



DRAWING LIST				
DRAWING NUMBER	DRAWING DESCRIPTION	REVISION	STATUS	DATE LAST PUBLISHED
COM17/2023-00-00	DRAWING INDEX	-		2023/02/08
COM17/2023-01-01	MUTSULU: BULK WATER LINE & RETICULATION LAYOUT	-		2023/02/08
COM17/2023-01-02	2ML RESERVOIR PLAN AND SECTION DETAILS	-		2023/02/08
COM17/2023-02-01	WATER DETAILS: THRUST BLOCKS	-		2023/02/08
COM17/2023-02-02	WATER DETAILS: PIPELINE MARKER	-		2023/02/08
COM17/2023-02-03	WATER DETAILS: BULK METER MANHOLE COVER	-		2023/02/08
COM17/2023-02-04	WATER DETAILS: AIR VALVE CHAMBER	-		2023/02/08
COM17/2023-02-05	WATER DETAILS: SCOUR VALVE AND ISOLATION VALVE	-		2023/02/08
COM1/2023-02-06	WATER DETAILS: HOUSE CONNECTION DETAILS	-		2023/02/08
COM1/2023-02-07	WATER DETAILS: BULK INLET CHAMBER DETAILS	-		2023/02/08
COM17/2023-02-08	WATER DETAILS: BREAK PRESSURE TANK DETAILS	-		2023/02/08
COM17/2023-02-09	WATER DETAILS: PIPE SUPPORT DETAIL 01	-		2023/02/08
COM17/2023-02-10	WATER DETAILS: PIPE SUPPORT DETAIL 02	-		2023/02/08

DESIGNED BY:	M.M.S	<div>INFORMATION Full Signatures</div> <div>For Client</div> <div>For Consulting Engineer</div> <div>Consultant's Drawing No.:</div>	<div>APPROVED</div> <div>For Client</div> <div>For Consulting Engineer</div>	NO.	REVISION DETAILS	REV NO.	DATE	REVISED BY	APPRVD BY	<div><div>CITY OF MBOMBELA THE ULTIMATE DESTINATION</div></div>	<div>CITY OF MBOMBELA</div> <div>P. O Box 45 Mbombela 1200</div> <div>Tel: +27 (0) 13 759 2041</div> <div>Fax: +27 (0) 13 759 2274</div>	<div>CONSULTING ENGINEERS</div> <div>Jamela Consulting Engineering and Project Management</div> <div>1999/015744/23</div> <div>16A Allie van Bergen Street P.O. Box 419 WHITE RIVER, 1240</div> <div>Tel: (013) 750 0160 Fax: (013) 751 1980 Email: mark@jamela.co.za</div>	BID NUMBER: COM17/2023	SHEET 1 OF 1	
DRAWN BY:	TM			0	ISSUED FOR TENDER	0	FEB 2023								SCALE: AS SHOWN
CHECKED BY:	M.M.S														DRAWING NO: COM17/2023-01
ISSUED BY:	M.M.S														DRAWINGS INDEX



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CHECKED BY:	M.M.S									
ISSUED BY:	M.M.S		For Consulting Engineer	20 / /						



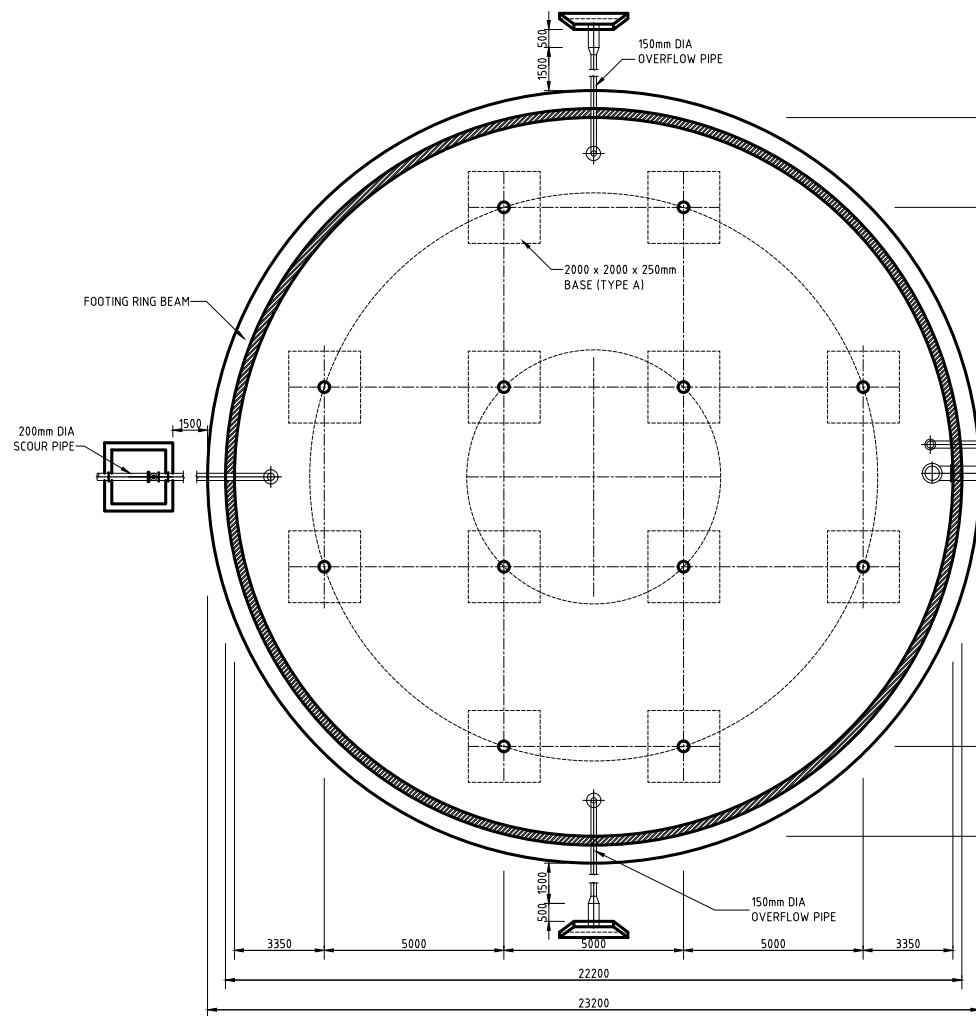
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CONSULTING ENGINEERS

