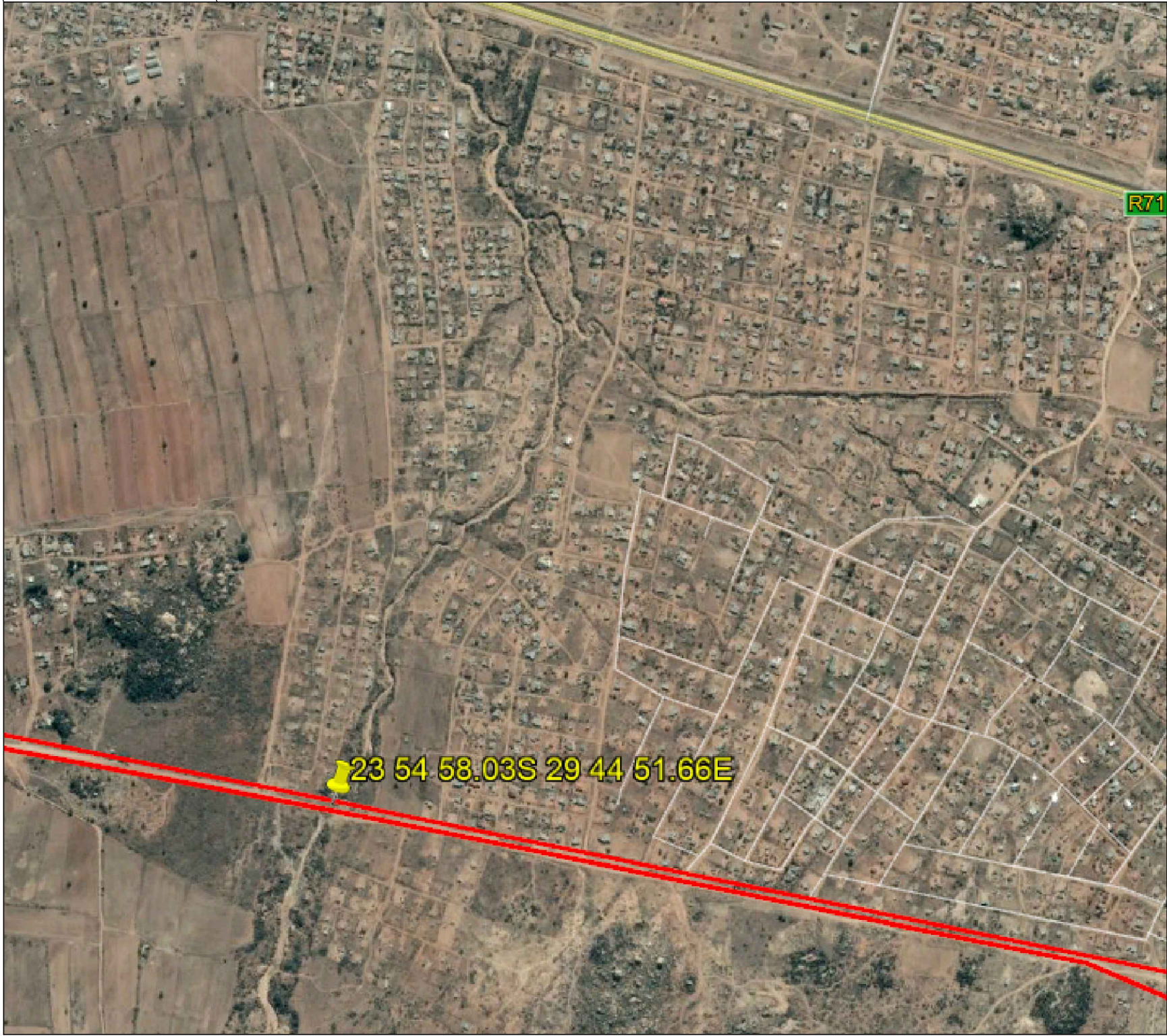
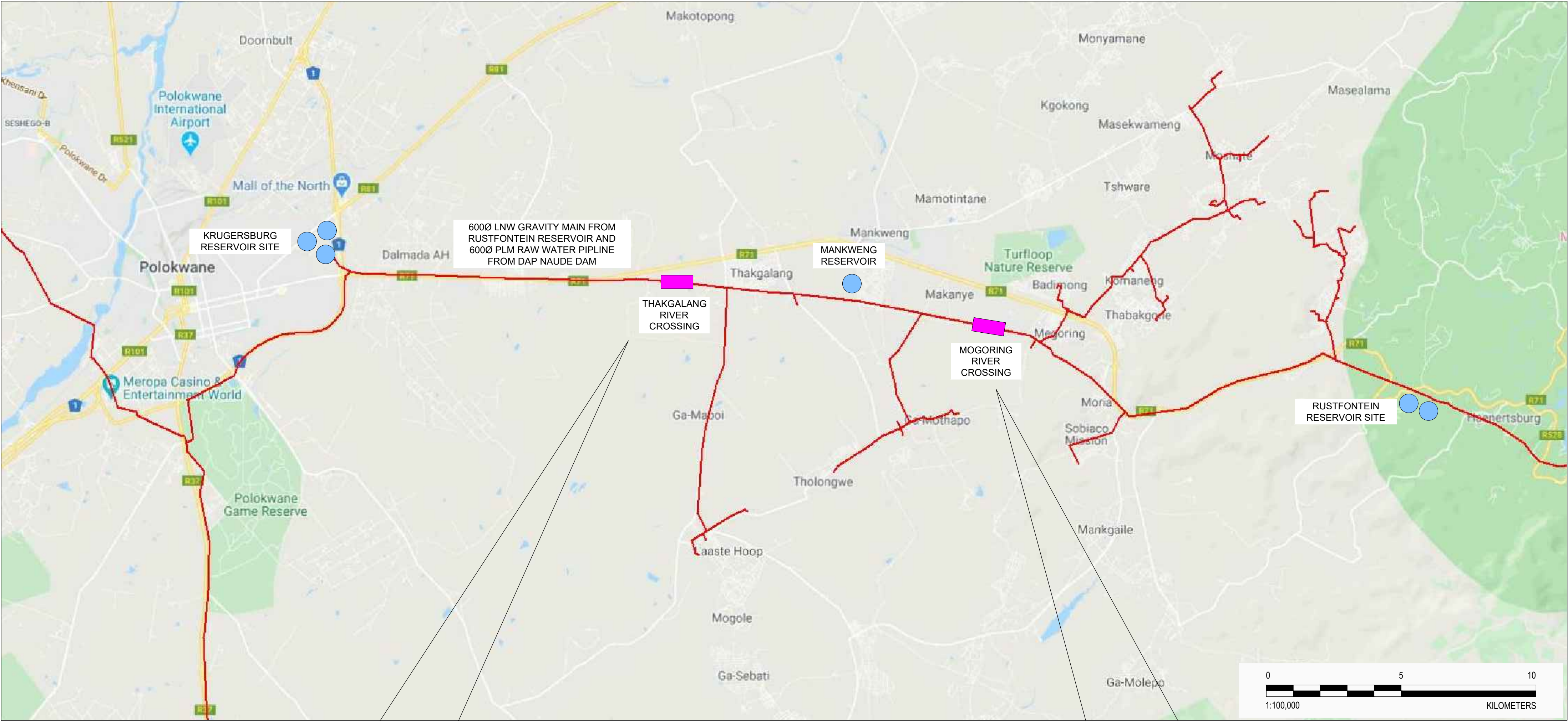


P1001-EB1L-CIV-0001 - River Crossings

Document Register Rev a
Date of Issue: 2022/11/04



Drawing Number	Issued for	Description	Design Stage	Rev a	Rev b	Rev c	Rev d
P1001-EB1L-CIV-0001	Tender	List of Drawings	Tender	2022/11/04			
P1001-EB1L-CIV-1000	Tender	River Crossings Rehabilitation Locality Plan	Tender	2022/11/04			
Water Layouts	1000						
P1001-EB1L-CIV-1001	Tender	Pipeline Replacement and Rehabilitation at Thakgalang River crossing Layout and Longitudinal Section	Tender	2022/11/04			
P1001-EB1L-CIV-1002	Tender	Pipeline Replacement and Rehabilitation at Megoring River crossing Layout and Longitudinal Section	Tender	2022/11/04			
Water Details	1300						
P1001-EB1L-CIV-1301	Tender	Typical Bypass Detail	Tender	2022/11/04			
P1001-EB1L-CIV-1302	Tender	Single Pipe Bedding and Concrete Encasement Details	Tender	2022/11/04			
P1001-EB1L-CIV-1303	Tender	Air Valve Chamber Detail	Tender	2022/11/04			
P1001-EB1L-CIV-1304	Tender	Scour Valve Chamber Detail	Tender	2022/11/04			
Structural Details	3200						
P1001-EB1L-CIV-3201	Tender	Air Valve Chamber Structural Detail	Tender	2022/11/04			
P1001-EB1L-CIV-3202	Tender	Scour Valve Chamber Structural Detail	Tender	2022/11/04			
P1001-EB1L-CIV-3203	Tender	Structural Details for Catladders and Valve Supports	Tender	2022/11/04			



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R. OSTROWSKI

PROF. Reg.No:
930381

DATE:
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SIGNATURE:

R. Ostrowski

DESIGN BY:

B. MBOYANA

DRAWN BY:

E. COETZEE

CHECKED BY:

F. CHINYOWA

APPROVED BY:

