

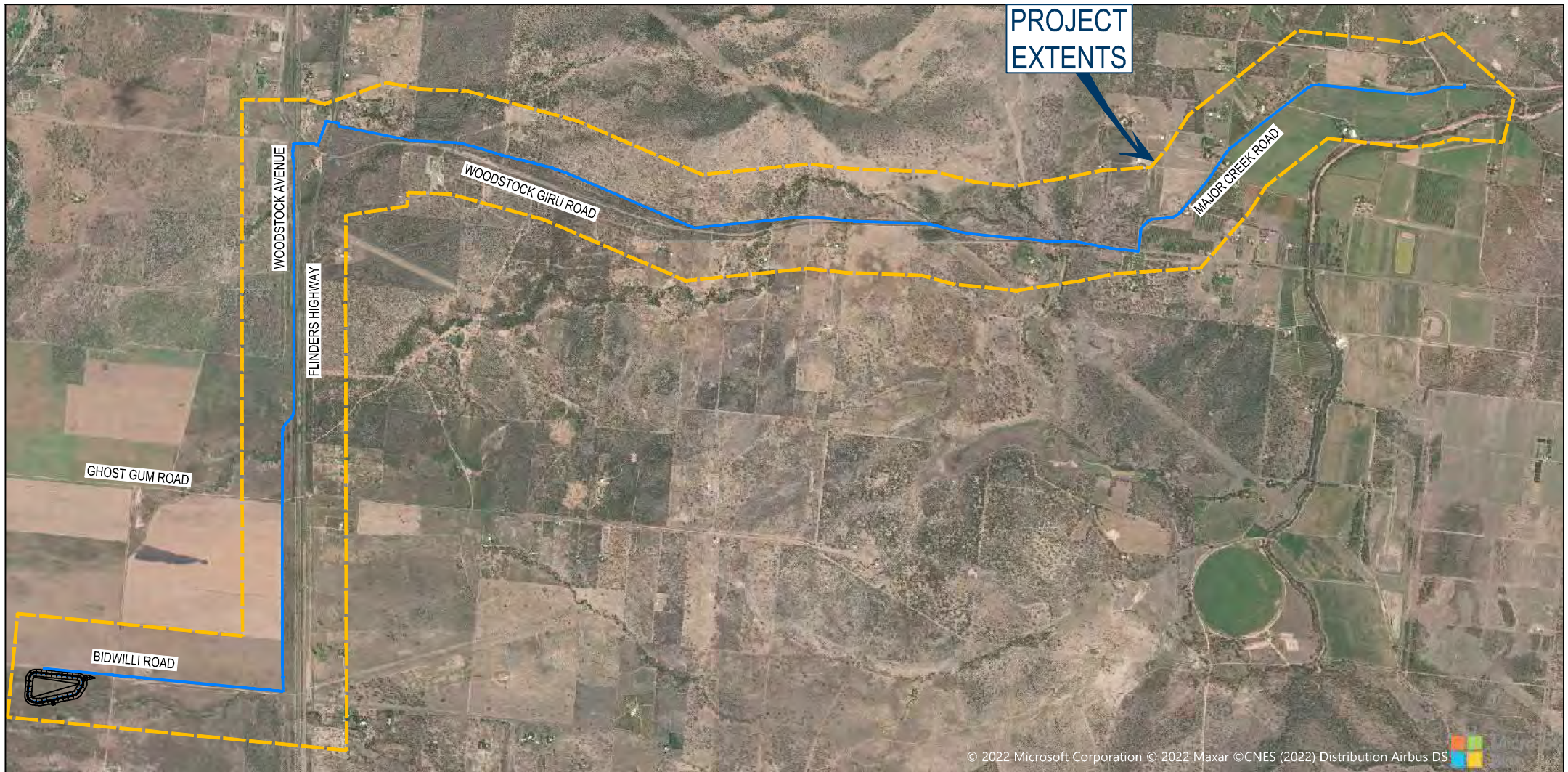


Appendix C Waterway and Wetland Crossing Design Plans



LANSDOWN ECO-INDUSTRIAL PRECINCT (LEIP) RAW WATER TRUNK MAIN

DRAWING SCHEDULE	
No.	DESCRIPTION
2310	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 11 OF 46
2311	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 12 OF 46
2312	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 13 OF 46
2313	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 14 OF 46
2314	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 15 OF 46
2315	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 16 OF 46
2316	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 17 OF 46
2317	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 18 OF 46
2318	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 19 OF 46
2319	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 20 OF 46
2320	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 21 OF 46
2321	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 22 OF 46
2322	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 23 OF 46
2323	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 24 OF 46
2324	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 25 OF 46
2325	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 26 OF 46
2326	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 27 OF 46
2327	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 28 OF 46
2328	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 29 OF 46
2329	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 30 OF 46
2330	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 31 OF 46
2331	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 32 OF 46
2332	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 33 OF 46
2333	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 34 OF 46
2334	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 35 OF 46
2335	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 36 OF 46
2336	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 37 OF 46
2337	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 38 OF 46
2338	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 39 OF 46
2339	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 40 OF 46
2340	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 41 OF 46
2341	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 42 OF 46
2342	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 43 OF 46
2343	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 44 OF 46
2344	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 45 OF 46
2345	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 46 OF 46
2347	WATER MAIN SET OUT TABLE
2348	TRANSFER MAIN BEND LOCATIONS
2350	HAUGHTON DN900 PIPELINE CONNECTION DETAIL
2355	AIR VALVE ARRANGEMENT DETAILS
2356	SCOUR VALVE ARRANGEMENT DETAILS
2357	BUTTERFLY VALVE PIT (VP1) DETAIL SHEET 1 OF 3
2358	BUTTERFLY VALVE PIT (VP2) DETAIL SHEET 2 OF 3
2359	BUTTERFLY VALVE PIT (VP3) DETAIL SHEET 3 OF 3
2360	PIPE SUPPORT TYPICAL DETAILS
2361	TRENCH REINSTATEMENT DETAILS
2362	PIPELINE MARKER POST DETAIL
2365	NQG GAS PIPE CROSSING DETAIL
2370	TRENCHLESS CROSSING - ROADWAY
2371	TRENCHLESS CROSSING - RAILWAY
2372	CH3778 WATERWAY CROSSING
2373	CH6040 WATERWAY CROSSING
2374	CH6260 WATERWAY CROSSING
2375	CH8611 WATERWAY CROSSING
2376	CH8968 WATERWAY CROSSING
2377	CH10540 WATERWAY CROSSING
2378	CH12335 WATERWAY CROSSING
2379	PIPE & FITTING SCHEDULE TMR & QR TRENCHLESS CROSSING
2380	SITE OFFICE AND STORAGE YARD LAYOUT PLAN



LOCALITY PLAN
NOT TO SCALE

DRAWING SCHEDULE	
No.	DESCRIPTION
S-000	GENERAL NOTES
S-001	BUTTERFLY VALVE PIT 1 BASE AND TOP PLANS
S-003	BUTTERFLY VALVE PIT 1 TOP AND BOTTOM REINFORCEMENT PLAN
S-004	BUTTERFLY VALVE PIT 1 REINFORCEMENT SECTIONS
S-005	BUTTERFLY VALVE PIT 2 PLAN AT BASE
S-008	BUTTERFLY VALVE PIT 2 TOP AND BOTTOM REINFORCEMENT PLAN
S-009	BUTTERFLY VALVE PIT 2 DETAILS
S-010	THRUST BLOCK 9° BEND ARRANGEMENT & REINFORCEMENT PLAN
S-011	THRUST BLOCK 9° BEND SECTIONS
S-012	THRUST BLOCK 9° BEND TYPICAL SECTIONS

S-013	THRUST BLOCK 30° BEND ARRANGEMENT & REINFORCEMENT PLAN
S-014	THRUST BLOCK 30° BEND SECTIONS
S-015	THRUST BLOCK 30° BEND TYPICAL SECTIONS
S-016	THRUST BLOCK 90° BEND ARRANGEMENT & REINFORCEMENT PLAN
S-017	THRUST BLOCK 90° BEND SECTIONS

DRAWING SCHEDULE	
No.	DESCRIPTION
2000	COVERSHEET
2001	GENERAL NOTES SHEET 1 OF 2
2002	GENERAL NOTES SHEET 2 OF 2
2003	LEGEND AND STAMPS
2005	TRUNK WATER MAIN KEY PLAN SHEET 1 OF 2
2006	TRUNK WATER MAIN KEY PLAN SHEET 2 OF 2
2300	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 1 OF 46
2301	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 2 OF 46
2302	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 3 OF 46
2303	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 4 OF 46
2304	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 5 OF 46
2305	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 6 OF 46
2306	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 7 OF 46
2307	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 8 OF 46
2308	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 9 OF 46
2309	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 10 OF 46



Digital data for setting out the works will be provided upon request, however not all provided information will be guaranteed. The guaranteed and non-guaranteed digital data is described in QAP0502. A copy of this document is available from Calibre Professional Services (QLD) upon request.

LANSDOWN ECO-INDUSTRIAL PRECINCT (LEIP) RAW WATER TRUNK MAIN

GENERAL NOTES

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING:
 - A) QUEENSLAND PLANNING GUIDELINES FOR WATER SUPPLY AND SEWERAGE (APRIL 2010)
 - B) TOWNSVILLE CITY PLAN (PLANNING SCHEME) AND TOWNSVILLE WATER- WATER STANDARD DRAWING LIST (SD DRAWING SERIES).
 - C) WATER SERVICES ASSOCIATION OF AUSTRALIA (WSAA)
 - D) AUSTRALIAN STANDARDS
 - E) OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
 ANY DISCREPANCY SHALL BE REFERRED TO THE PROJECT MANAGER FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G2. UNLESS NOTED OTHERWISE:
 - A) ALL DIMENSIONS ARE IN MILLIMETRES.
 - B) ALL CHAINAGES & RL'S ARE SHOWN IN METRES (AHD)
 - C) ALL CO-ORDINATES ARE BASED ON MGA.
 - D) ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
 - E) OFFSET DIMENSIONS ARE TO THE PIPE CENTRE LINE UNO.
- G3. ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE CONTRACTOR ON SITE, DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
- G4. THE CONTRACTOR SHALL ARRANGE FOR ANY ADDITIONAL INVESTIGATIONS IF DEEMED NECESSARY AT HIS OWN COST. REFERENCE IS MADE TO THE FOLLOWING GEOTECHNICAL REPORT: "(TO BE UPDATED)"
- G5. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS.
- G6. ALL EXISTING FEATURES (EG. ROADS, FENCES, DRIVEWAYS, ROAD SIGNS, GARDENS, PATHS, ETC ARE TO BE RE-INSTATED WHERE DISTURBED BY THE WORKS).
- G7. ALL MEASURES AS NECESSARY SHALL BE TAKEN TO PREVENT DAMAGE TO EXISTING SERVICES AND INFRASTRUCTURE. DAMAGED SERVICES SHALL BE REPAIRED BY THE SERVICE PROVIDER AT THE EXPENSE OF THE CONTRACTOR.
- G8. ALL TREES ADJACENT TO THE WORKS MUST BE PROTECTED FROM DAMAGE BY MACHINERY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLAIMS FOR LOSS AND DAMAGE RESULTING FROM THE UNAPPROVED REMOVAL OR DAMAGE TO TREES AND FLORA.
- G9. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT REGULATORY AUTHORITIES / DIAL BEFORE YOU DIG PRIOR TO COMMENCING WORKS.
- G10. THE CONTRACTOR SHALL NOTE THE PRESENCE OF EXISTING SERVICES ASSOCIATED WITH THE WORKS. SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR IN THE VICINITY OF ALL SERVICES.
- G11. THE CONSTRUCTION OF THE WORKS SHALL BE SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER OF QUEENSLAND (RPEQ) OR BY ANOTHER WHO HAS BEEN DIRECTLY APPOINTED BY AN RPEQ.
- G12. THE CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF HEALTH AND SAFETY FOR INFORMATION. PH:1300 362 128.
- G13. THE CONTRACTOR SHALL SUBMIT ALL MANAGEMENT PLANS AND WORK METHOD STATEMENTS TO THE PROJECT MANAGER FOR APPROVAL PRIOR TO THE COMMENCEMENT OF WORK, 'AS CONSTRUCTED' INFO AND QA RECORDS PROGRESSIVELY OR AT PRACTICAL COMPLETION.
- G14. ALL EXCESS SOIL WILL EITHER BE TREATED, RETAINED AND SPREAD ON SITE OR REMOVED FROM SITE TO AN APPROPRIATE AND APPROVED DISPOSAL SITE, DEPENDANT ON THE CONDITION OF THE SOIL.

SURVEY NOTES

- S1. THE ACCURACY AND COMPLETENESS OF EXISTING SERVICES SHOWN ON THE DRAWINGS IS NOT TO BE GUARANTEED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CADASTRAL BOUNDARIES, THE LOCATION OF ALL SERVICES AND INFRASTRUCTURE (INCLUDING LIGHTING, POWER POLES, SIGNAGE AND UNDERGROUND SERVICES) WITH ALL RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION AND ADVISE THE PROJECT MANAGER ON ANY DIFFERENCE FROM THE DRAWINGS. PROPOSED PIPELINE OFFSETS ARE SPECIFIED FROM CADASTRAL BOUNDARIES.
- S2. THE SHAPES DEPICTING SERVICES ARE SYMBOLIC REPRESENTATIONS, AND WHILST THEY ARE ACCURATELY POSITIONED, THEY ARE NOT TO SCALE.
- S3. EXISTING SERVICES SHOWN ON THE PLAN AND LONGSECTIONS ARE BASED ON THE BEST INFORMATION AVAILABLE.
- S4. ALL SERVICES SHOWN ON THE LONGSECTION ARE BASED ON EXTERNAL SERVICE SIZE. NO ALLOWANCE HAS BEEN MADE FOR COLLARS AT JOINTS UNLESS NOTED OTHERWISE.

PIPEWORK NOTES

- P1. FOR ALL DI PIPEWORK:
 - ALL DI CL PIPES & FITTINGS MUST BE IN ACCORDANCE WITH AS 2280, CEMENT MORTAR LINED TO AS2280.
 - A) PIPES IN PITS SHALL BE FUSION BONDED EPOXY COATED TO AS 4158.
 - B) BURIED PIPES TO BE BITUMEN COATED AND COVERED WITH POLYETHYLENE SLEEVING/WRAPPER AS PER THE MANUFACTURER'S RECOMMENDATION AND AS3680.
- P2. FOR ALL FLANGES:
 - A) ALL FLANGES MUST BE IN ACCORDANCE WITH AS 4087 UNO. ALL VALVES AND FITTINGS SHALL BE DRILLED TO:
 - 1. FIGURE B6 - DI CL PN35.
 - 2. FIGURE B8 - STEEL PN21.
 - B) ALL BOLTED CONNECTIONS SHALL BE SS316 BOLTS, NUTS AND WASHERS. "BREAKAWAY PLUS" (OR APPROVED EQUIVALENT) ANTI-SEIZE PASTE SHALL BE APPLIED TO THREADS. ALL WASHERS SHALL BE 3MM THICK. PROVIDE INSULATING WASHERS FOR DISSIMILAR METALS AS REQUIRED.
 - C) ALL PE FLANGE JOINTS SHALL BE INSTALLED IN ACCORDANCE WITH PPI TN-036 (BOLT TORQUE FOR POLYETHYLENE FLANGE JOINTS) AND THE "FLANGE CONNECTION PROCEDURE - PE TO METAL".
- P3. PIPELINE CONSTRUCTION BY TRENCHING SHALL BE IN ACCORDANCE WITH WSA CODES (SEQ AMENDMENT) AND PIPE MANUFACTURERS REQUIREMENTS. MAXIMUM JOINT DEFLECTIONS SHALL NOT EXCEED 80% OF MANUFACTURES RECOMMENDATIONS. (CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE WITH CLAUSE 21 OF WSA03-2011).
- P4. THE CONTRACTOR IS TO CONFIRM TRENCH CONSTRUCTION TYPE WITH THE PROJECT MANAGER FOLLOWING INSPECTION OF TRENCH CONDITIONS.
- P5. TRENCH REINSTATEMENT DETAILS TO BE IN ACCORDANCE WITH DRAWING 2361.
- P6. THE CONTRACTOR SHALL PLACE BACKFILL IN A MANNER THAT AVOIDS LOADING ON THE PIPE IN EXCESS OF THE STRUCTURAL CAPACITY FOR THE LOADING CONDITION.

- P7. ALL BEDDING SHALL BE COMPACTED TO ENSURE UNIFORM SUPPORT OVER THE WHOLE LENGTH OF THE PIPELINE.
- P8. HANDLING AND STORAGE OF PIPE SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS REQUIREMENTS.
- P9. ALL BOLTED CONNECTIONS SHALL BE SS316 BOLTS, NUTS AND WASHERS. "BREAKAWAY PLUS" (OR APPROVED EQUIVALENT) ANTI-SEIZE PASTE SHALL BE APPLIED TO THREADS. ALL WASHERS SHALL BE 3mm THICK. PROVIDE INSULATING WASHERS FOR DISSIMILAR METALS AS REQUIRED.

VALVE NOTES

- V1. ALL VALVES SHALL BE FLANGED IN ACCORDANCE WITH NOTE P2(A).
- V2. SCOUR VALVES SHALL BE METAL SEATED GATE VALVES (AS2638.1), SUREFLOW FIG600 (VIADUX) OR SIMILAR APPROVED.
- V3. ISOLATION VALVES SHALL BE DIRECT BURIED METAL SEATED (AS2638.1) WITH INTEGRAL BYPASS, SUREFLOW FIG400 (VIADUX) OR SIMILAR APPROVED.
- V4. ALL VALVES TO BE ANTI-CLOCKWISE CLOSING WITH NON-RISING SPINDLE.

THRUST BLOCK NOTES

- T1. THRUST BLOCKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWING 21-000239-2325 (PROVIDED IN NEXT SUBMISSION).
- T2. THE BEARING FACE OF THE THRUST BLOCKS MUST BE CAST AGAINST UNDISTURBED GROUND.
- T3. CONCRETE MUST NOT SPILL OVER SOCKET JOINTS.
- T4. VERTICAL THRUST BLOCKS MUST BE EMBEDDED INTO UNDISTURBED GROUND.
- T5. CONCRETE MUST BE CURED FOR 48HRS (MINIMUM) PRIOR TO CHARGING THE PIPELINE.
- T6. VALVE RESTRAINT SHALL BE IN ACCORDANCE WITH 21-000239-2326 (PROVIDED IN NEXT SUBMISSION).
- T7. CONTRACTOR TO CONFIRM SOIL BEARING CAPACITY AT ALL THRUST/ANCHOR BLOCK LOCATIONS PRIOR TO CONSTRUCTING TO CONFIRM BLOCK DIMENSIONS.
- T8. ALL DI PUDDLE/ THRUST FLANGES SHALL BE FACTORY FITTED ONTO PIPE. A MACHINE GROOVE SHALL BE CUT INTO THE OUTSIDE SURFACE OF THE PIPE AND THE PUDDLE FLANGE MACHINED ACCORDINGLY, TO PROVIDE A NOMINAL INTERFACE FIT IN ACCORDANCE WITH AS2280.

TRAFFIC MANAGEMENT NOTES

- TM1. ALL WORKS ARE TO BE IN ACCORDANCE WITH THE CONTRACTOR'S TRAFFIC MANAGEMENT PLAN FORMULATED IN ACCORDANCE WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (QLD), (MUTCD) 2003 EDITION, AMENDMENT 11.
- TM2. THE CONTRACTOR SHALL MINIMISE ALL OBSTRUCTIONS TO TRAFFIC.
- TM3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS FROM COUNCIL AND OTHER AUTHORITIES FOR TEMPORARY TRAFFIC ARRANGEMENTS.
- TM4. TWO WEEKS BEFORE UNDERTAKING WORK THAT WOULD AFFECT TRAFFIC, THE CONTRACTOR SHALL SUBMIT A TRAFFIC GUIDANCE SCHEME FOR THE PROJECT MANAGER AND COUNCIL APPROVAL.

TESTING NOTES

- AT1. THE HYDROSTATIC TEST PRESSURE FOR THE NEW WATERMAIN SHALL BE 1250 kPA. TESTING OF PE WATERMAIN SHALL BE IN ACCORDANCE WITH WSA 01-2004.
- AT2. REFER TO CLAUSE 2.13 OF WSA 01-2004 FOR TESTING AND COMMISSIONING REQUIREMENTS.
- AT3. THE MINIMUM COMPACTION OF EMBEDMENT AND FILL SHALL NOT BE LESS THAN THE VALUES GIVEN IN TABLE 19.1 OF WSA03 - 2011. THE FREQUENCY OF COMPACTION TO BE TO CLAUSE 19.3.2.4, TRAFFICABLE AREA




ENVIRONMENT MANAGEMENT NOTES

- EM1. ALL WORKS MUST BE IN ACCORDANCE WITH THE WORK PACKAGE ENVIRONMENTAL MANAGEMENT PLAN (EMP).
- EM2. VEGETATION PROTECTION MEASURES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE EMP AND ARBORIST REPORT. NO VEGETATION IS TO BE REMOVED EXCEPT WHERE VEGETATION CLEARING HAS BEEN APPROVED.
- EM3. DECLARED PEST PLANTS SHALL BE MANAGED IN ACCORDANCE WITH THE EMP TO PREVENT THEIR ESTABLISHMENT AND SPREAD.
- EM4. A FAUNA SPOTTER-CATCHER SHALL BE PRESENT PRIOR TO AND DURING ALL CLEARING OF NATIVE VEGETATION, UNLESS APPROVED.
- EM5. SOIL AND FLOODING:
 - A) THE SUBCONTRACTOR SHALL DEVELOP AN EROSION AND SEDIMENT CONTROL PLAN GENERALLY IN ACCORDANCE WITH THE BEST PRACTICE EROSION AND SEDIMENT CONTROL (IECA), PRIOR TO CONSTRUCTION WORKS. THE PLANS MUST BE APPROVED BY THE PROJECT MANAGER.
 - B) WHERE PRACTICABLE, TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.
 - C) EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED AND MANAGED IN ACCORDANCE WITH THE EMP.
 - D) ACIDIC SOILS WERE DETECTED IN THE GEOTECHNICAL INVESTIGATION. MANAGEMENT WILL BE AS PER THE GEOTECHNICAL INVESTIGATION REPORT.
- EM6. DEWATERING OF GROUNDWATER AND RAIN WATER TRAPPED IN EXCAVATIONS, AND TESTING AND CHLORINATED WATER MAY BE REQUIRED. DEWATERING ACTIVITIES SHALL COMPLY WITH THE REQUIREMENTS OF THE EMP.
- EM7. THE SITE IS WITHIN A FIRE ANT RESTRICTED AREA (FIRE ANT BIOSECURITY ZONE 2). WORKS MUST BE IN ACCORDANCE WITH THE EMP AND CONTRACTOR'S APPROVED RISK MANAGEMENT PLAN (ARMP). CONTRACTOR TO OBTAIN THE NECESSARY PERMITS IF REQUIRED.
- EM8. WORKS SHALL NOT BE UNDERTAKEN OUTSIDE DAY TIME HOUR UNLESS APPROVED, IN WHICH CASE ADDITIONAL NOISE AND VIBRATION MITIGATION MAY BE REQUIRED.
- EM9. REHABILITATION OF WORK AREAS ARE TO BE UNDERTAKEN PROGRESSIVELY IN ACCORDANCE WITH THE APPROVED DRAWINGS AND EMP.

LANDSCAPE

- L1. IN AREAS THAT SITE TOPSOIL MUST BE REINSTATED ON MASS, THE SUBGRADE MUST BE CULTIVATED TO A DEPTH OF 100mm PRIOR TO SITE TOPSOIL BEING INSTALLED.
- L2. SITE TOPSOIL TO BE REINSTATED TO A DEPTH OF 100mm WHERE GROUND SURFACE HAS BEEN DISTURBED. IN THE INSTANCE SITE TOPSOIL IS NOT AVAILABLE, SUPPLY AND INSTALL IMPORTED TOPSOIL, WHICH MUST BE AS 4419:2003 COMPLIANT. ALL SURVEYED FINISH GRADES MUST BE MATCHED TO PRE-DISTURBANCE LEVELS, ONCE TOPSOIL IS REINSTATED, UNLESS OTHERWISE NOTED ON DRAWINGS.
- L3. SITE MULCH (AS PER EMP) TO BE INSTALLED TO A DEPTH OF 50mm. IF NO SITE MULCH IS AVAILABLE, SUPPLY AND INSTALL 'FOREST BLEND' MULCH, COMPLIANT TO AS 4454:2012.
- L4. ALL TURF INDICATED ON THE DRAWINGS MUST BE INSTALLED AS PER THE EMP. THE SPECIES OF TURF MUST BE *Cynodon dactylon* 'A' GRADE 'GREEN COUCH'. WHEN INSTALLING TURF THE TURF MUST BE INSTALLED PERPENDICULAR TO ANY BATTER, OR PERPENDICULAR TO THE POTENTIAL OVERLAND WATER FLOW PATH.
- L5. WHERE HYDROMULCH IS INDICATED ON THE DRAWINGS, THE HYDROMULCH MUST BE IN LINE WITH THE MRTS16 HYDROMULCH SPECIFICATION (TMR SPECIFICATION, JULY 2017). IN PARTICULAR THE FOLLOWING MUST BE COMPLIED WITH:
 - A) HYDROMULCH MUST BE INSTALL ONTO 100mm TOPSOIL REFER ABOVE FOR DETAILS.
 - B) HYDROMULCH TO BE INSTALLED AS SINGLE PASS, 3mm THICK, SUGAR CANE MULCH WITH PAPER FIBRE, AS PER SECTION 8.2.1.4 OF THE MRTS16 SPECIFICATION.
 - C) ONCE HYDROMULCH IS INSTALLED, THE HYDROMULCH MUST BE WATERED TO ENSURE 90% COVER IS ACQUIRED.
 - D) SEEDING SPECIES TO BE LINE WITH THE TABLE 7.4.9.1 MRTS16 SPECIFICATION.
- L6. ALL HYDROMULCH AND TURF AREAS MUST BE ESTABLISHED/MAINTAINED FOR A MINIMUM OF 12 WEEKS POST COMPLETION. THE 12 WEEK PERIOD WILL COMMENCE AT PRACTICAL COMPLETION. AREAS THAT DO NOT MEET WITH 90% COVER AT THE END OF THE 12 WEEK PERIOD, MUST BE RECTIFIED WITH SIMILAR TREATMENT. IN THE INSTANCE THAT HYDROMULCH AND OR TURF AREAS IS REQUIRED TO BE RECTIFIED AT THE END OF THE 12 WEEKS PERIOD, A FURTHER 12 WEEK ESTABLISHED/MAINTAINED WILL BE IMPOSED AT THE CONTRACTORS COST.
- L7. PLANTS TO BE SUPPLIED AS PER THE PLANT SCHEDULE, AND AS DESCRIBED ON THE DRAWINGS (INCLUSIVE OF SPECIES, POT SIZE, DENSITY, LOCATION), IN THE INSTANCE THE SPECIFIED SPECIES CAN NOT BE PROCURED, SUBSTITUTIONS MUST BE APPROVED PRIOR TO PURCHASING. ALL PLANTS MUST BE COMPLIANT WITH AS 2303:2015.
- L8. PLANTS MUST BE INSTALLED INTO A HOLE 3 TIMES THE SIZE OF THE POT SIZE. EACH PLANT MUST BE INSTALLED WITH A AGRIFORM TABLET (10gm) PER PLANT. ENSURE THAT A SMALL WELL IS FORMED AT THE BASE OF THE PLANT. NO MULCH TO ENCROACH THE BASE OF THE PLANT (MIN. DISTANCE FOR MULCH IS 30mm FROM PLANT).
- L9. WHERE PLANTS ARE TO BE INSTALLED WITH JUTE MAT SQUARES (REFER DRAWINGS FOR EXTENTS), THE CONTRACTOR MUST SUPPLY AND INSTALL 370mm x 370mm JUTE MAT SQUARES (OR SIMILAR APPROVED). THE SQUARES MUST BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATION.
- L10. WHERE JUTE MESH IS INDICATED ON THE DRAWINGS TO BE INSTALLED OVER SITE MULCH, THE CONTRACTOR MUST SUPPLY AND INSTALL JUTE MESH (OPENWEAVE - OR SIMILAR APPROVED), THE JUTE MESH MUST BE INSTALLED AS PER THE MAUFACTURERS SPECIFICATION. WHEN INSTALL ENSURE THAT THE MESH IS INSTALLED UPSTREAM OVER DOWNSTREAM.
- L11. PLANTING AREAS MUST BE MAINTAINED AND ESTABLISHED FOR A MINIMUM OF 12 WEEKS. WHERE THE FOLLOWING IS THE MINIMUM THAT MUST OCCUR DURING THAT TIME:
 - A) ALL PLANTING AREAS MUST BE FREE OF WEEDS AND RUBBISH. ALL WEED TREATMENTS MUST BE COMPLIANT WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. IN PARTICULAR TREATING WEED ADJACENT TO THE WATERWAY.
 - B) ANY AREAS THAT HAS SIGNS OF EROSION MUST BE STABILIZED PRIOR TO RECEIVING OFF ESTABLISHMENT.
 - C) ENSURE THAT A MINIMUM OF 95% OF ALL PLANTS INSTALLED SURVIVE THE ESTABLISHMENT PERIOD. IN THE INSTANCE THAT LESS THAN 95% OF PLANTS SURVIVE THE CONTRACTOR MUST REPLACE THE PLANTS AT THEIR OWN COST.
 - D) ADDITIONAL FERTILISING MAY BE REQUIRED DURING THIS PERIOD, AND MUST BE APPLIED DURING THE ESTABLISHMENT PERIOD IF DEEMED NECESSARY.
 - E) WATERING AT A MINIMUM MUST IN LINE WITH THE BELOW REGIME, AND THE CONTRACTOR MUST ACCOUNT FOR ANY CLIMATIC CONDITIONS (I.E. EXCESSIVE RAIN, EXTENDED DRY PERIODS, ETC.)