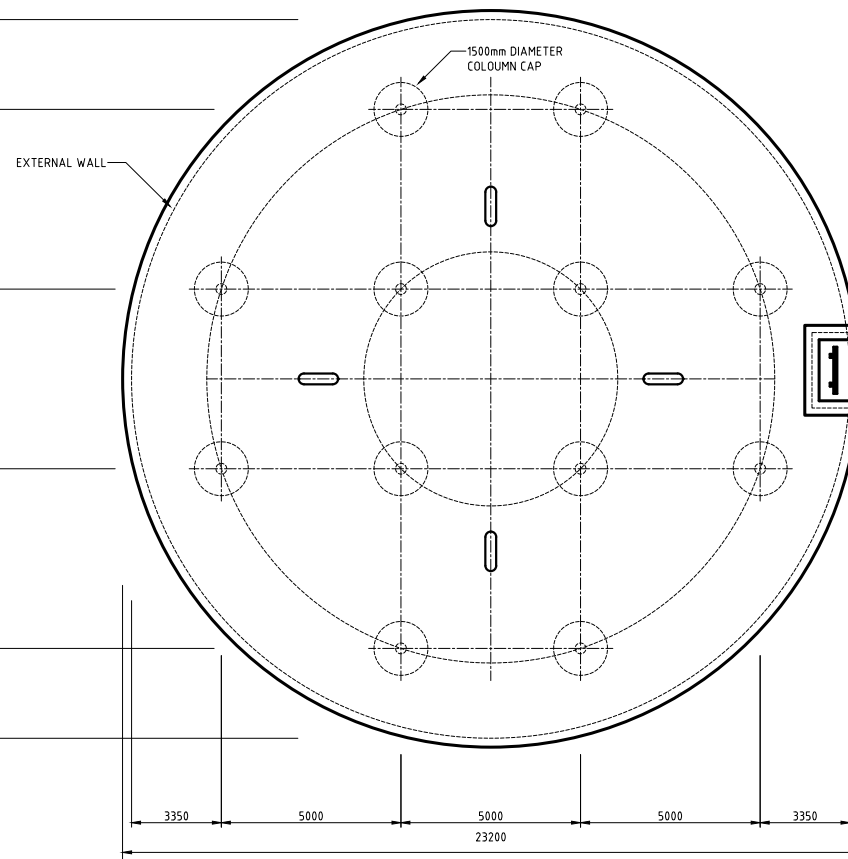


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BID NUMBER: COM17/2023	SHEET 1 OF 1
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION	SCALE: AS SHOWN
WATER RETICULATION LAYOUT	DRAWING NO: COM17/2023-01-01

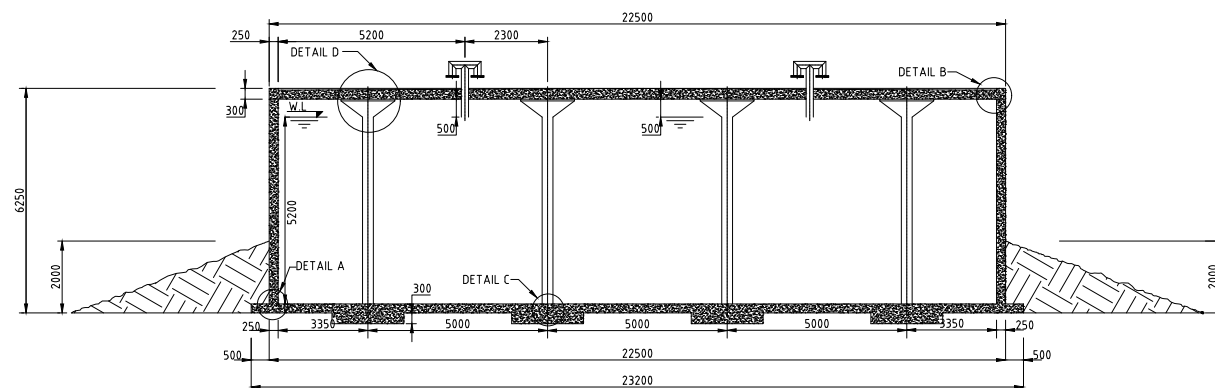


FLOOR PLAN
SCALE 1:100

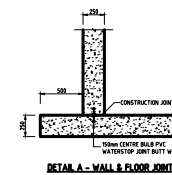


ROOF PLAN
SCALE 1:100

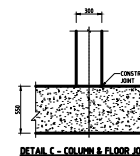
- NOTES:**
1. CURE CHANGING STRENGTH FOR CONCRETE TO BE 28 DAYS.
 2. PROPOSED ASSUMED DUTY - FINAL MAXIMUM WATER/VENT DUTY - 1000.
 3. FLOW TIME FOR FRESH CONCRETE UNDER ALL CONCRETE UNLESS SPECIFIED OTHERWISE.
 4. WALLS TO BE CAST 7 DAYS AFTER THE CASTING OF THE BASE SLAB.
 5. ALL WALLS TO BE CAST 7 DAYS AFTER THE CASTING OF THE BASE SLAB.
 6. ALL WALLS TO BE CAST 7 DAYS AFTER THE CASTING OF THE BASE SLAB.
 7. ALL WALLS TO BE CAST 7 DAYS AFTER THE CASTING OF THE BASE SLAB.
 8. ALL WALLS TO BE CAST 7 DAYS AFTER THE CASTING OF THE BASE SLAB.
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 10. ALL WALLS TO BE CAST 7 DAYS AFTER THE CASTING OF THE BASE SLAB.



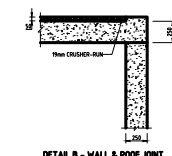
SECTION THROUGH RESERVOIR
SCALE 1:100



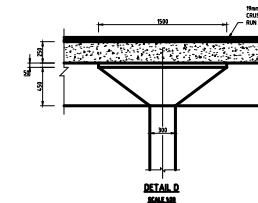
DETAIL A - WALL & FLOOR JOINT
SCALE 1:100



DETAIL C - COLUMN & FLOOR JOINT
SCALE 1:100



DETAIL B - WALL & ROOF JOINT
SCALE 1:100



DETAIL D
SCALE 1:100

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DRAWN BY:	TM			0	ISSUED FOR TENDER	0	FEB 2023		
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ISSUED BY:	M.M.S								

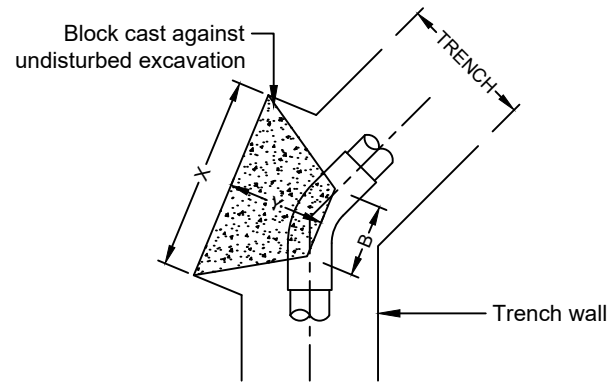


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BID NUMBER: COM17/2023
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION
2ML RESERVOIR PLAN AND SECTION DETAILS

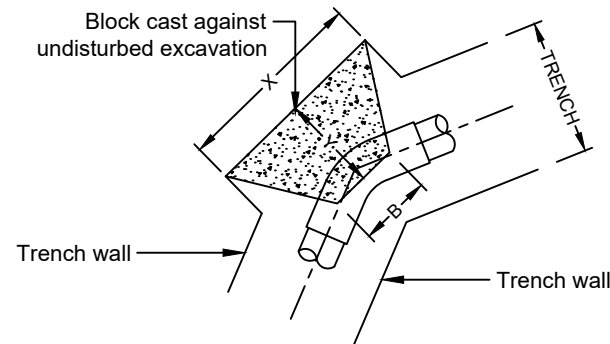
SHEET 1 OF 1
SCALE: AS SHOWN
DRAWING NO:
COM17/2023-01-02