R. OSTROWSKI

REVISIONS

REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME

TITLE

RIVER CROSSINGS REHABILITATION
LOCALITY PLAN

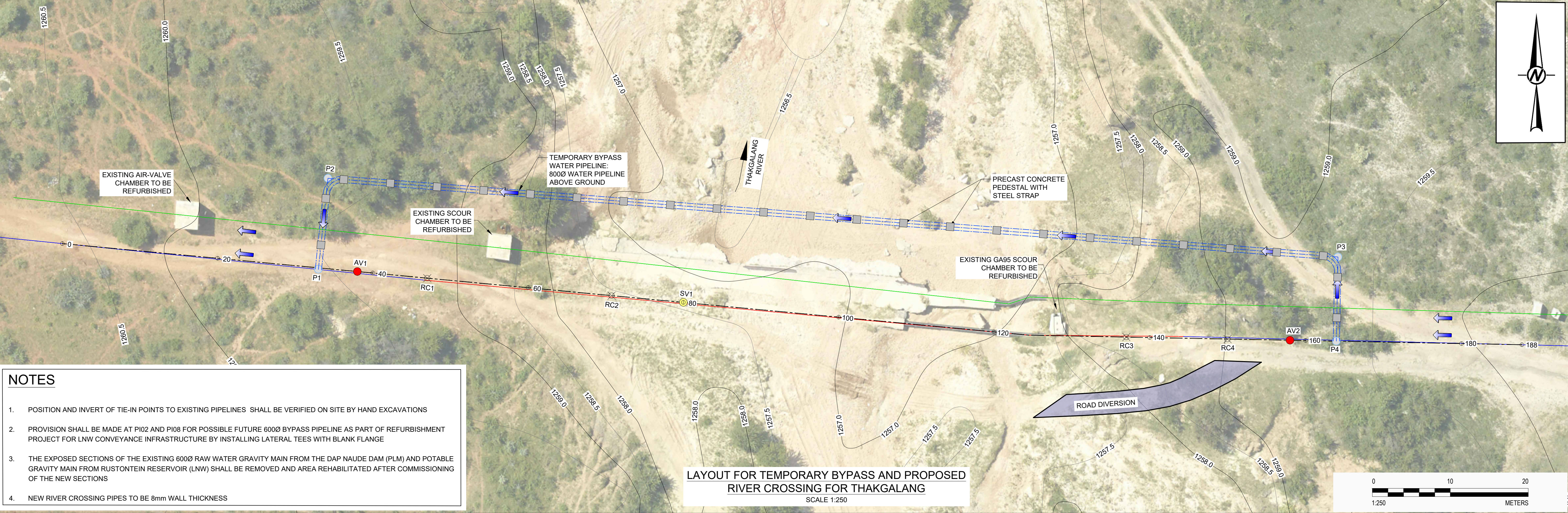
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DWG NO

P1001-EB1L-CIV-1000



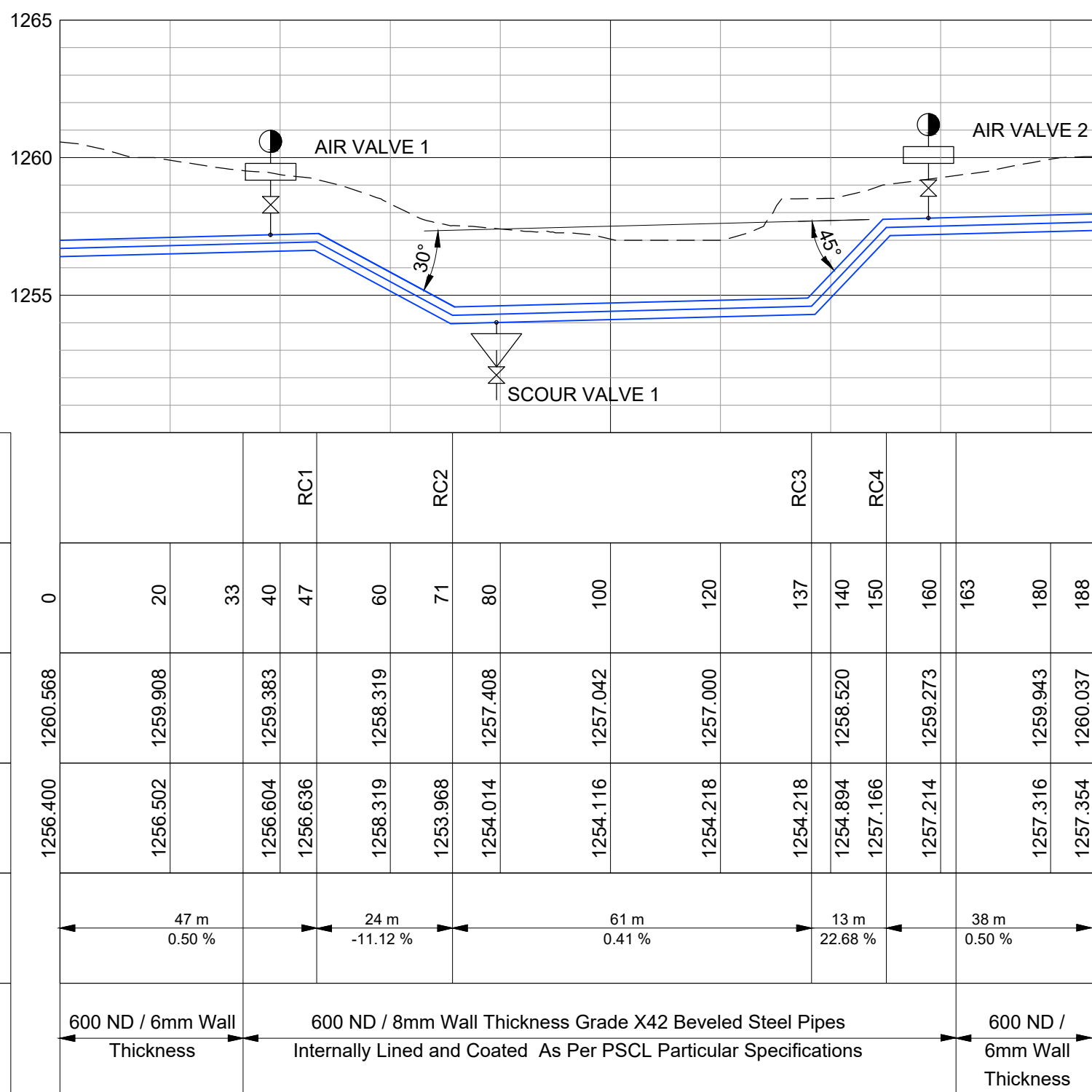
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DRAWING NAME	DRAWING NUMBER
TYPICAL BYPASS DETAIL	P1001-EB1L-CIV-1301
SINGLE PIPE BEDDING AND CONCRETE ENCASEMENT DETAIL	P1001-EB1L-CIV-1302
AIR VALVE CHAMBER DETAIL	P1001-EB1L-CIV-1303
SCOUR VALVE CHAMBER	P1001-EB1L-CIV-1304
AIR VALVE CHAMBER STRUCTURAL DETAIL	P1001-EB1L-CIV-3201
SCOUR VALVE CHAMBER STRUCTURAL DETAIL	P1001-EB1L-CIV-3202

NGL
PIPELINE

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 1250.000

REFERENCE
DISTANCE (m)
GROUND LEVEL
PIPE INVERT LEVEL
SLOPE / LENGTH
CLASSIFICATION



LONGITUDINAL SECTION CH 0 TO 188

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DRAWN BY:

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F. CHINYOWA

APPROVED BY:

R. OSTROWSKI

REVISIONS

REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME

TITLE

PIPELINE REPLACEMENT AND REHABILITATION AT
THAKGALANG RIVER CROSSING
LAYOUT AND LONGITUDINAL SECTIONS

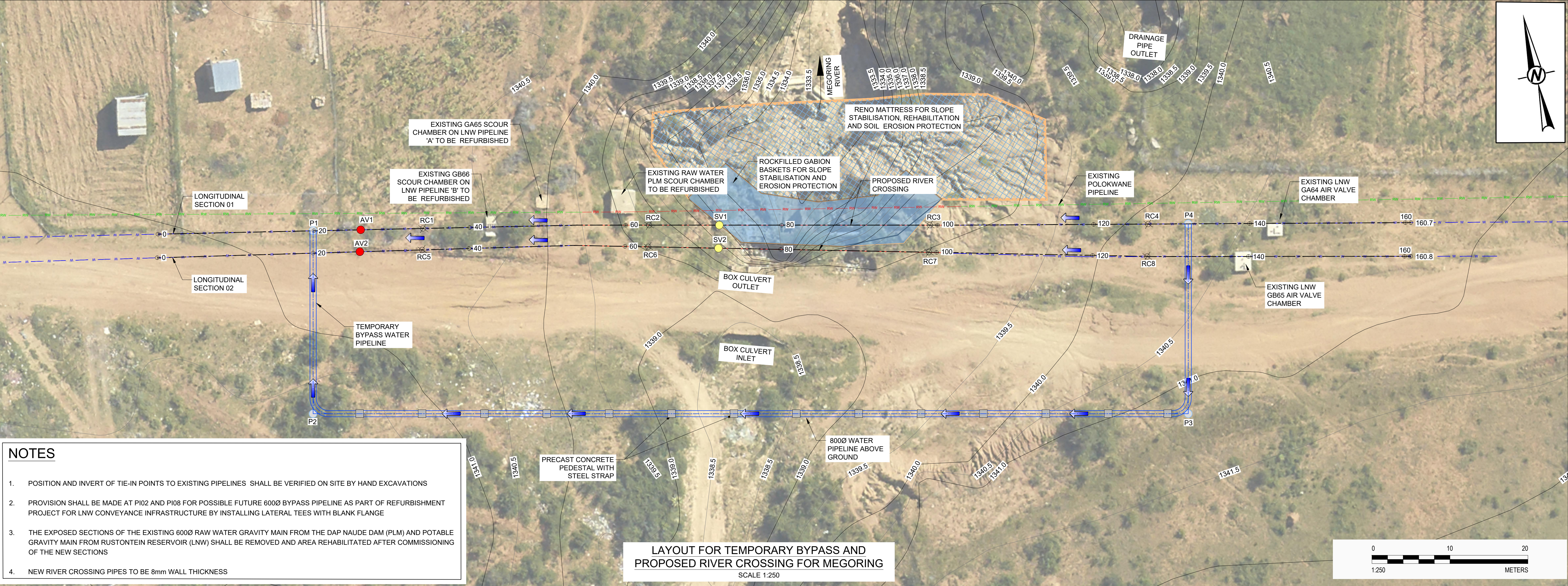
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TENDER

