSING - LAYOUT

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



CH12335 WATERWAY CROSSING - SECTION

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



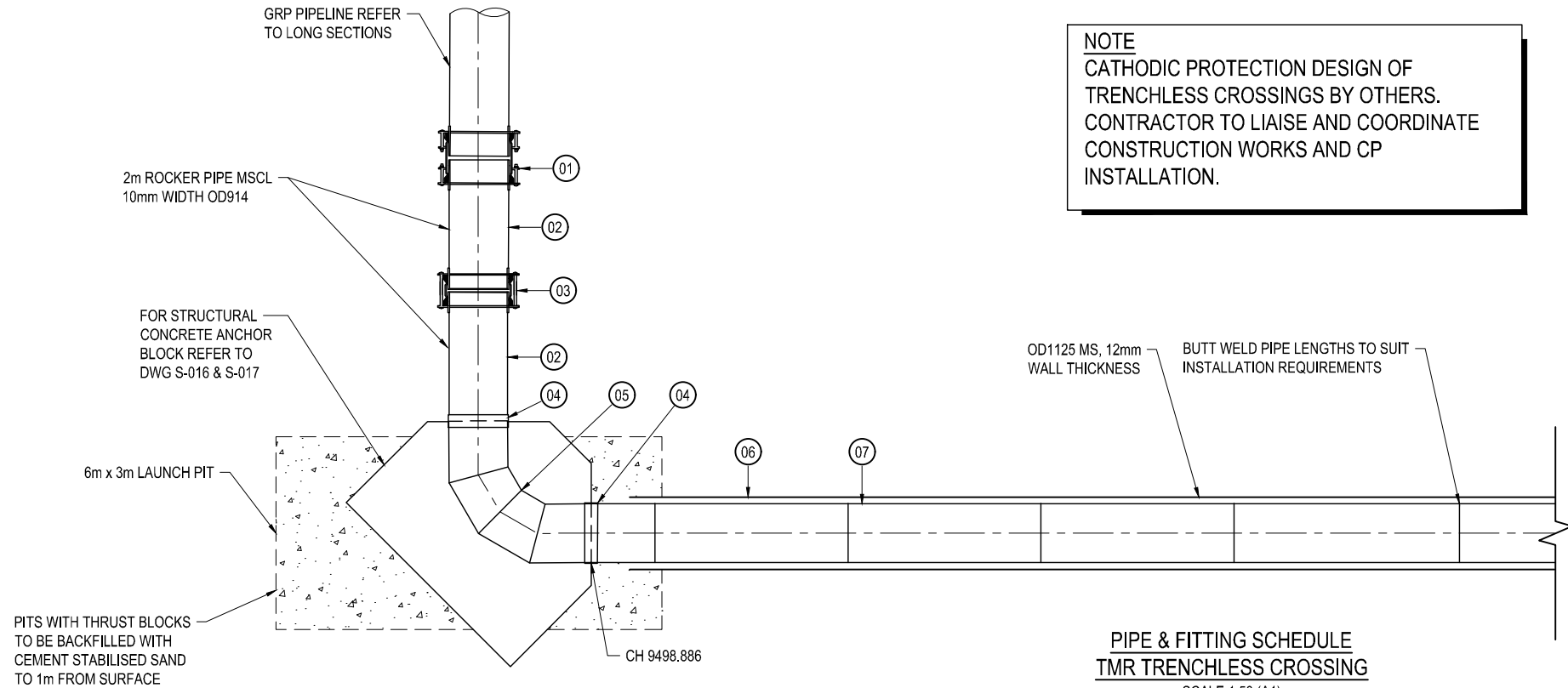
SECTION A
SCALE (A1): 1:100
SCALE (A3): 1:200