THRUST BLOCK FOR 45° BEND

SCALE 1:30

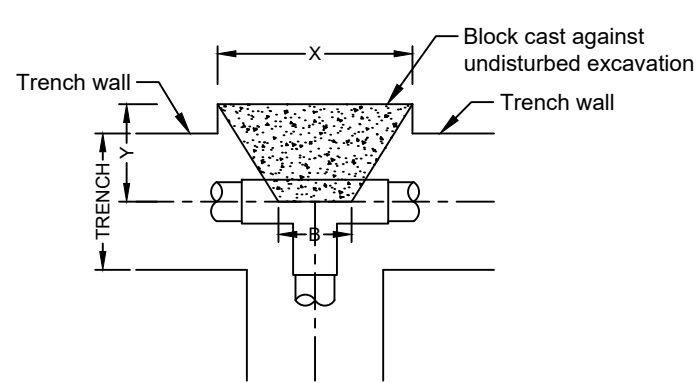
NOMINAL PIPE DIAMETER Ø (mm)	AREA REQUIRE D m²	DIMENSIONS (mm)				AREA PROVIDE D M²	VOL (m³)
		B	Z	X	Y		
75	0.061	0.300	0.400	0.400	0.350	0.160	0.049
110	0.109	0.300	0.500	0.500	0.375	0.250	0.075
160	0.245	0.300	0.500	0.500	0.400	0.250	0.080
200	0.435	0.300	0.600	0.800	0.400	0.480	0.132
250	0.680	0.350	0.650	1.100	0.450	0.715	0.212
300	0.979	0.400	0.700	1.400	0.500	0.980	0.315
300+	SEE NOTE 5						



THRUST BLOCK FOR 22.5° BEND

SCALE 1:30

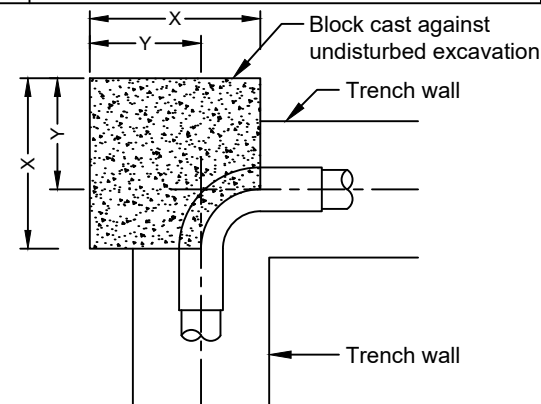
NOMINAL PIPE DIAMETER Ø (mm)	AREA REQUIRE D m²	DIMENSIONS (mm)				AREA PROVIDE D M²	VOL (m³)
		B	Z	X	Y		
75	0.031	0.300	0.400	0.400	0.350	0.160	0.049
110	0.055	0.300	0.500	0.500	0.375	0.250	0.075
160	0.124	0.300	0.500	0.500	0.400	0.250	0.080
200	0.220	0.300	0.600	0.600	0.400	0.360	0.108
250	0.344	0.350	0.650	0.650	0.450	0.423	0.146
300	0.496	0.400	0.700	0.800	0.500	0.560	0.210
300+	SEE NOTE 5						



THRUST BLOCK FOR TEE-PIECE

SCALE 1:30

NOMINAL PIPE DIAMETER Ø (mm)	AREA REQUIRE D m²	DIMENSIONS (mm)				AREA PROVIDE D M²	VOL (m³)
		B	Z	X	Y		
75	0.079	0.150	0.400	0.400	0.350	0.160	0.039
110	0.141	0.200	0.500	0.500	0.375	0.250	0.066
160	0.318	0.300	0.500	0.700	0.400	0.350	0.100
200	0.565	0.300	0.600	1.000	0.400	0.600	0.156
250	0.883	0.350	0.650	1.400	0.450	0.910	0.256
300	1.272	0.400	0.700	1.900	0.500	1.330	0.403
300+	SEE NOTE 5						



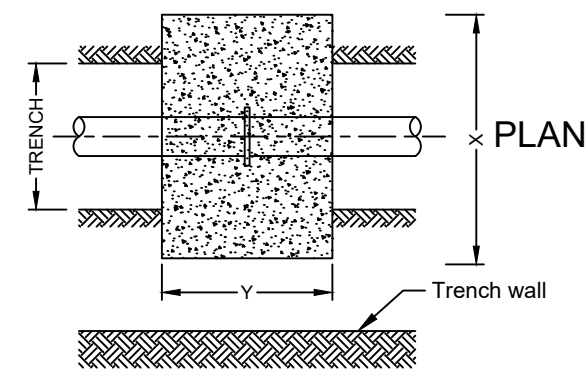
THRUST BLOCK FOR 90° BEND

SCALE 1:30

NOMINAL PIPE DIAMETER Ø (mm)	AREA REQUIRE D m²	DIMENSIONS (mm)			AREA PROVIDE D M²	VOL (m³)
		Z	X	Y		
75	0.078	0.400	0.350	0.350	0.140	0.049
110	0.139	0.500	0.380	0.375	0.190	0.075
160	0.314	0.500	0.650	0.400	0.330	0.211
200	0.576	0.600	1.000	0.400	0.600	0.600
250	0.871	0.650	1.400	0.450	0.910	1.274
300	1.225	0.700	1.800	0.500	1.260	1.268
300+	SEE NOTE 5					

NOMINAL PIPE DIAMETER Ø (mm)	AREA REQUIRE D m²	DIMENSIONS (mm)				AREA PROVIDE D M²	VOL (m³)
		B	Z	X	Y		
75	0.078	75	300	475*	200	0.140	0.017
110	0.139	100	300	500*	200	0.150	0.018
160	0.312	150	600	550*	200	0.330	0.063
200	0.555	200	950	600*	200	0.570	0.076
250	0.867	250	700	1250	500	0.880	0.263
300	1.248	300	750	1700	700	1.280	0.525
300+	SEE NOTE 5						