- 3 WATERING EVENTS PER WEEK, FOR WEEK 1-2 WEEKS.
- 2 WATERING EVENTS PER WEEK, FOR 3-6 WEEKS.
- 1 WATERING EVENT PER WEEK, FOR 7-12 WEEKS.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	<i>Dmp</i>	FOR CONSTRUCTION		 TOWNSVILLE CITY COUNCIL		LANSDOWN ECO - INDUSTRIAL PRECINCT
					DESIGN CHECK	APPROVED MARGHELE OEGEMA RPEQ 20260				GENERAL NOTES SHEET 1 OF 2
					<i>MS</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. 2001
										REVISION 0

SERVICE LEGEND

EXISTING (SURVEYED)

	CADASTRE
	51.0 CONTOURS MAJOR (1m INTERVALS)
	51.2 CONTOURS MINOR (0.2m INTERVALS)
	FENCE
	EXISTING ROAD BITUMEN
	EXISTING TOP OF BATTER
	EXISTING ROAD CROWN
	EXISTING UNDERGROUND TELSTRA (BY RECORDS)
	EXISTING WATER PIPELINE (BY RECORDS)
	EXISTING UNDERGROUND ELECTRICITY (BY RECORDS)
	EXISTING GAS MAIN (BY RECORDS)
	W (QL-C) WATER (POTABLE) QUALITY LEVEL C
	C (QL-B) COMMUNICATIONS QUALITY LEVEL B
	OHE OVERHEAD ELECTRICITY
	D (QL-C) DRAINAGE QUALITY LEVEL B
	G (QL-B) GAS QUALITY LEVEL B
	COMMS MARKER/FEATURE
	COMMS PIT
	POWER POLE
	TRAFFIC SIGN
	WATER MARKER/FEATURE
	TREE
	BOREHOLE LOCATION
	TEST PIT LOCATION

PROPOSED LEGEND

	DN900 GRP TRUNK WATER MAIN
	AIR VALVE
	SCOUR VALVE
	BUTTERFLY VALVE PIT
	WATER MAIN CONSTRUCTION CORRIDOR
	WATERWAY ROCK APRON/MATTRESS (EROSION PROTECTION)

SURVEY/DBYD STAMPS



DISCLAIMER STAMPS

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING COMMENCING ANY CLEARING.

ALL CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE WORKPLACE HEALTH AND SAFETY LEGISLATION.

SURVEY NOTE:

ALL SURVEYED EXISTING SERVICES INFORMATION AND ITS QUALITY WAS OBTAINED FROM A FULL SITE SURVEY, UNDERTAKEN (2022) BY "ROWLANDS SURVEYS".

CAUTIONARY STAMPS

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.

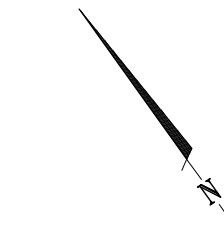
DANGER: OVERHEAD POWERLINES
CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

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

MISCELLANEOUS



SCALE BAR



NORTH ARROW



SECTION MARK

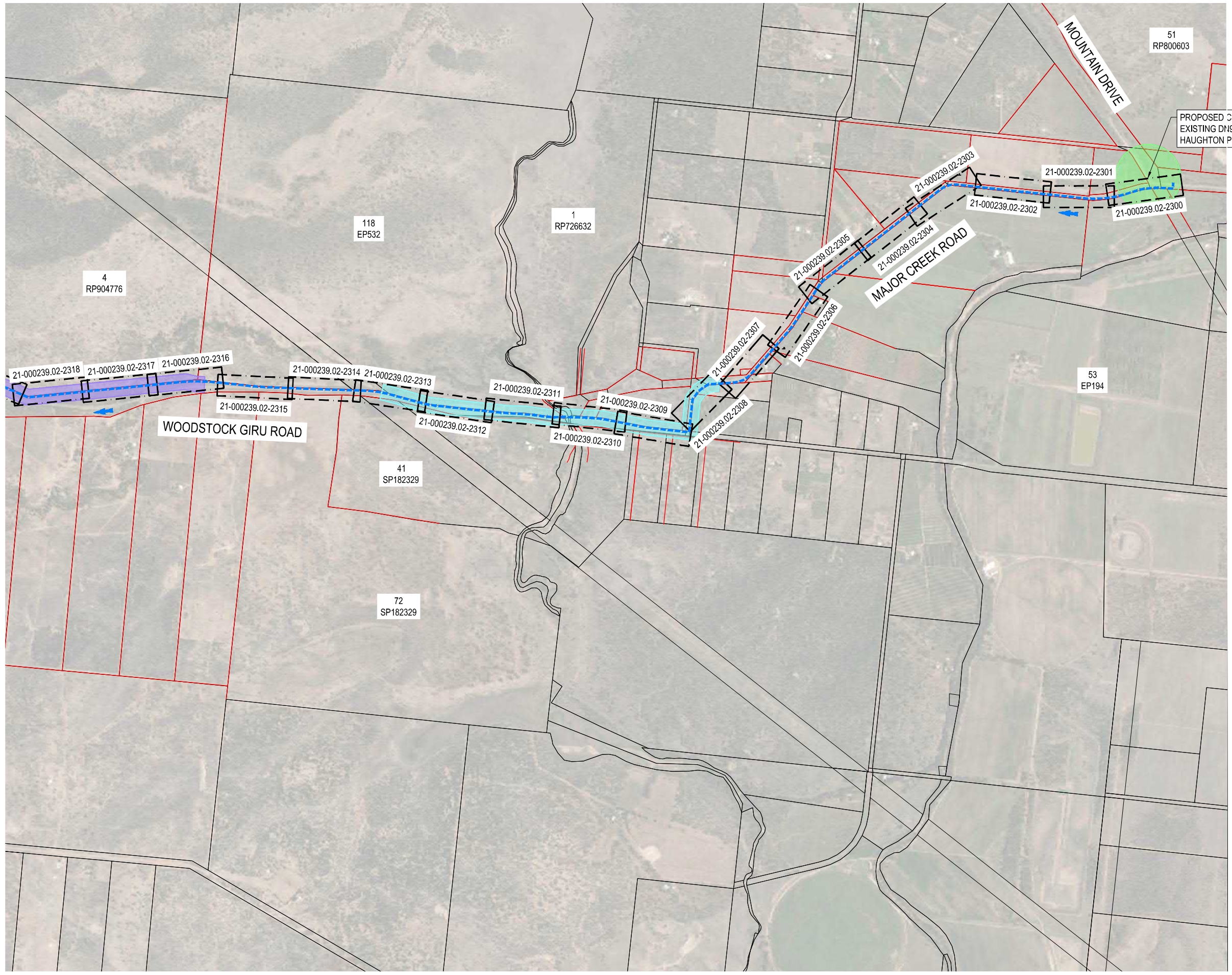
SECTION 1
SCALE (A1): 1:100
SCALE (A3): 1:200

SECTION TITLE

SUBSURFACE UTILITY LOCATION. AS 5488-2013 QUALITY LEVELS

QUALITY CLASSIFICATION OF SUBSURFACE UTILITY DATA SHOWN ON THIS PLAN.	SOURCE OF DATA, METHOD OF MEASUREMENT AND ACCURACY TOLERANCES TO DETERMINE QUALITY CLASSIFICATION OF UTILITY DATA SHOWN ON THIS PLAN.
QUALITY LEVEL A SHOWN AS: --- QL - A ---	(A) FULL OR PARTIAL EXPOSURE OF UTILITY TO ENABLE DIRECT PHYSICAL IDENTIFICATION AND MEASUREMENT. (B) SOURCES LISTED IN QUALITY LEVEL B, C AND D ACCURACY TOLERANCES: X/Y/Z TO SURVEY INSTRUMENT TOLERANCES
QUALITY LEVEL B SHOWN AS: --- QL - B ---	(A) TRACED FROM SURFACE USING LOCATOR EQUIPMENT. (B) SOURCES LISTED IN QUALITY LEVEL C AND D. ACCURACY TOLERANCES: X/Y LOCATION +/- 300mm Z LOCATION +/- 500mm
QUALITY LEVEL C SHOWN AS: --- QL - C ---	(A) SURVEYED LOCATION OF SURFACE FEATURES/FITTINGS. (B) SOURCES LISTED IN QUALITY LEVEL D. ACCURACY TOLERANCES: X/Y INTERPOLATED FROM SURVEYED FEATURES/FITTINGS.
QUALITY LEVEL D SHOWN AS: --- QL - D ---	(A) EXISTING RECORDS AND DOCUMENTATION AND/OR, VISUAL INSPECTION ONLY. ACCURACY TOLERANCES: X/Y INDICATIVE ONLY.

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	LEGEND AND STAMPS
					DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260 <i>Magema</i>		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. 2003 REVISION 0










PROPOSED CONNECTION TO EXISTING DN900 MSCL HAUGHTON PIPELINE


NOTES

- FOR COVER SHEET AND DRAWING INDEX REFER TO DWG. No. 21-000239.02-2000.
- FOR NOTES REFER TO DWG No. 21-000239.02-2001-2002.

LEGEND

-  DN900 TRUNK MAIN
-  CULTURAL HERITAGE - AREA 1
-  CULTURAL HERITAGE - AREA 2
-  CULTURAL HERITAGE - AREA 3
-  CULTURAL HERITAGE - AREA 4
-  CULTURAL HERITAGE - AREA 5
-  CULTURAL HERITAGE - AREA 6

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

APPROVED
MARCHEL OEGEMA
 RPEQ 20260

 FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD

SCALE
 1:10000 100 0 100 200 300 400 500 A1
 1:20000

CLIENT

 TOWNSVILLE CITY COUNCIL

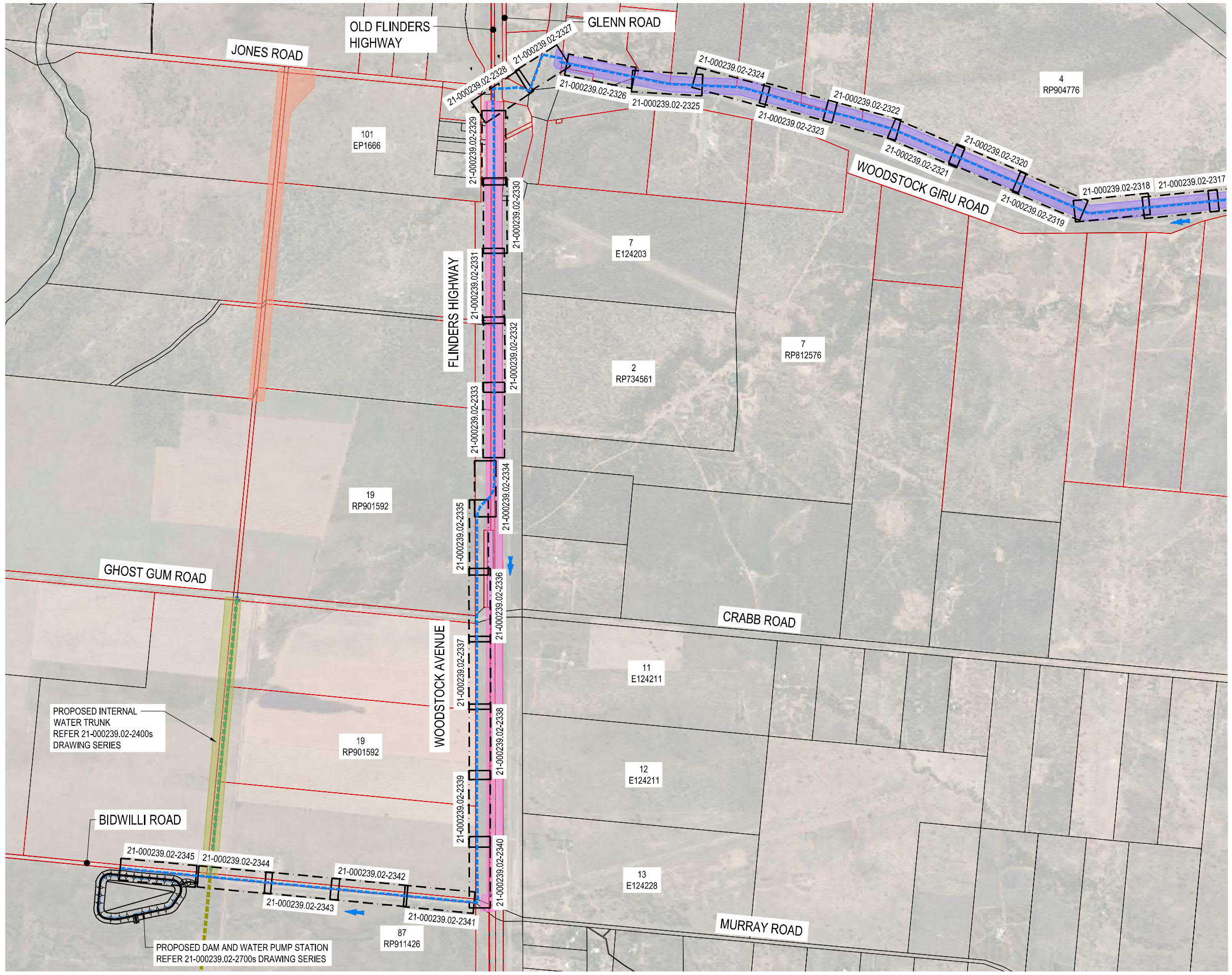
PROJECT

 calibregroup.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
TRUNK WATER MAIN KEY PLAN SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
21-000239.02	2005	0

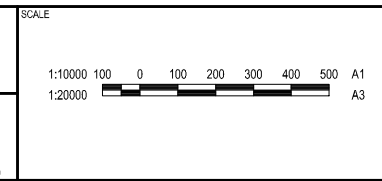


- NOTES**
- FOR COVER SHEET AND DRAWING INDEX REFER TO DWG. No. 21-000239.02-2000.
 - FOR NOTES REFER TO DWG No. 21-000239.02-2001-2002.

- LEGEND**
- DN900 TRUNK MAIN
 - CULTURAL HERITAGE - AREA 1
 - CULTURAL HERITAGE - AREA 2
 - CULTURAL HERITAGE - AREA 3
 - CULTURAL HERITAGE - AREA 4
 - CULTURAL HERITAGE - AREA 5
 - CULTURAL HERITAGE - AREA 6

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

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



CLIENT

TOWNSVILLE CITY COUNCIL

calibre
calibregroup.com

PROJECT

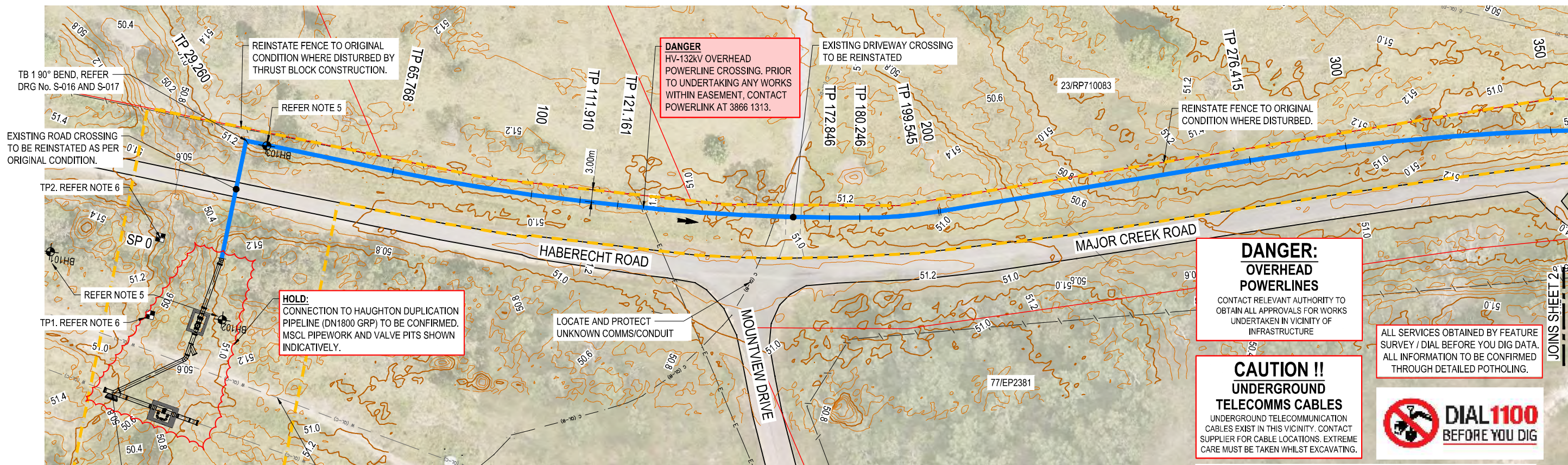
**LANSDOWN
 ECO - INDUSTRIAL
 PRECINCT**

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

DRAWING TITLE

**TRUNK WATER MAIN
 KEY PLAN SHEET 2 OF 2**

PROJECT No.	DRAWING No.	REVISION
21-000239.02	2006	0



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

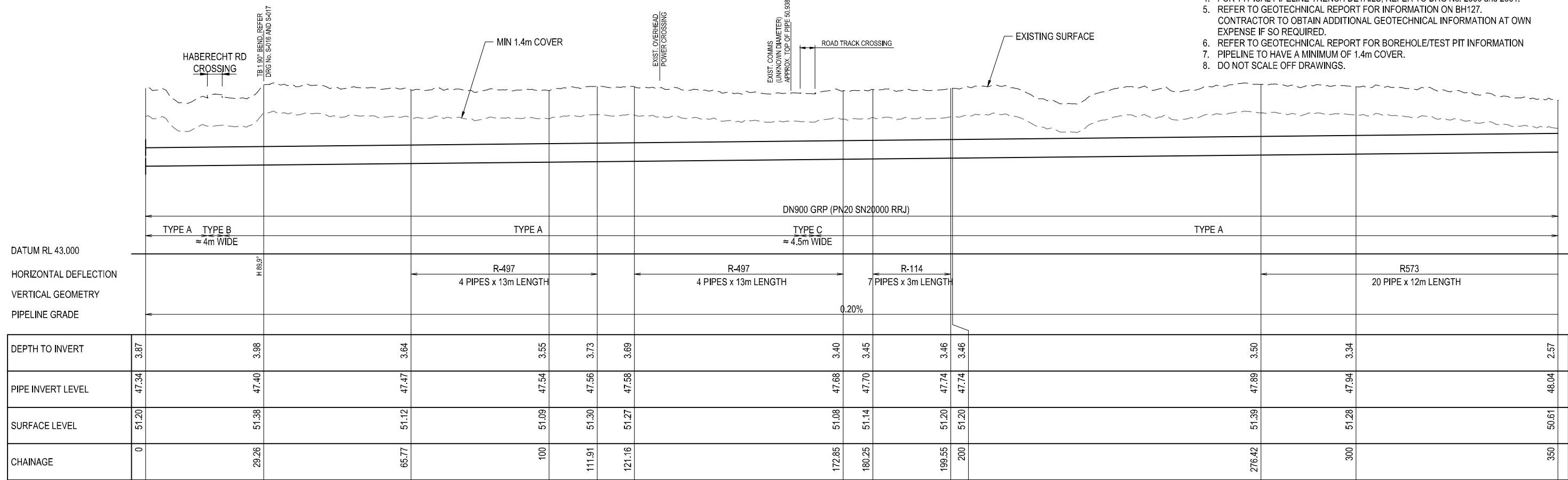
DANGER: OVERHEAD POWERLINES
CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

CAUTION !! 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.

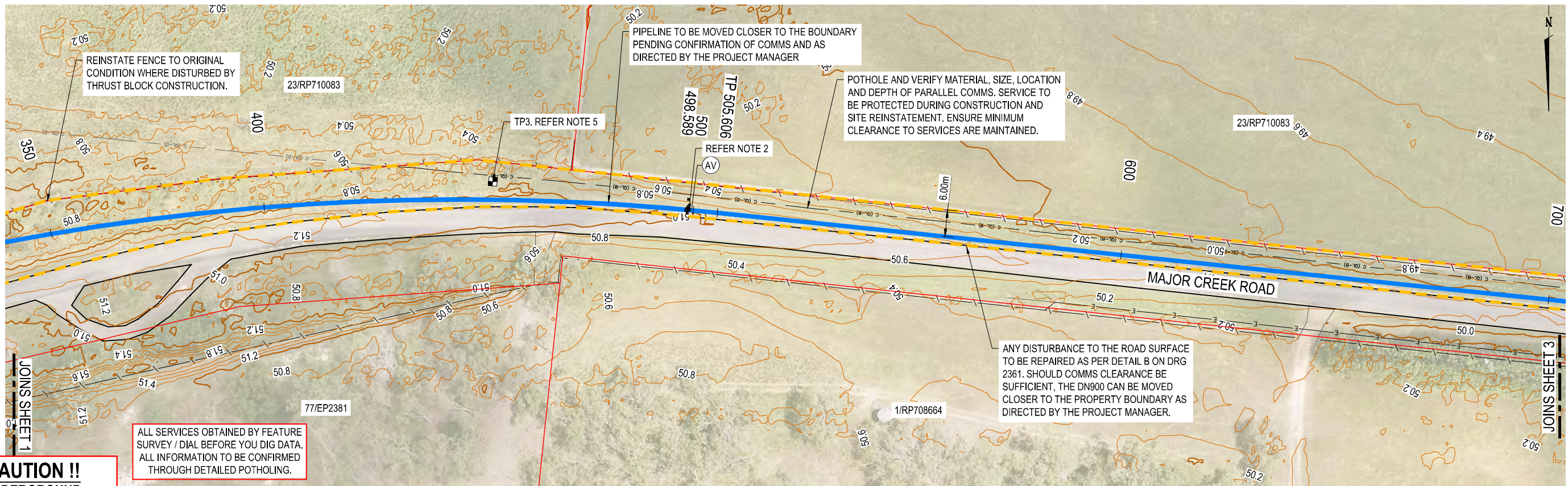


- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 - FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 - FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT FOR INFORMATION ON BH127. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 - PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 - DO NOT SCALE OFF DRAWINGS.



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 DESIGN CHECK [Signature]	STATUS FOR CONSTRUCTION APPROVED MARCHEL OEGEMA RPEQ 20260 FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD	SCALE 1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400	CLIENT TOWNSVILLE CITY COUNCIL	PROJECT LANSDOWN ECO - INDUSTRIAL PRECINCT	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 1 OF 46
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. 2300	REVISION 0		



REINSTATE FENCE TO ORIGINAL CONDITION WHERE DISTURBED BY THRUST BLOCK CONSTRUCTION.

PIPELINE TO BE MOVED CLOSER TO THE BOUNDARY PENDING CONFIRMATION OF COMMS AND AS DIRECTED BY THE PROJECT MANAGER

POTHOLE AND VERIFY MATERIAL, SIZE, LOCATION AND DEPTH OF PARALLEL COMMS. SERVICE TO BE PROTECTED DURING CONSTRUCTION AND SITE REINSTATEMENT. ENSURE MINIMUM CLEARANCE TO SERVICES ARE MAINTAINED.

ANY DISTURBANCE TO THE ROAD SURFACE TO BE REPAIRED AS PER DETAIL B ON DRG 2361. SHOULD COMMS CLEARANCE BE SUFFICIENT, THE DN900 CAN BE MOVED CLOSER TO THE PROPERTY BOUNDARY AS DIRECTED BY THE PROJECT MANAGER.

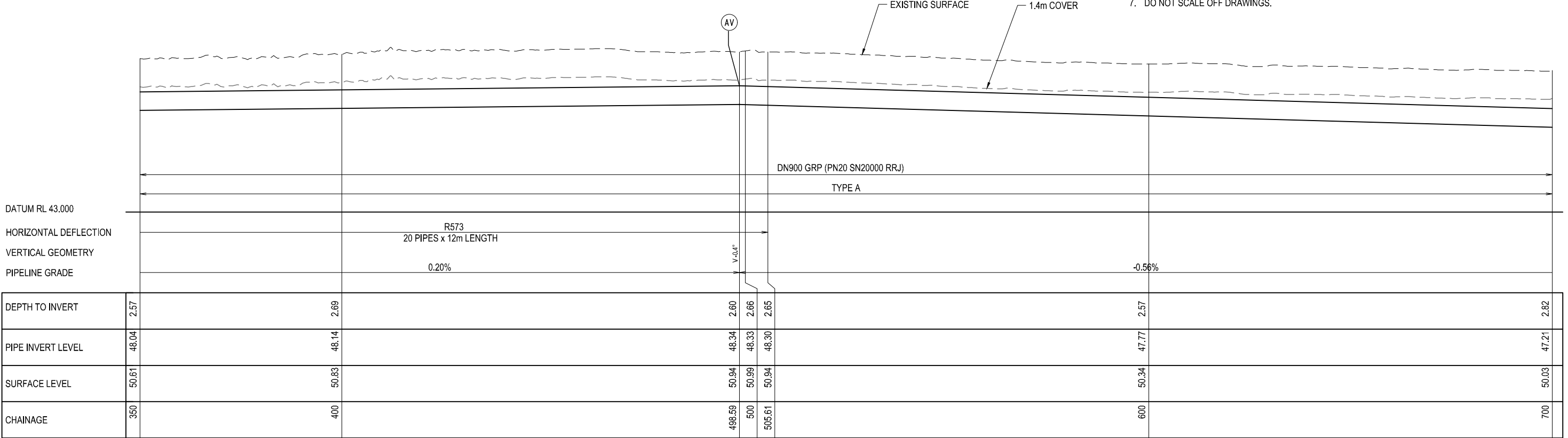
ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.

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



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

- 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.

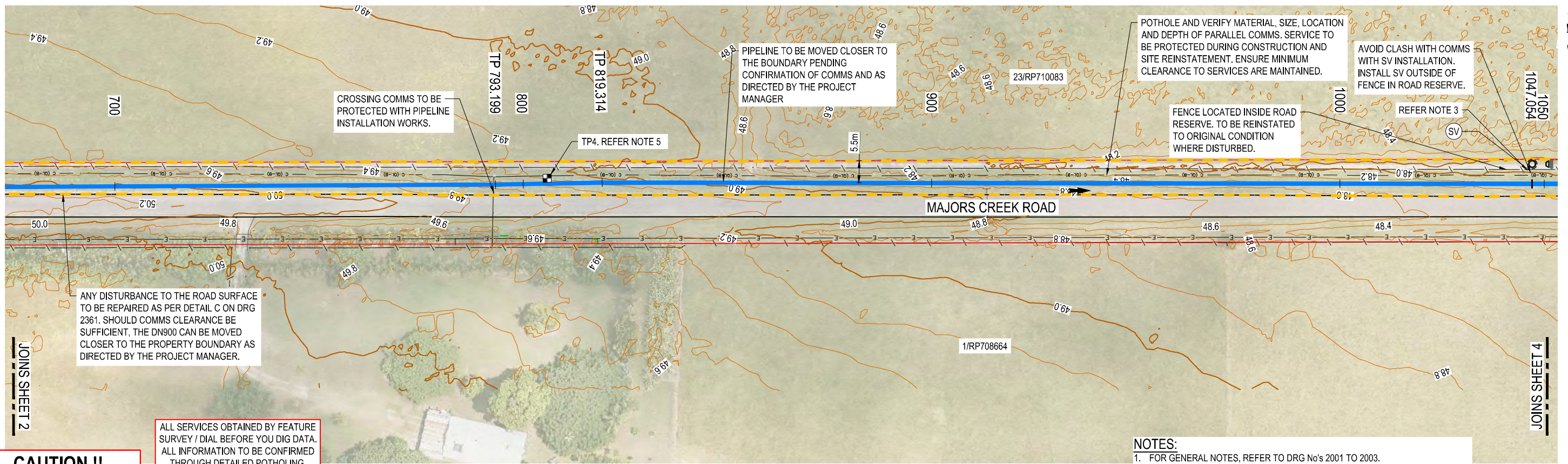


DATUM RL 43.000
HORIZONTAL DEFLECTION
VERTICAL GEOMETRY
PIPELINE GRADE

DEPTH TO INVERT	2.57	2.69	2.60	2.66	2.65	2.57	2.82
PIPE INVERT LEVEL	48.04	48.14	48.34	48.33	48.30	47.77	47.21
SURFACE LEVEL	50.61	50.83	50.94	50.99	50.94	50.34	50.03
CHAINAGE	350	400	498.59	500	505.61	600	700

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 2 OF 46</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 2 OF 46
REVISION	DATE	ISSUE DETAILS																											
0	28.04.23	ISSUE FOR CONSTRUCTION																											
DRAWN	DESIGN																												
JM	MO																												
DRAWN CHECK	STATUS																												
Dmp	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																													
CLIENT																													
TOWNSVILLE CITY COUNCIL																													
PROJECT																													
LANSDOWN ECO - INDUSTRIAL PRECINCT																													
DRAWING TITLE																													
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 2 OF 46																													
<table border="1"> <tr> <th>DESIGN CHECK</th> <th>APPROVED</th> </tr> <tr> <td></td> <td>MARCHEL OEGEMA RPEQ 20260</td> </tr> </table>			DESIGN CHECK	APPROVED		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>2301</td> <td>0</td> </tr> </table>		PROJECT No.	DRAWING No.	REVISION	21-000239.02	2301	0											
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.																													
PROJECT No.	DRAWING No.	REVISION																											
21-000239.02	2301	0																											



ANY DISTURBANCE TO THE ROAD SURFACE TO BE REPAIRED AS PER DETAIL C ON DRG 2361. SHOULD COMMS CLEARANCE BE SUFFICIENT, THE DN900 CAN BE MOVED CLOSER TO THE PROPERTY BOUNDARY AS DIRECTED BY THE PROJECT MANAGER.