NOTES

1. RENO MATTRESS TO BE 300mm MIN DEPTH IN PVC COATED STEEL WIRE MESH. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND FILL IN ACCORDANCE TO AS2784, WITH 125mm MIN AND 200mm MAX SIZE ROCK.
2. REFER DRG 2360 FOR RENO-MATTRESS TRENCH EMBEDMENT AND BACKFILL DETAILS.
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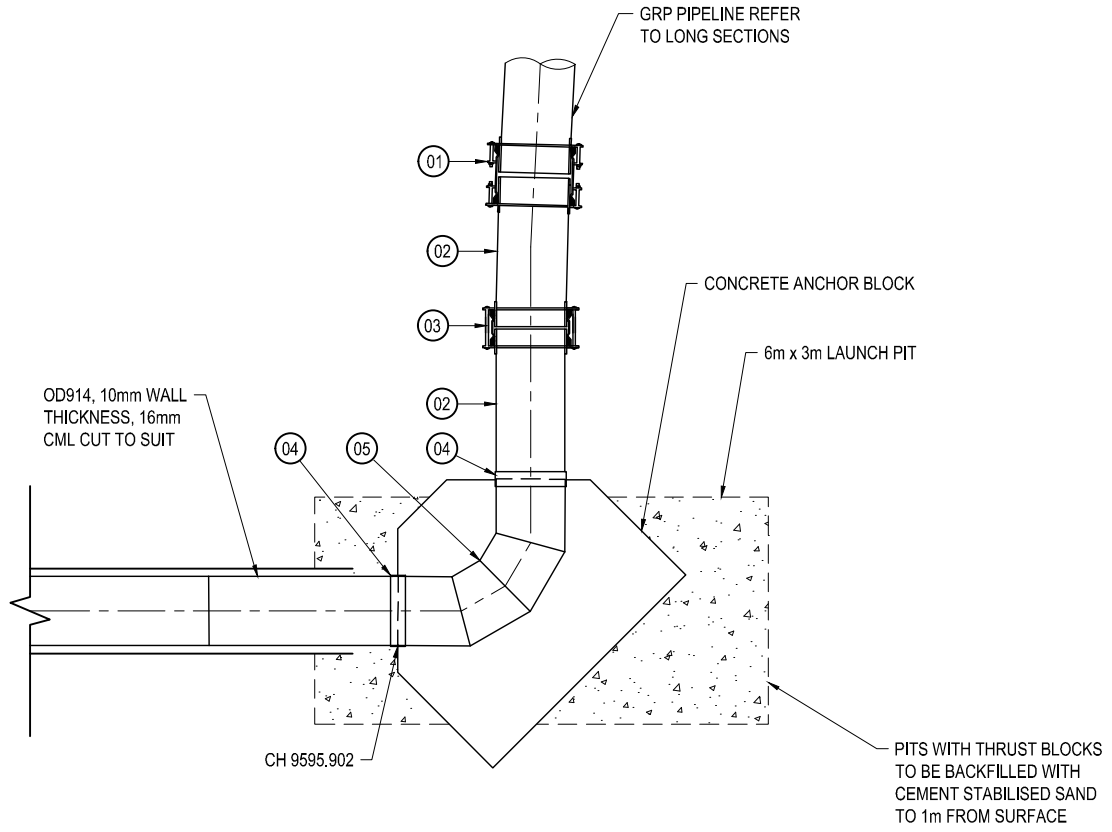
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:200 1:400 1:100 1:200	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	CH12335 WATERWAY CROSSING
						APPROVED MARCHEL OEGEMA RPEQ 20260				
						FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD				
										PROJECT No. 21-000239.02 DRAWING No. 2378 REVISION 0

NOTE
 CATHODIC PROTECTION DESIGN OF TRENCHLESS CROSSINGS BY OTHERS. CONTRACTOR TO LIAISE AND COORDINATE CONSTRUCTION WORKS AND CP INSTALLATION.