DATE	SCALE	SHEET	REV	A1
2022-11-01	AS SHOWN	1 OF 1	a	

DWG NO

P1001-EB1L-CIV-1001



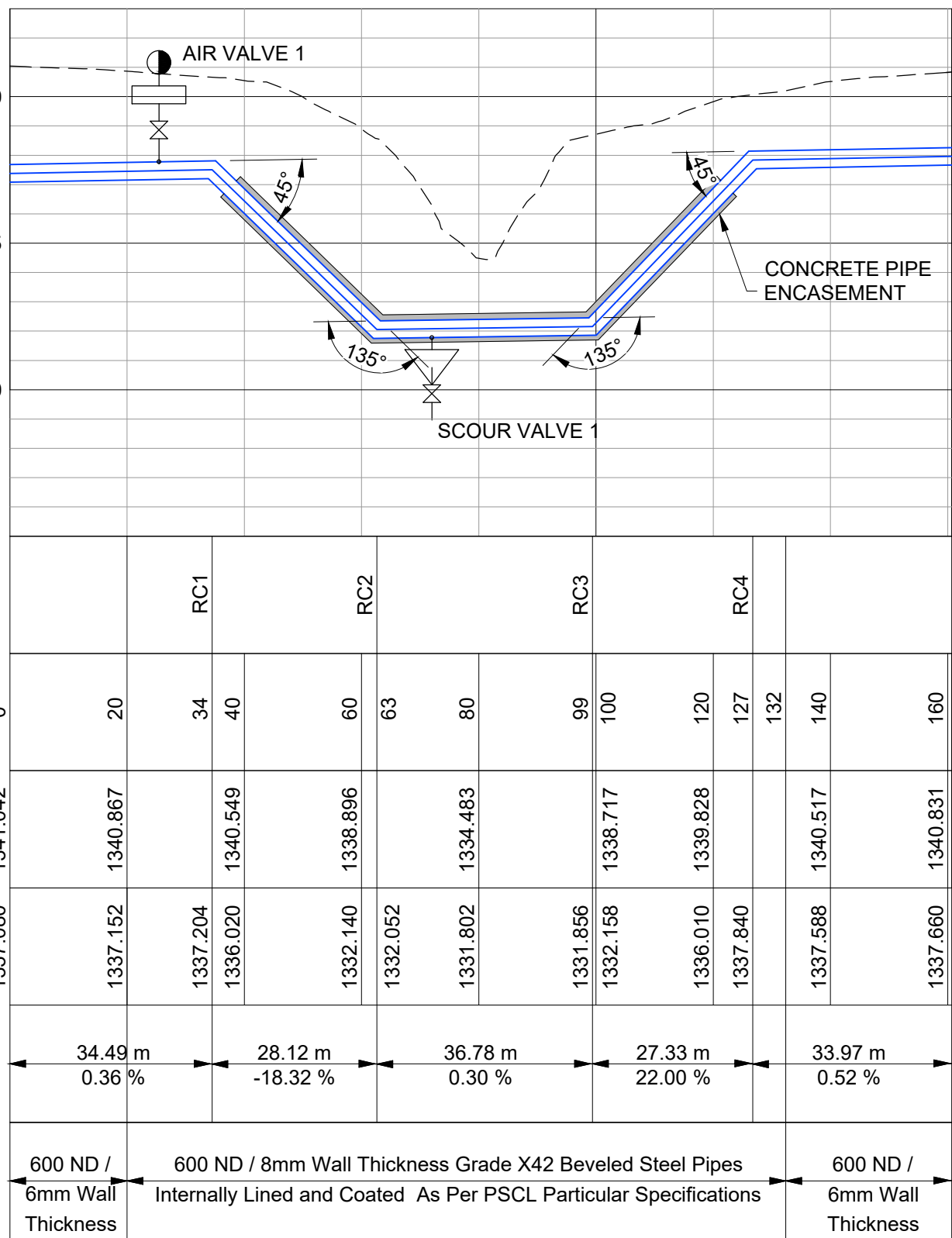
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AIR VALVE CHAMBER DETAIL	P1001-EB1L-CIV-1303
SCOUR VALVE CHAMBER	P1001-EB1L-CIV-1304
AIR VALVE CHAMBER STRUCTURAL DETAIL	P1001-EB1L-CIV-3201
SCOUR VALVE CHAMBER STRUCTURAL DETAIL	P1001-EB1L-CIV-3202

NGL
PIPELINE

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 1325.000

REFERENCE
DISTANCE (m)
GROUND LEVEL
PIPE INVERT LEVEL
SLOPE / LENGTH
CLASSIFICATION



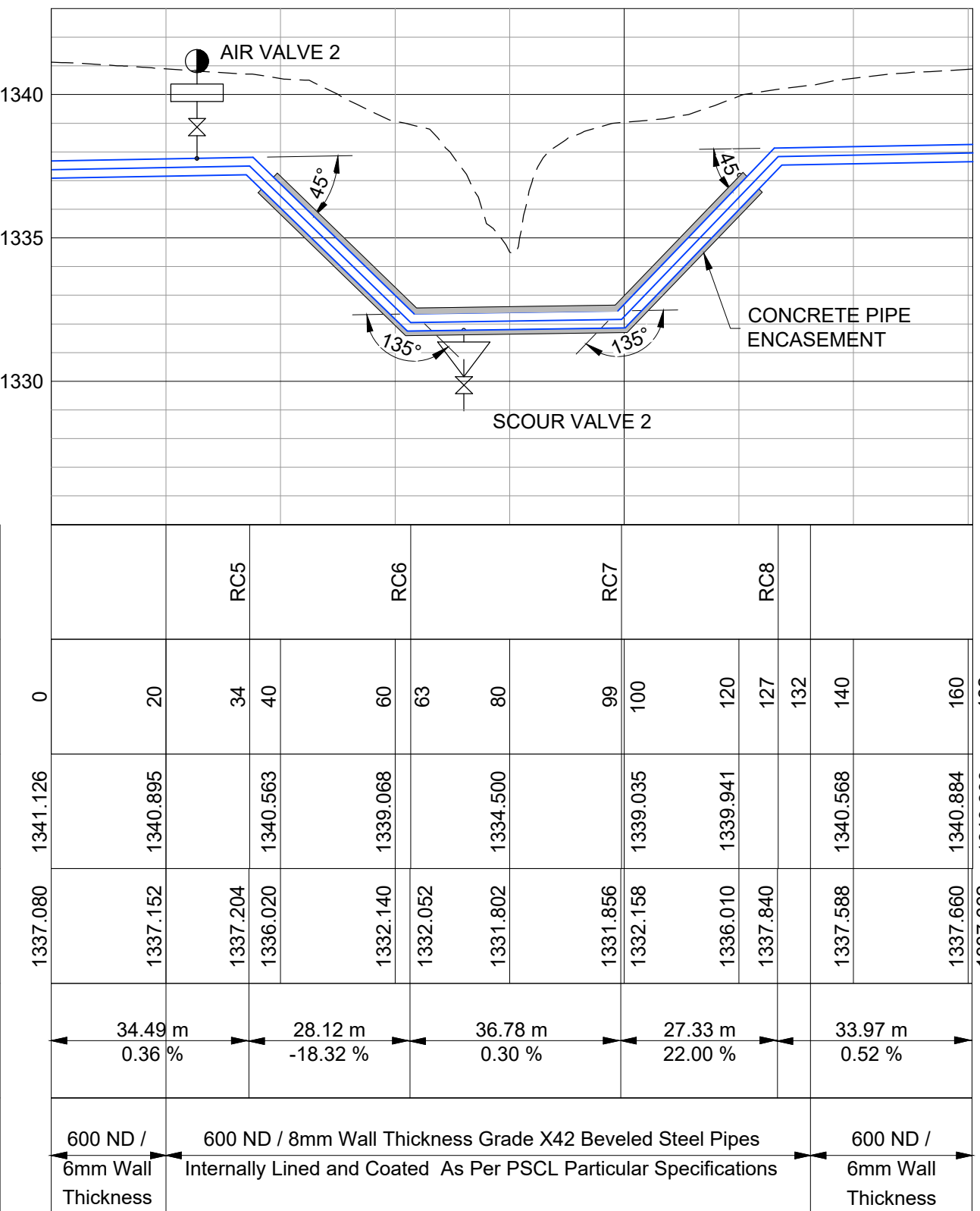
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NGL
PIPELINE

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 1325.000

REFERENCE
DISTANCE (m)
GROUND LEVEL
PIPE INVERT LEVEL
SLOPE / LENGTH
CLASSIFICATION



LONGITUDINAL SECTION: 02

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SIGNATURE:

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DRAWN BY:
E. COETZEE
CHECKED BY:
F. CHINYOWA
APPROVED BY:
R. OSTROWSKI