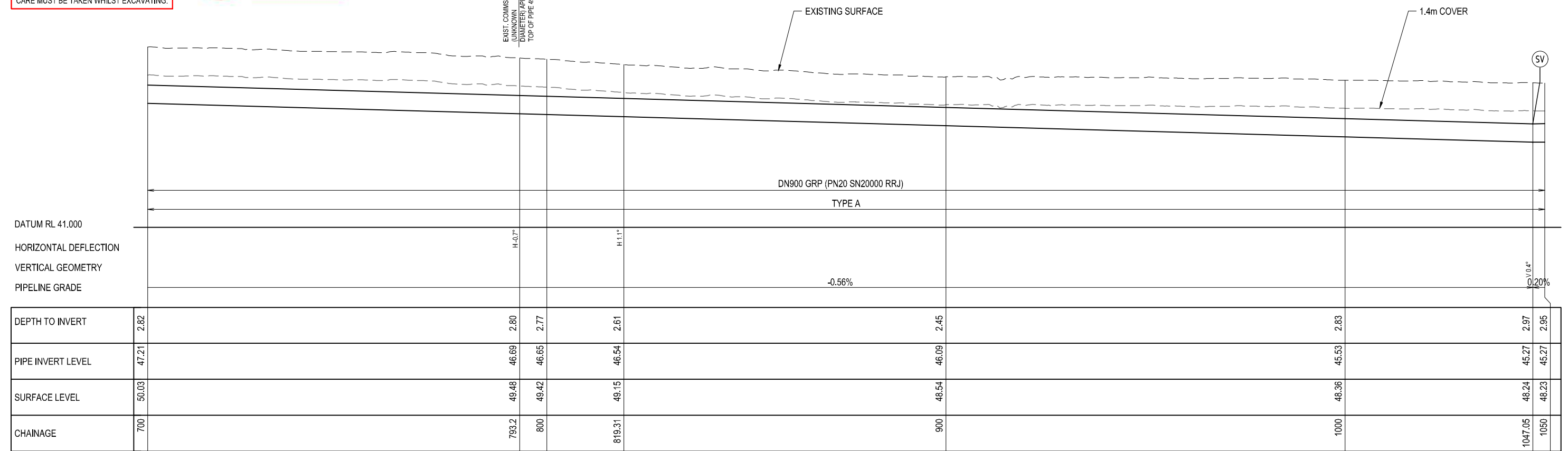
ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.

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



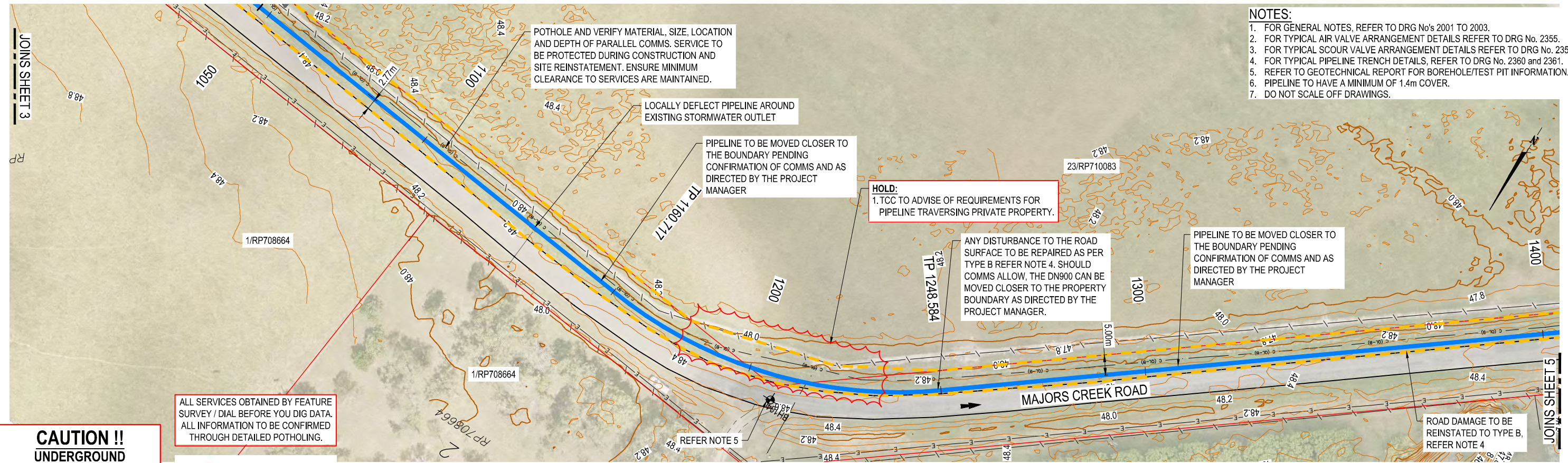
- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 - FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 - FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT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

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"> <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</td> </tr> <tr> <td>1:1000 10 5 0 10 20 A3</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1</td> </tr> <tr> <td>1:400 2 0 2 4 6 8 10 A3</td> </tr> </tbody> </table>	SCALE	1:500 10 5 0 10 20 A1	1:1000 10 5 0 10 20 A3	1:200 2 0 2 4 6 8 10 A1	1:400 2 0 2 4 6 8 10 A3	<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>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 3 OF 46</td> </tr> </tbody> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 3 OF 46
REVISION	DATE	ISSUE DETAILS																																				
0	28.04.23	ISSUE FOR CONSTRUCTION																																				
DRAWN	DESIGN																																					
JM	MO																																					
DRAWN CHECK	STATUS																																					
Dmp	FOR CONSTRUCTION																																					
DESIGN CHECK	APPROVED	PROJECT																																				
[Signature]	MARCHEL OEGEMA	RPEQ 20260																																				
SCALE																																						
1:500 10 5 0 10 20 A1																																						
1:1000 10 5 0 10 20 A3																																						
1:200 2 0 2 4 6 8 10 A1																																						
1:400 2 0 2 4 6 8 10 A3																																						
CLIENT																																						
TOWNSVILLE CITY COUNCIL																																						
PROJECT																																						
LANSDOWN ECO - INDUSTRIAL PRECINCT																																						
DRAWING TITLE																																						
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 3 OF 46																																						
<table border="1"> <thead> <tr> <th>DISCLAIMER</th> </tr> </thead> <tbody> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> </tr> </tbody> </table>				DISCLAIMER	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	<table border="1"> <thead> <tr> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>21-000239.02</td> <td>2302</td> <td>0</td> </tr> </tbody> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2302	0																										
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	2302	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.
 - 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.

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)

- HOLD LIST:**
- ALIGNMENT CROSSING THROUGH PRIVATE PROPERTY TO AVOID ROADWAY. TO BE CONFIRMED FOLLOWING DISCUSSIONS WITH TOWNSVILLE CITY COUNCIL

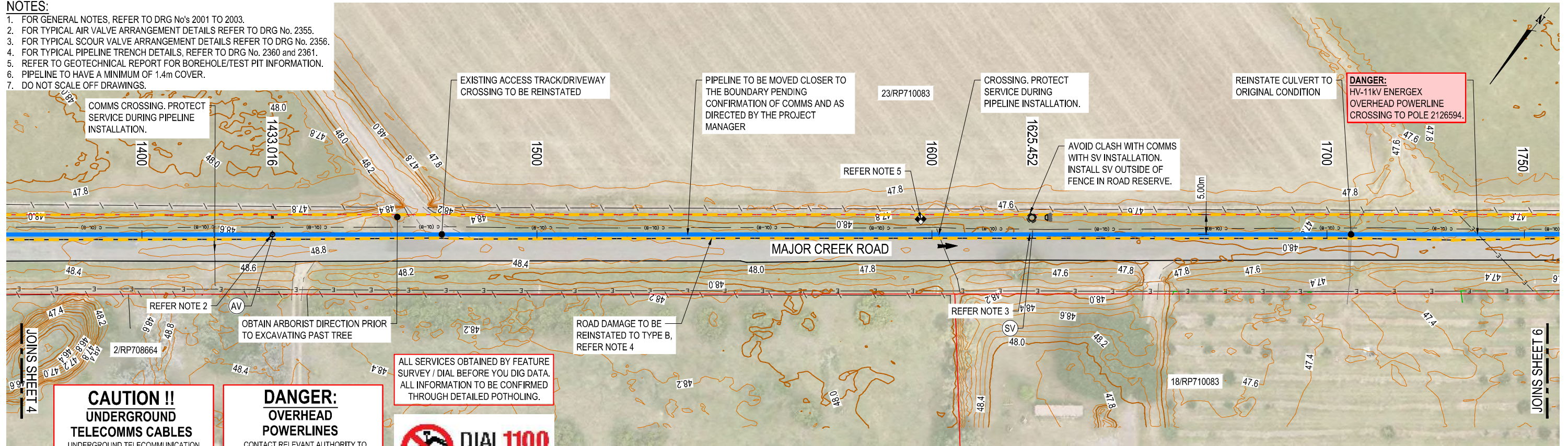
		PRIVATE PROPERTY				EXISTING SURFACE	
		DN900 GRP (PN20 SN20000 RRJ)		TYPE A		1.4m COVER	
		R-114		30 PIPES x 3m LENGTH		0.20%	
DATUM RL 41.000							
HORIZONTAL DEFLECTION							
VERTICAL GEOMETRY							
PIPELINE GRADE							
DEPTH TO INVERT	2.95	2.79	2.69	2.50	2.71	2.55	2.69
PIPE INVERT LEVEL	45.27	45.37	45.49	45.57	45.67	45.77	45.97
SURFACE LEVEL	48.23	48.16	48.18	48.07	48.38	48.32	48.66
CHAINAGE	1050	1100	1160.72	1200	1248.58	1300	1400

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

<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> <th>CUSTOMER</th> </tr> </thead> <tbody> <tr> <td>1:500 10 5 0 10 20 A1 1:1000</td> <td>TOWNSVILLE CITY COUNCIL</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1 1:400</td> <td>calibre</td> </tr> </tbody> </table>	SCALE	CUSTOMER	1:500 10 5 0 10 20 A1 1:1000	TOWNSVILLE CITY COUNCIL	1:200 2 0 2 4 6 8 10 A1 1:400	calibre	<table border="1"> <thead> <tr> <th>PROJECT</th> <th>DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td>LANSDOWN ECO - INDUSTRIAL PRECINCT</td> <td>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 4 OF 46</td> </tr> </tbody> </table>	PROJECT	DRAWING TITLE	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 4 OF 46	<table border="1"> <thead> <tr> <th>DISCLAIMER</th> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> <td>21-000239.02</td> <td>2303</td> <td>0</td> </tr> </tbody> </table>	DISCLAIMER	PROJECT No.	DRAWING No.	REVISION	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2303	0
REVISION	DATE	ISSUE DETAILS																																										
0	28.04.23	ISSUE FOR CONSTRUCTION																																										
DRAWN	DESIGN																																											
JM	MO																																											
DRAWN CHECK	STATUS																																											
Dmp	FOR CONSTRUCTION																																											
DESIGN CHECK	APPROVED	PROJECT																																										
[Signature]	MARCHEL OEGEMA	RPEQ 20260																																										
SCALE	CUSTOMER																																											
1:500 10 5 0 10 20 A1 1:1000	TOWNSVILLE CITY COUNCIL																																											
1:200 2 0 2 4 6 8 10 A1 1:400	calibre																																											
PROJECT	DRAWING TITLE																																											
LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 4 OF 46																																											
DISCLAIMER	PROJECT No.	DRAWING No.	REVISION																																									
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2303	0																																									

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

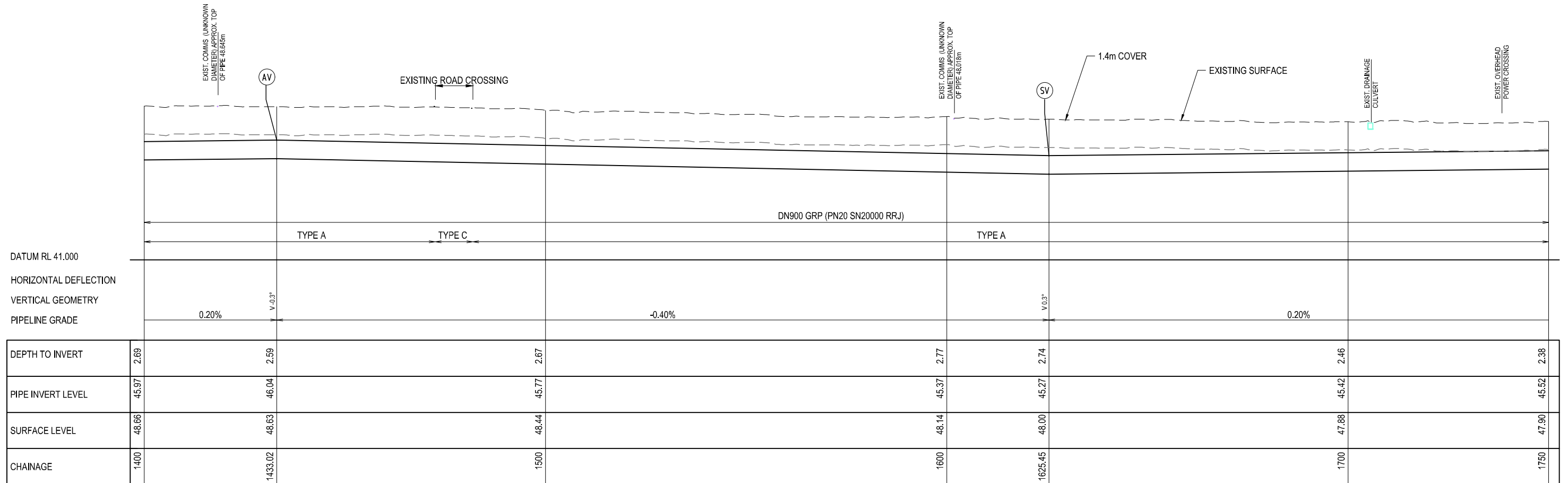


CAUTION !!
UNDERGROUND
TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

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



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

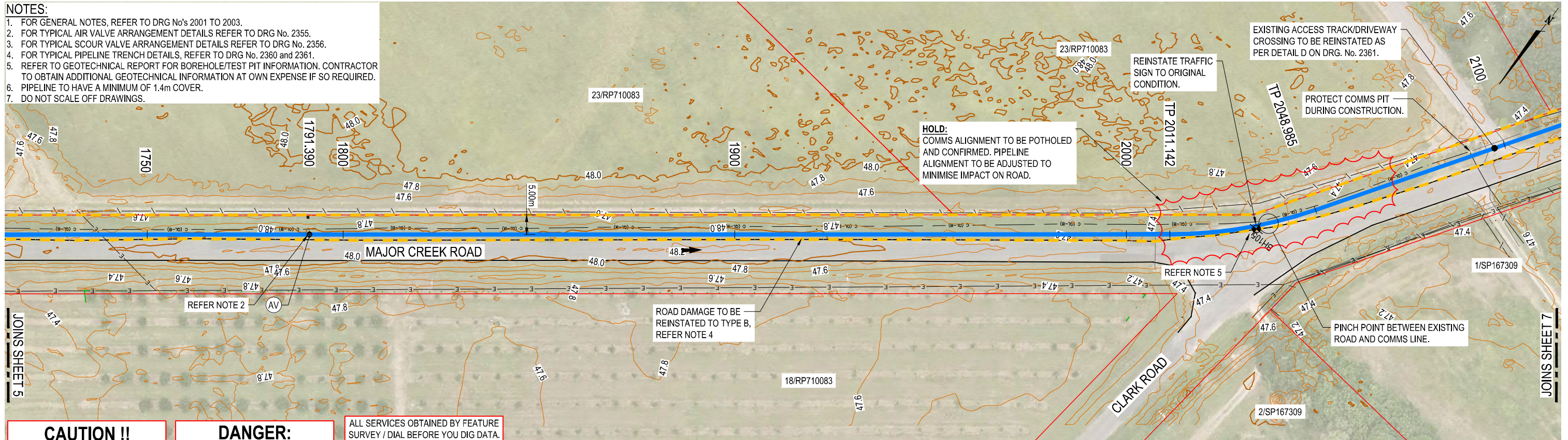


HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	<i>Dmp</i>	FOR CONSTRUCTION	1:500 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 5 OF 46
					DESIGN CHECK	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. 2304 REVISION 0
							 © calibregroup.com			

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.



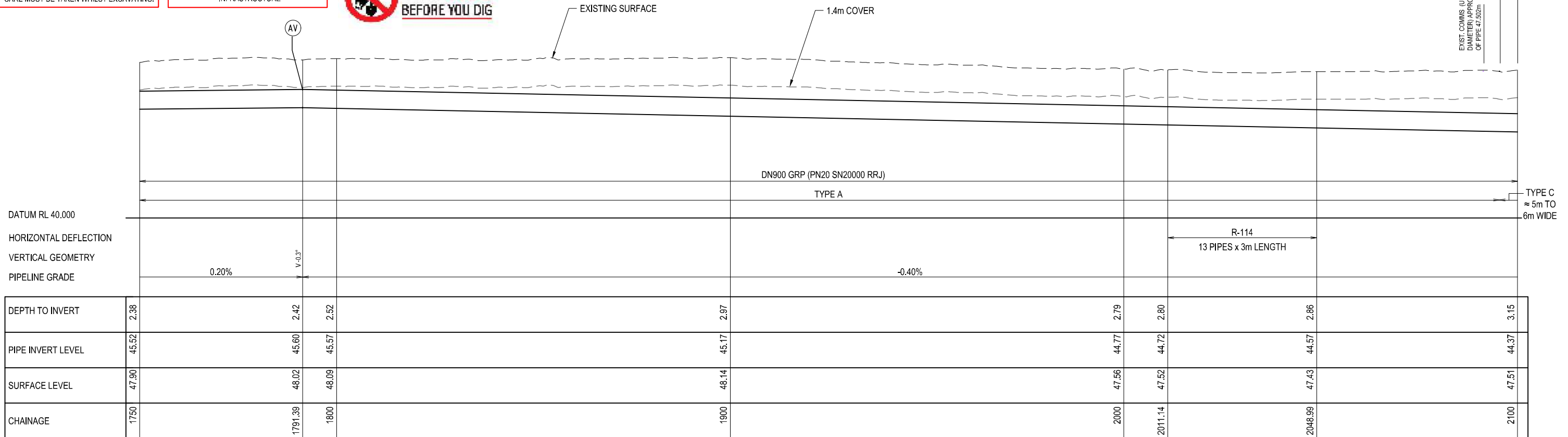
CAUTION !!
UNDERGROUND
TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

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

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

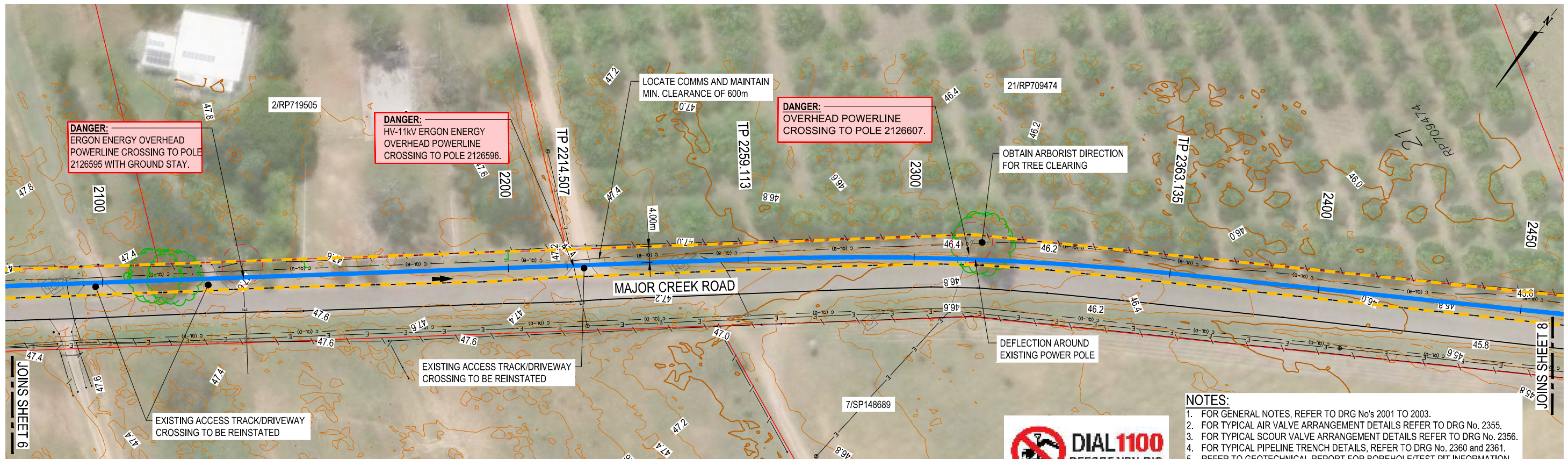


LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)



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	PROJECT No.	DRAWING No.	REVISION
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 6 OF 46	21-000239.02	2305	0
						APPROVED MARCHEL OEGEMA RPEQ 20260	1:200 1:400	City of Townsville					
						FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD							



- 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.



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

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

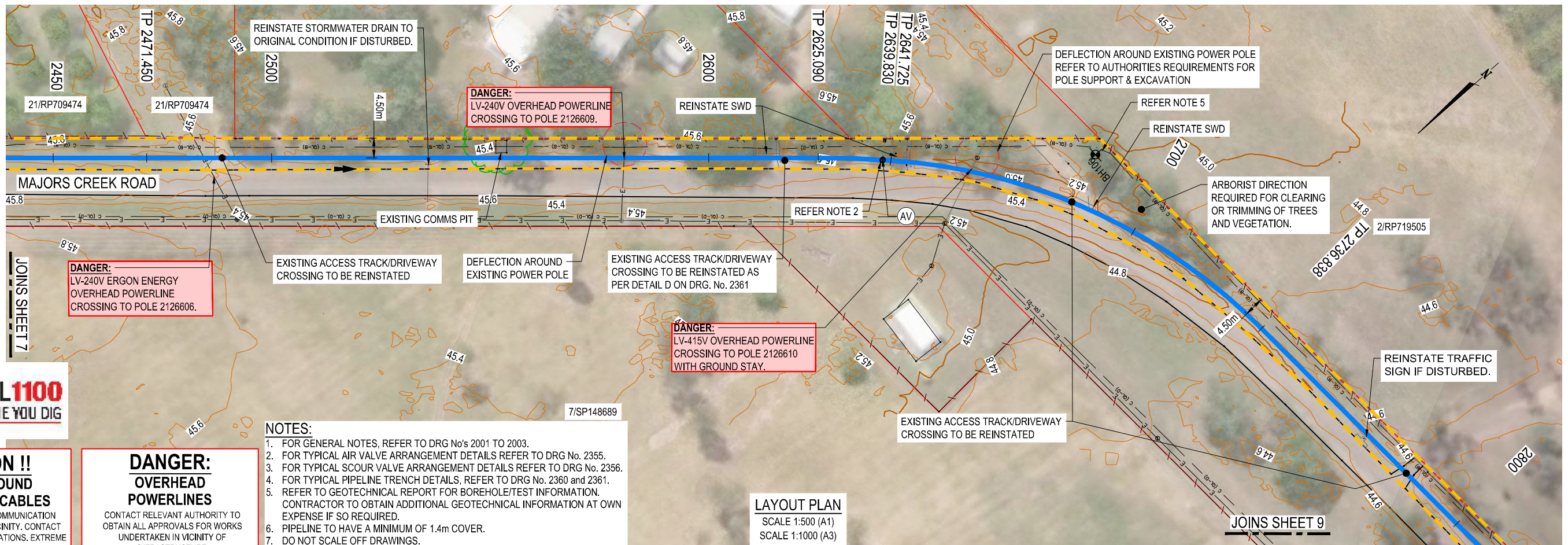
LAYOUT PLAN

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

	2100	2200	2214.507	2259.113	2300	2363.135	2400	2450
EXISTING ROAD CROSSING								
EXISTING ROAD CROSSING								
EXISTING ROAD CROSSING								
EXIST. COMMS (UNKNOWN DIAMETER) APPROX. T OF PIPE 46.897m								
EXISTING SURFACE								
EXIST. OVERHEAD POWER CROSSING								
PIPELINE GRADE	DN900 GRP (PN20 SN20000 RRJ)							
HORIZONTAL DEFLECTION	R745							
VERTICAL GEOMETRY	8 PIPES x 13m LENGTH							
PIPELINE GRADE	-0.40%							
DEPTH TO INVERT	3.15	3.51	3.55	3.09	3.24	2.84	2.68	2.66
PIPE INVERT LEVEL	44.37	43.97	43.91	43.73	43.57	43.31	43.17	42.97
SURFACE LEVEL	47.51	47.48	47.45	46.82	46.81	46.16	45.84	45.62
CHAINAGE	2100	2200	2214.51	2259.222	2300	2363.13	2400	2450

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> <th>SCALE</th> <th>CLIENT</th> <th>PROJECT</th> <th>DRAWING TITLE</th> </tr> <tr> <td> 1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3 </td> <td> TOWNSVILLE CITY COUNCIL </td> <td> LANSDOWN ECO - INDUSTRIAL PRECINCT </td> <td> WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 7 OF 46 </td> </tr> </table>	SCALE	CLIENT	PROJECT	DRAWING TITLE	1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 7 OF 46
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS																	
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION																	
SCALE	CLIENT	PROJECT	DRAWING TITLE																				
1:500 10 5 0 10 20 A1 1:1000 1:200 2 0 2 4 6 8 10 A1 1:400 A3	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 7 OF 46																				
<table border="1"> <tr> <th>DESIGN CHECK</th> <th>APPROVED</th> <th>FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD</th> </tr> <tr> <td> </td> <td> MARCHEL OEGEMA RPEQ 20260 </td> <td> calibre calibregroup.com </td> </tr> </table>	DESIGN CHECK	APPROVED	FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD		MARCHEL OEGEMA RPEQ 20260 	calibre calibregroup.com	<table border="1"> <tr> <th>DISCLAIMER</th> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> <td>21-000239.02</td> <td>2306</td> <td>0</td> </tr> </table>	DISCLAIMER	PROJECT No.	DRAWING No.	REVISION	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2306	0								
DESIGN CHECK	APPROVED	FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD																					
	MARCHEL OEGEMA RPEQ 20260 	calibre calibregroup.com																					
DISCLAIMER	PROJECT No.	DRAWING No.	REVISION																				
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2306	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 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 INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 - DO NOT SCALE OFF DRAWINGS.