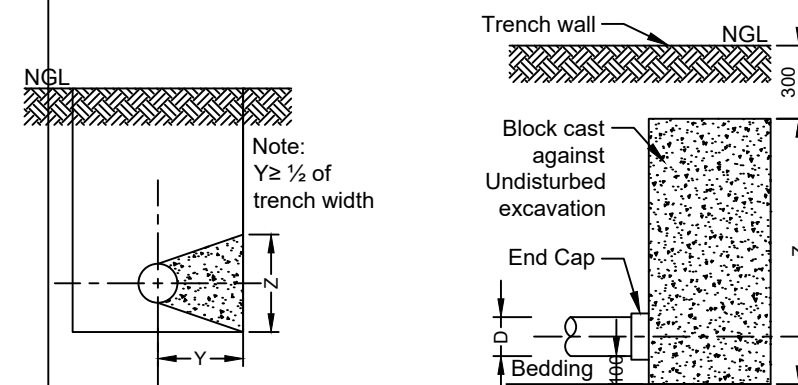
*=TRENCH WIDTH



THRUST BLOCK FOR PUDDLE FLANGE

SCALE 1:30

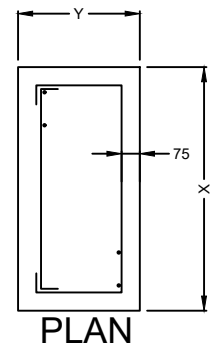
NOMINAL PIPE DIAMETER Ø (mm)	AREA REQUIRE D m²	TRENCH WIDTH mm	DIMENSIONS (mm)			AREA PROVIDE D M²	VOL (m³)
			X	Y	Z		
75	0.078	475	875	500	575	0.410	0.25
110	0.139	500	900	500	600	0.420	0.27
160	0.312	550	950	700	650	0.450	0.42
200	0.555	600	1000	700	900	0.740	0.61
250	0.867	650	1250	1000	950	0.950	1.14
300	1.250	700	1500	1000	1000	1.250	1.43
300+	SEE NOTE 5						



TYPICAL SECTION FOR
11.5°; 22.5° AND 45° BEND

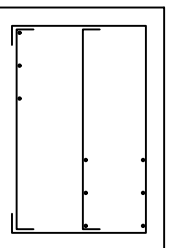
SCALE 1:30

THRUST BLOCK THICKNESS = 500mm
CONCRETE 25MPa
HORIZONTAL STEEL: Y10 @ 200
VERTICAL STEEL: 2 LAYERS Y10 @ 200



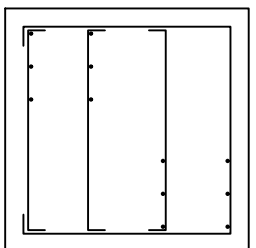
PLAN

THRUST BLOCK THICKNESS = 700mm
CONCRETE 25MPa
HORIZONTAL STEEL: Y12 @ 200
VERTICAL STEEL: 3 LAYERS Y12 @ 200

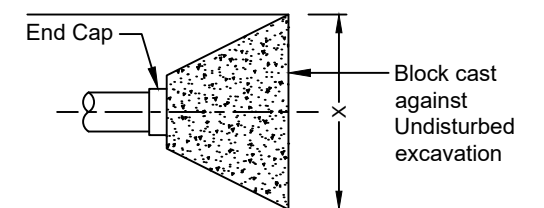


PLAN

THRUST BLOCK THICKNESS = 1000mm
CONCRETE 25MPa
HORIZONTAL STEEL: Y12 @ 150
VERTICAL STEEL: 3 LAYERS Y12 @ 150



PLAN



THRUST BLOCK DEAD END

SCALE 1:30

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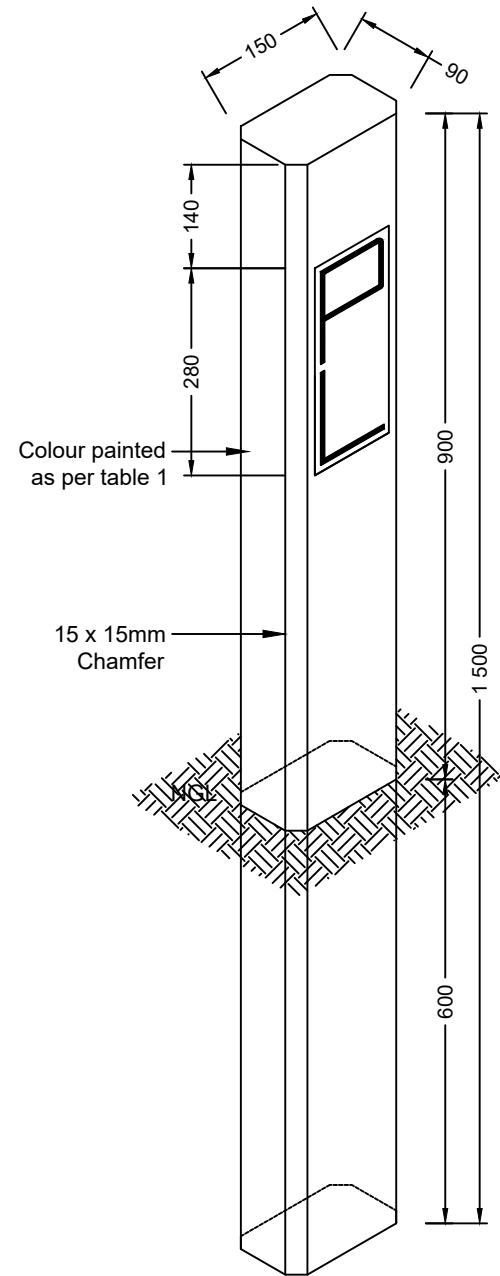


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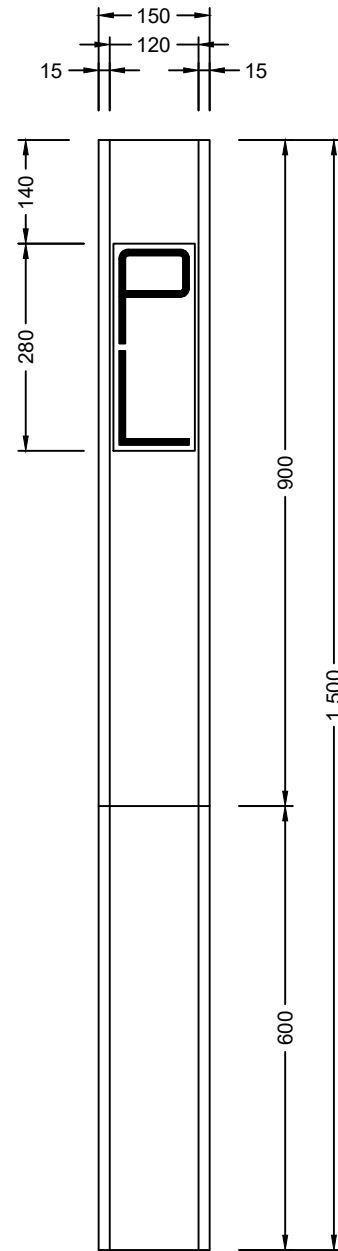


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PROVISION OF RETICULATION NETWORK AND RESERVOIR AT
MATSULU ENTRANCE AND YOUTH CENTRE SECTION
WATER DETAILS: THRUST BLOCK