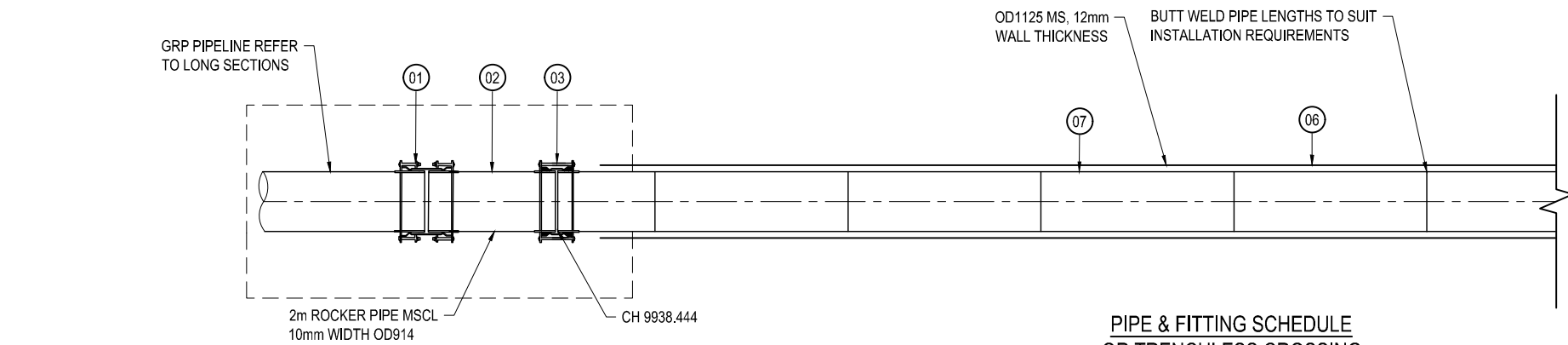


PIPE & FITTING SCHEDULE
TMR TRENCHLESS CROSSING
 SCALE 1:50 (A1)
 SCALE 1:100 (A3)

PIPE AND FITTINGS SCHEDULE				
ITEM No.	SIZE	MATERIAL	DESCRIPTION	QTY
01	DN900	CARBON STEEL PN25	NON-RESTRAINED DOUBLE BOLT COUPLING (NOVA SIRIA OR SIMILAR APPROVED)	2
02	DN900	MSCL	SP-SP PIPE (LENGTH 2000mm)	4
03	DN900	CARBON STEEL PN25	NON-RESTRAINED SINGLE BOLT COUPLING (NOVA SIRIA OR SIMILAR)	2
04	DN900	MS	WELD COLLAR	4
05	DN900	MSCL	SP-SP 90° BEND (SUIYTABLE FOR BUTT JOINT WITH COLLARS)	2
06	DN900	MS	ENVELOPER PIPE CONTRACTOR TO CONFIRM PIPE WALL THICKNESS	1
07	DN900	MSCL	TRENCHLESS BUTT WELDED PIPE, 10mm WALL THICKNESS (LENGTH APPROX 97m)	7