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

	EXIST. OVERHEAD POWER CROSSING		EXIST. ROAD TRACK CROSSING		EXIST. OVERHEAD POWER CROSSING		EXIST. ROAD TRACK CROSSING		EXIST. OVERHEAD POWER CROSSING		EXIST. ROAD TRACK CROSSING		EXIST. OVERHEAD POWER CROSSING		EXIST. ROAD TRACK CROSSING	
DATUM RL 37.000																
HORIZONTAL DEFLECTION																
VERTICAL GEOMETRY																
PIPELINE GRADE																
DEPTH TO INVERT	2.96		2.77		3.00		3.03	3.12	3.09		2.90		2.94		2.99	
PIPE INVERT LEVEL	42.97		42.77		42.37		42.27	42.21	42.20		41.97		41.82		41.57	
SURFACE LEVEL	45.62		45.54		45.37		45.29	45.32	45.29		44.86		44.75		44.56	
CHAINAGE	2450		2500		2600		2625.09	2639.83	2641.73		2700		2736.84		2800	

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> <th>SCALE</th> <th>CLIENT</th> <th>PROJECT</th> <th>DRAWING TITLE</th> </tr> <tr> <td>1:500 10 5 0 10 20 A1 1:1000</td> <td>TOWNSVILLE CITY COUNCIL</td> <td>LANSDOWN ECO - INDUSTRIAL PRECINCT</td> <td>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 8 OF 46</td> </tr> </table>	SCALE	CLIENT	PROJECT	DRAWING TITLE	1:500 10 5 0 10 20 A1 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 8 OF 46	<table border="1"> <tr> <th>DISCLAIMER</th> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> <td>21-000239.02</td> <td>2307</td> <td>0</td> </tr> </table>	DISCLAIMER	PROJECT No.	DRAWING No.	REVISION	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2307	0
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS																										
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION																										
SCALE	CLIENT	PROJECT	DRAWING TITLE																													
1:500 10 5 0 10 20 A1 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 8 OF 46																													
DISCLAIMER	PROJECT No.	DRAWING No.	REVISION																													
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2307	0																													

NOTES:

- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
- 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.



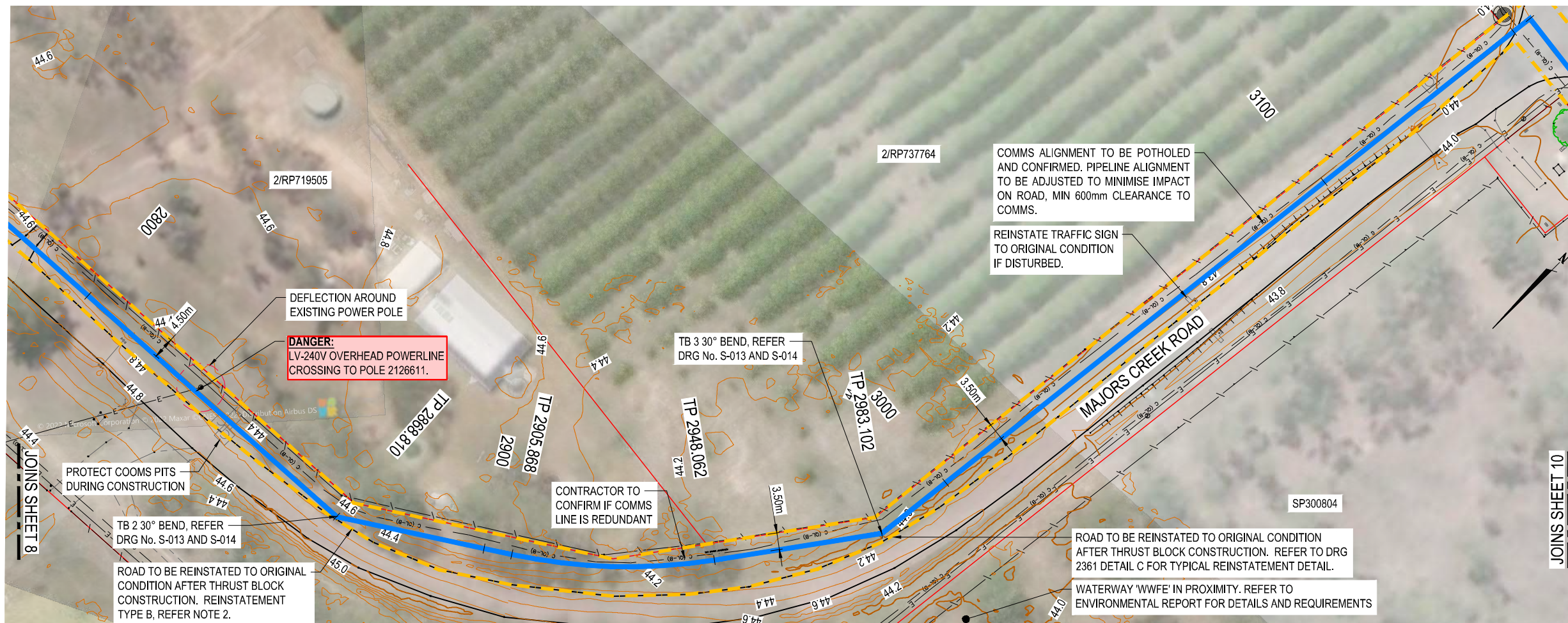
DANGER: OVERHEAD POWERLINES

CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

CAUTION !! UNDERGROUND TELECOMMS CABLES

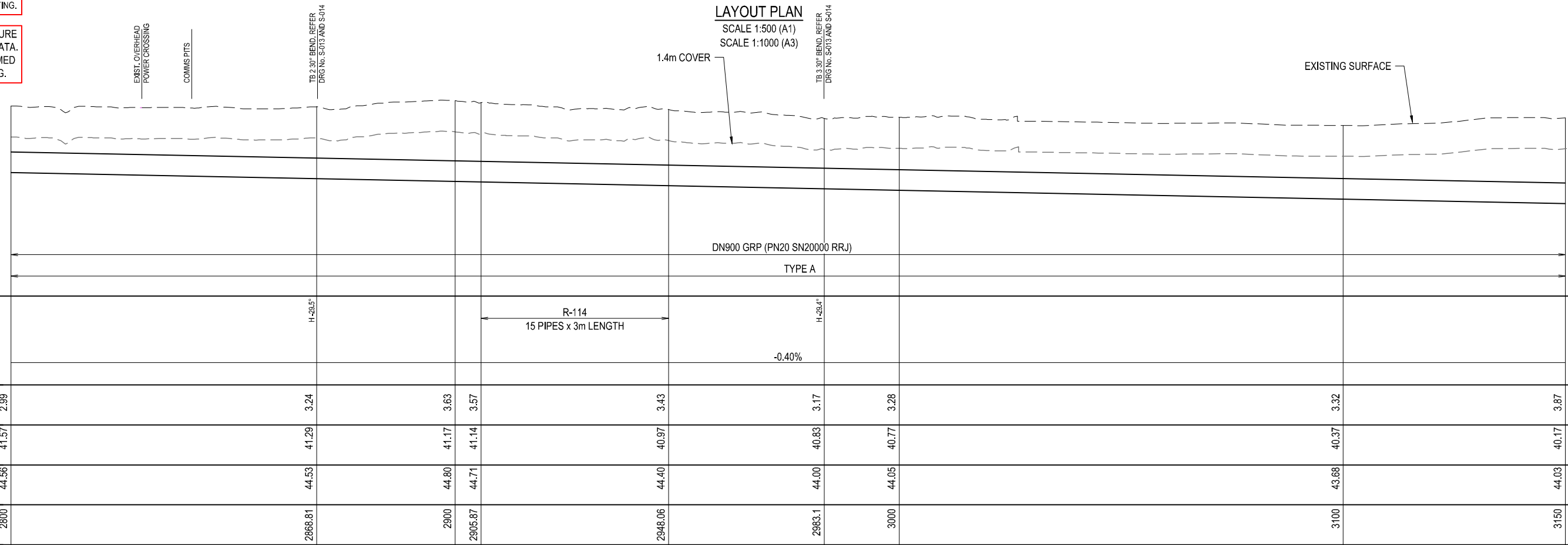
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILE EXCAVATING.

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)



DATUM RL 36.000

HORIZONTAL DEFLECTION

VERTICAL GEOMETRY

PIPELINE GRADE

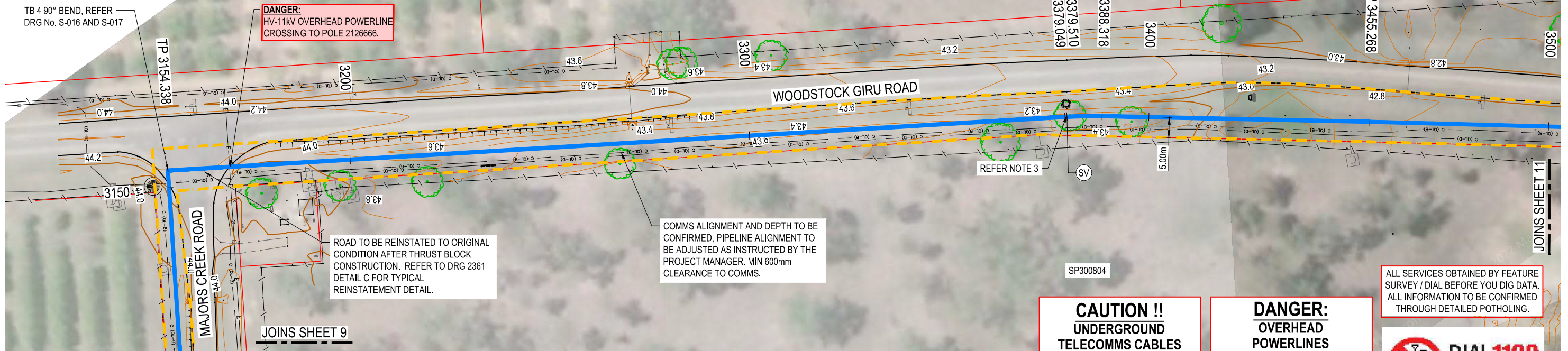
DEPTH TO INVERT	2.99	3.24	3.63	3.57	3.43	3.17	3.28	3.32	3.87
PIPE INVERT LEVEL	41.57	41.29	41.17	41.14	40.97	40.83	40.77	40.37	40.17
SURFACE LEVEL	44.56	44.53	44.80	44.71	44.40	44.00	44.05	43.68	44.03
CHAINAGE	2800	2866.81	2900	2905.87	2948.06	2983.1	3000	3100	3150

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

<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> <th>DRAWN CHECK</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td>JM</td> <td>MO</td> <td>Dmp</td> <td>FOR CONSTRUCTION</td> </tr> </tbody> </table>	DRAWN	DESIGN	DRAWN CHECK	STATUS	JM	MO	Dmp	FOR CONSTRUCTION	<table border="1"> <thead> <tr> <th>SCALE</th> <th>CLIENT</th> </tr> </thead> <tbody> <tr> <td> 1:500 10 5 0 10 20 A1 1:1000 </td> <td> TOWNSVILLE CITY COUNCIL </td> </tr> </tbody> </table>	SCALE	CLIENT	1:500 10 5 0 10 20 A1 1:1000	TOWNSVILLE CITY COUNCIL	<table border="1"> <thead> <tr> <th>PROJECT</th> <th>DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td>LANSDOWN ECO - INDUSTRIAL PRECINCT</td> <td>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 9 OF 46</td> </tr> </tbody> </table>	PROJECT	DRAWING TITLE	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 9 OF 46
REVISION	DATE	ISSUE DETAILS																							
0	28.04.23	ISSUE FOR CONSTRUCTION																							
DRAWN	DESIGN	DRAWN CHECK	STATUS																						
JM	MO	Dmp	FOR CONSTRUCTION																						
SCALE	CLIENT																								
1:500 10 5 0 10 20 A1 1:1000	TOWNSVILLE CITY COUNCIL																								
PROJECT	DRAWING TITLE																								
LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 9 OF 46																								
<table border="1"> <thead> <tr> <th>DESIGN CHECK</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td>[Signature]</td> <td>MARCHEL OEGEMA RPEQ 20260</td> </tr> </tbody> </table>		DESIGN CHECK	APPROVED	[Signature]	MARCHEL OEGEMA RPEQ 20260	<table border="1"> <thead> <tr> <th>SCALE</th> <th>CLIENT</th> </tr> </thead> <tbody> <tr> <td> 1:200 2 0 2 4 6 8 10 A1 1:400 </td> <td> calibregroup.com </td> </tr> </tbody> </table>	SCALE	CLIENT	1:200 2 0 2 4 6 8 10 A1 1:400	calibregroup.com	<table border="1"> <thead> <tr> <th>DISCLAIMER</th> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> <td>21-000239.02</td> <td>2308</td> <td>0</td> </tr> </tbody> </table>	DISCLAIMER	PROJECT No.	DRAWING No.	REVISION	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2308	0						
DESIGN CHECK	APPROVED																								
[Signature]	MARCHEL OEGEMA RPEQ 20260																								
SCALE	CLIENT																								
1:200 2 0 2 4 6 8 10 A1 1:400	calibregroup.com																								
DISCLAIMER	PROJECT No.	DRAWING No.	REVISION																						
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	21-000239.02	2308	0																						

NOTES:

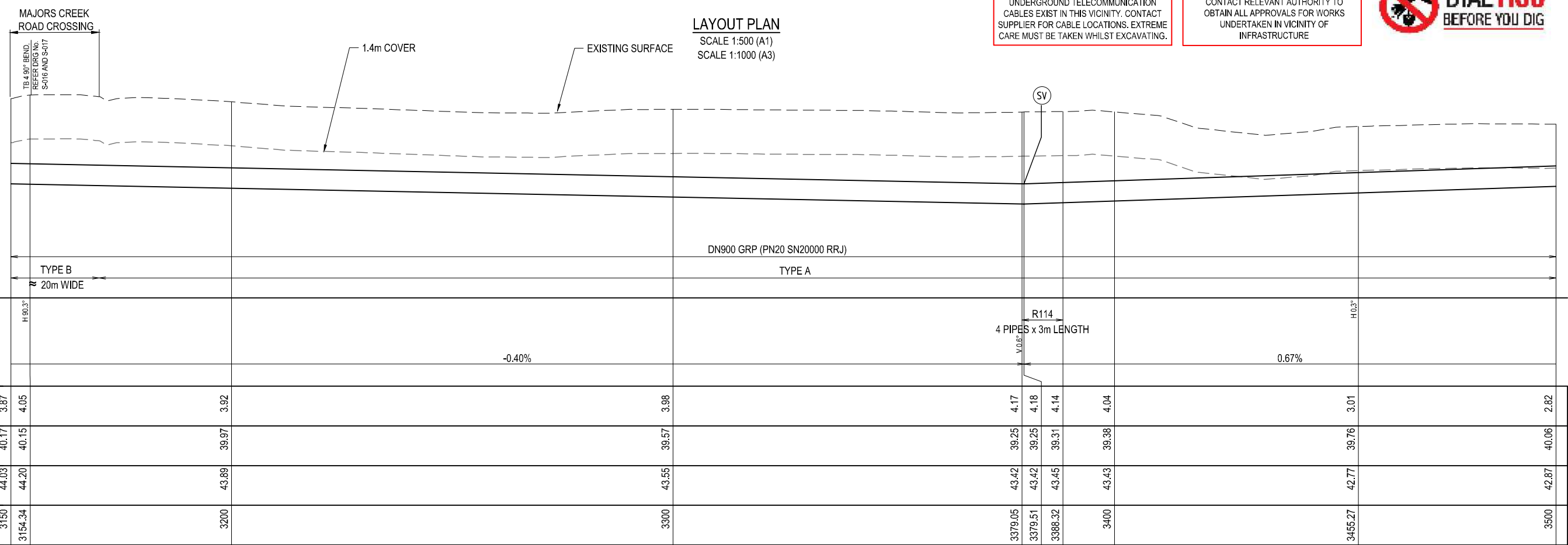
1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
2. FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
3. FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
4. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
5. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION.
6. PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
7. 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

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

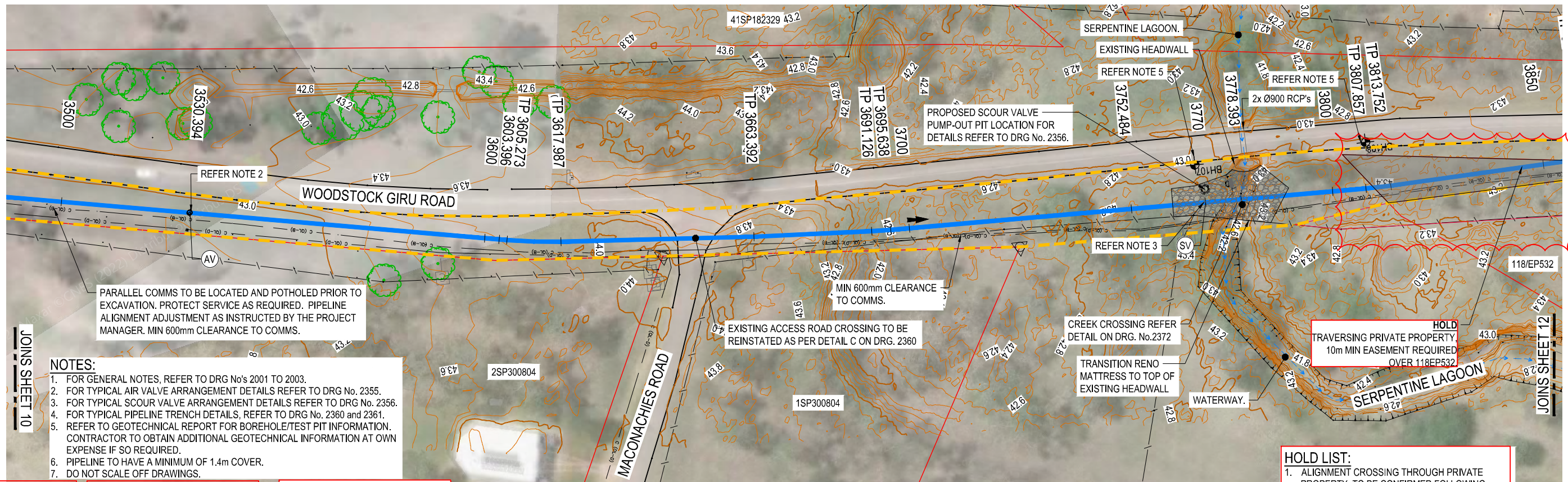


DATUM RL 35.000
 HORIZONTAL DEFLECTION
 VERTICAL GEOMETRY
 PIPELINE GRADE

DEPTH TO INVERT	3150	3154.34	3200	3300	3379.05	3379.51	3388.32	3400	3455.27	3500
DEPTH TO INVERT	3.87	4.05	3.92	3.98	4.17	4.18	4.14	4.04	3.01	2.82
PIPE INVERT LEVEL	40.17	40.15	39.97	39.57	39.25	39.25	39.31	39.38	39.76	40.06
SURFACE LEVEL	44.03	44.20	43.89	43.55	43.42	43.42	43.45	43.43	42.77	42.87
CHAINAGE	3150	3154.34	3200	3300	3379.05	3379.51	3388.32	3400	3455.27	3500

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 10 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. 2309 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.
 - FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 - DO NOT SCALE OFF DRAWINGS.

- HOLD LIST:**
- ALIGNMENT CROSSING THROUGH PRIVATE PROPERTY. TO BE CONFIRMED FOLLOWING DISCUSSIONS WITH TOWNSVILLE CITY COUNCIL.

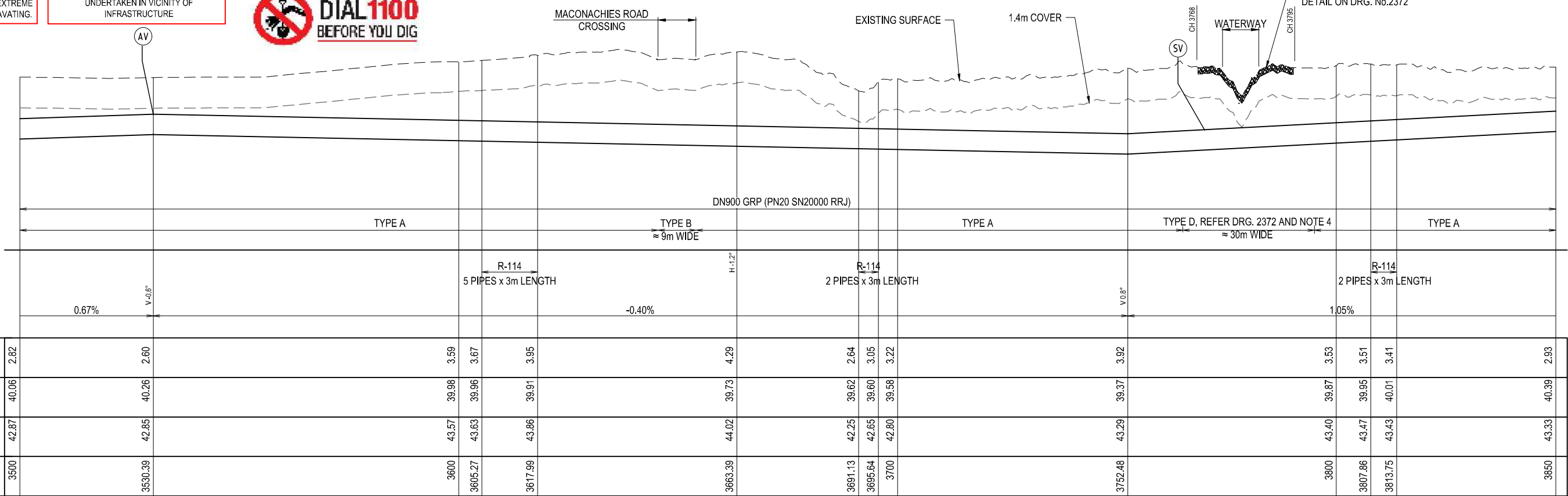
CAUTION !!
UNDERGROUND TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

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

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

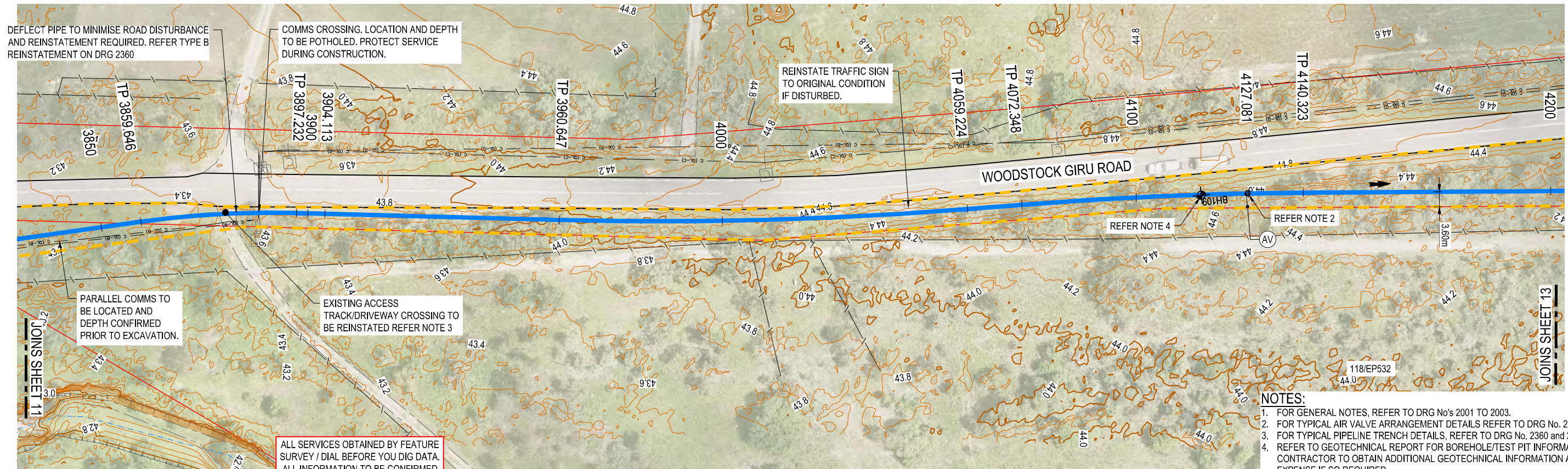


LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)



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

REVISION 0 28.04.23 ISSUE FOR CONSTRUCTION	DATE 28.04.23	ISSUE DETAILS 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 11 OF 46	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. 2310	REVISION 0
--	-------------------------	--	--------------------	---------------------	---------------------------	--	--	--	--	---	---	------------------------------------	----------------------------	----------------------



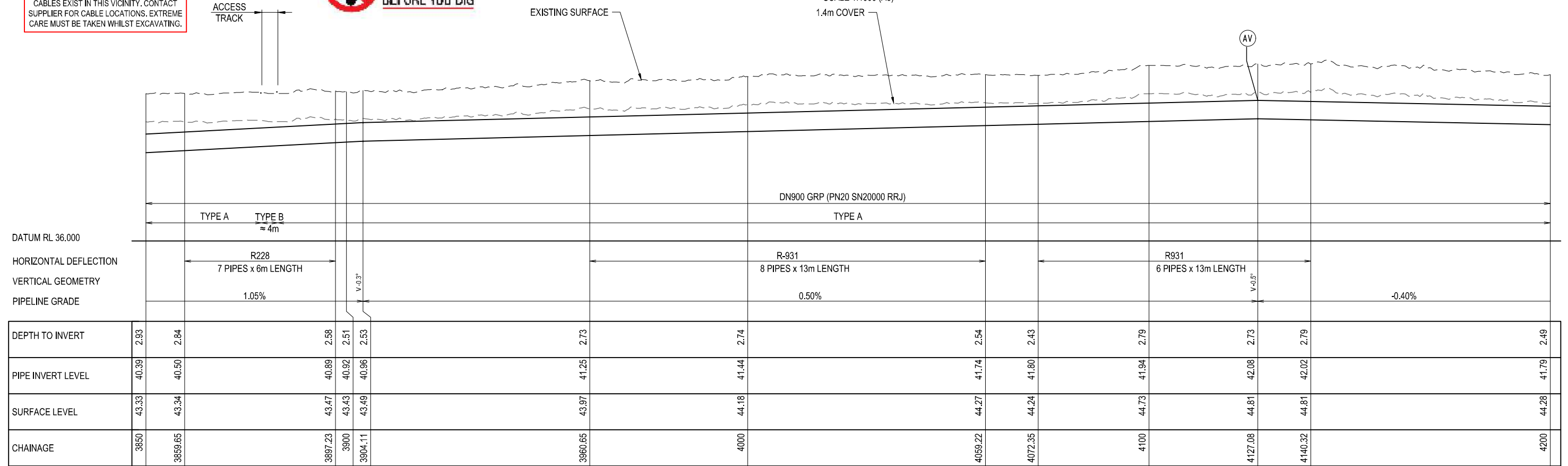
CAUTION !!
UNDERGROUND TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.



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

- 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 PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 - DO NOT SCALE OFF DRAWINGS.