REVISIONS			
REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME

TITLE

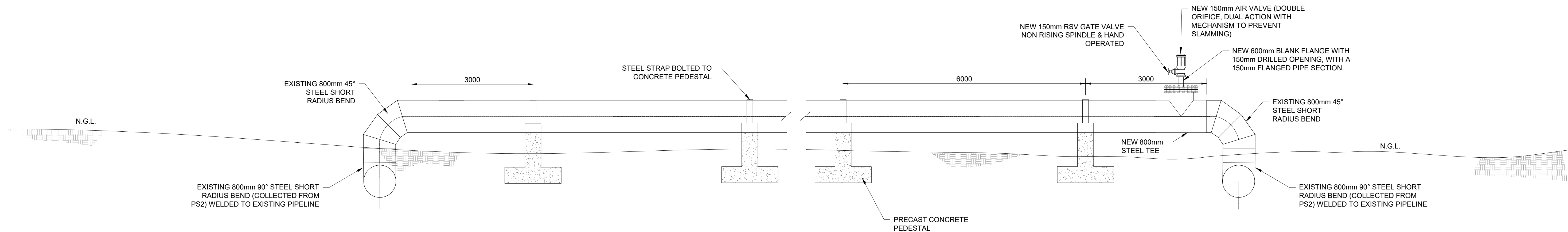
PIPELINE REPLACEMENT AND REHABILITATION
AT MEGORING RIVER CROSSING
LAYOUT AND LONGITUDINAL SECTIONS

PROJECT STATUS:

TENDER

DATE	SCALE	SHEET	REV	A1
2022-11-01	AS SHOWN	1 OF 1	a	A1
DWG NO				
P1001-EB1L-CIV-1002				

- NOTE:**
- 6m DISTANCE BETWEEN PLINTHS ARE INDICATIVE, EXACT DISTANCE / SPACING TO BE DETERMINED ON SITE BY ENGINEER.
 - ALL STEEL PIPES, FITTINGS AND PLINTHS FOR TEMPORARY BYPASS ARE EXISTING AND TO BE TRANSPORTED FROM PS2.
 - AFTER CONSTRUCTION OF NEW RIVER CROSSING THE TEMPORARY BYPASS IS TO BE DISMANTLED AND TRANSPORTED BACK TO PS2.
 - ALL EXISTING PIPES ARE 800mm AND HAVE A 10mm WALL THICKNESS.



TYPICAL BYPASS DETAIL
SCALE 1:50

CLIENT:



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F. CHINYOWA

APPROVED BY:

R. OSTROWSKI

REVISIONS

REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

**UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME**

TITLE

**TYPICAL BYPASS DETAIL
PIPELINE REPLACEMENT AND REHABILITATION OF
RIVER CROSSINGS**

PROJECT STATUS:

TENDER

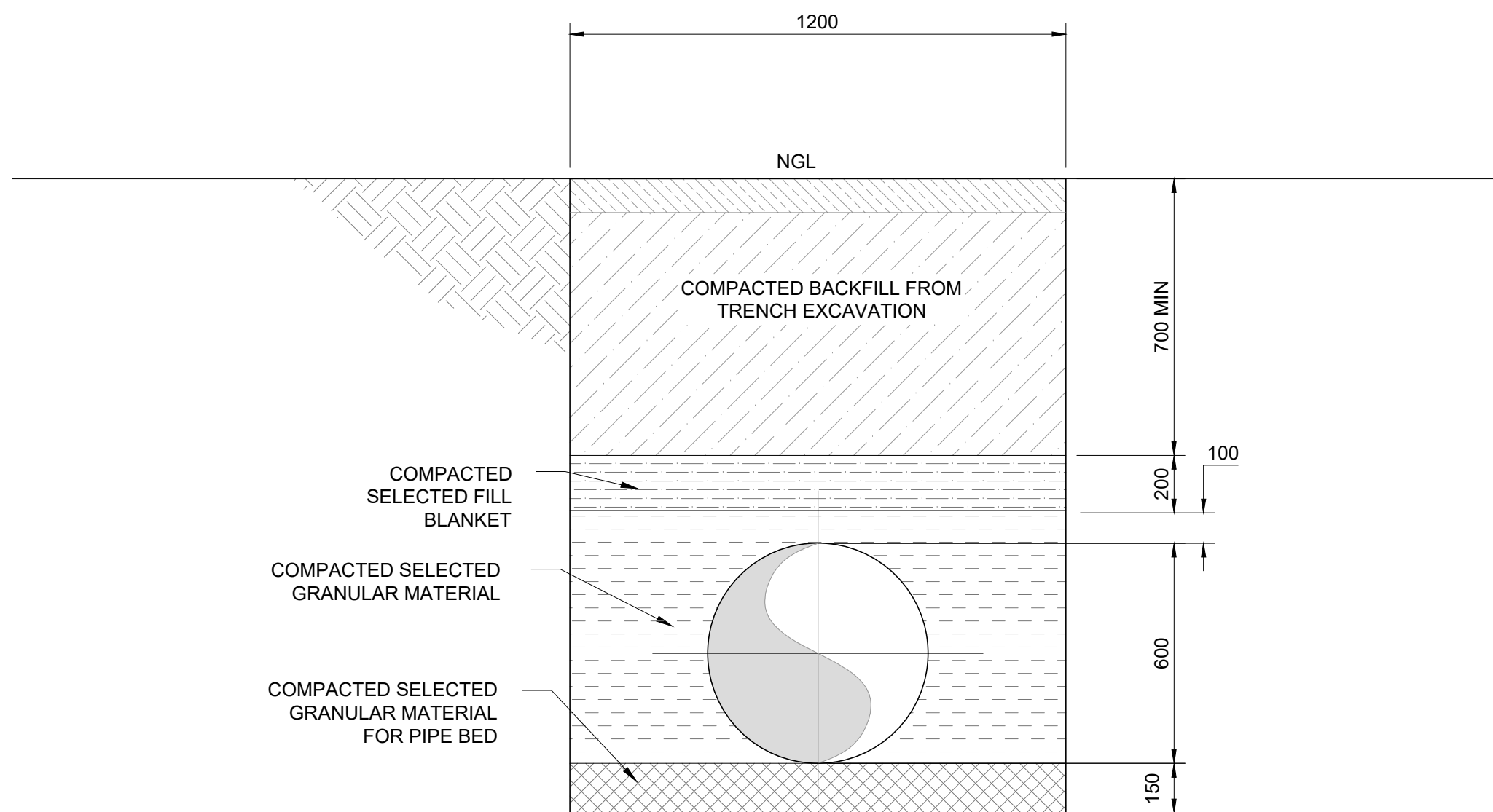
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2022-11-01	AS SHOWN	1 OF 1	a	A1

DWG NO

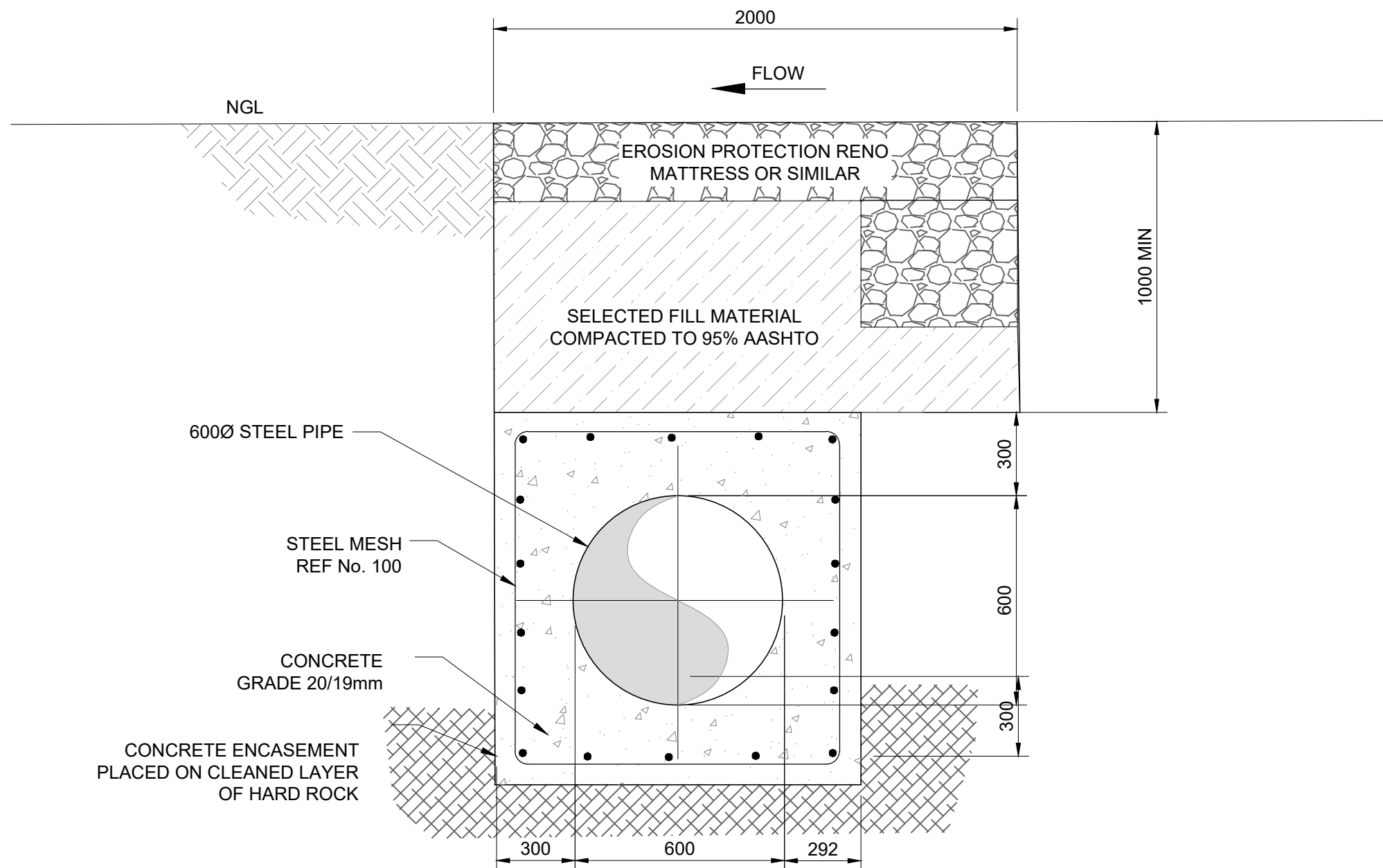
P1001-EB1L-CIV-1301

NOTES:

1. SELECTED GRANULAR MATERIAL SHALL CONSIST OF:
 - CRUSHED ROCK WITH <15% SAND AND MAXIMUM 25% PASSING THE 10mm SIEVE AND MAXIMUM OF 5% FINES, OR
 - CLEAN, COARSE-GRAINED SOIL WITH <12% FINES
2. SELECTED FILL MATERIAL SHALL COMPLY WITH THE FOLLOWING:
 - PI < 6
 - FREE OF VEGETATION AND STONES EXCEEDING 30mm
3. THE MAXIMUM ALLOWED PARTICLE SIZE FOR BEDDING MATERIAL SHALL NOT EXCEED 25mm
4. THE PIPE CRADLE TO BE OVER-EXCAVATED AT A POSITION OF EACH PIPE COUPLING TO ENSURE CONTINUOUS PIPE SUPPORT
5. THE MATERIAL USED FOR BACKFILL SHALL BE UNIFORM AND BE COMPACTED TO 85% MOD. AASHTO DENSITY IN LAYERS NOT THICKER THAN 100mm
6. THE CONCRETE ENCASED PIPE SHALL BE WEIGHTED DOWN WITH SANDBAGS DURING CONSTRUCTION TO PREVENT FLOATING



PIPE BEDDING DETAIL
N.T.S



PIPE ENCASEMENT DETAIL PLACED ON
SOLID ROCK
N.T.S

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SIGNATURE:

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B. COETZEE

DRAWN BY:

E. COETZEE

CHECKED BY:

B. COETZEE

APPROVED BY:

R. OSTROWSKI

REVISIONS

REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME

TITLE

SINGLE PIPE BEDDING AND CONCRETE
ENCASEMENT DETAILS

PROJECT STATUS:

TENDER

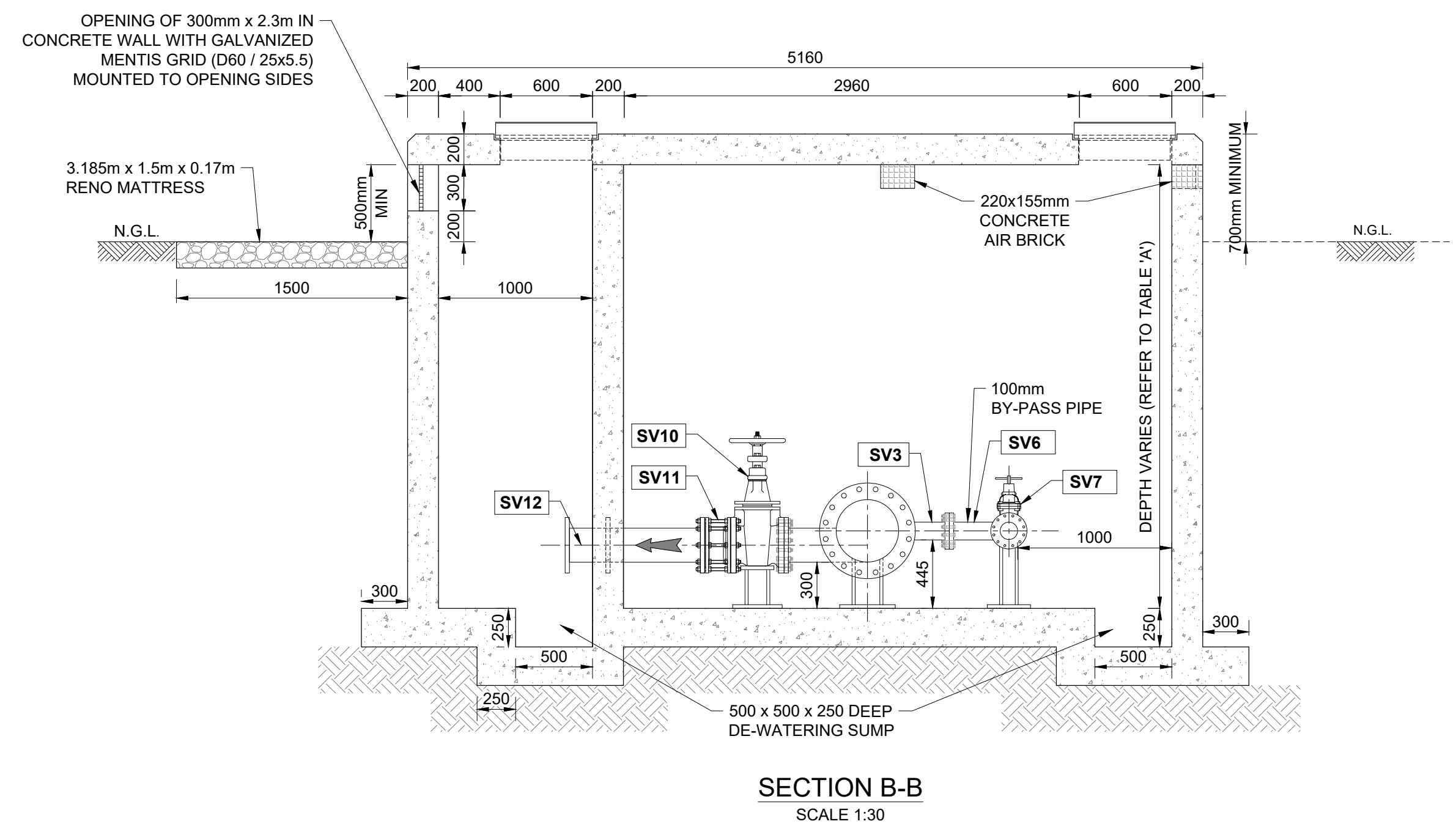
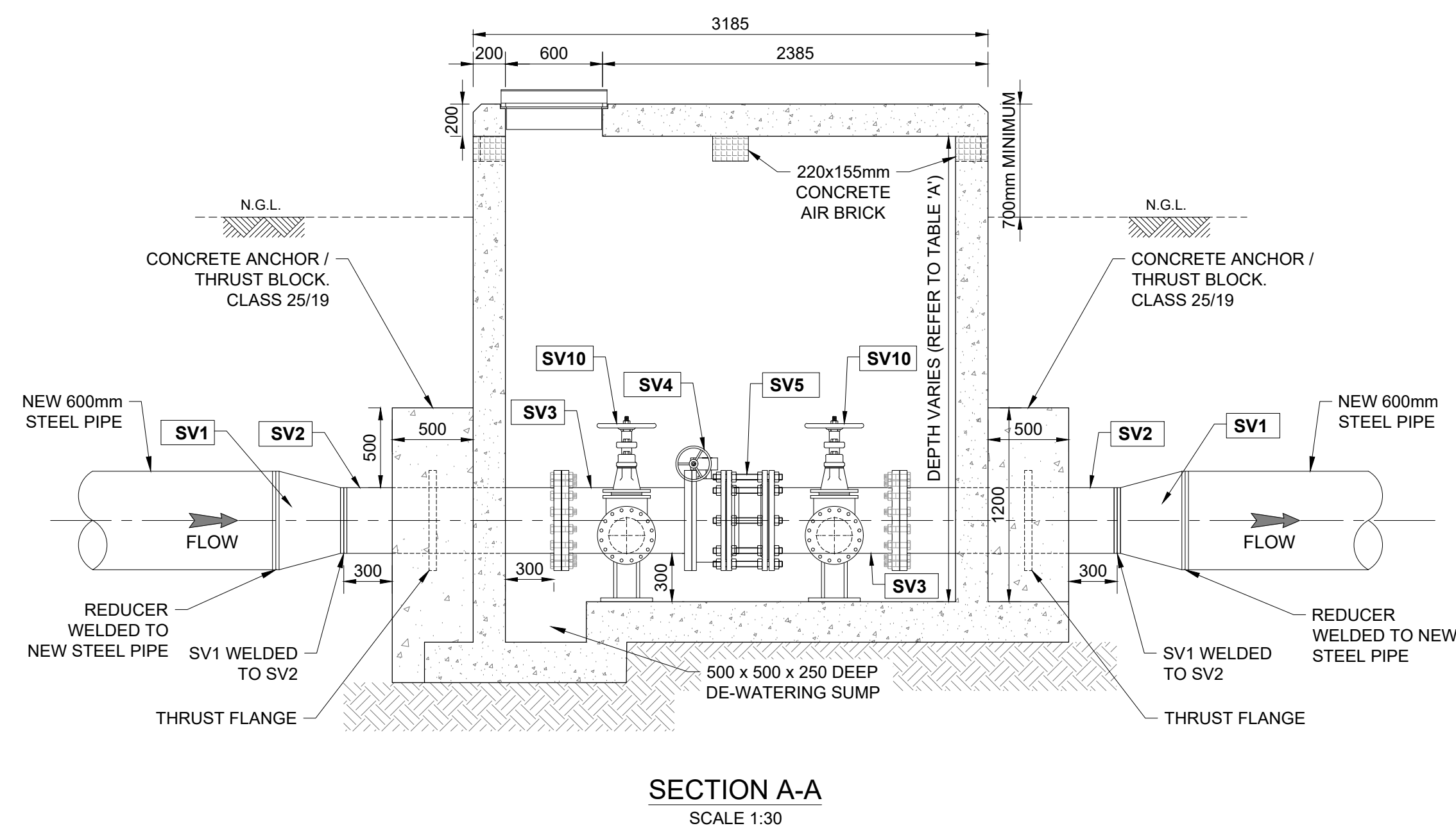
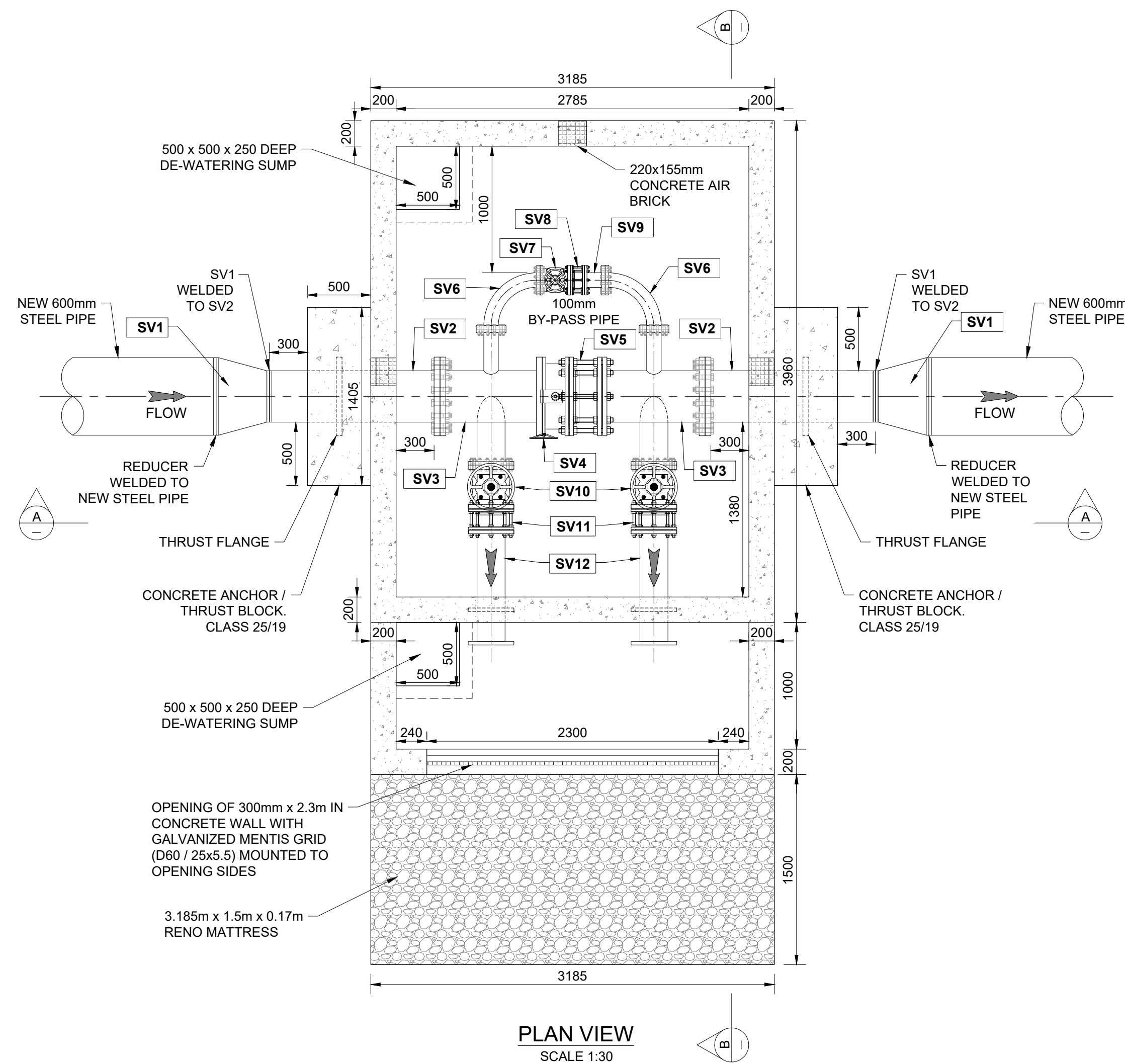
DATE	SCALE	SHEET	REV	A1
2022-11-01	AS SHOWN	1 OF 1	a	A1