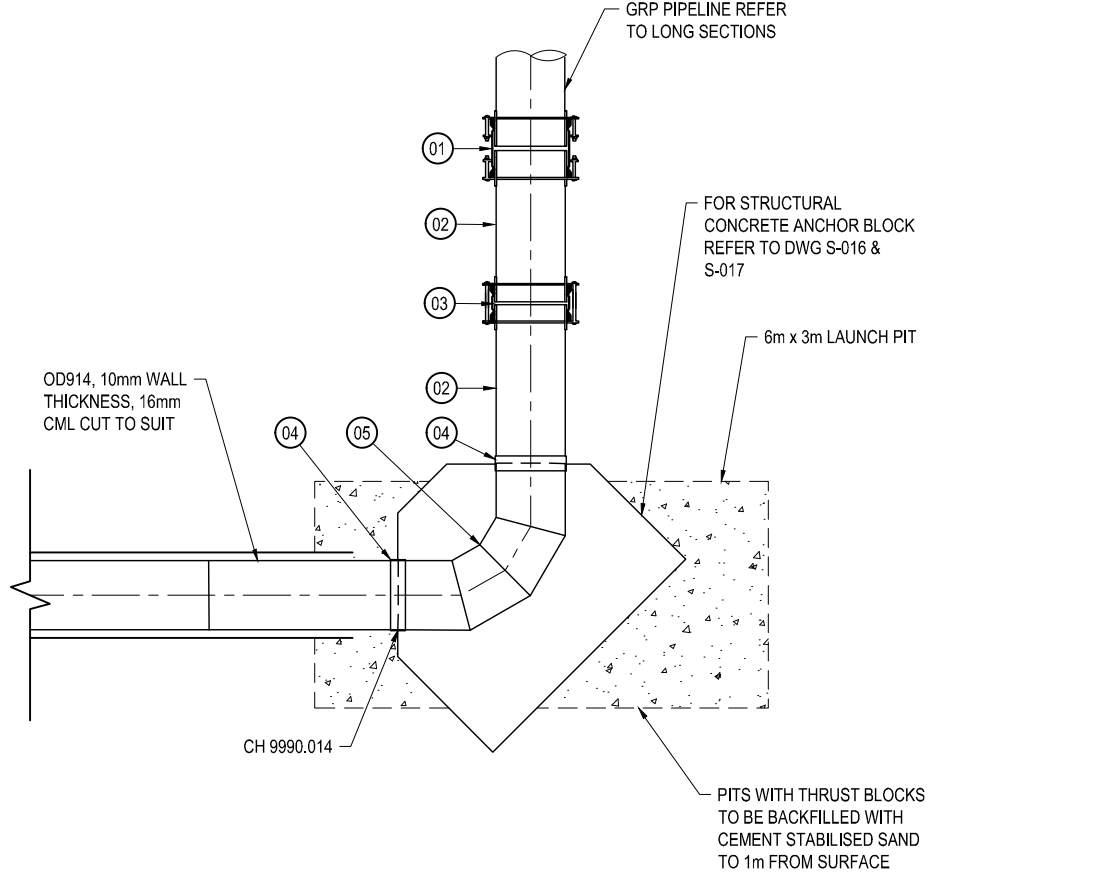


PIPE & FITTING SCHEDULE
TMR TRENCHLESS CROSSING
 SCALE 1:50 (A1)
 SCALE 1:100 (A3)