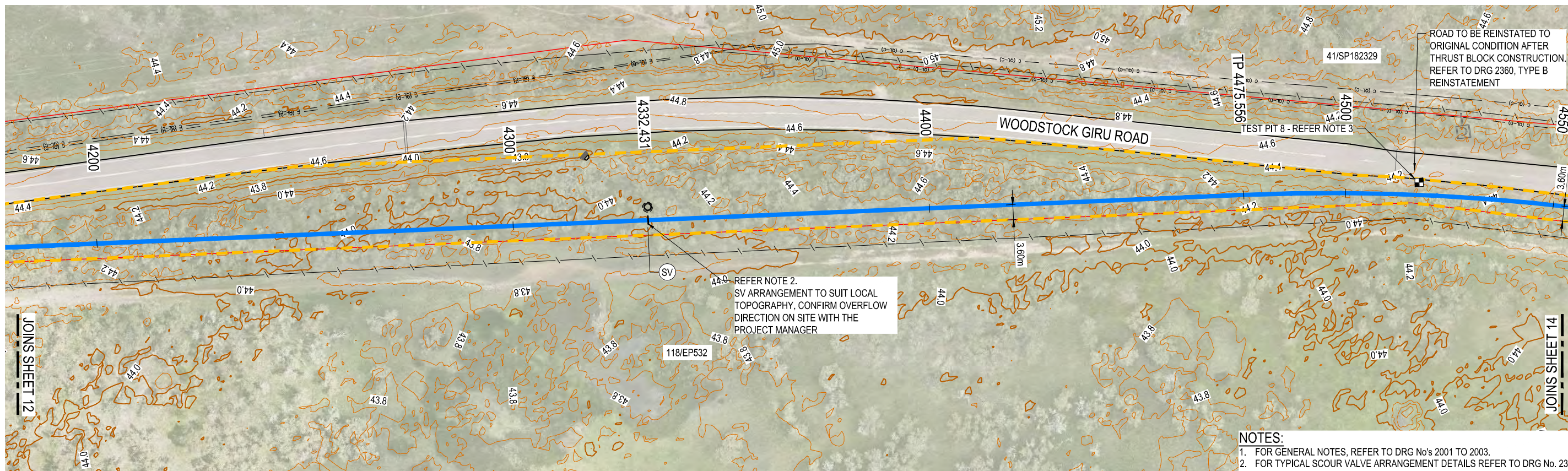
LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)



DEPTH TO INVERT	2.93	2.84	2.58	2.51	2.53	2.73	2.74	2.54	2.43	2.79	2.73	2.79	2.49
PIPE INVERT LEVEL	40.39	40.50	40.89	40.92	40.96	41.25	41.44	41.74	41.80	41.94	42.08	42.02	41.79
SURFACE LEVEL	43.33	43.34	43.47	43.43	43.49	43.97	44.18	44.27	44.24	44.73	44.81	44.81	44.28
CHAINAGE	3850	3859.65	3897.23	3900	3904.11	3960.65	4000	4059.22	4072.35	4100	4127.08	4140.32	4200

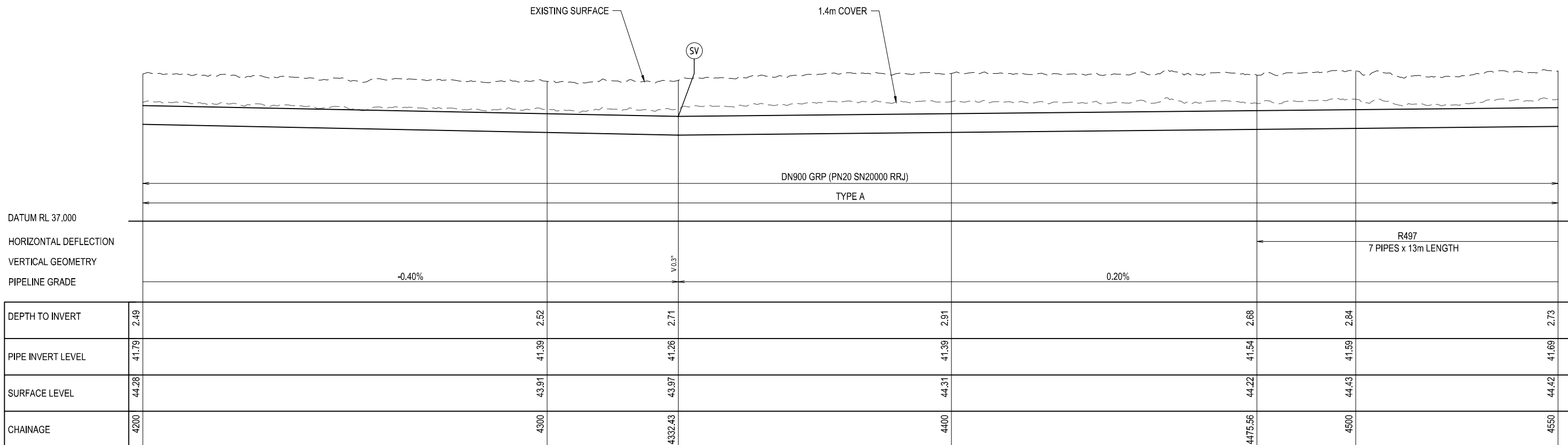
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

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 12 OF 46
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. 21-000239.02 DRAWING No. 2311 REVISION 0



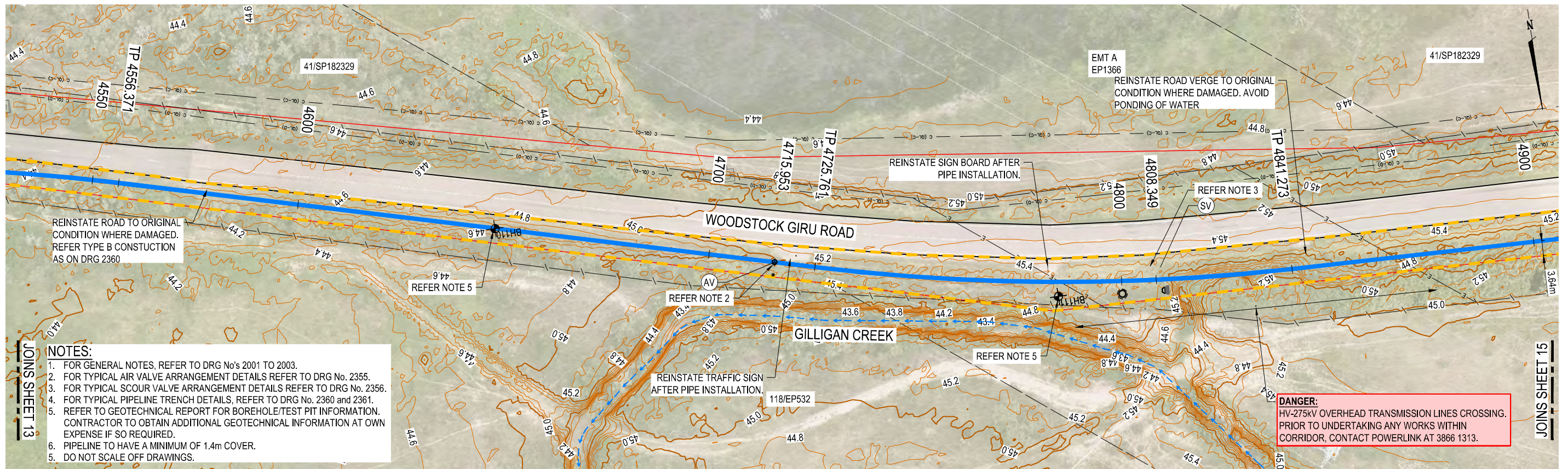
- NOTES:**
1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 2. FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 3. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION.
 4. PIPELINE TO HAVE A MINIMUM OF 1.4m COVER.
 5. DO NOT SCALE OFF DRAWINGS.

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"> <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	<p>SCALE</p> <p>1:500 10 5 0 10 20 A1 1:1000</p> <p>1:200 2 0 2 4 6 8 10 A1 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 13 OF 46</p>	<p>DISCLAIMER</p> <p>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>	<table border="1"> <thead> <tr> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>21-000239.02</td> <td>2312</td> <td>0</td> </tr> </tbody> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2312	0
REVISION	DATE	ISSUE DETAILS																																	
0	28.04.23	ISSUE FOR CONSTRUCTION																																	
DRAWN	DESIGN																																		
JM	MO																																		
DRAWN CHECK	STATUS																																		
Dmp	FOR CONSTRUCTION																																		
DESIGN CHECK	APPROVED	PROJECT																																	
[Signature]	MARCHEL OEGEMA	RPEQ 20260																																	
PROJECT No.	DRAWING No.	REVISION																																	
21-000239.02	2312	0																																	



- 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.
 5. DO NOT SCALE OFF DRAWINGS.

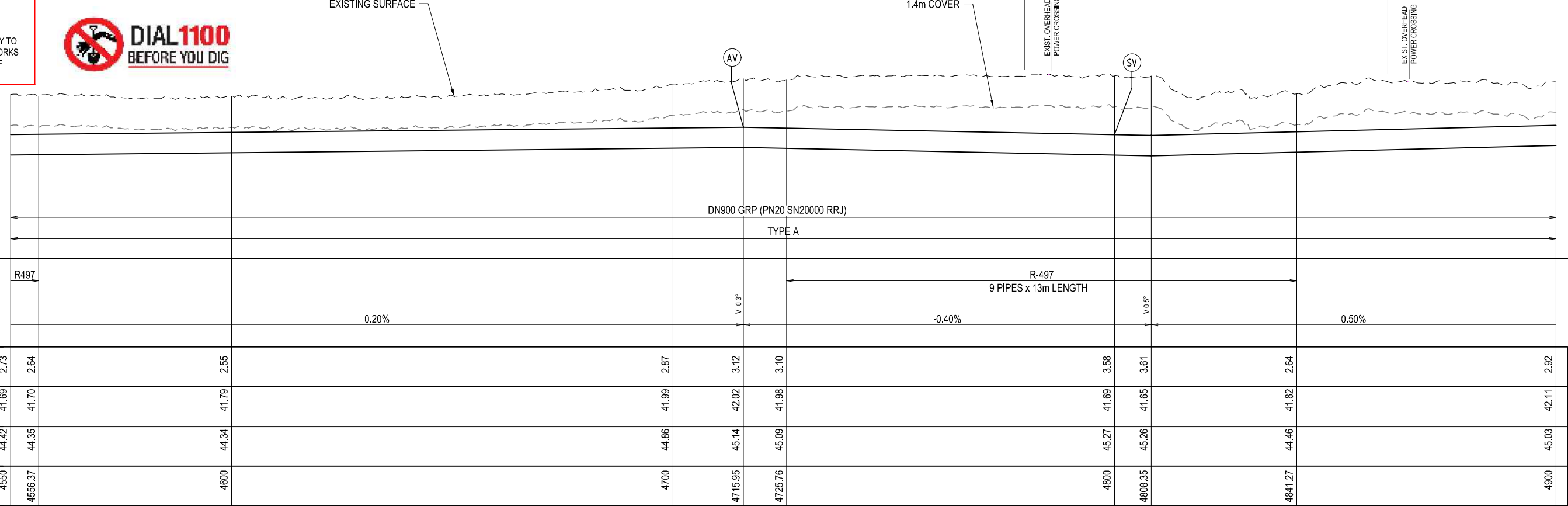
DANGER:
HV-275KV OVERHEAD TRANSMISSION LINES CROSSING.
PRIOR TO UNDERTAKING ANY WORKS WITHIN
CORRIDOR, CONTACT POWERLINK AT 3866 1313.

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

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)

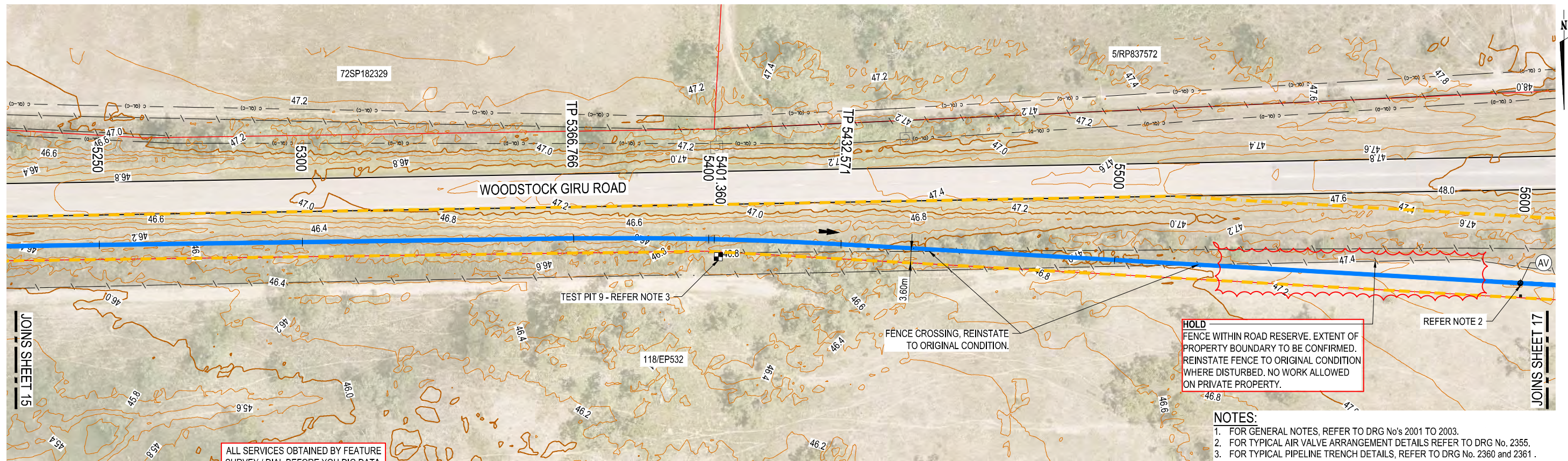


DATUM RL 37.000
HORIZONTAL DEFLECTION R497
VERTICAL GEOMETRY
PIPELINE GRADE

DEPTH TO INVERT	2.73	2.64	2.55	2.87	3.12	3.10	3.58	3.61	2.64	2.92
PIPE INVERT LEVEL	41.69	41.70	41.79	41.99	42.02	41.98	41.69	41.65	41.82	42.11
SURFACE LEVEL	44.42	44.35	44.34	44.86	45.14	45.09	45.27	45.26	44.46	45.03
CHAINAGE	4550	4556.37	4600	4700	4715.95	4725.76	4800	4808.35	4841.27	4900

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> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DESIGN CHECK</td> <td>APPROVED MARCHEL OEGEMA RPEQ 20260 <i>Magema</i> FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD</td> </tr> </table>	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>Magema</i> FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD	<p>SCALE</p> <p>1:500 10 5 0 10 20 A1 1:1000</p> <p>1:200 2 0 2 4 6 8 10 A1 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 14 OF 46</p> <p>DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>
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>Magema</i> FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD																			
<table border="1"> <tr> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> <tr> <td>21-000239.02</td> <td>2313</td> <td>0</td> </tr> </table>		PROJECT No.	DRAWING No.	REVISION	21-000239.02	2313	0																		
PROJECT No.	DRAWING No.	REVISION																							
21-000239.02	2313	0																							



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

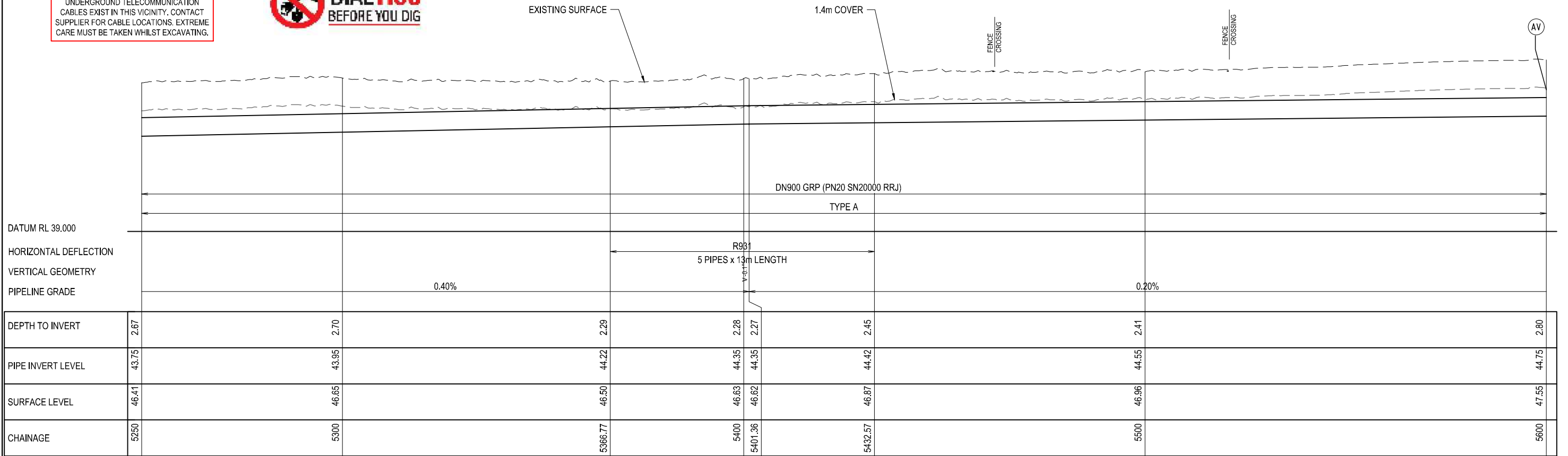
CAUTION !!
UNDERGROUND TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.



HOLD
 FENCE WITHIN ROAD RESERVE. EXTENT OF PROPERTY BOUNDARY TO BE CONFIRMED. REINSTATE FENCE TO ORIGINAL CONDITION WHERE DISTURBED. NO WORK ALLOWED ON PRIVATE PROPERTY.

- 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 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.

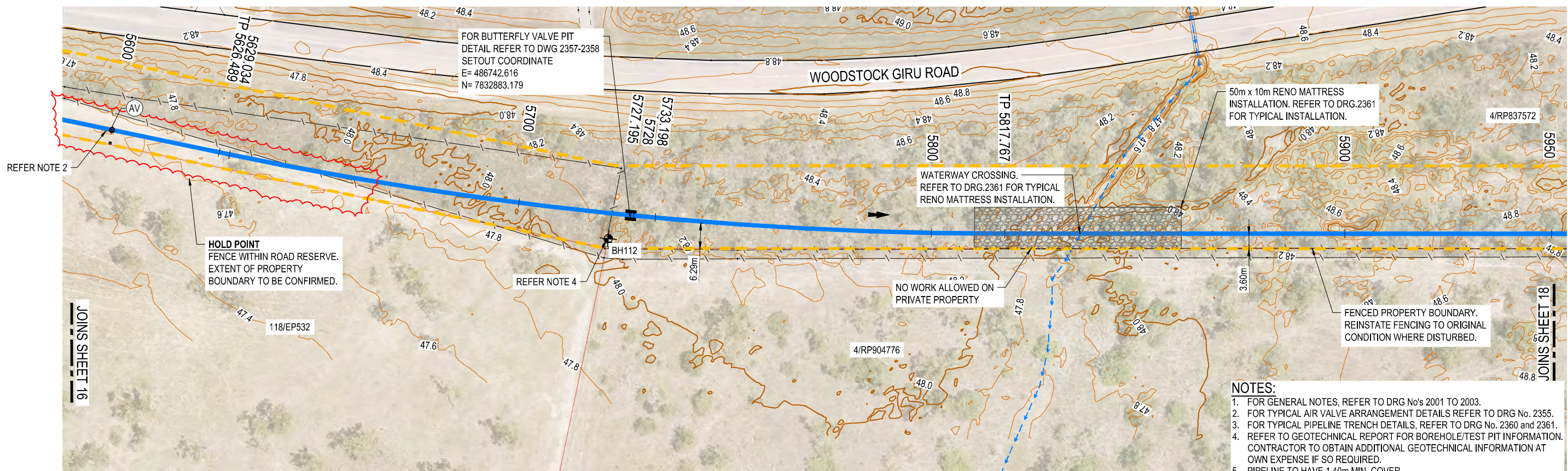
LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)



DEPTH TO INVERT	2.67	2.70	2.29	2.28	2.27	2.45	2.41	2.80
PIPE INVERT LEVEL	43.75	43.95	44.22	44.35	44.35	44.42	44.55	44.75
SURFACE LEVEL	46.42	46.65	46.50	46.63	46.62	46.87	46.96	47.55
CHAINAGE	5253	5300	5366.77	5400	5401.36	5432.57	5500	5600

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

<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</td> </tr> <tr> <td>1:1000</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1</td> </tr> <tr> <td>1:400</td> </tr> </tbody> </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"> <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>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 16 OF 46</td> </tr> </tbody> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 16 OF 46	<table border="1"> <thead> <tr> <th>DISCLAIMER</th> </tr> </thead> <tbody> <tr> <td>ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> </tr> </tbody> </table>	DISCLAIMER	ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	<table border="1"> <thead> <tr> <th>PROJECT No.</th> <th>DRAWING No.</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>21-000239.02</td> <td>2315</td> <td>0</td> </tr> </tbody> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2315	0
REVISION	DATE	ISSUE DETAILS																																														
0	28.04.23	ISSUE FOR CONSTRUCTION																																														
DRAWN	DESIGN																																															
JM	MO																																															
DRAWN CHECK	STATUS																																															
Dmp	FOR CONSTRUCTION																																															
DESIGN CHECK	APPROVED	PROJECT																																														
[Signature]	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																																																
CLIENT																																																
TOWNSVILLE CITY COUNCIL																																																
PROJECT																																																
LANSDOWN ECO - INDUSTRIAL PRECINCT																																																
DRAWING TITLE																																																
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 16 OF 46																																																
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	2315	0																																														

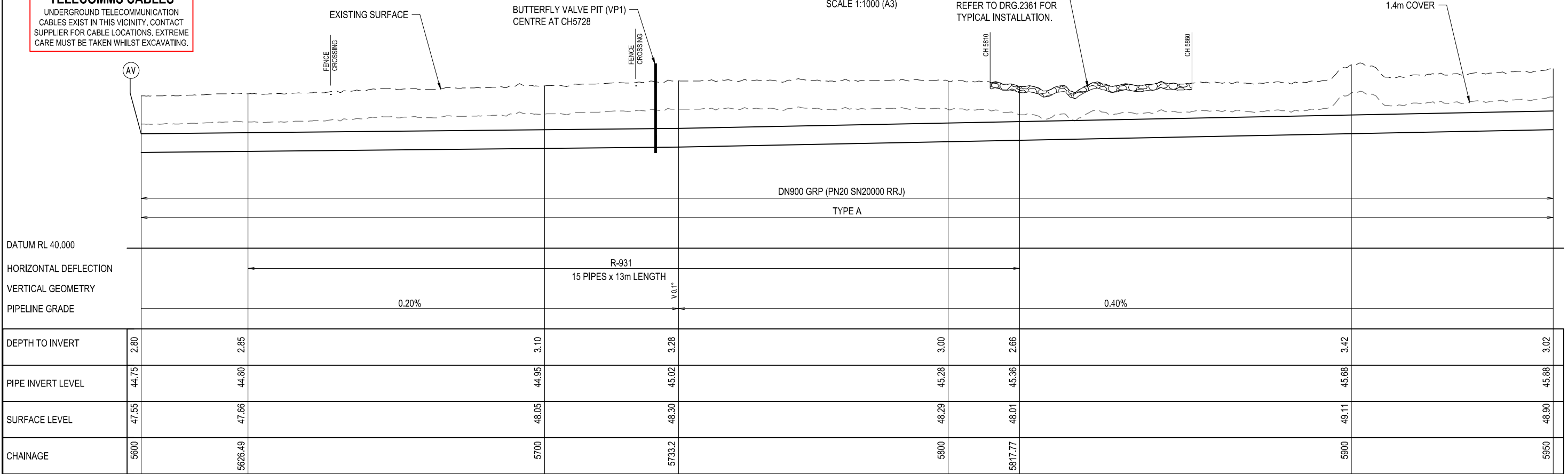


- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 - FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE 1.40m MIN. COVER.
 - DO NOT SCALE OFF DRAWING.

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

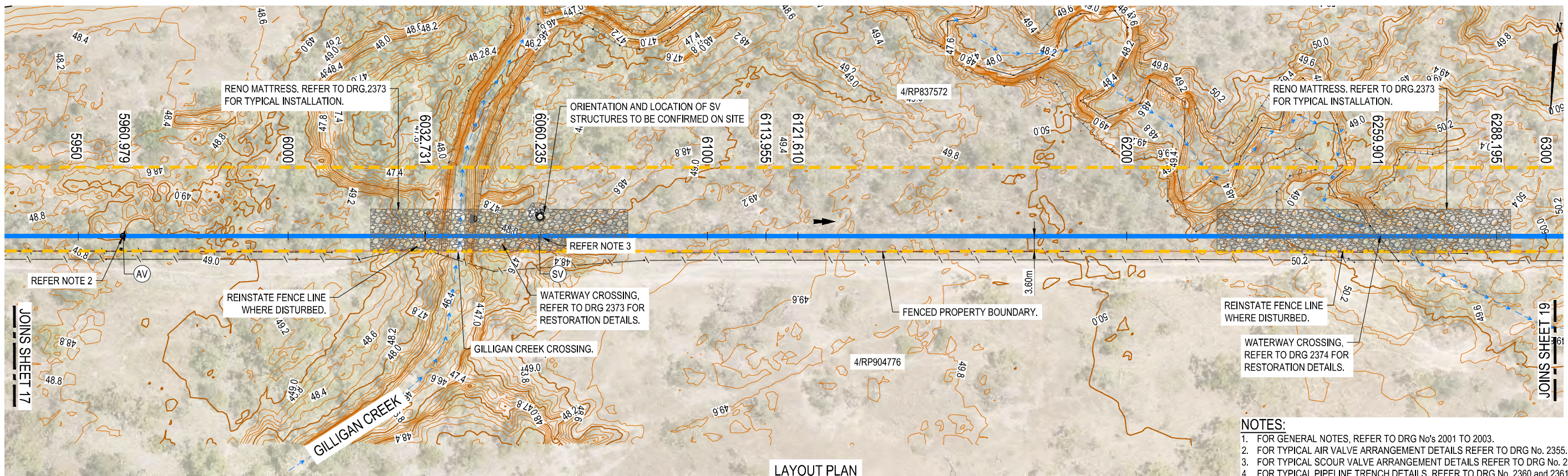
LAYOUT PLAN

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



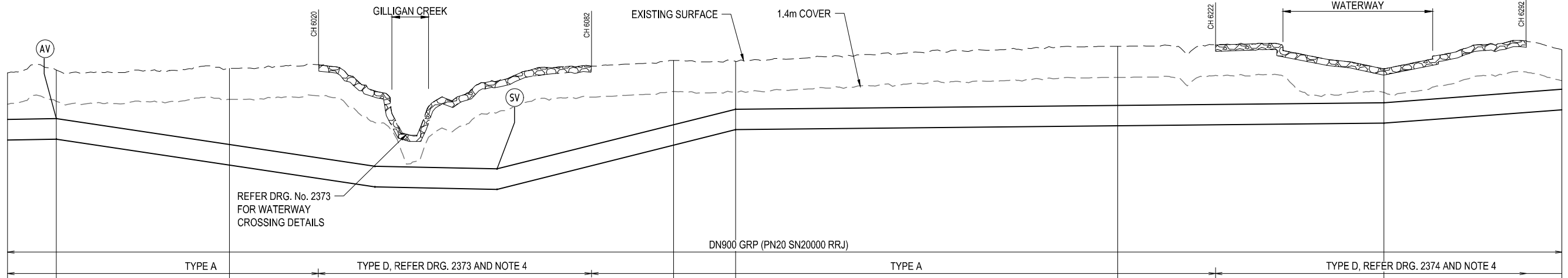
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<table border="1"> <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> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DESIGN CHECK</td> <td>APPROVED MACHEL OEGEMA RPEQ 20260</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						DESIGN CHECK	APPROVED MACHEL OEGEMA RPEQ 20260	<p>SCALE</p> <p>1:500 10 5 0 10 20 A1 1:1000</p> <p>1:200 2 0 2 4 6 8 10 A1 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 17 OF 46</p>
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS																			
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION																			
					DESIGN CHECK	APPROVED MACHEL OEGEMA RPEQ 20260																			
<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. 2316</p>	<p>REVISION 0</p>																			



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

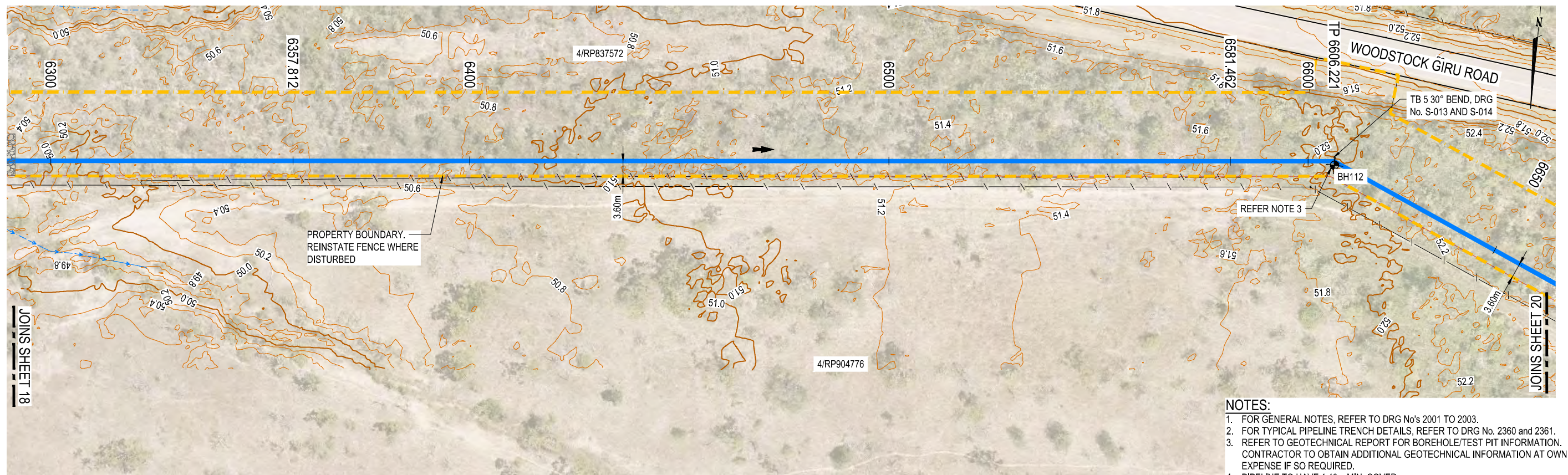
- NOTES:**
1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 2. FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 3. FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 4. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 5. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 6. PIPELINE TO HAVE 1.40m MIN. COVER.
 7. DO NOT SCALE OFF DRAWING.