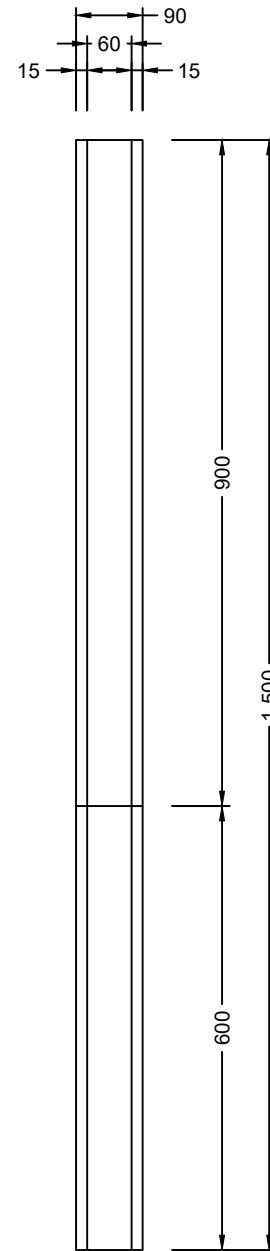
SHEET 1 OF 1
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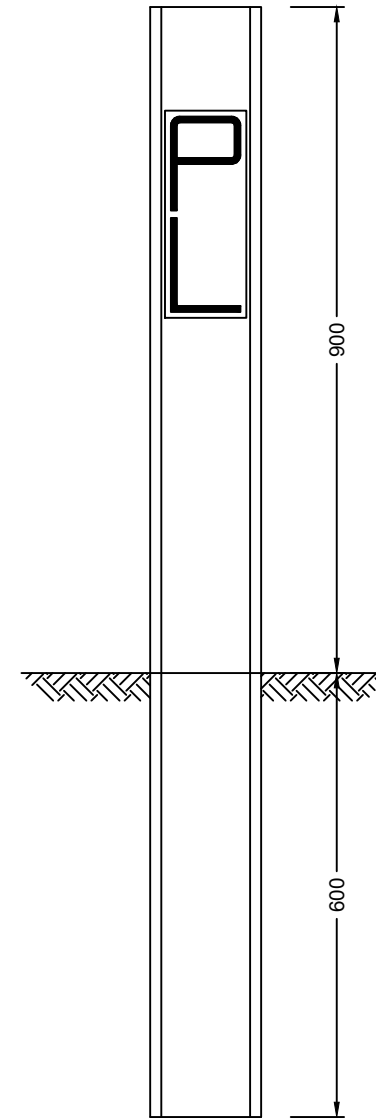
PIPELINE MARKER
SCALE 1:10



FRONT VIEW:
PIPELINE MARKER
SCALE 1:10



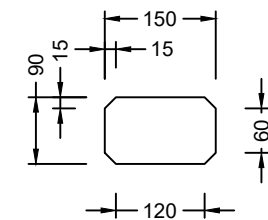
SIDE VIEW:
PIPELINE MARKER
SCALE 1:10





INSTALLATION DETAIL
SCALE 1:10

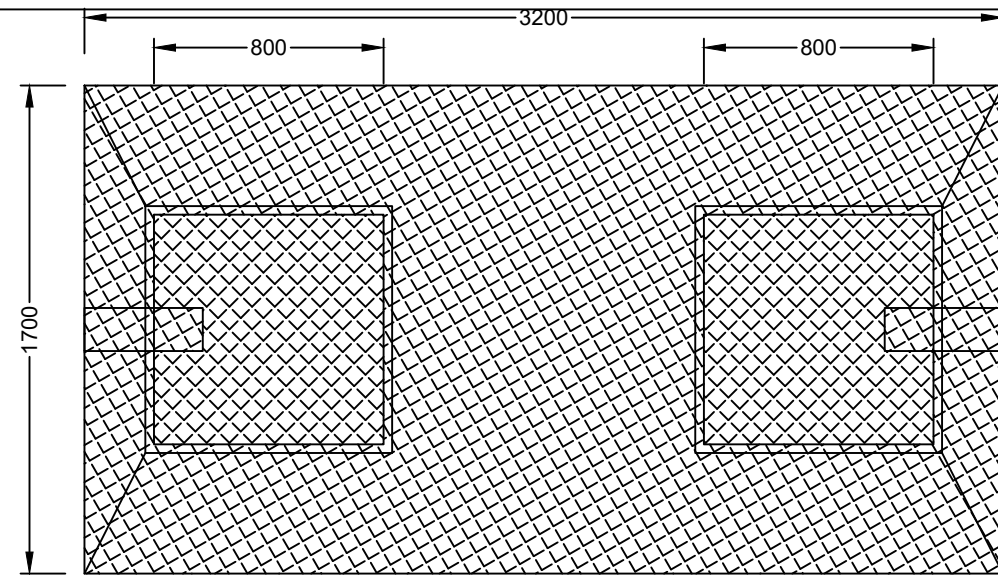
TABLE 01

TYPE OF PIPELINE	COLOUR CODE TO SABS 1091
WATER GRAVITY SUPPLY	ARTIC BLUE F2B
WATER PUMP LINE	SIGNAL RED A11
GRAVITY SEWER	DARK BROWN B03
SEWERAGE PUMP LINE	BLACK

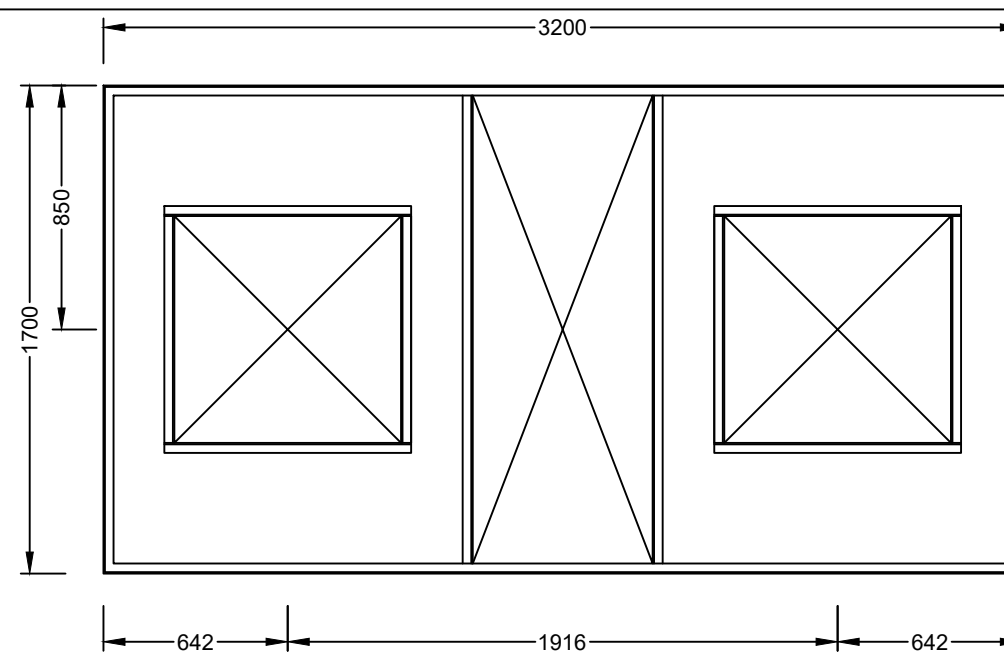


TOP VIEW:
PIPELINE MARKER
SCALE 1:10

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<div><div>SHEET 1 OF 1</div><div>SCALE: AS SHOWN</div><div>DRAWING NO: COM17/2023-02-02</div></div>									