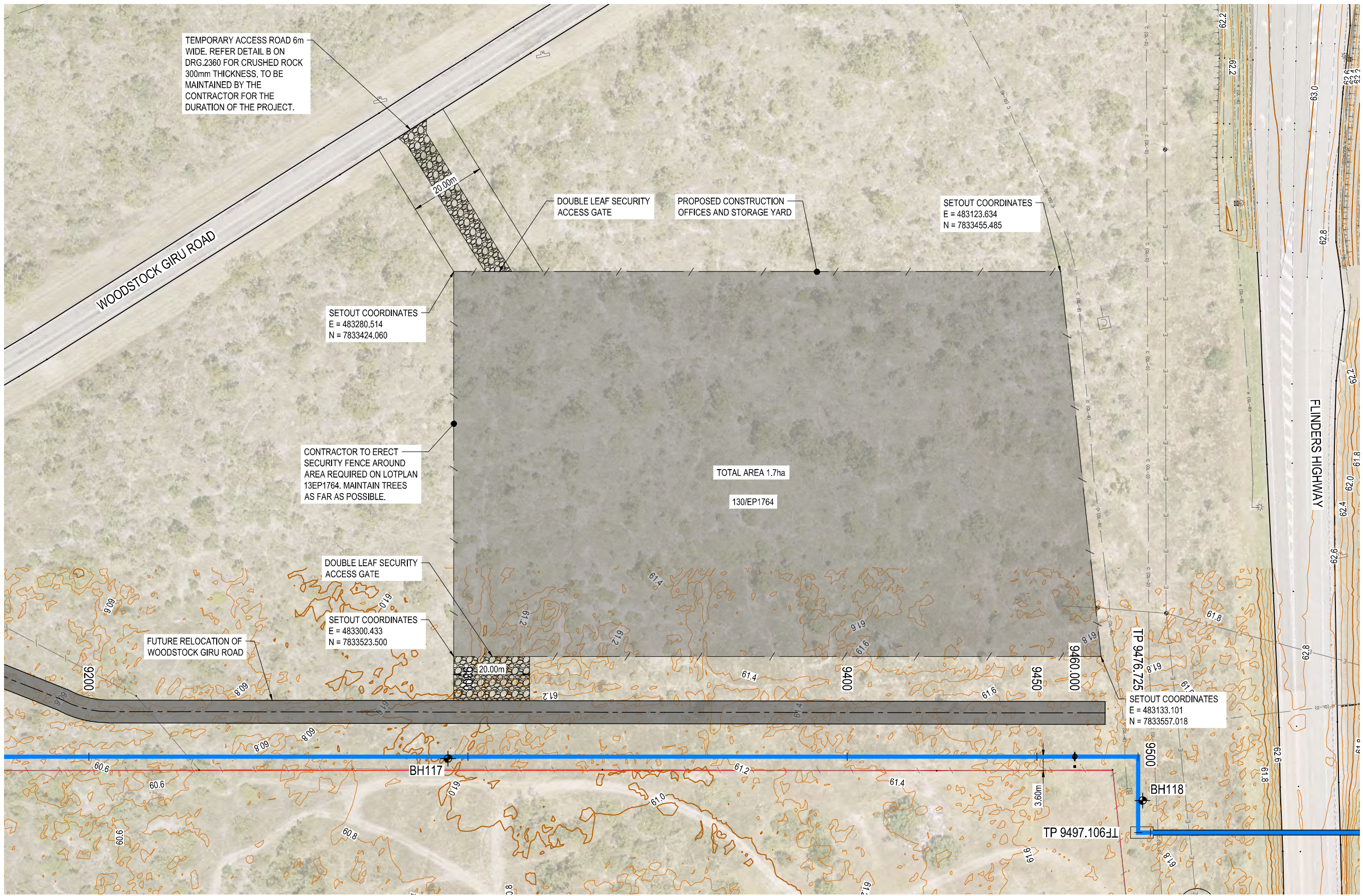
PIPE & FITTING SCHEDULE
QR TRENCHLESS CROSSING
 SCALE 1:50 (A1)
 SCALE 1:100 (A3)

PIPE AND FITTINGS SCHEDULE				
ITEM No.	SIZE	MATERIAL	DESCRIPTION	QTY
01	DN900	CARBON STEEL PN25	NON-RESTRAINED DOUBLE BOLT COUPLING (NOVA SIRIA OR SIMILAR APPROVED)	2
02	DN900	MSCL	SP-SP PIPE (LENGTH 2000mm)	3
03	DN900	CARBON STEEL PN25	NON-RESTRAINED SINGLE BOLT COUPLING (NOVA SIRIA OR SIMILAR)	2
04	DN900	MS	WELD COLLAR	2
05	DN900	MSCL	SP-SP 90° BEND (SUIYTABLE FOR BUTT JOINT WITH COLLARS)	1
06	DN900	MS	ENVELOPER PIPE CONTRACTOR TO CONFIRM PIPE WALL THICKNESS	1
07	DN900	MSCL	TRENCHLESS BUTT WELDED PIPE, 10mm WALL THICKNESS (LENGTH APPROX 52m)	4



- NOTES**
- ALL MSCL CARRIER PIPEWORK TO BE OF 10mm WALL THICKNESS.
 - WELD COLLARS TO BE MIN 12mm WALL THICKNESS.
 - REFER TO CONSTRUCTION TECHNICAL SPECIFICATION FOR STEEL PIPE INSTALLATION REQUIREMENTS.