DATUM RL 39.000		HORIZONTAL DEFLECTION		VERTICAL GEOMETRY		PIPELINE GRADE		DEPTH TO INVERT		PIPE INVERT LEVEL		SURFACE LEVEL		CHAINAGE	
TYPE A	TYPE D, REFER DRG. 2373 AND NOTE 4	0.40%	-3.00%	V 1.5"	-0.40%	V 3.1"	5.00%	3.02	3.10	44.76	43.78	48.06	49.46	5950	5960.98
								4.36	4.29	44.76	43.67	48.52	49.43	6000	6032.73
								4.86	3.81	46.35	46.55	49.73	50.10	6100	6113.96
								3.08	3.58	46.35	46.52	49.73	50.10	6200	6259.9
								2.45	2.70	46.64	47.25	49.09	49.95	6259.9	6300

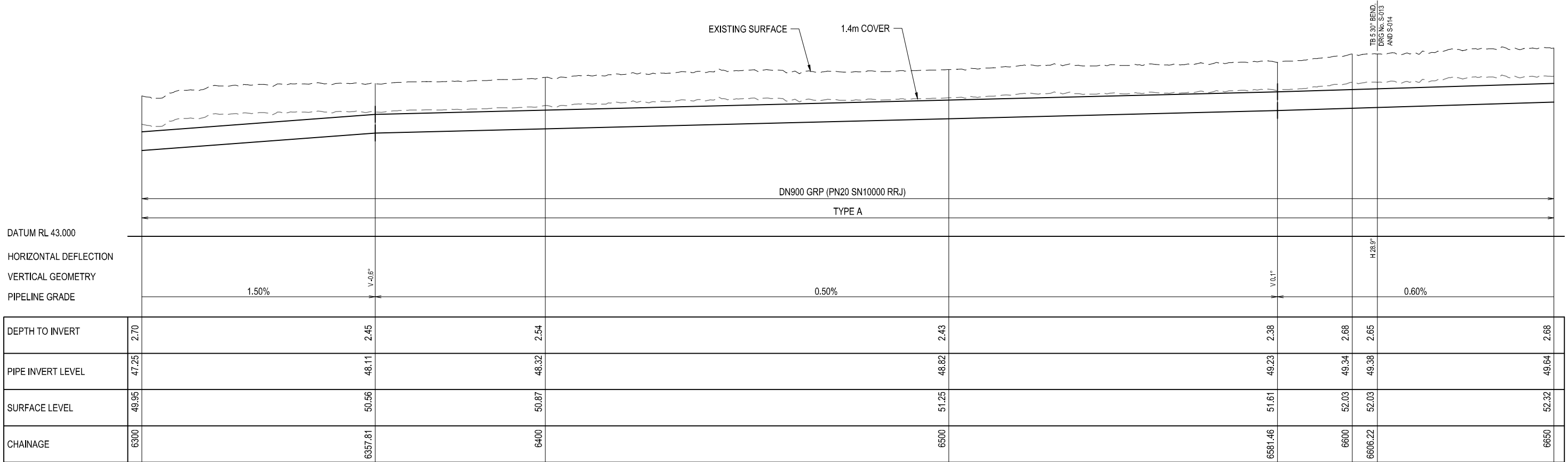
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<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>DESIGN CHECK</th> <th>APPROVED</th> <th>PROJECT</th> </tr> <tr> <td>[Signature]</td> <td>MARCHEL OEGEMA</td> <td>RPEQ 20260</td> </tr> </table>	DESIGN CHECK	APPROVED	PROJECT	[Signature]	MARCHEL OEGEMA	RPEQ 20260	<table border="1"> <tr> <th>SCALE</th> <th>A1</th> <th>A3</th> </tr> <tr> <td>1:500</td> <td>10</td> <td>20</td> </tr> <tr> <td>1:1000</td> <td>5</td> <td>10</td> </tr> <tr> <td>1:200</td> <td>2</td> <td>4</td> </tr> <tr> <td>1:400</td> <td>1</td> <td>2</td> </tr> </table>	SCALE	A1	A3	1:500	10	20	1:1000	5	10	1:200	2	4	1:400	1	2	<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 18 OF 46</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 18 OF 46	<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>2317</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2317	0
REVISION	DATE	ISSUE DETAILS																																																								
0	28.04.23	ISSUE FOR CONSTRUCTION																																																								
DRAWN	DESIGN																																																									
JM	MO																																																									
DRAWN CHECK	STATUS																																																									
Dmp	FOR CONSTRUCTION																																																									
DESIGN CHECK	APPROVED	PROJECT																																																								
[Signature]	MARCHEL OEGEMA	RPEQ 20260																																																								
SCALE	A1	A3																																																								
1:500	10	20																																																								
1:1000	5	10																																																								
1:200	2	4																																																								
1:400	1	2																																																								
CLIENT																																																										
TOWNSVILLE CITY COUNCIL																																																										
PROJECT																																																										
LANSDOWN ECO - INDUSTRIAL PRECINCT																																																										
DRAWING TITLE																																																										
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 18 OF 46																																																										
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	2317	0																																																								



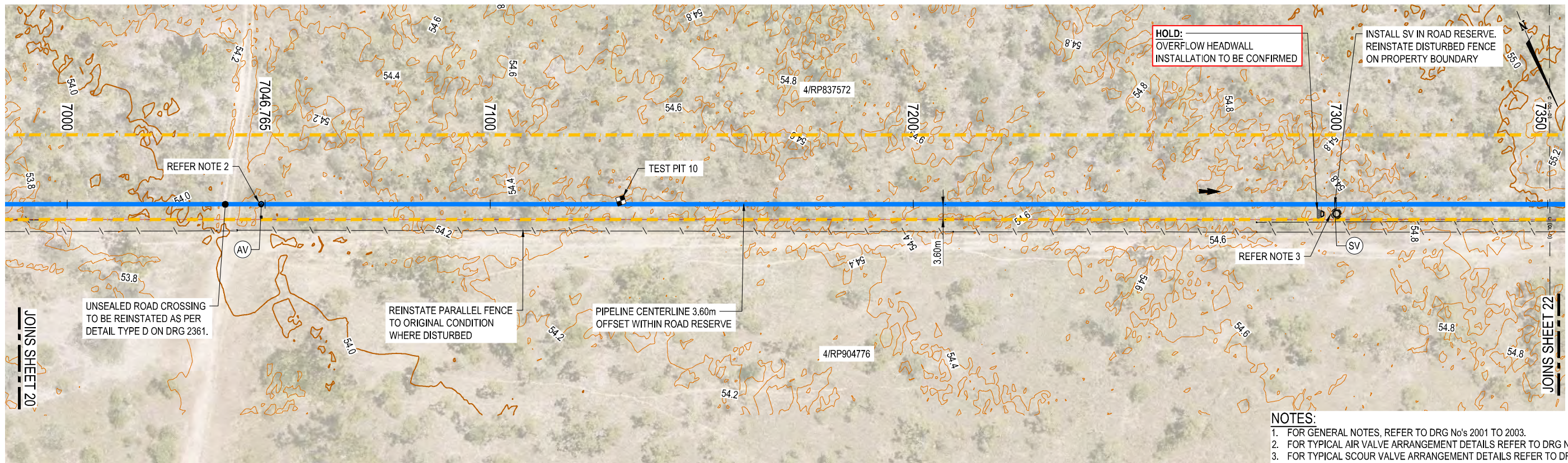
- NOTES:**
1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 2. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 3. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 4. PIPELINE TO HAVE 1.40m MIN. COVER.
 5. DO NOT SCALE OFF DRAWING.

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



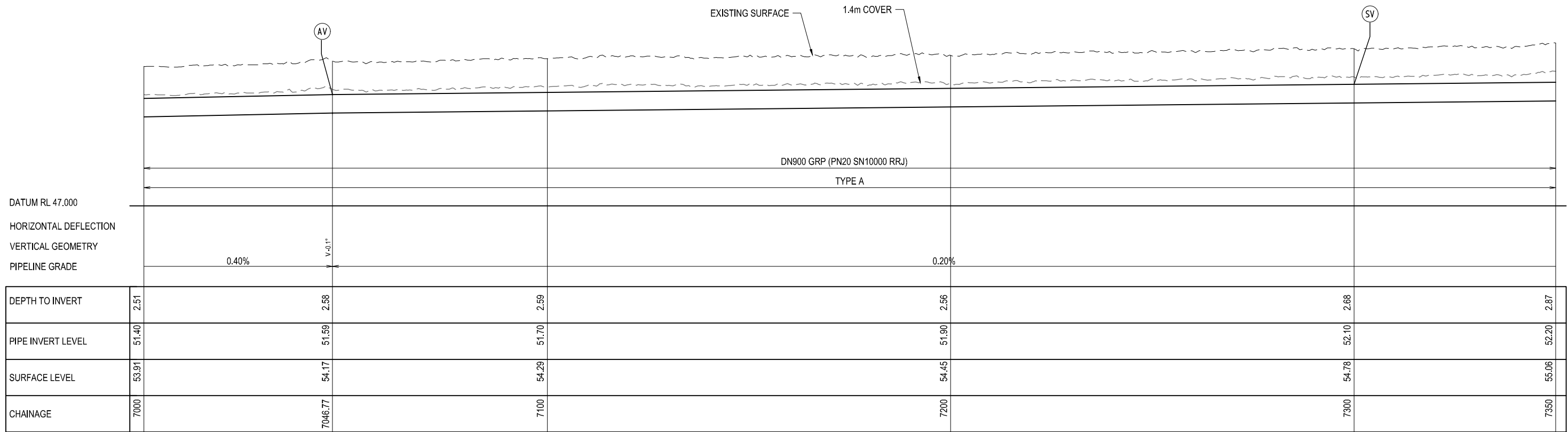
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>ISSUE DETAILS</th> </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><i>Dmp</i></td> <td>FOR CONSTRUCTION</td> </tr> </table>	DRAWN CHECK	STATUS	<i>Dmp</i>	FOR CONSTRUCTION	<table border="1"> <tr> <th>DESIGN CHECK</th> <th>APPROVED</th> <th>PROJECT</th> </tr> <tr> <td><i>MS</i></td> <td>MARCHEL OEGEMA</td> <td>RPEQ 20260</td> </tr> </table>	DESIGN CHECK	APPROVED	PROJECT	<i>MS</i>	MARCHEL OEGEMA	RPEQ 20260	<table border="1"> <tr> <th>SCALE</th> <th>A1</th> <th>A3</th> </tr> <tr> <td>1:500</td> <td>10</td> <td>20</td> </tr> <tr> <td>1:1000</td> <td>5</td> <td>10</td> </tr> <tr> <td>1:200</td> <td>2</td> <td>4</td> </tr> <tr> <td>1:400</td> <td>1</td> <td>2</td> </tr> </table>	SCALE	A1	A3	1:500	10	20	1:1000	5	10	1:200	2	4	1:400	1	2	<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 19 OF 46</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 19 OF 46	<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>2318</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2318	0
REVISION	DATE	ISSUE DETAILS																																																								
0	28.04.23	ISSUE FOR CONSTRUCTION																																																								
DRAWN	DESIGN																																																									
JM	MO																																																									
DRAWN CHECK	STATUS																																																									
<i>Dmp</i>	FOR CONSTRUCTION																																																									
DESIGN CHECK	APPROVED	PROJECT																																																								
<i>MS</i>	MARCHEL OEGEMA	RPEQ 20260																																																								
SCALE	A1	A3																																																								
1:500	10	20																																																								
1:1000	5	10																																																								
1:200	2	4																																																								
1:400	1	2																																																								
CLIENT																																																										
TOWNSVILLE CITY COUNCIL																																																										
PROJECT																																																										
LANSDOWN ECO - INDUSTRIAL PRECINCT																																																										
DRAWING TITLE																																																										
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 19 OF 46																																																										
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	2318	0																																																								



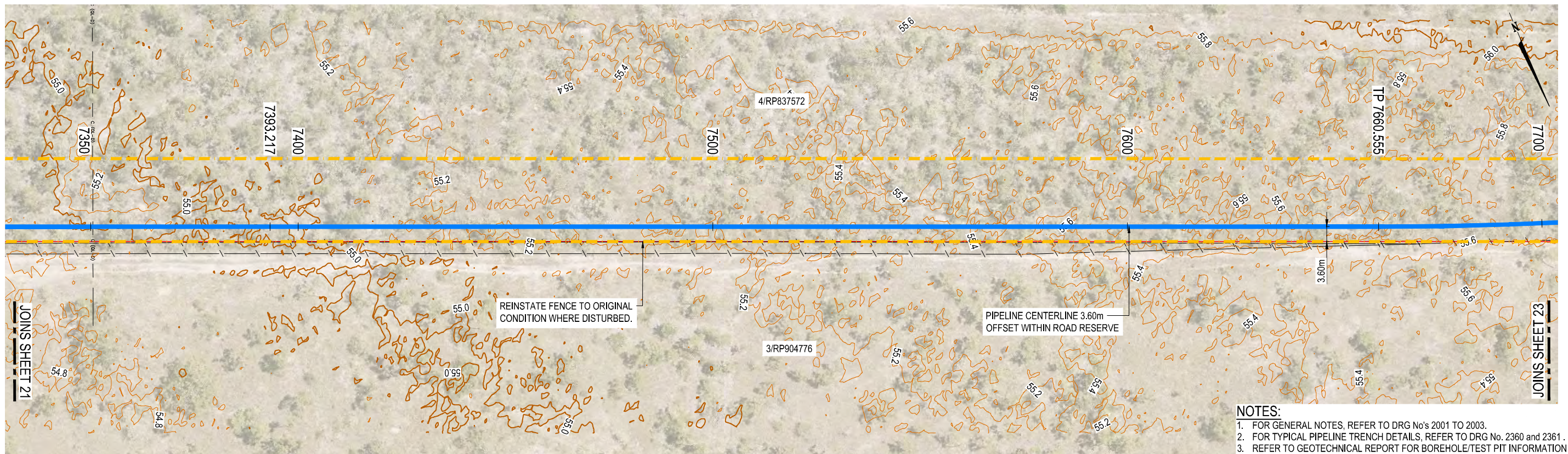
- NOTES:**
1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 2. FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 3. FOR TYPICAL SCOUR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2356.
 4. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361 .
 5. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 6. PIPELINE TO HAVE 1.40m MIN. COVER.
 7. DO NOT SCALE OFF DRAWING.

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



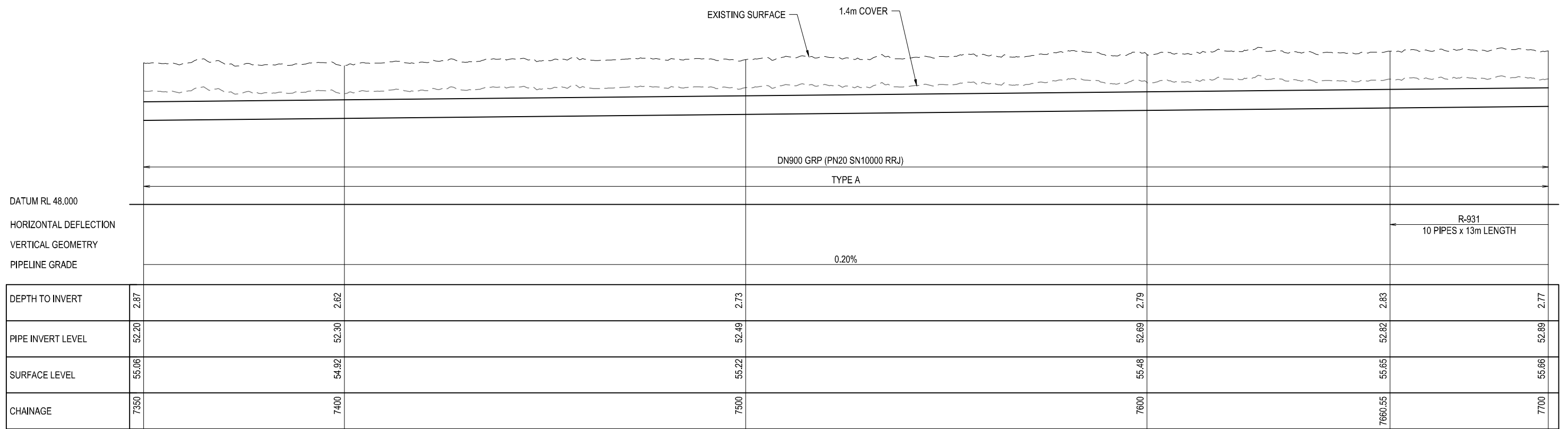
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<table border="1"> <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> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DESIGN CHECK</td> <td>APPROVED MARCHEL OEGEMA RPEQ 20260 <i>Moqema</i> FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD</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						DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260 <i>Moqema</i> FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD	<p>SCALE</p> <p>1:500 10 5 0 10 20 A1 1:1000</p> <p>1:200 2 0 2 4 6 8 10 A1 1:400</p>	<p>CLIENT</p> <p>TOWNSVILLE CITY COUNCIL</p>	<p>PROJECT</p> <p>LANSDOWN ECO - INDUSTRIAL PRECINCT</p> <p>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>	<p>DRAWING TITLE</p> <p>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 21 OF 46</p> <p>PROJECT No. 21-000239.02 DRAWING No. 2320 REVISION 0</p>
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>Moqema</i> FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD																			



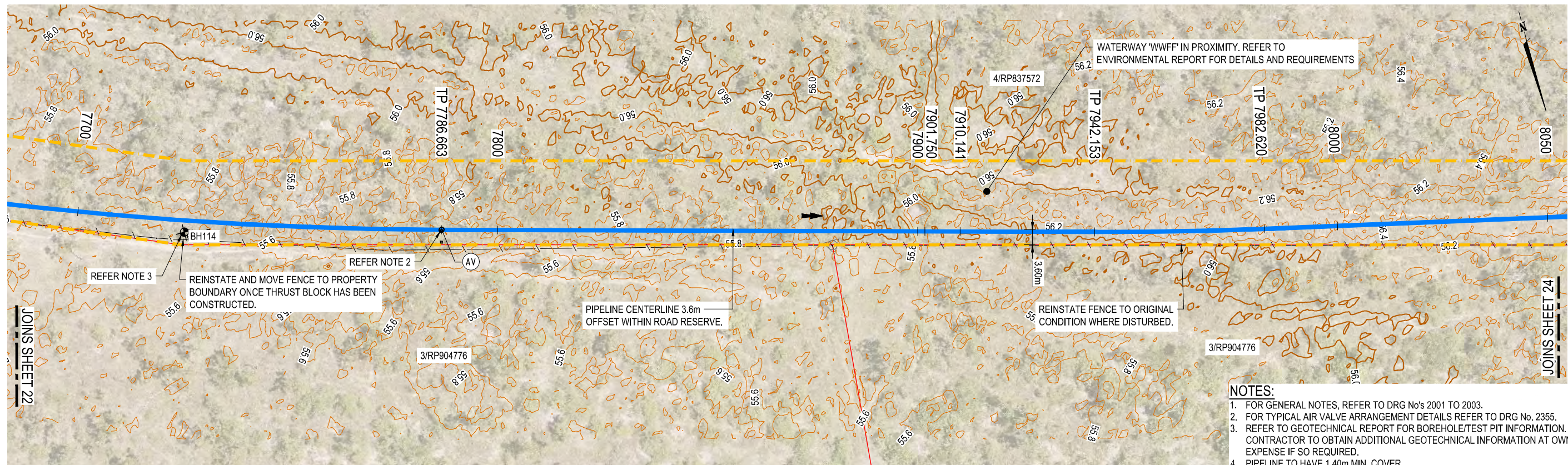
- NOTES:**
1. FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 2. FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361 .
 3. REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 4. PIPELINE TO HAVE 1.40m MIN. COVER.
 5. DO NOT SCALE OFF DRAWING.

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



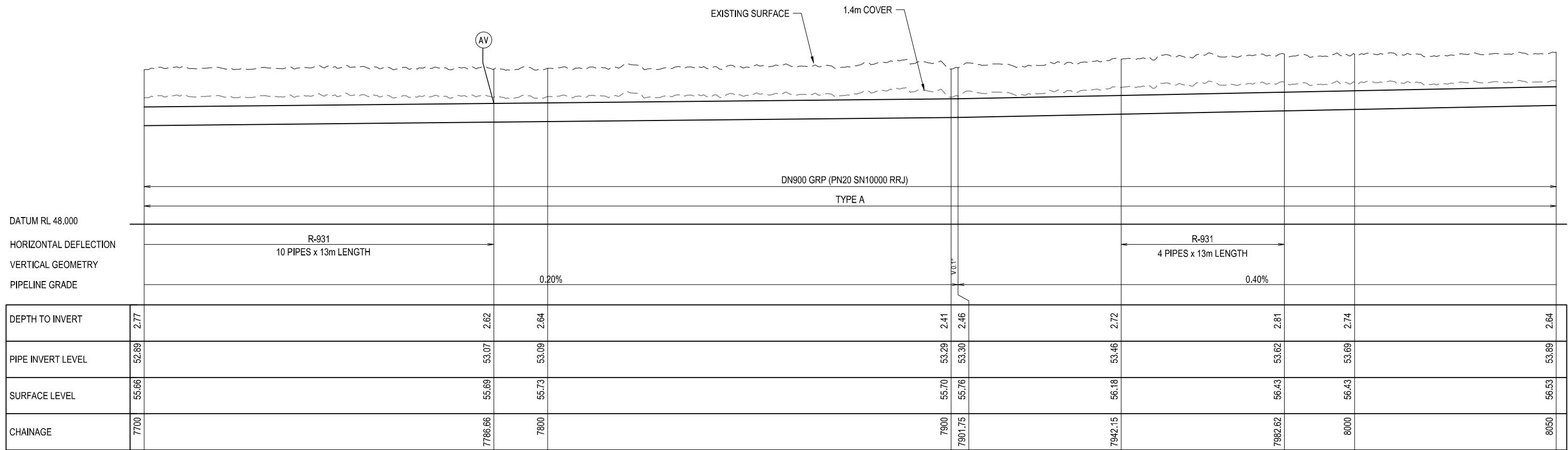
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<table border="1"> <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	<p>SCALE</p> <p>1:500 10 5 0 10 20 A1</p> <p>1:1000 [Scale Bar] A3</p> <p>1:200 2 0 2 4 6 8 10 A1</p> <p>1:400 [Scale Bar] A3</p>	<p>CLIENT</p> <p>TOWNSVILLE CITY COUNCIL</p>	<p>calibre calibregroup.com</p>	<p>PROJECT</p> <p>LANSDOWN ECO - INDUSTRIAL PRECINCT</p> <p>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>	<p>DRAWING TITLE</p> <p>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 22 OF 46</p> <table border="1"> <tr> <td>PROJECT No.</td> <td>DRAWING No.</td> <td>REVISION</td> </tr> <tr> <td>21-000239.02</td> <td>2321</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2321	0
REVISION	DATE	ISSUE DETAILS																																
0	28.04.23	ISSUE FOR CONSTRUCTION																																
DRAWN	DESIGN																																	
JM	MO																																	
DRAWN CHECK	STATUS																																	
Dmp	FOR CONSTRUCTION																																	
DESIGN CHECK	APPROVED	PROJECT																																
[Signature]	MARCHEL OEGEMA	RPEQ 20260																																
PROJECT No.	DRAWING No.	REVISION																																
21-000239.02	2321	0																																



- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL AIR VALVE ARRANGEMENT DETAILS REFER TO DRG No. 2355.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE 1.40m MIN. COVER.
 - DO NOT SCALE OFF DRAWING.

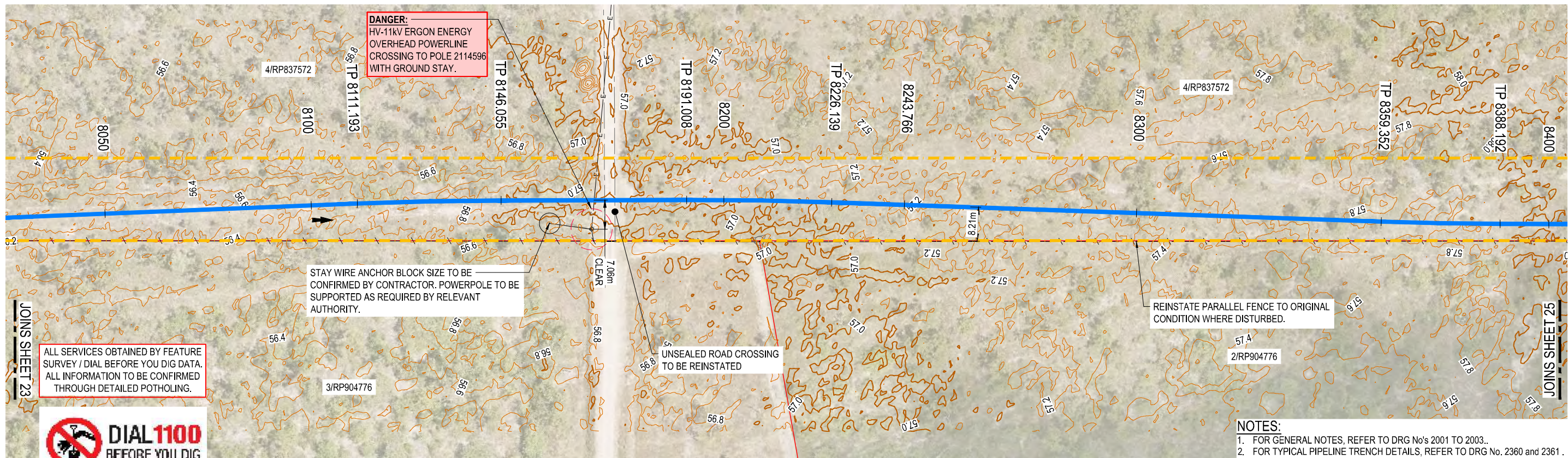
LAYOUT PLAN
SCALE 1:500 (A1)
SCALE 1:1000 (A3)



DEPTH TO INVERT	2.77	2.62	2.64	2.41	2.46	2.72	2.81	2.74	2.64
PIPE INVERT LEVEL	52.89	53.07	53.09	53.29	53.30	53.46	53.62	53.69	53.89
SURFACE LEVEL	55.66	55.69	55.73	55.70	55.76	56.18	56.43	56.43	56.53
CHAINAGE	7700	7786.66	7800	7900	7901.75	7942.15	7982.62	8000	8050

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> <tr> <th>DESIGN CHECK</th> <td>APPROVED MARCHEL OEGEMA RPEQ 20260</td> </tr> <tr> <td><i>[Signature]</i></td> <td><i>[Signature]</i></td> </tr> </table>	DRAWN CHECK	STATUS	Dmp	FOR CONSTRUCTION	DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260	<i>[Signature]</i>	<i>[Signature]</i>	<table border="1"> <tr> <th>SCALE</th> </tr> <tr> <td>1:500 10 5 0 10 20 A1</td> </tr> <tr> <td>1:1000</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1</td> </tr> <tr> <td>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 23 OF 46</td> </tr> <tr> <td>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 23 OF 46	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>2322</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2322	0
REVISION	DATE	ISSUE DETAILS																																									
0	28.04.23	ISSUE FOR CONSTRUCTION																																									
DRAWN	DESIGN																																										
JM	MO																																										
DRAWN CHECK	STATUS																																										
Dmp	FOR CONSTRUCTION																																										
DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260																																										
<i>[Signature]</i>	<i>[Signature]</i>																																										
SCALE																																											
1:500 10 5 0 10 20 A1																																											
1:1000																																											
1:200 2 0 2 4 6 8 10 A1																																											
1:400																																											
CLIENT																																											
TOWNSVILLE CITY COUNCIL																																											
PROJECT																																											
LANSDOWN ECO - INDUSTRIAL PRECINCT																																											
DRAWING TITLE																																											
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 23 OF 46																																											
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	2322	0																																									



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

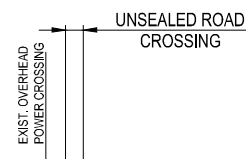


- NOTES:**
- FOR GENERAL NOTES, REFER TO DRG No's 2001 TO 2003.
 - FOR TYPICAL PIPELINE TRENCH DETAILS, REFER TO DRG No. 2360 and 2361.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION
 - PIPELINE TO HAVE 1.40m MIN. COVER.
 - DO NOT SCALE OFF DRAWING.