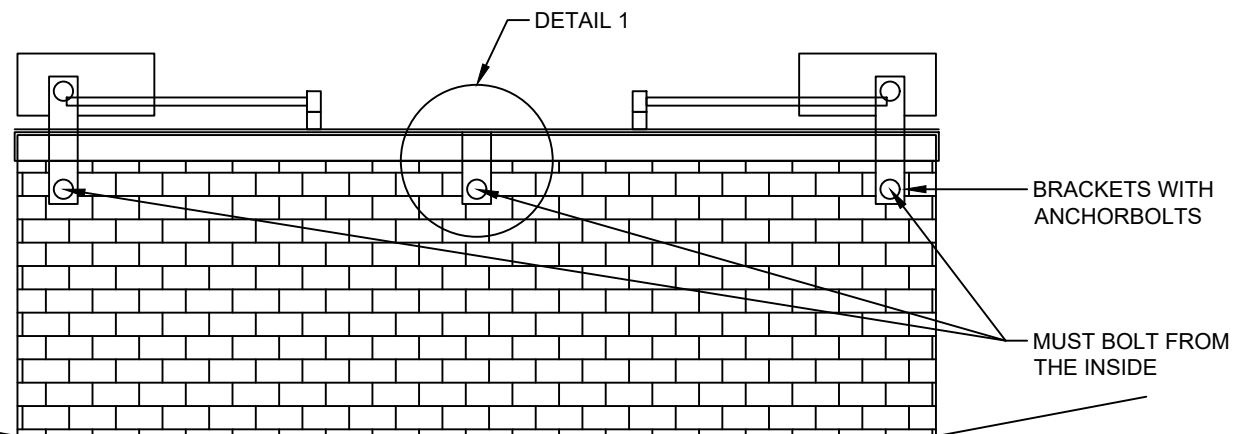


LAYOUT PLAN OF MANHOLE COVER
SCALE 1:25

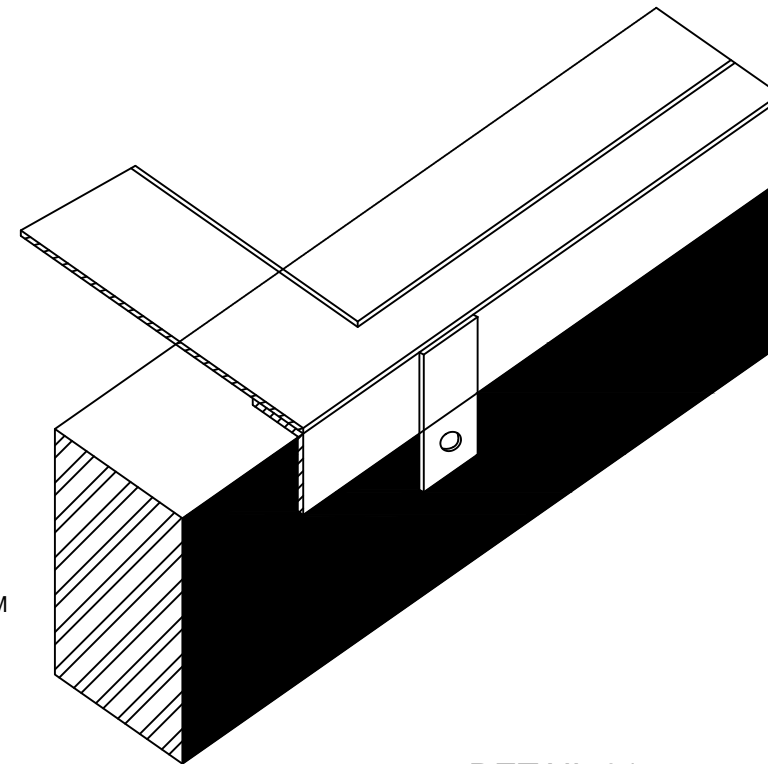


LAYOUT PLAN OF MANHOLE FRAME
SCALE 1:25

ANGLE IRON
SUPPORT FRAME



ELEVATION OF MANHOLE COVER
SCALE 1:25

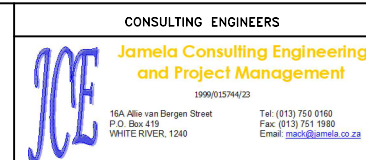


DETAIL 01
NTS

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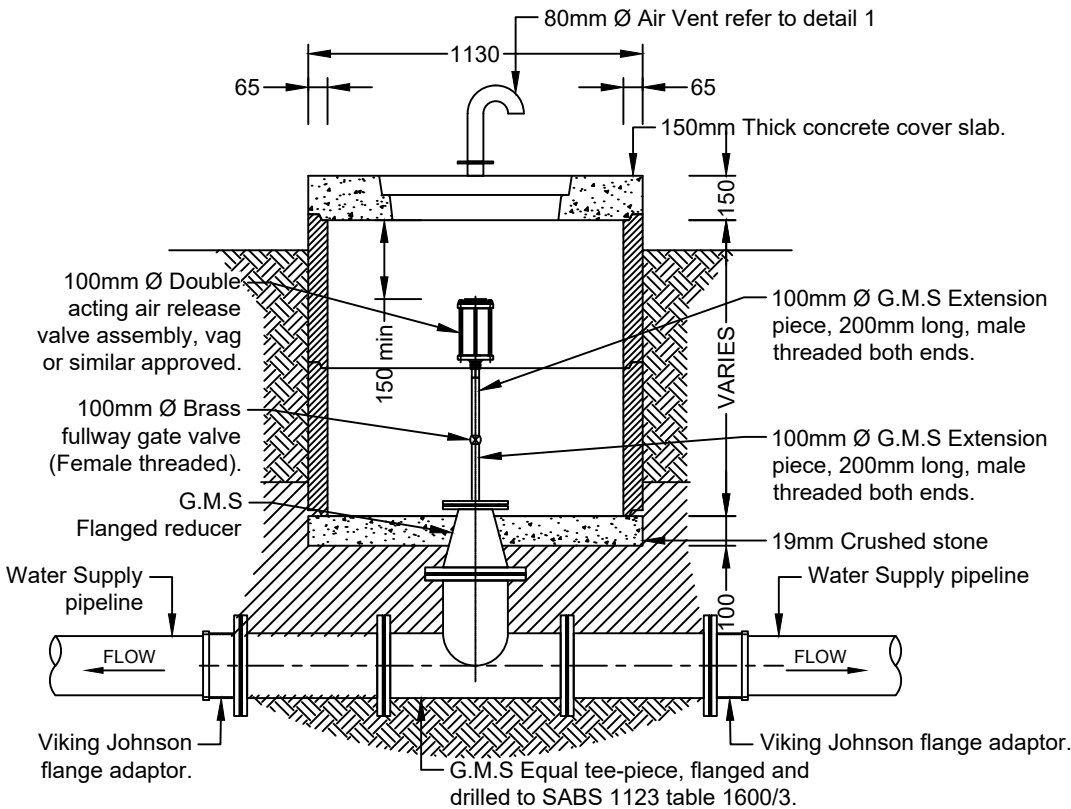