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0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:50 1:100	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	PIPE & FITTING SCHEDULE TMR & QR TRENCHLESS CROSSING	
					DESIGN CHECK	APPROVED					
						MARCHEL OEGEMA	RPEQ 20260			DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	
					FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD				PROJECT No.	DRAWING No.	REVISION
									21-000239.02	2379	0



TEMPORARY ACCESS ROAD 6m WIDE. REFER DETAIL B ON DRG.2360 FOR CRUSHED ROCK 300mm THICKNESS. TO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE PROJECT.

DOUBLE LEAF SECURITY ACCESS GATE

PROPOSED CONSTRUCTION OFFICES AND STORAGE YARD

SETOUT COORDINATES
E = 483123.634
N = 7833455.485

SETOUT COORDINATES
E = 483280.514
N = 7833424.060

CONTRACTOR TO ERECT SECURITY FENCE AROUND AREA REQUIRED ON LOTPLAN 13EP1764. MAINTAIN TREES AS FAR AS POSSIBLE.

TOTAL AREA 1.7ha

130/EP1764

DOUBLE LEAF SECURITY ACCESS GATE

SETOUT COORDINATES
E = 483300.433
N = 7833523.500

FUTURE RELOCATION OF WOODSTOCK GIRU ROAD

SETOUT COORDINATES
E = 483133.101
N = 7833557.018

LAYOUT PLAN
SCALE 1:500 (A1)
SCALE 1:1000 (A3)

- NOTES**
- CONTRACTOR TO REFER TO CONSTRUCTION TECHNICAL SPECIFICATIONS FOR STORAGE YARD REQUIREMENTS.
 - CLEAR THE VEGETATION TO THE MINIMUM AREA REQUIRED.
 - CONTRACTOR TO CONFIRM AND SET OUT BOUNDARY EXTENTS OF LOT 130/EP1764.

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>ISSUE DETAILS</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>28.04.23</td> <td>ISSUE FOR CONSTRUCTION</td> </tr> </tbody> </table>			REVISION	DATE	ISSUE DETAILS	0	28.04.23	ISSUE FOR CONSTRUCTION	<table border="1"> <thead> <tr> <th>DRAWN</th> <th>DESIGN</th> </tr> </thead> <tbody> <tr> <td>JM</td> <td>MO</td> </tr> </tbody> </table>		DRAWN	DESIGN	JM	MO	<table border="1"> <thead> <tr> <th>DRAWN CHECK</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td>Dmp</td> <td>FOR CONSTRUCTION</td> </tr> </tbody> </table>		DRAWN CHECK	STATUS	Dmp	FOR CONSTRUCTION	<table border="1"> <thead> <tr> <th>DESIGN CHECK</th> <th>APPROVED</th> <th>PROJECT</th> </tr> </thead> <tbody> <tr> <td>[Signature]</td> <td>MARCHEL OEGEMA</td> <td>RPEQ 20260</td> </tr> </tbody> </table>		DESIGN CHECK	APPROVED	PROJECT	[Signature]	MARCHEL OEGEMA	RPEQ 20260	<table border="1"> <thead> <tr> <th>SCALE</th> </tr> </thead> <tbody> <tr> <td>1:500 10 5 0 10 20 A1 1:1000</td> </tr> </tbody> </table>		SCALE	1:500 10 5 0 10 20 A1 1:1000	<table border="1"> <thead> <tr> <th>CLIENT</th> </tr> </thead> <tbody> <tr> <td>TOWNSVILLE CITY COUNCIL</td> </tr> </tbody> </table>		CLIENT	TOWNSVILLE CITY COUNCIL	<table border="1"> <thead> <tr> <th>PROJECT</th> </tr> </thead> <tbody> <tr> <td>LANSDOWN ECO - INDUSTRIAL PRECINCT</td> </tr> </tbody> </table>		PROJECT	LANSDOWN ECO - INDUSTRIAL PRECINCT	<table border="1"> <thead> <tr> <th>DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td>SITE OFFICE AND STORAGE YARD LAYOUT PLAN</td> </tr> </tbody> </table>		DRAWING TITLE	SITE OFFICE AND STORAGE YARD LAYOUT PLAN
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