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

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

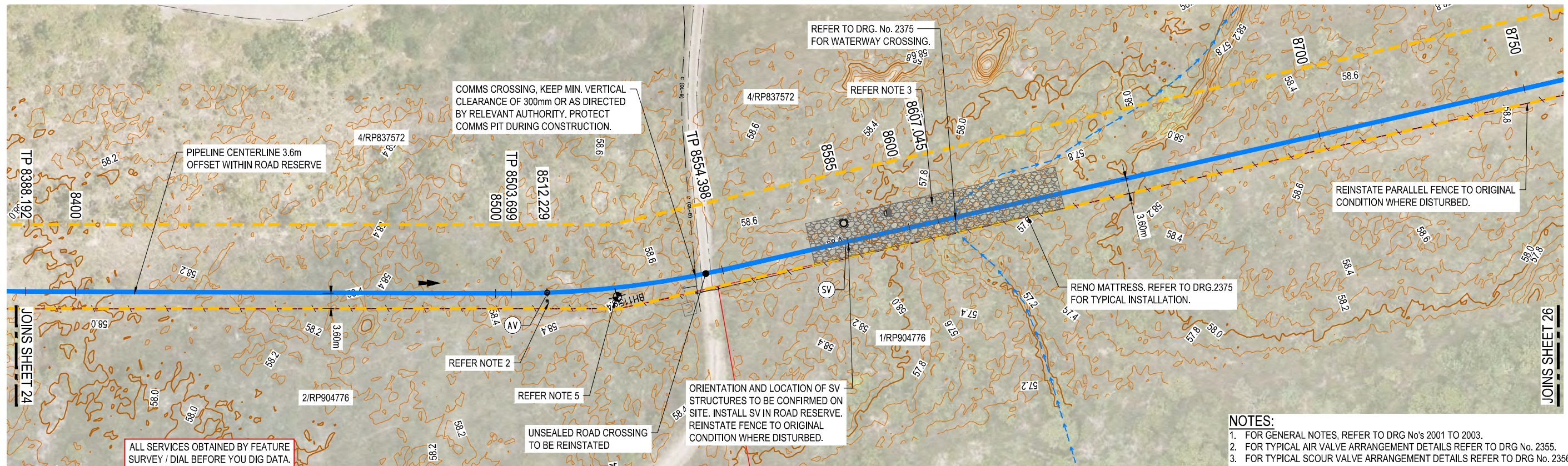


EXISTING SURFACE
1.4m COVER

DEPTH TO INVERT	2.64	2.64	2.57	2.62	2.67	2.57	2.51	2.60	2.65	2.69	2.70
PIPE INVERT LEVEL	53.89	54.09	54.13	54.27	54.45	54.49	54.59	54.89	55.13	55.24	55.29
SURFACE LEVEL	56.53	56.73	56.71	56.89	57.12	57.06	57.10	57.49	57.78	57.94	57.99
CHAINAGE	8050	8100	8111.19	8146.06	8191.01	8200	8226.14	8300	8359.35	8388.19	8400

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	APPROVED MARCHEL OEGEMA RPEQ 20260 FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD	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 <small>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</small>	DRAWING TITLE WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 24 OF 46 PROJECT No. 21-000239.02 DRAWING No. 2323 REVISION 0
---	-----------------------------	---	--	---	---------------------------------------	---	--



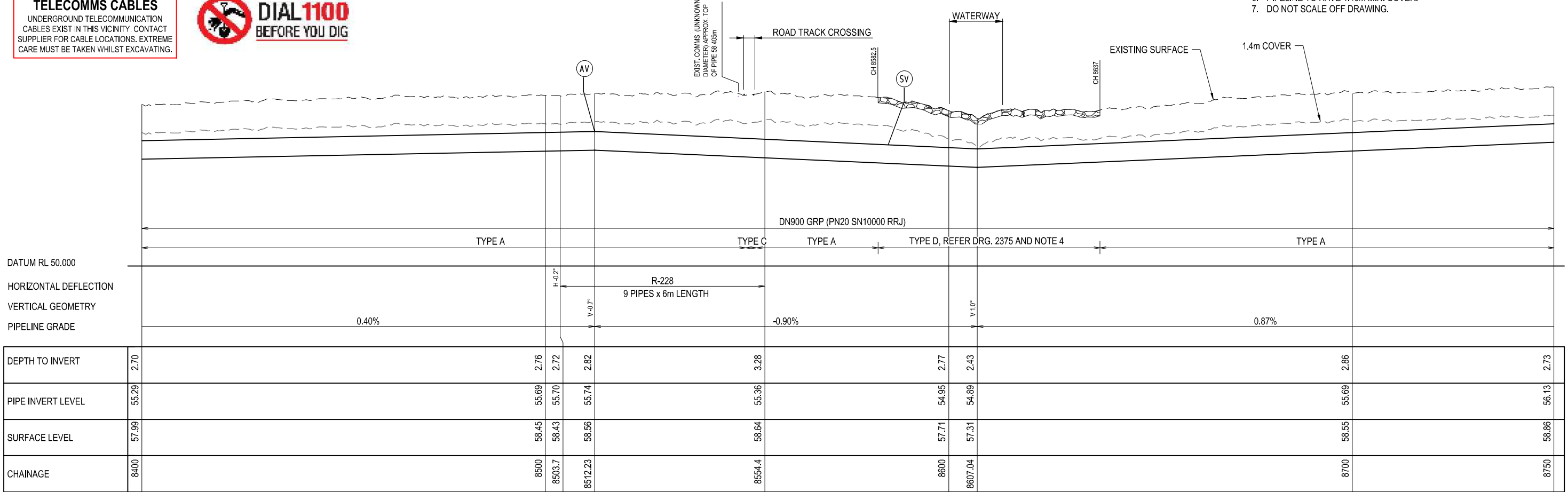
ALL SERVICES OBTAINED BY FEATURE SURVEY / DIAL BEFORE YOU DIG DATA. ALL INFORMATION TO BE CONFIRMED THROUGH DETAILED POTHOLING.

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



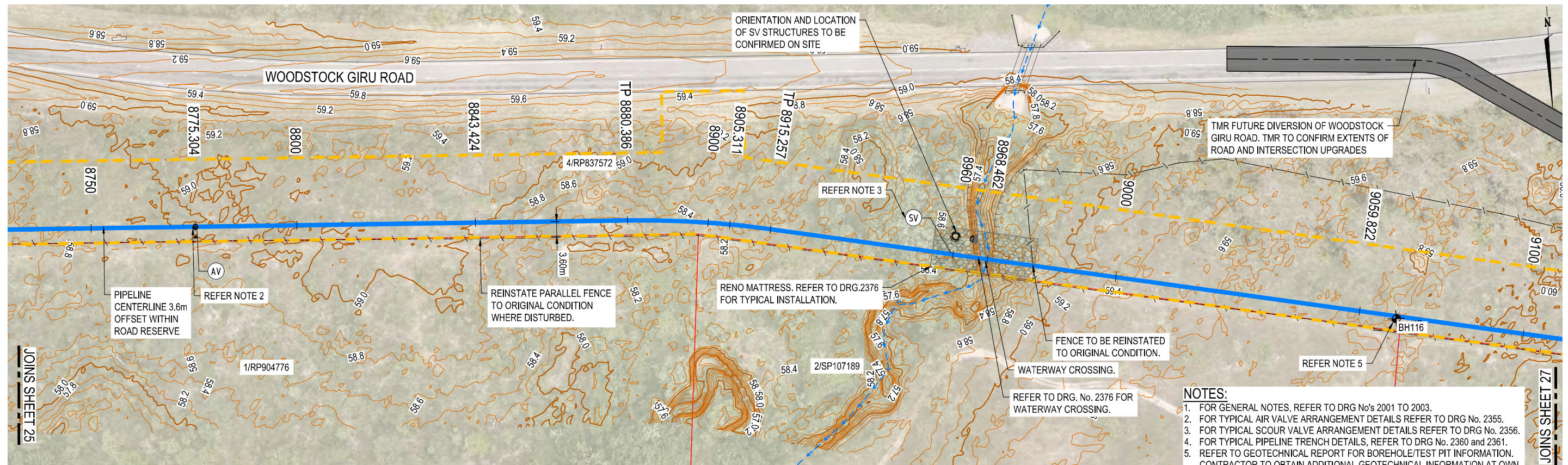
LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)

- 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. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE 1.40m MIN. COVER.
 - DO NOT SCALE OFF DRAWING.



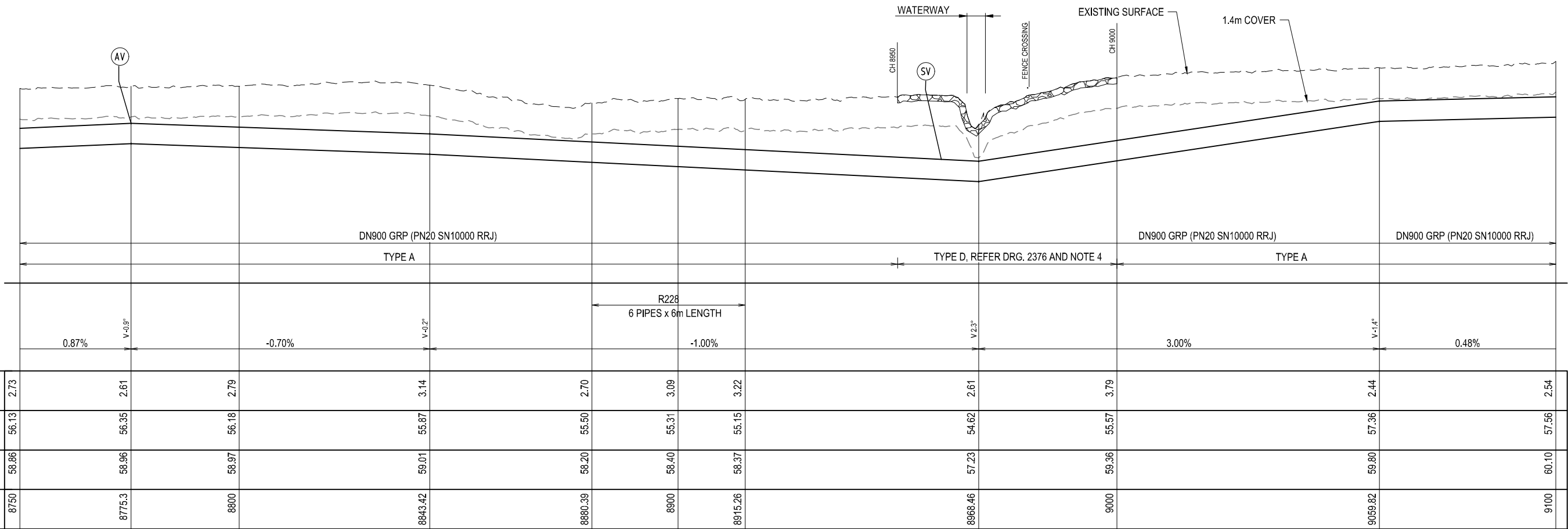
HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<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>DESIGN CHECK</th> <th>APPROVED</th> <th>PROJECT</th> </tr> <tr> <td>[Signature]</td> <td>MARCHEL OEGEMA</td> <td>RPEQ 20260</td> </tr> </table>	DESIGN CHECK	APPROVED	PROJECT	[Signature]	MARCHEL OEGEMA	RPEQ 20260	<table border="1"> <tr> <th>SCALE</th> </tr> <tr> <td>1:500 10 5 0 10 20 A1</td> </tr> <tr> <td>1:1000</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1</td> </tr> <tr> <td>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 25 OF 46</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 25 OF 46	<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>2324</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2324	0
REVISION	DATE	ISSUE DETAILS																																														
0	28.04.23	ISSUE FOR CONSTRUCTION																																														
DRAWN	DESIGN																																															
JM	MO																																															
DRAWN CHECK	STATUS																																															
Dmp	FOR CONSTRUCTION																																															
DESIGN CHECK	APPROVED	PROJECT																																														
[Signature]	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																																																
CLIENT																																																
TOWNSVILLE CITY COUNCIL																																																
PROJECT																																																
LANSDOWN ECO - INDUSTRIAL PRECINCT																																																
DRAWING TITLE																																																
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 25 OF 46																																																
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	2324	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 1.40m MIN. COVER.
 7. DO NOT SCALE OFF DRAWING.

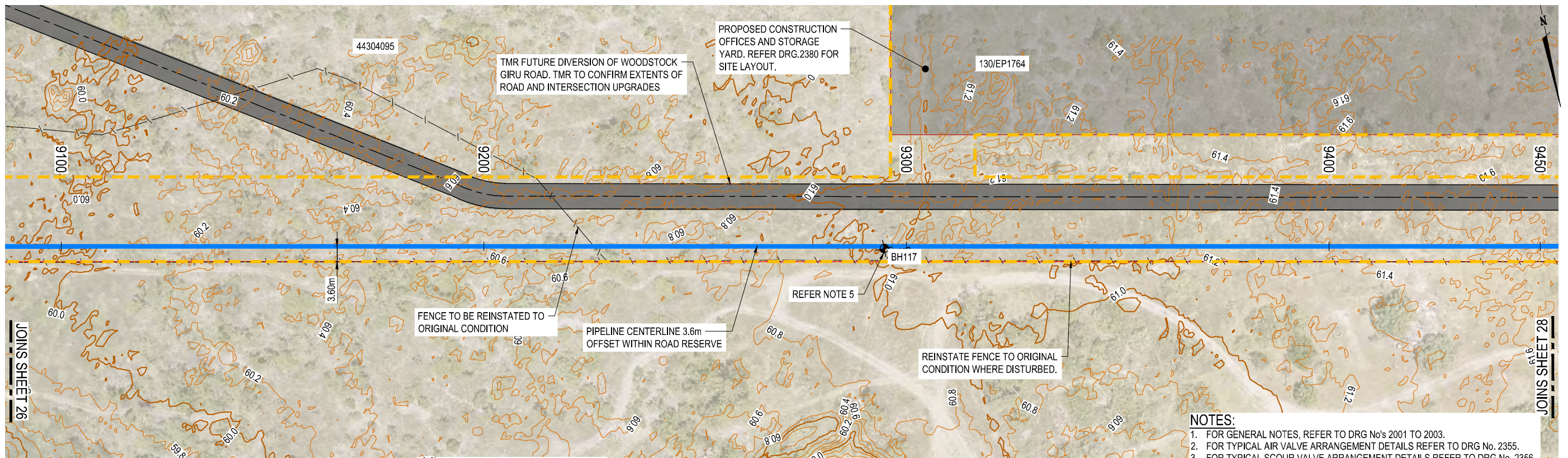


HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

DATUM RL 50.000
 HORIZONTAL DEFLECTION
 VERTICAL GEOMETRY
 PIPELINE GRADE

DEPTH TO INVERT	2.73	2.61	2.79	3.14	2.70	3.09	3.22	2.61	3.79	2.44	2.54
PIPE INVERT LEVEL	56.13	56.35	56.18	55.87	55.50	55.31	55.15	54.62	55.57	57.36	57.56
SURFACE LEVEL	58.86	58.96	58.97	59.01	58.20	58.40	58.37	57.23	59.36	59.80	60.10
CHAINAGE	8750	8775.3	8800	8843.424	8880.39	8900	8915.26	8968.46	9000	9059.82	9100

<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> <tr> <td>DESIGN CHECK</td> <td>APPROVED</td> </tr> <tr> <td>MARCHEL OEGEMA</td> <td>RPEQ 20260</td> </tr> </table>	DRAWN CHECK	STATUS	Dmp	FOR CONSTRUCTION	DESIGN CHECK	APPROVED	MARCHEL OEGEMA	RPEQ 20260	<table border="1"> <tr> <th>SCALE</th> </tr> <tr> <td>1:500 10 5 0 10 20 A1</td> </tr> <tr> <td>1:1000</td> </tr> <tr> <td>1:200 2 0 2 4 6 8 10 A1</td> </tr> <tr> <td>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 26 OF 46</td> </tr> <tr> <td>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</td> </tr> </table>	DRAWING TITLE	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 26 OF 46	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>2325</td> <td>0</td> </tr> </table>	PROJECT No.	DRAWING No.	REVISION	21-000239.02	2325	0
REVISION	DATE	ISSUE DETAILS																																									
0	28.04.23	ISSUE FOR CONSTRUCTION																																									
DRAWN	DESIGN																																										
JM	MO																																										
DRAWN CHECK	STATUS																																										
Dmp	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																																											
CLIENT																																											
TOWNSVILLE CITY COUNCIL																																											
PROJECT																																											
LANSDOWN ECO - INDUSTRIAL PRECINCT																																											
DRAWING TITLE																																											
WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 26 OF 46																																											
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	2325	0																																									



- 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 1.40m MIN. COVER.
 7. DO NOT SCALE OFF DRAWING.

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

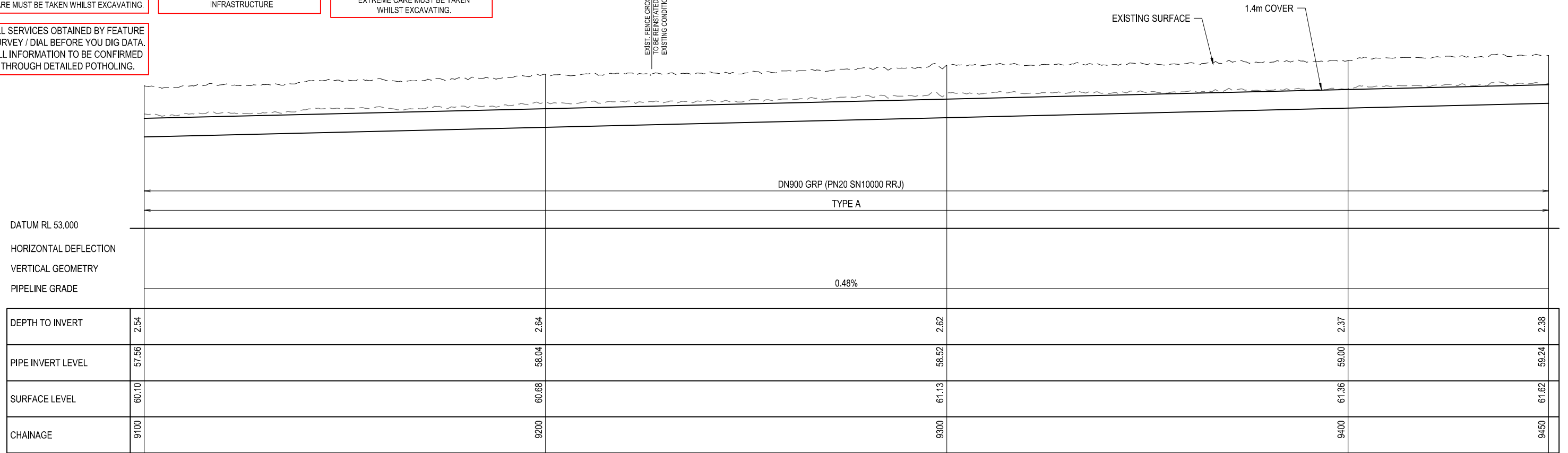
DANGER:
OVERHEAD POWERLINES
 CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

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



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.



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

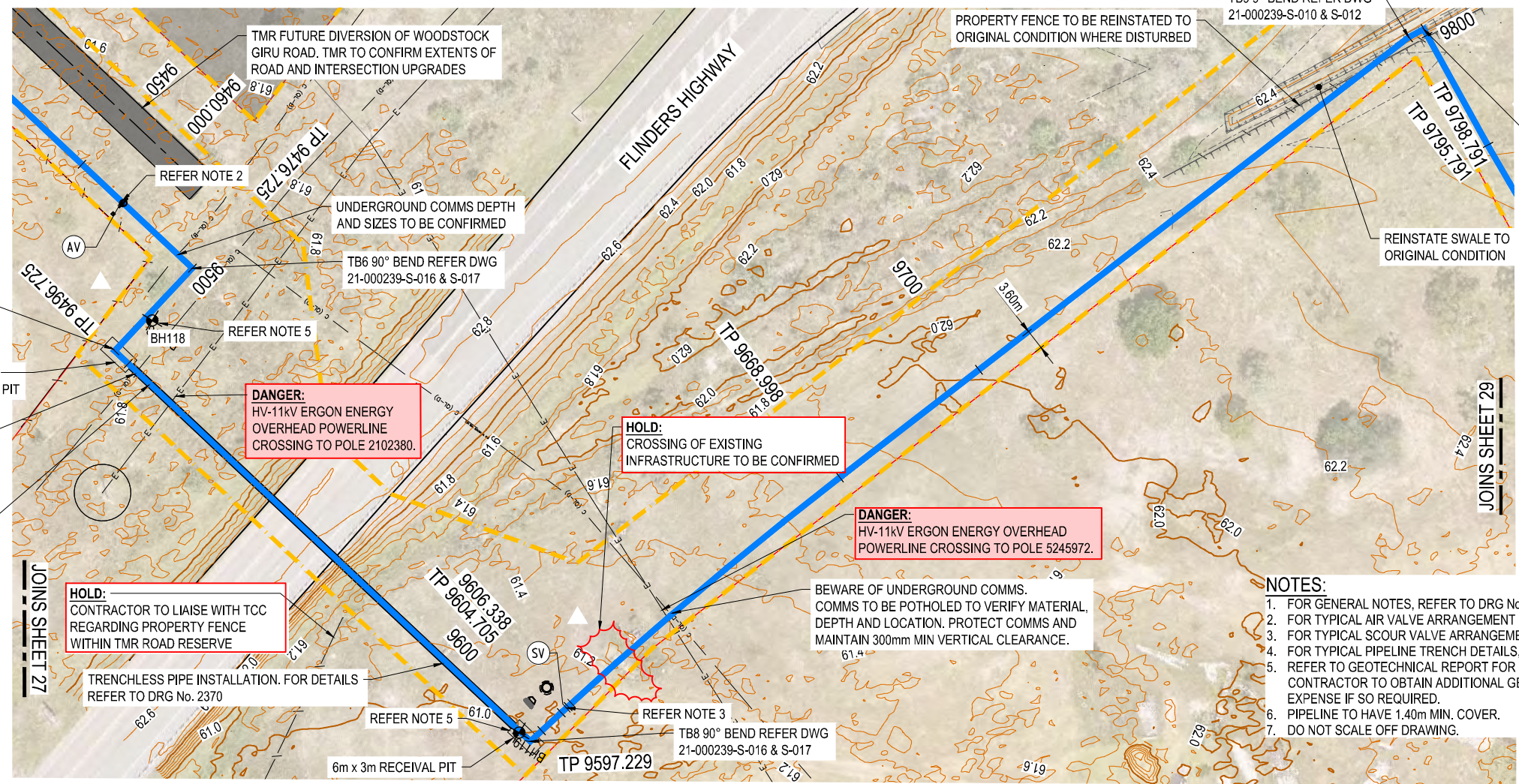
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION	1:500 1:1000	TOWNSVILLE CITY COUNCIL	LANSDOWN ECO - INDUSTRIAL PRECINCT	WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 27 OF 46
					DESIGN CHECK	APPROVED 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. 2326 REVISION 0

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

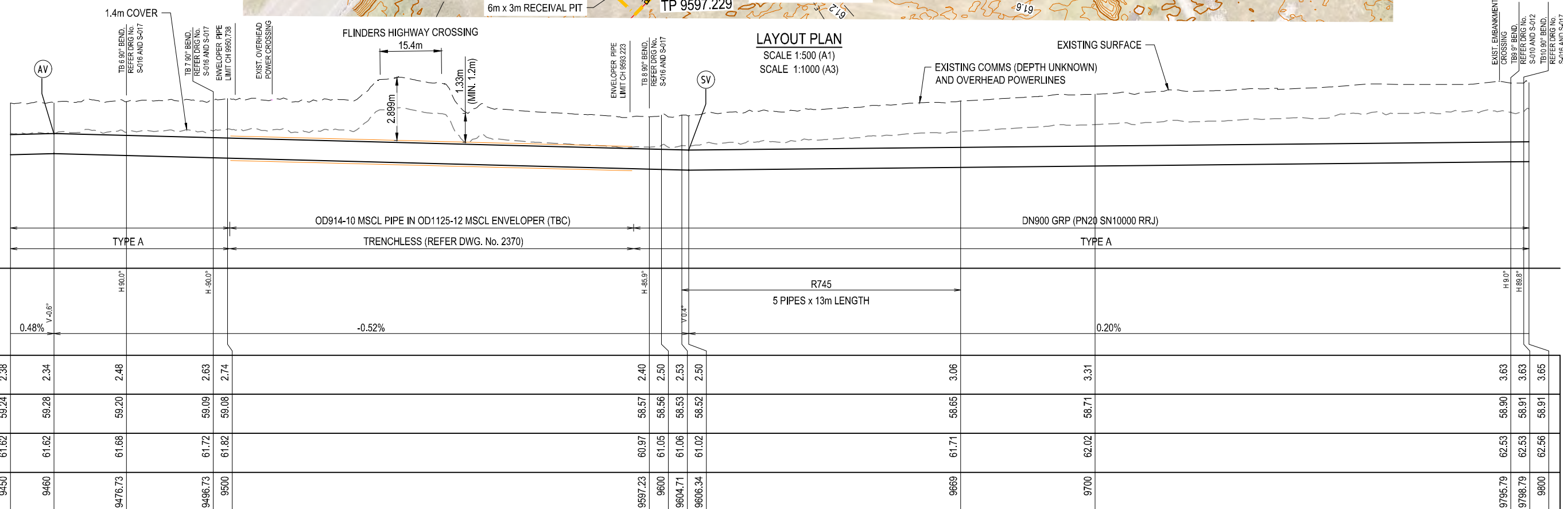
DANGER: OVERHEAD POWERLINES
 CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

CAUTION !! 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.



- 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. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE 1.40m MIN. COVER. DO NOT SCALE OFF DRAWING.
 - DO NOT SCALE OFF DRAWING.

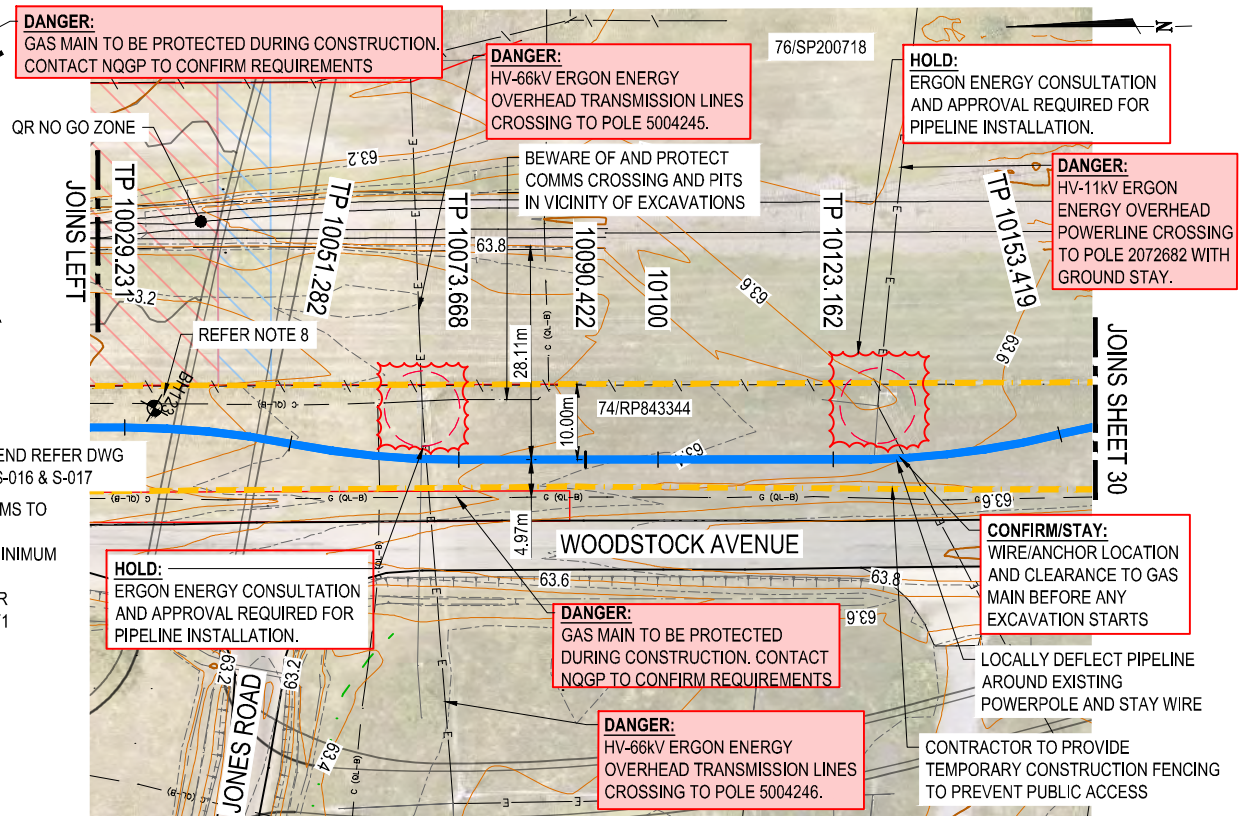
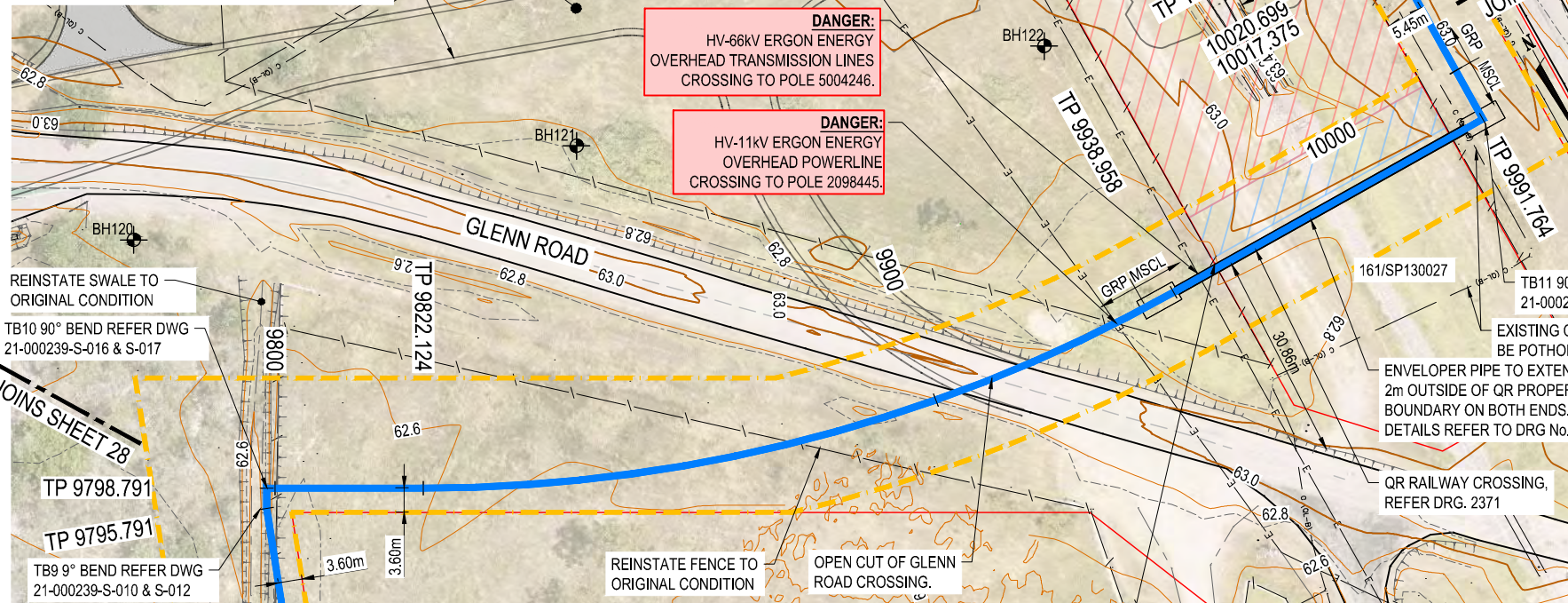


HORIZONTAL SCALE 1:500 (A1) 1:1000 (A3)
 VERTICAL SCALE 1:100 (A1) 1:200 (A3)

<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	<p>APPROVED MARCHEL OEGEMA RPEQ 20260</p> <p>FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (QLD) PTY LTD</p>	<p>SCALE</p> <p>1:500 10 5 0 10 20 A1 1:1000</p> <p>1:200 2 0 2 4 6 8 10 A1 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 28 OF 46</p>
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS													
0	28.04.23	ISSUE FOR CONSTRUCTION	JM	MO	Dmp	FOR CONSTRUCTION													
<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. 2327</p>						<p>REVISION 0</p>													

UPGRADE OF GLENN ROAD AND JONES ROAD BY OTHERS
CONTRACTOR TO LIAISE AND PROGRAM WORKS ACCORDINGLY

PROPOSED ROAD UPGRADE BY OTHERS. CONTRACTOR TO
PROGRAM AND COORDINATE WORKS WITH OTHER
CONTRACTORS WHERE AFFECTED.