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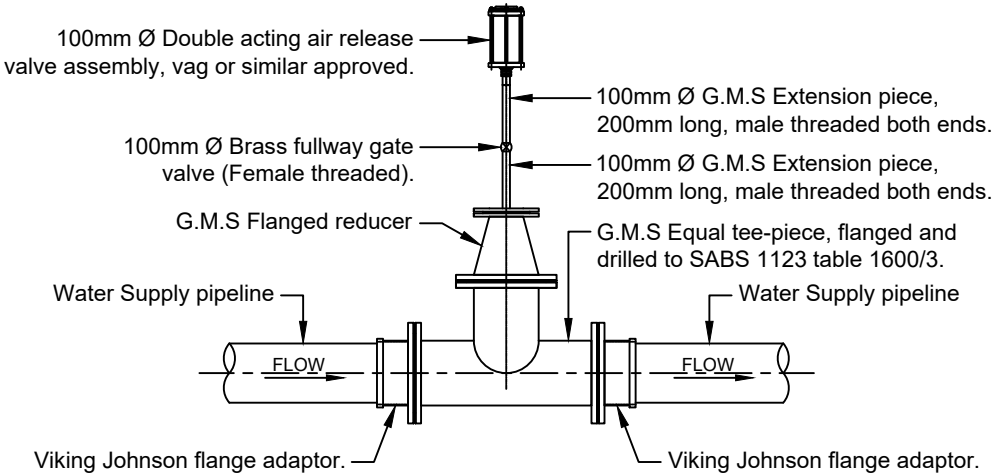


BID NUMBER: COM17/2023	SHEET 1 OF 1
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION	SCALE: AS SHOWN
WATER DETAILS: TYPICAL BULK METER MANHOLE COVER	DRAWING NO: COM17/2023-02-03

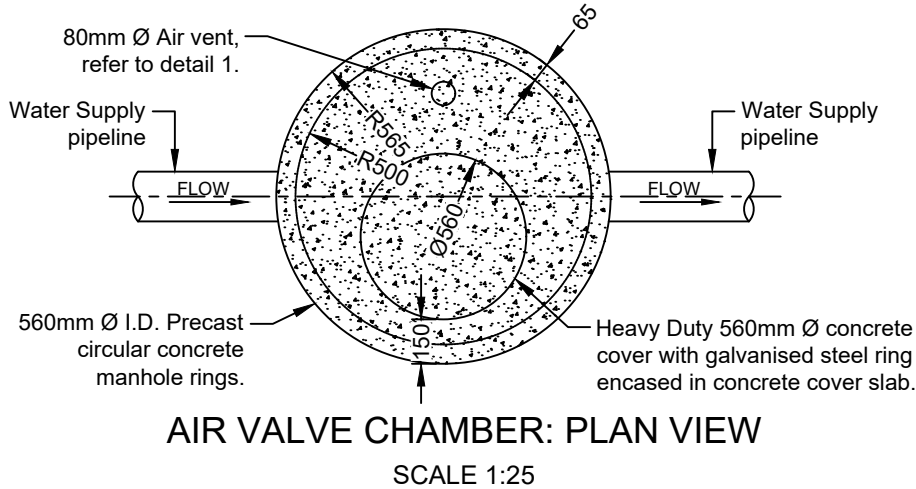
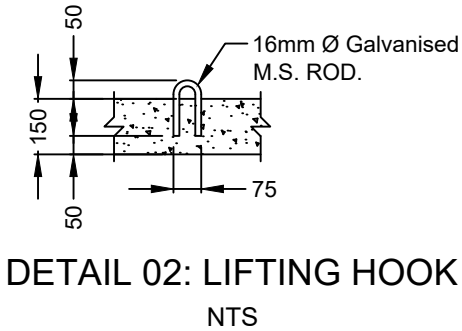
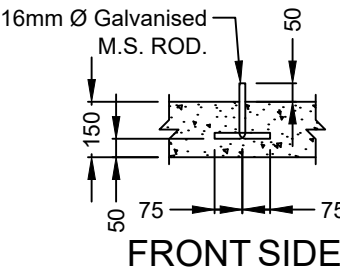
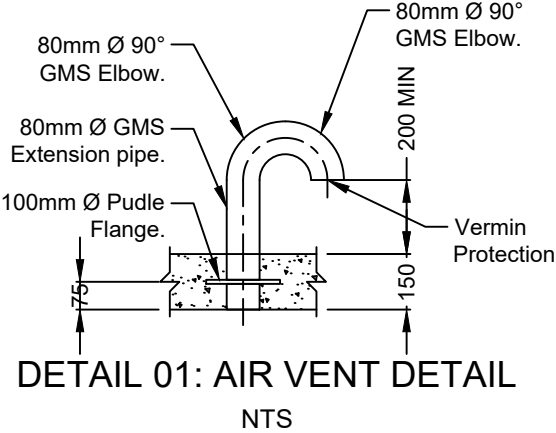
Item No.	No Off.	Dia(mm) ND	Description	Drawing
01	02	200Ø	200Ø Viking Johnson flange adapter T16 flanged.	
02	02	200Ø	200Ø Straight pipe, T16 flanged.	
03	01	200Ø	200Ø G.M.S Equal tee-piece, T16 flanged.	
04	01	200 Ø - 100 Ø	200Ø - 100Ø G.M.S reducer T16 Flanged.	
05	01	100Ø	100mm Ø G.M.S Extension piece, 200mm long, male threaded both ends. 100mm Ø Brass fullway gate valve (Female threaded). 100mm Ø Double acting air release valve. T16 Flanged.	
06	01	80Ø	80mm Ø Air Vent with puddle flange	



AIR VALVE CHAMBER: SECTION A - A
SCALE 1:25



TYPICAL 100mm Ø AIR VALVE INSTALLATION
ONTO ABOVE GROUND PIPELINE
SCALE 1:25



AIR VALVE CHAMBER: PLAN VIEW
SCALE 1:25

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ISSUED BY:	M.M.S	Consultant's Drawing No.:	For Consulting Engineer						