DWG NO

P1001-EB1L-CIV-1302

GENERAL:

- PIPE FITTINGS:



NOTES:

GENERAL:

1. DETAILS TO BE READ WITH THE SPECIFICATIONS AS PER THE CONTRACT DOCUMENT.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. DIMENSIONS SHALL NOT BE SCALED FROM THIS DRAWING AND ONLY DIMENSIONS INDICATED WILL BE USED.
4. DIMENSIONS OF SPECIAL FITTINGS SHOULD BE CONFIRMED WITH THE ENGINEER BEFORE ORDERING.
5. 20x20mm CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
6. FLOOR SCREED TO BE SLOPED TO SUMP

PIPE FITTINGS:

7. FOR PIPE JOINT WELDS, INTERNAL LINING AND EXTERNAL COATING REFER TO THE SPECIFICATIONS AS PER THE CONTRACT DOCUMENT.
8. ALL FLANGES AT FLANGED JOINTS TO BE ACCORDING TO RELATIVE PRESSURE CLASS.
9. ALL UNDERGROUND FLANGES AND WELDED JOINTS TO BE WRAPPED IN SELF-HEALING CORROSION PREVENTIVE TAPE ACCORDING TO MANUFACTURERS SPECIFICATIONS.

PRESSURE RATINGS	RIVER CROSSING
PN25	THAKGALANG
PN40	MEGORING

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PROF. Reg.No:
930381
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2022-11-01
SIGNATURE:

DESIGN BY:

B. COETZEE
DRAWN BY:
E. COETZEE
CHECKED BY:
B. COETZEE
APPROVED BY:
R. OSTROWSKI

REVISIONS

REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

**UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME**

TITLE

**SCOUR VALVE
CHAMBER DETAILS**

PROJECT STATUS:

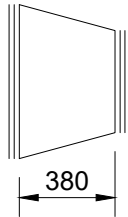
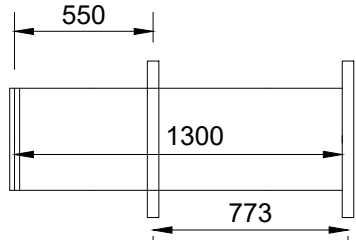
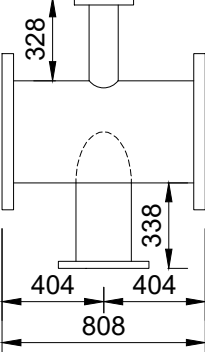
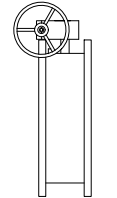
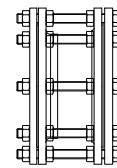
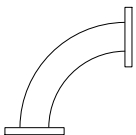
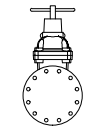
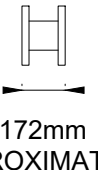
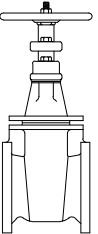
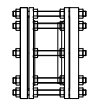
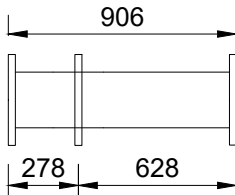
TENDER

DATE	SCALE	SHEET	REV	A1
2022-11-01	AS SHOWN	1 OF 2	a	A1

DWG NO

P1001-EB1L-CIV-1304

SCOUR VALVE CHAMBER - SCHEDULE OF ITEMS

ITEM No	DESCRIPTION	PIPE FITTING DIAGRAM	PIPE ENDS FLANGED / WELDED	QTY.
SV1	600mm x 400mm STEEL REDUCER, WELDED ON BOTH SIDES		WELDED BOTH SIDES	2
SV2	400mm STRAIGHT PIPE STEEL SECTION, FLANGED ONE END & WELDED ON OTHER WITH THRUST FLANGE (FINAL MEASUREMENTS TO BE DONE ON SITE)		FLANGED ONE END, WELDED ON OTHER END	2
SV3	400mm x 400mm x 200mm x 100mm UNEQUAL TEE STEEL FITTING (FINAL MEASUREMENTS TO BE DONE ON SITE)		FLANGED ALL ENDS	2
SV4	400mm BUTTERFLY VALVE DOUBLE ECCENTRIC		FLANGED BOTH ENDS	1
SV5	400mm DISMANTLING JOINT		FLANGED BOTH ENDS	1
SV6	100mm MEDIUM RADIUS STEEL BEND		FLANGED BOTH ENDS	2
SV7	100mm RSV GATE VALVE NON RISING SPINDLE & HAND OPERATED		FLANGED BOTH ENDS	1
SV8	100mm DISMANTLING JOINT		FLANGED BOTH ENDS	1
SV9	100mm STRAIGHT PIPE STEEL SECTION (FINAL MEASUREMENTS TO BE DONE ON SITE)		FLANGED BOTH ENDS	1
SV10	200mm RSV GATE VALVE NON RISING SPINDLE & HAND OPERATED		FLANGED BOTH ENDS	1
SV11	200mm DISMANTLING JOINT		FLANGED BOTH ENDS	1
SV12	200mm STRAIGHT PIPE STEEL SECTION WITH THRUST FLANGE (FINAL MEASUREMENTS TO BE DONE ON SITE)		FLANGED BOTH ENDS WITH THRUST FLANGE	1

PRESSURE RATINGS	RIVER CROSSING
PN25	THAKGALANG
PN40	MEGORING

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DRAWN BY:

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REVISIONS

REV	DATE	DESCRIPTION	BY
a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME

TITLE

SCHEDULE OF ITEMS FOR
SCOUR VALVE DETAILS

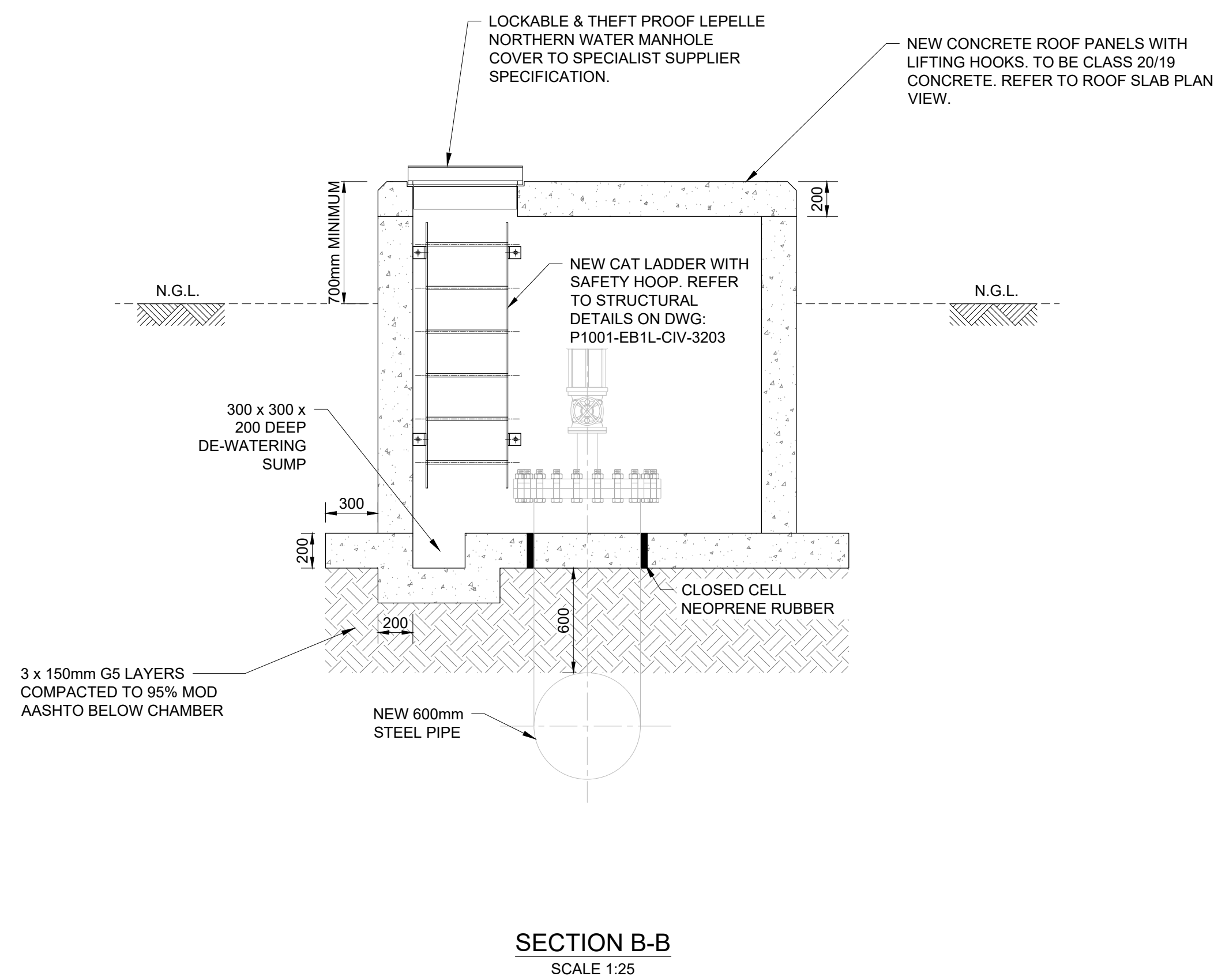
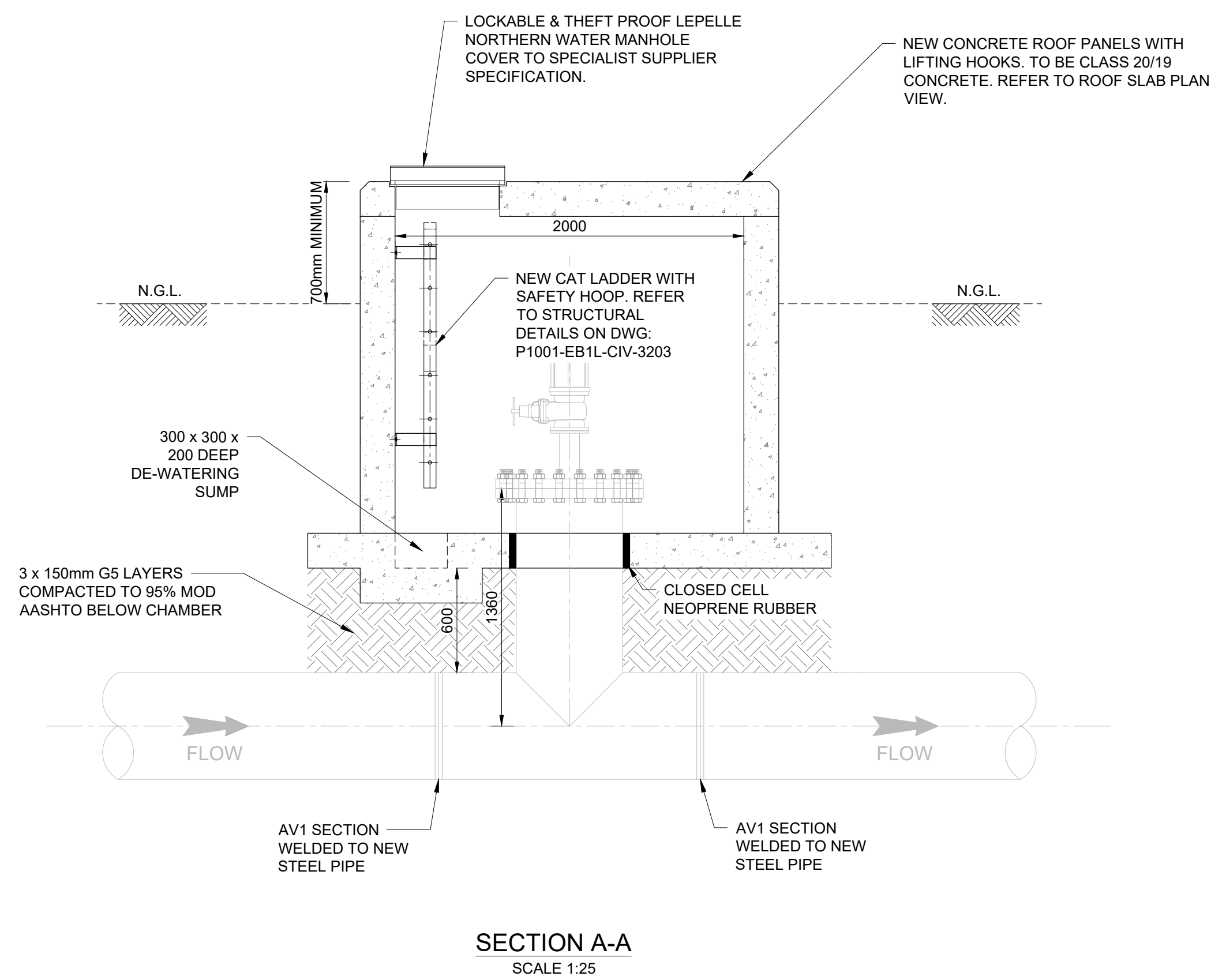
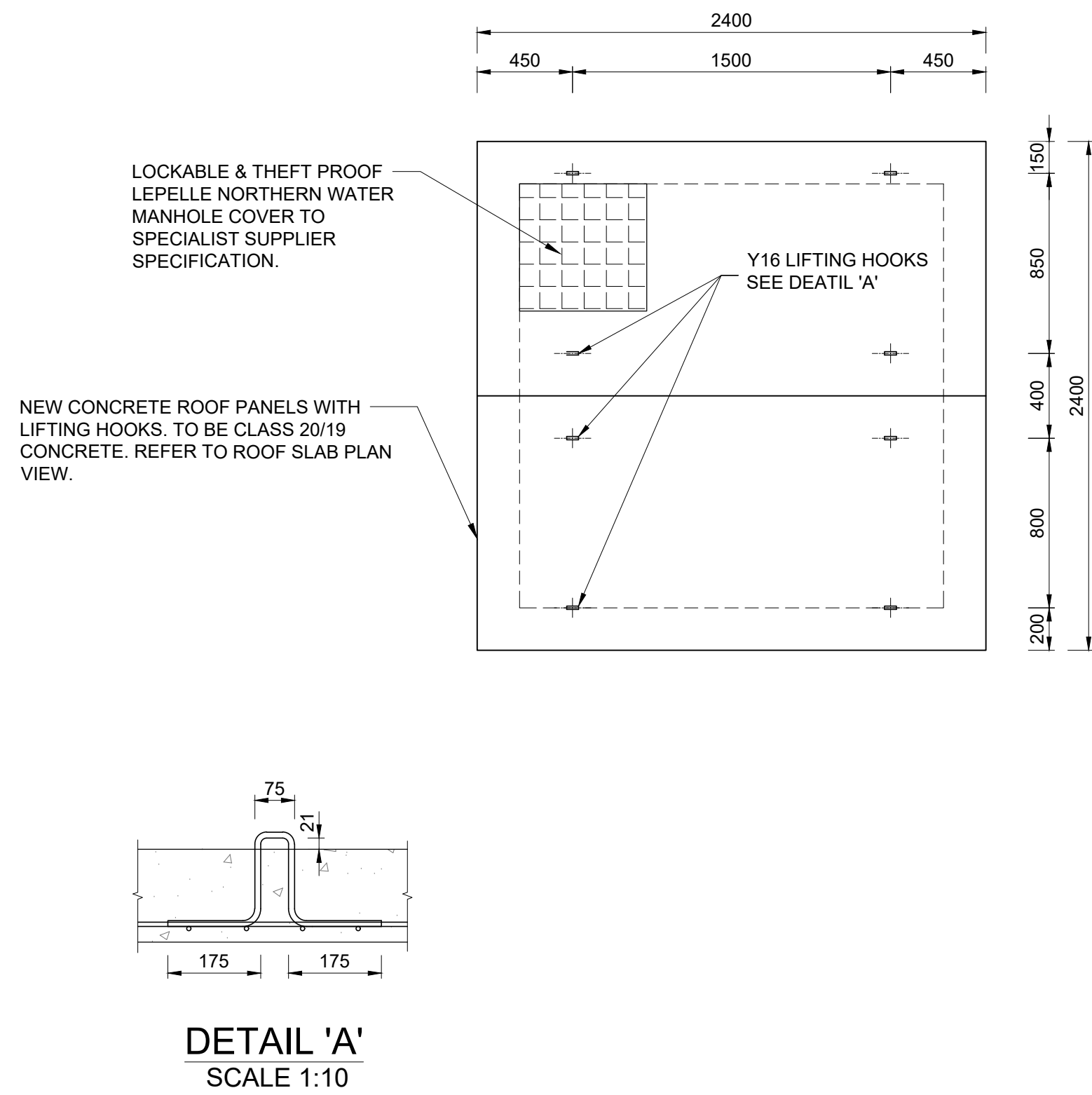
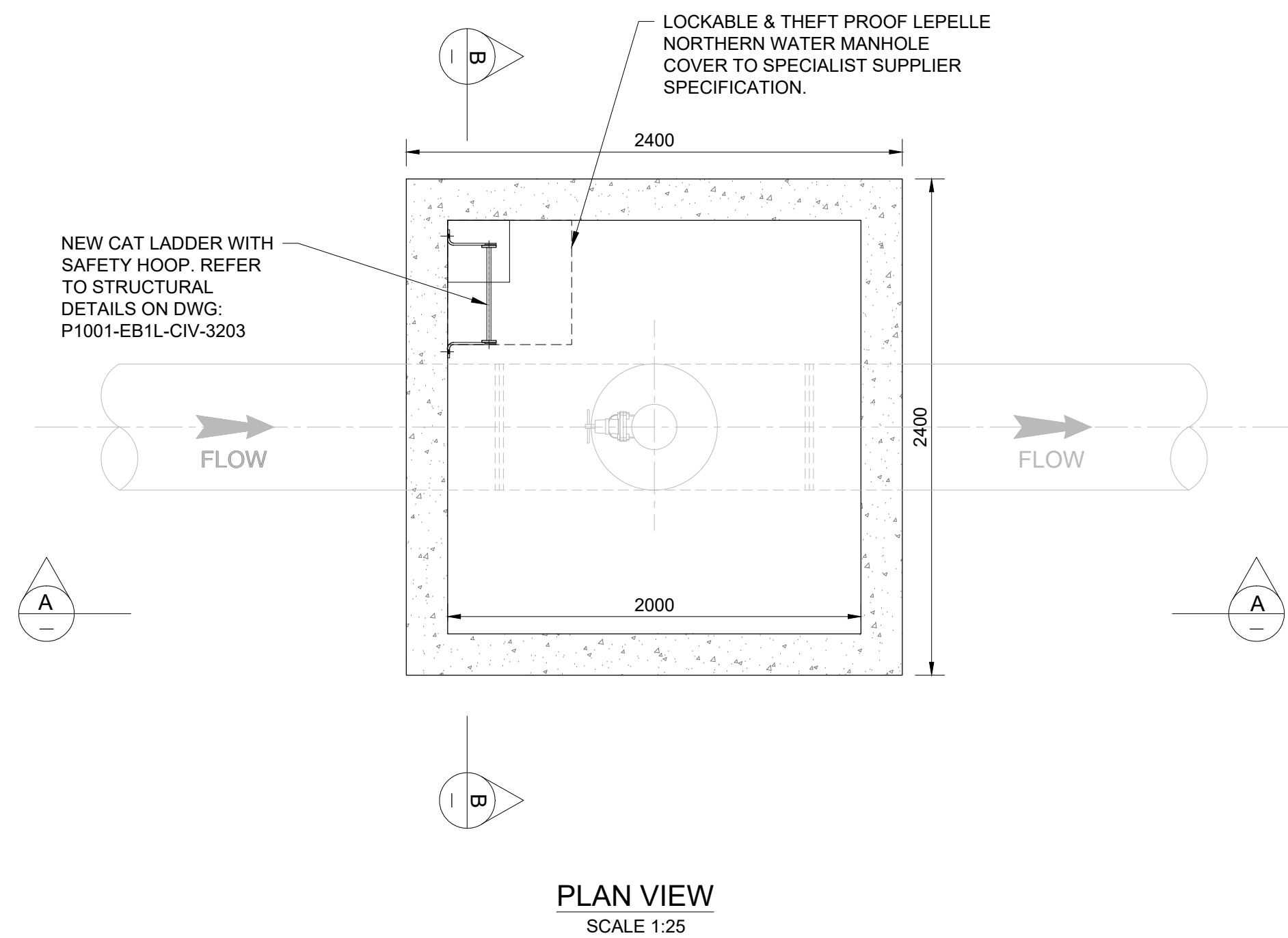
PROJECT STATUS:

TENDER

DATE	SCALE	SHEET	REV	A1
2022-11-01	AS SHOWN	2 OF 2	a	A1

DWG NO

P1001-EB1L-CIV-1305



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B. COETZEE

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E. COETZEE

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APPROVED BY:

R. OSTROWSKI

REVISIONS

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a	2022-11-01	ISSUED FOR TENDER	R.O

PROJECT NAME

UPGRADE OF OLIFANTSPOORT AND EBENEZER
WATER SUPPLY SCHEME

TITLE

STRUCTURAL DETAILS FOR
AIR VALVE CHAMBER

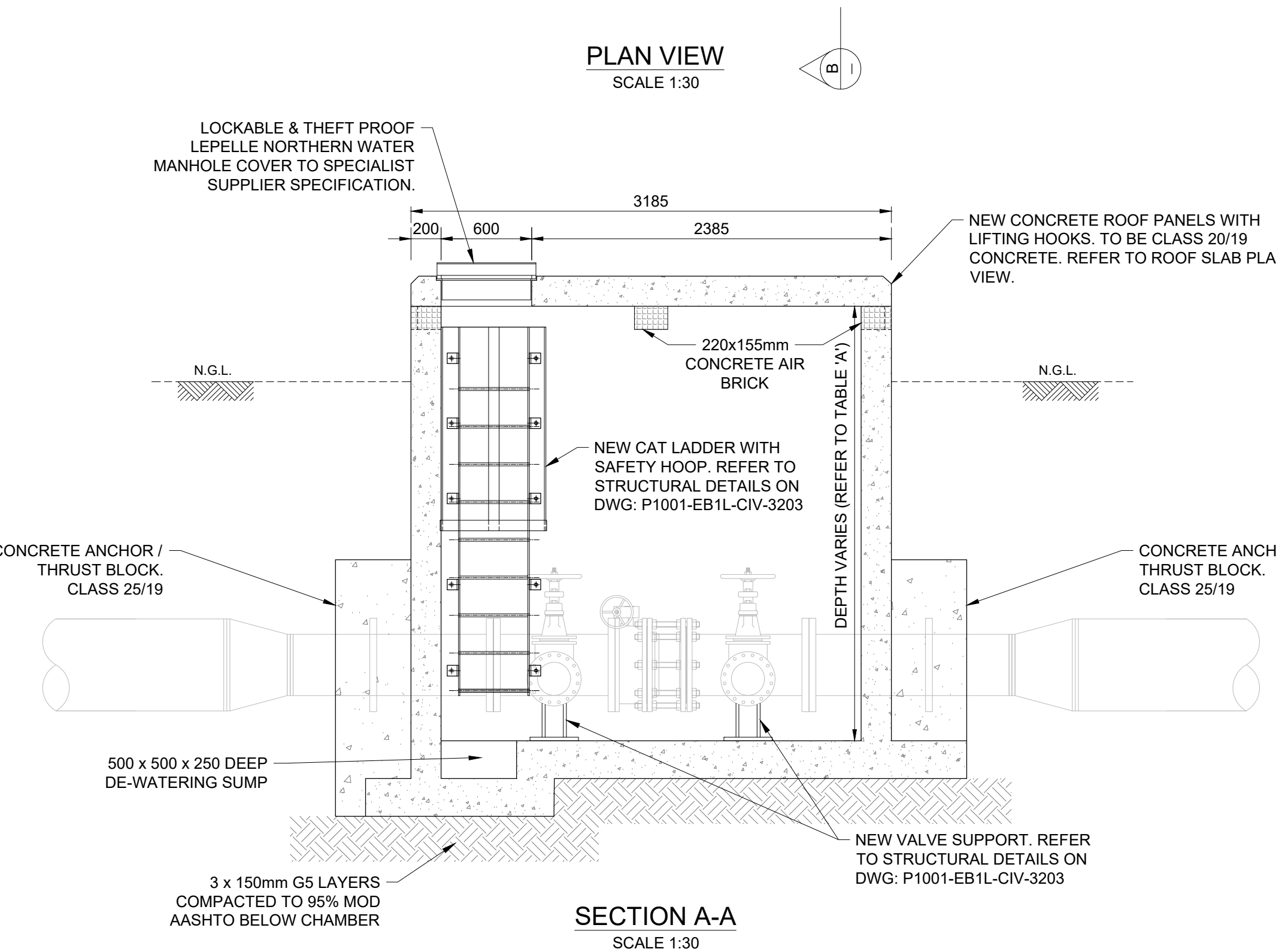
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TENDER

DATE	SCALE	SHEET	REV	A1
2022-11-01	AS SHOWN	1 OF 1	a	A1

DWG NO

P1001-EB1L-CIV-3201



7. FOR PIPE JOINT WELDS, INTERNAL LINING AND EXTERNAL COATING REFER TO THE SPECIFICATIONS AS PER THE CONTRACT DOCUMENT.
8. ALL FLANGES AT FLANGED JOINTS TO BE ACCORDING TO RELATIVE PRESSURE CLASS AS INDICATED ON DRAWINGS.
9. ALL UNDERGROUND FLANGES AND WELDED JOINTS TO BE WRAPPED IN SELF-HEALING CORROSION PREVENTIVE TAPE (STOPAQ) OR EQUIVALENT.