- 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.
 - CONTRACTOR TO COORDINATE WORKS WITH OTHER CONTRACTORS WORKING IN THE SAME AREA.
 - REFER TO QR REQUIREMENTS FOR RAILWAY CROSSING.
 - REFER TO TMR REQUIREMENTS FOR FLINDERS HIGHWAY CROSSING.
 - REFER TO GEOTECHNICAL REPORT FOR BOREHOLE/TEST PIT INFORMATION. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.
 - PIPELINE TO HAVE 1.40m MIN. COVER.
 - DO NOT SCALE OFF DRAWING.

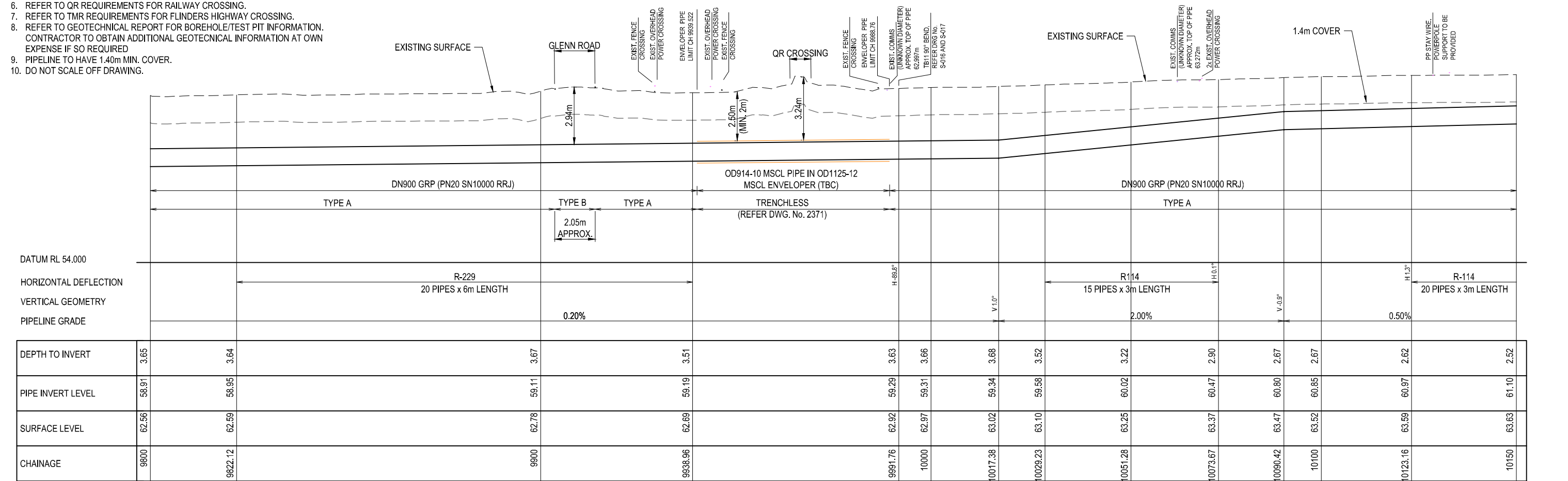
HOLD:
CATHODIC PROTECTION OF STEEL PIPE WORK TO BE CONFIRMED

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

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

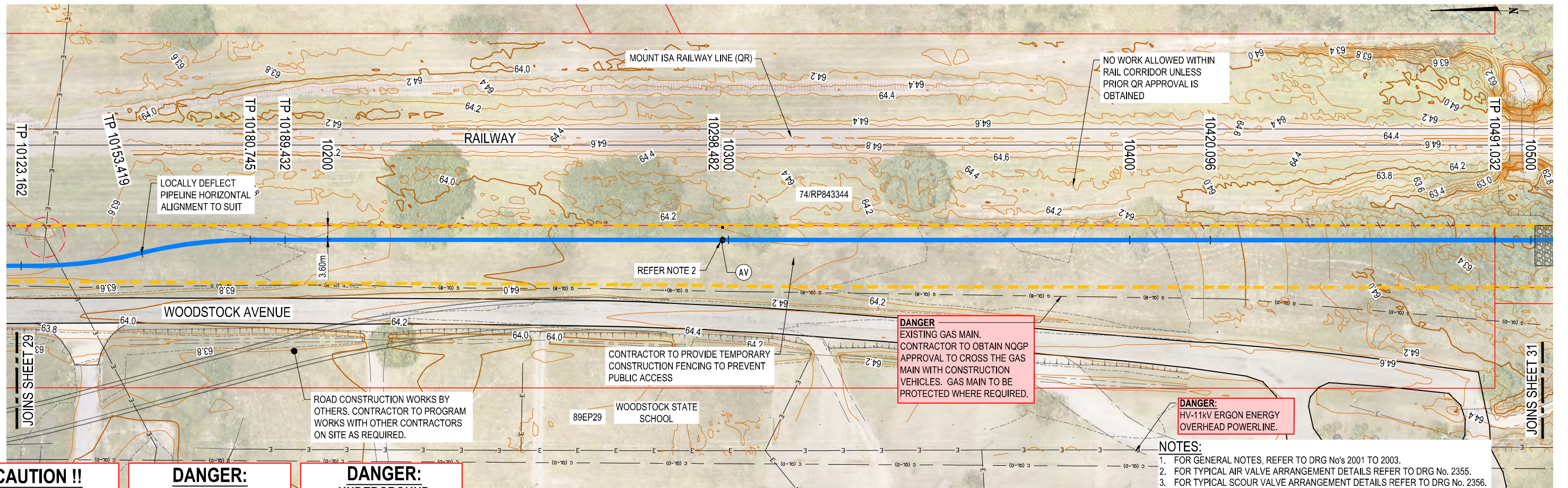
DANGER: OVERHEAD POWERLINES
CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

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



HORIZONTAL SCALE: 1:500 (A1) 1:1000 (A3)
VERTICAL SCALE: 1:100 (A1) 2:000 (A3)

REVISION 0 28.04.23 ISSUE FOR CONSTRUCTION	DRAWN JM DESIGN MO	DRAWN CHECK Dmp DESIGN CHECK MO	STATUS FOR CONSTRUCTION APPROVED MARCHEL OEGEMA RPEQ 20260 FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES (Pty) Ltd. 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 29 OF 46 PROJECT No. 21-000239.02 DRAWING No. 2328 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.

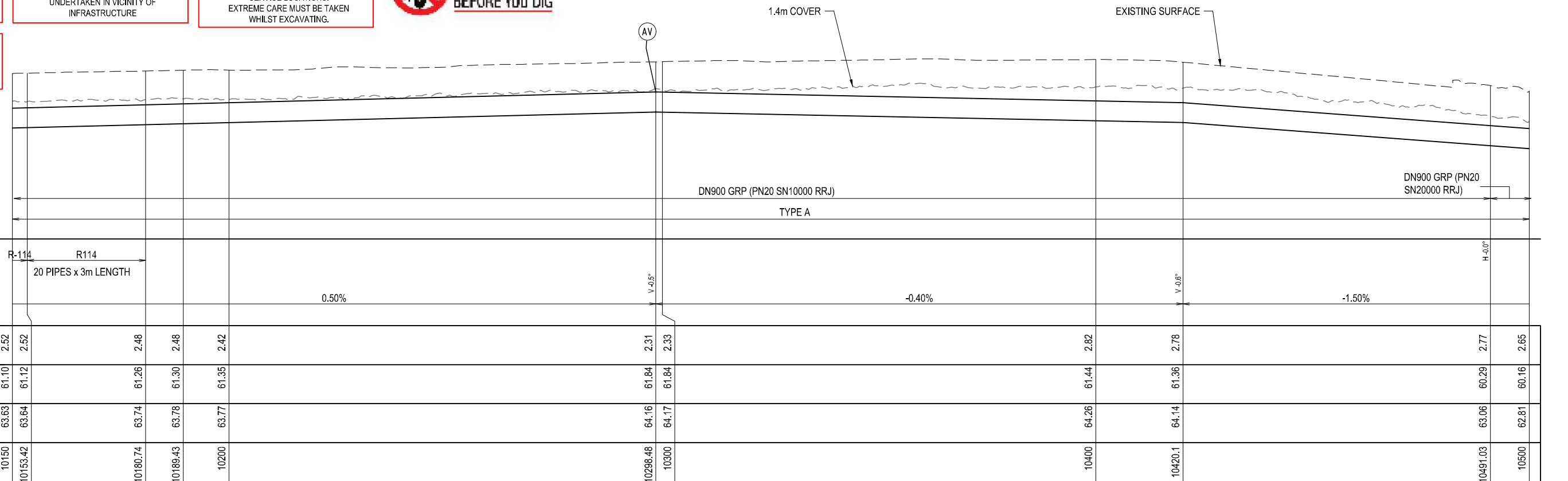
DANGER: OVERHEAD POWERLINES
 CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

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



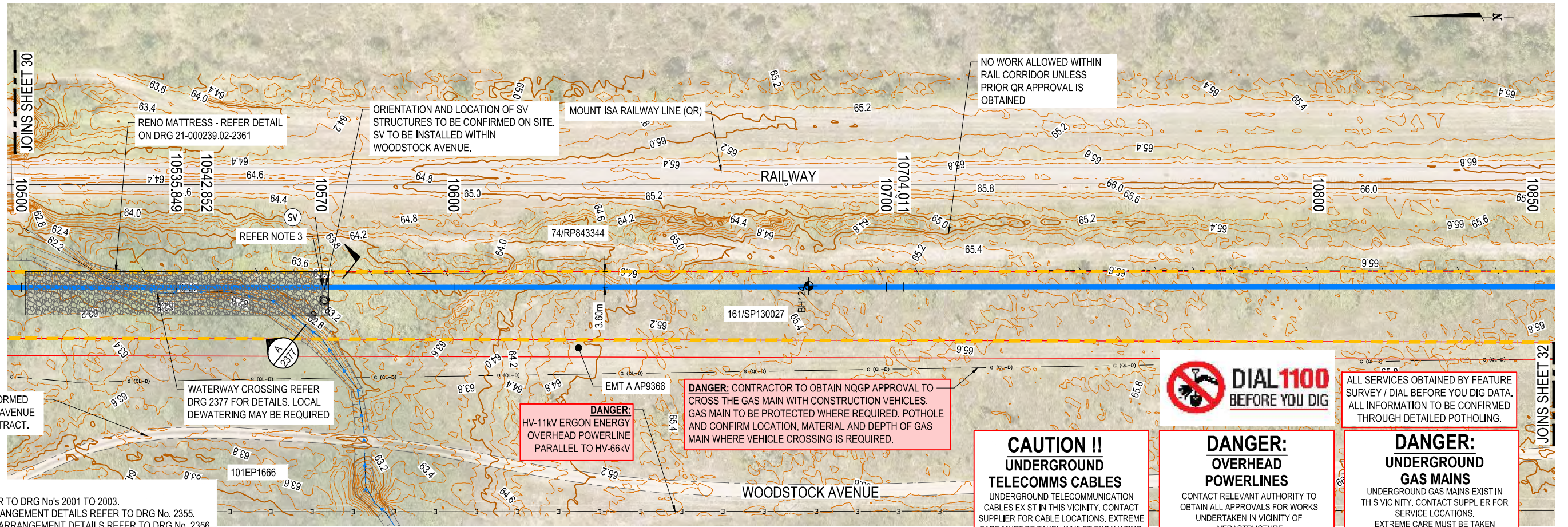
LAYOUT PLAN
 SCALE 1:500 (A1)
 SCALE 1:1000 (A3)

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



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	REVISION
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 30 OF 46	0
						APPROVED MARCHEL OEGEMA RPEQ 20260	1:200 1:400	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. 2329



CONTRACTOR TO MAINTAIN UNFORMED PAVEMENT ALONG WOODSTOCK AVENUE FOR THE DURATION OF THE CONTRACT.

WATERWAY CROSSING REFER DRG 2377 FOR DETAILS. LOCAL DEWATERING MAY BE REQUIRED

DANGER:
HV-11kV ERGON ENERGY OVERHEAD POWERLINE PARALLEL TO HV-66kV

DANGER: CONTRACTOR TO OBTAIN NQGP APPROVAL TO CROSS THE GAS MAIN WITH CONSTRUCTION VEHICLES. GAS MAIN TO BE PROTECTED WHERE REQUIRED. POTHOLE AND CONFIRM LOCATION, MATERIAL AND DEPTH OF GAS MAIN WHERE VEHICLE CROSSING IS REQUIRED.

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



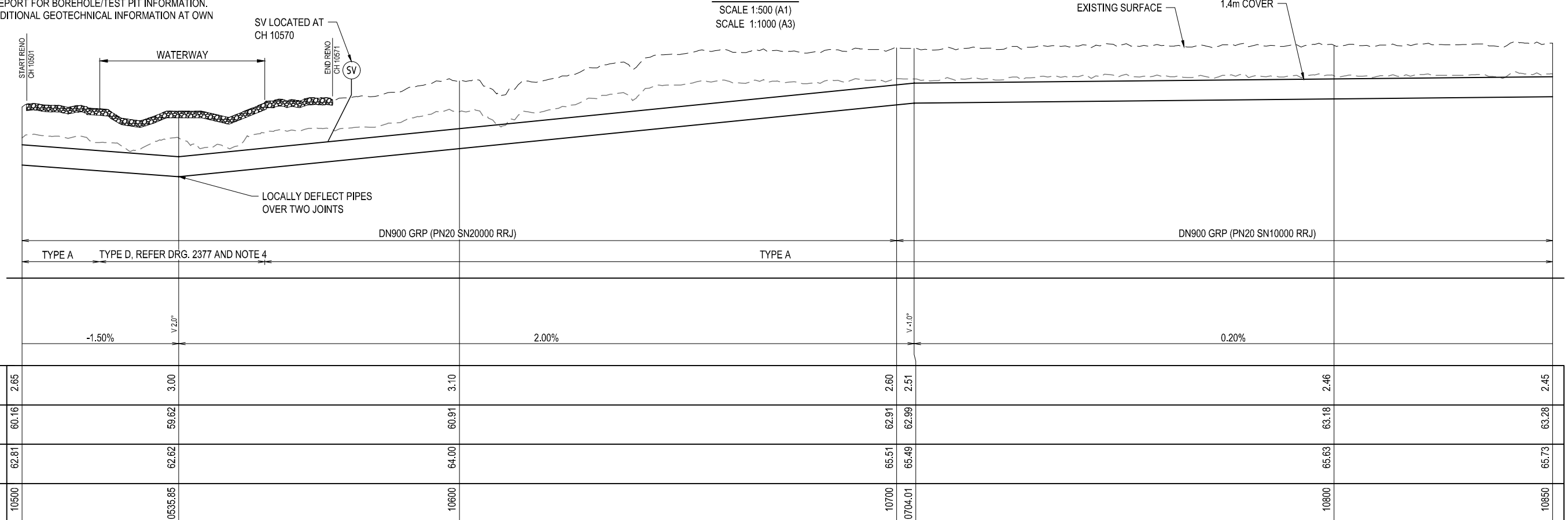
DANGER:
OVERHEAD POWERLINES
CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE

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

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. CONTRACTOR TO OBTAIN ADDITIONAL GEOTECHNICAL INFORMATION AT OWN EXPENSE IF SO REQUIRED.

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)

DATUM RL 55.000

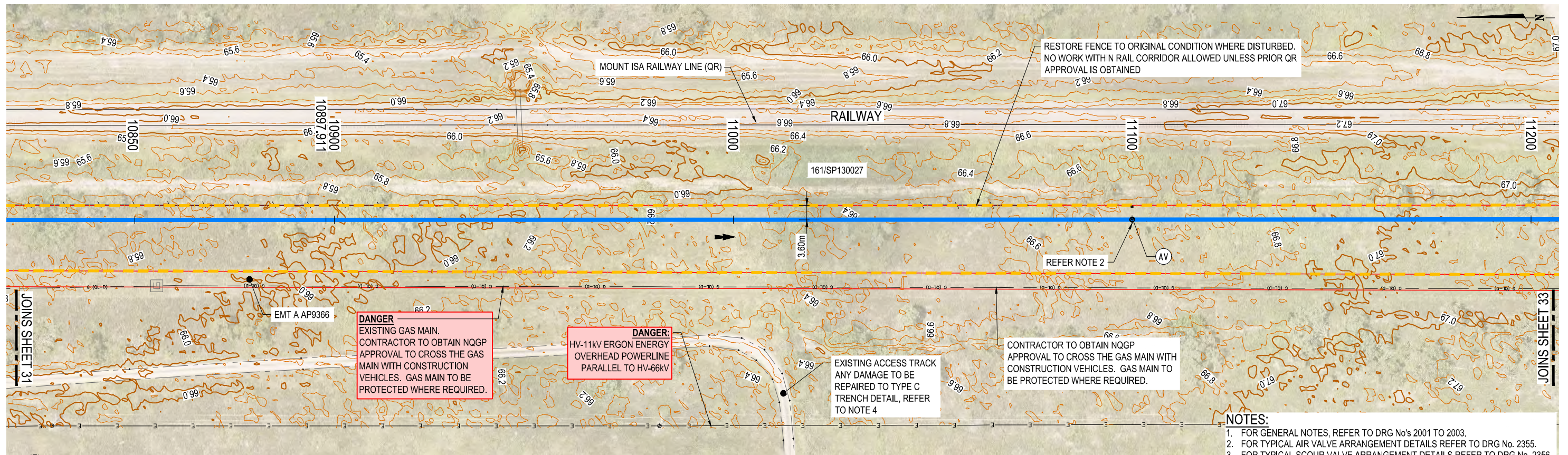
HORIZONTAL DEFLECTION

VERTICAL GEOMETRY

PIPELINE GRADE

DEPTH TO INVERT	2.65	3.00	3.10	2.60	2.51	2.46	2.45
PIPE INVERT LEVEL	60.16	59.62	60.91	62.91	62.99	63.18	63.28
SURFACE LEVEL	62.81	62.79	64.00	65.51	65.49	65.63	65.73
CHAINAGE	10501	10570	10600	10700	10704.01	10800	10850

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 31 OF 46
						APPROVED MARCHEL OEGEMA RPEQ 20260	1:200 1:400			PROJECT No. 21-000239.02 DRAWING No. 2330 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.			



- 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.

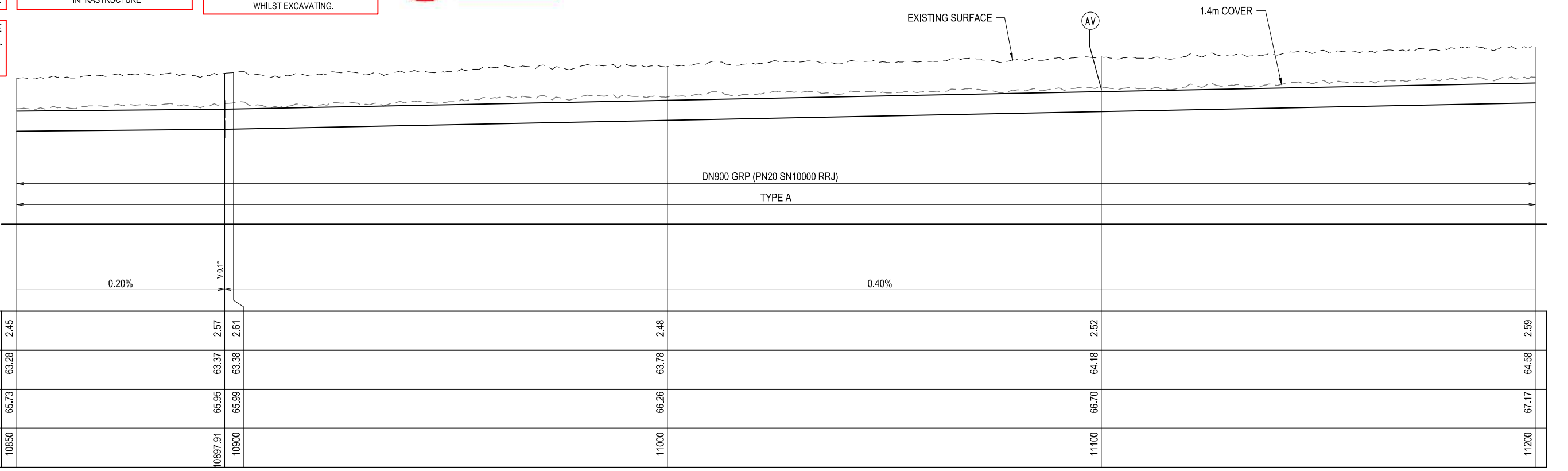
DANGER:
OVERHEAD POWERLINES
 CONTACT RELEVANT AUTHORITY TO OBTAIN ALL APPROVALS FOR WORKS UNDERTAKEN IN VICINITY OF INFRASTRUCTURE.

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



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.

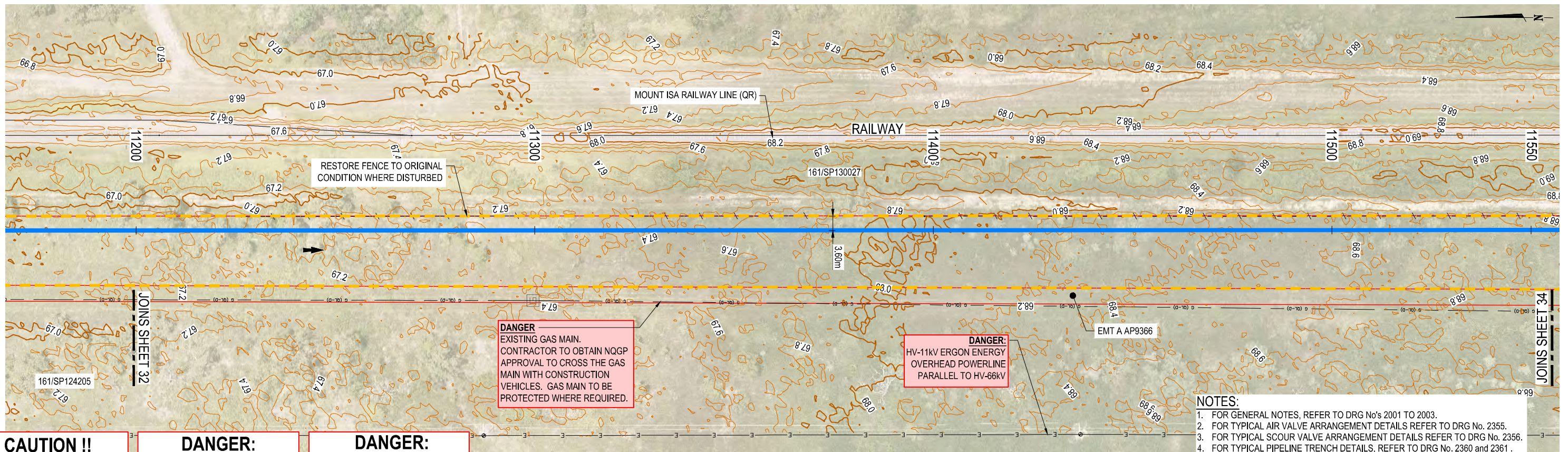


DATUM RL 59.000
 HORIZONTAL DEFLECTION
 VERTICAL GEOMETRY
 PIPELINE GRADE

DEPTH TO INVERT	2.45	2.57	2.61	2.48	2.52	2.59
PIPE INVERT LEVEL	63.28	63.37	63.38	63.78	64.18	64.58
SURFACE LEVEL	65.73	65.95	65.99	66.26	66.70	67.17
CHAINAGE	10850	10897.91	10900	11000	11100	11200

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

<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> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DESIGN CHECK</td> <td>APPROVED MARCHEL OEGEMA RPEQ 20260</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						DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260		<p>TOWNSVILLE CITY COUNCIL</p>	<p>calibre calibregroup.com</p>	<p>PROJECT</p> <p>LANSDOWN ECO - INDUSTRIAL PRECINCT</p> <p>DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.</p>	<p>DRAWING TITLE</p> <p>WATER TRUNK MAIN AND LONGITUDINAL SECTION SHEET 32 OF 46</p> <p>PROJECT No. 21-000239.02 DRAWING No. 2331 REVISION 0</p>
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																				



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

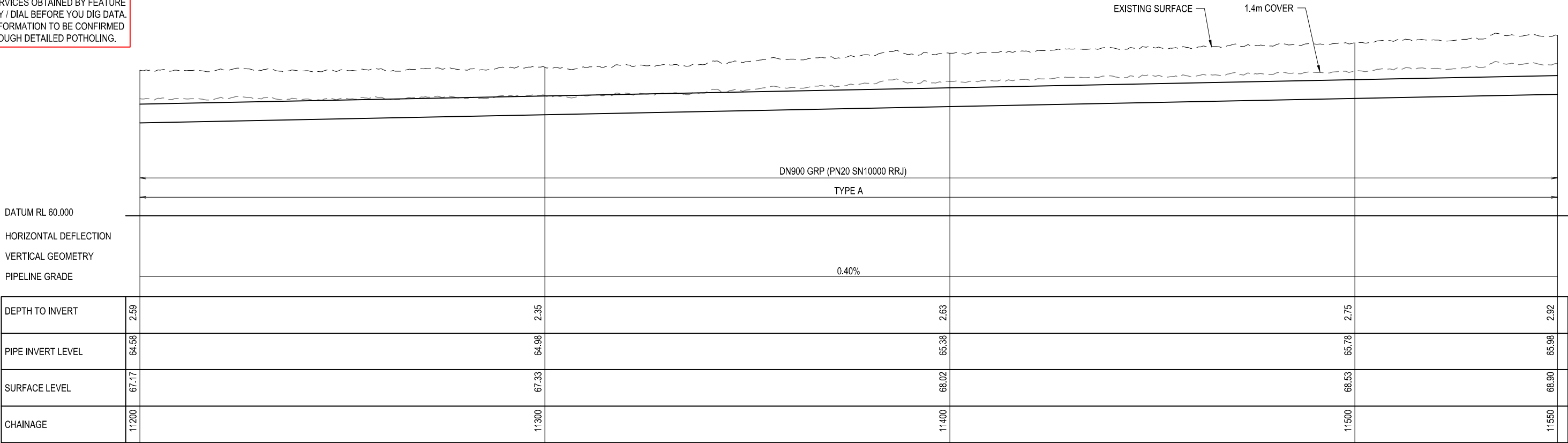
DANGER: UNDERGROUND GAS MAINS
 UNDERGROUND GAS MAINS EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR SERVICE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.



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

- 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.

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 33 OF 46
					DESIGN CHECK	APPROVED MARCHEL OEGEMA RPEQ 20260	1:200 1:400	calibre calibreprofessional.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. 2332 REVISION 0