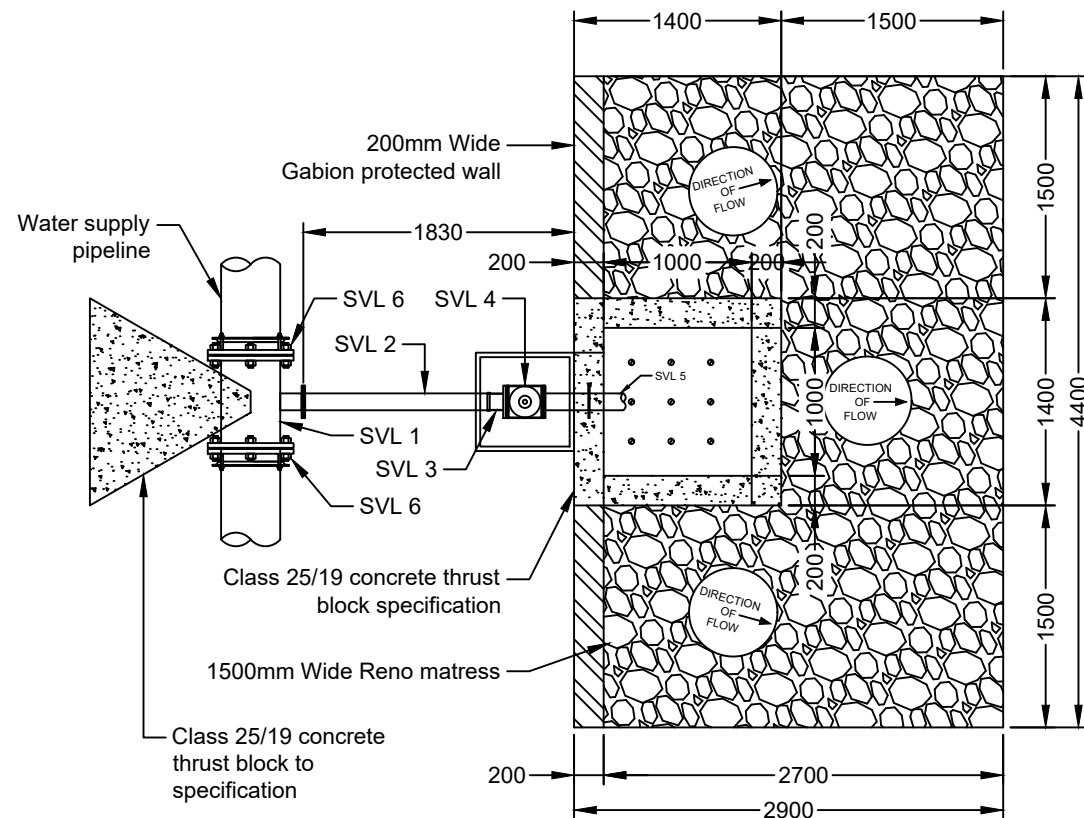


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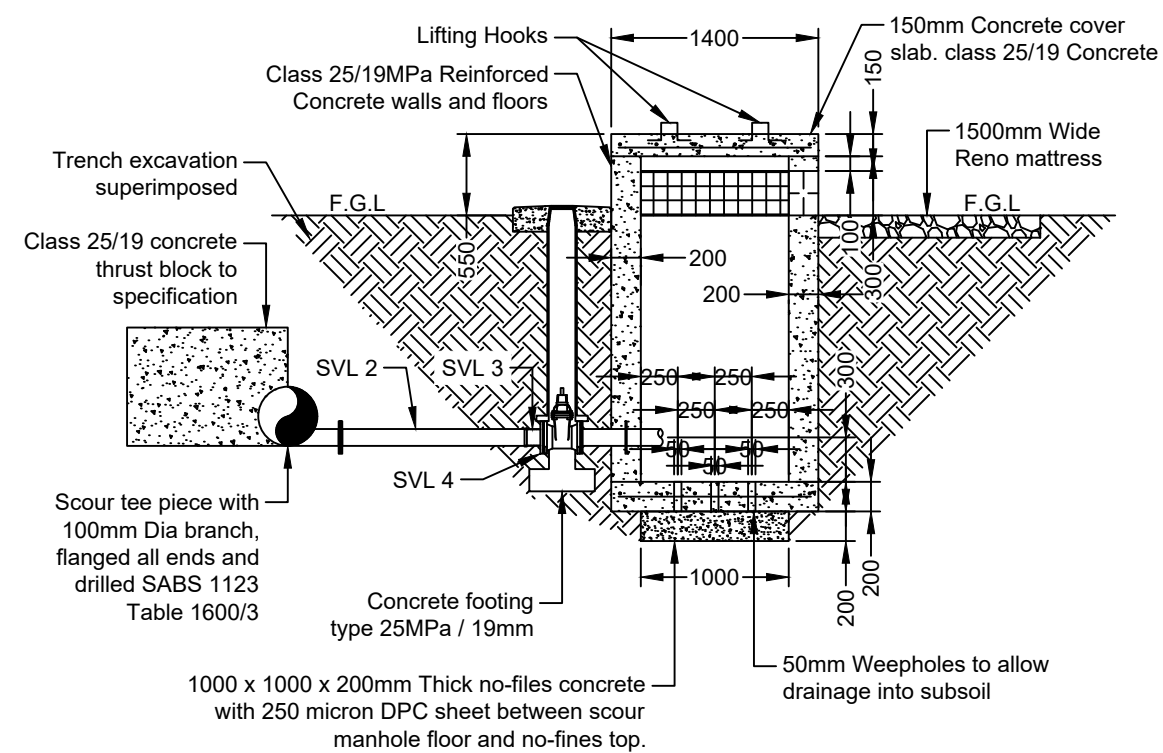
CONSULTING ENGINEERS
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BID NUMBER: COM17/2023	SHEET 1 OF 1
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION	SCALE: AS SHOWN
WATER DETAILS: VALVE CHAMBER	DRAWING NO: COM17/2023-02-04



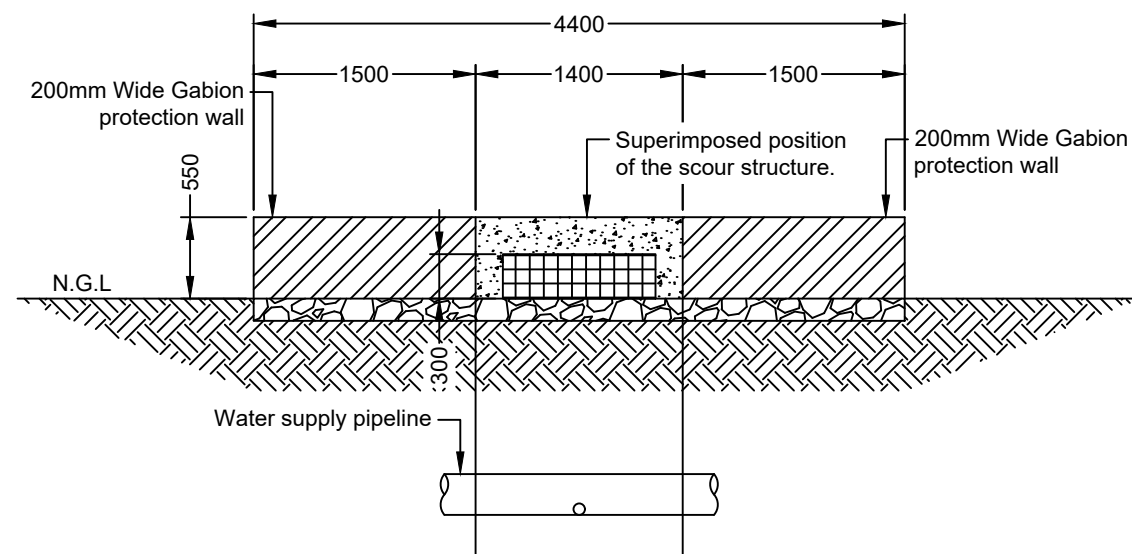
LAYOUT: SCOUR VALVE ASSEMBLY

SCALE 1:50



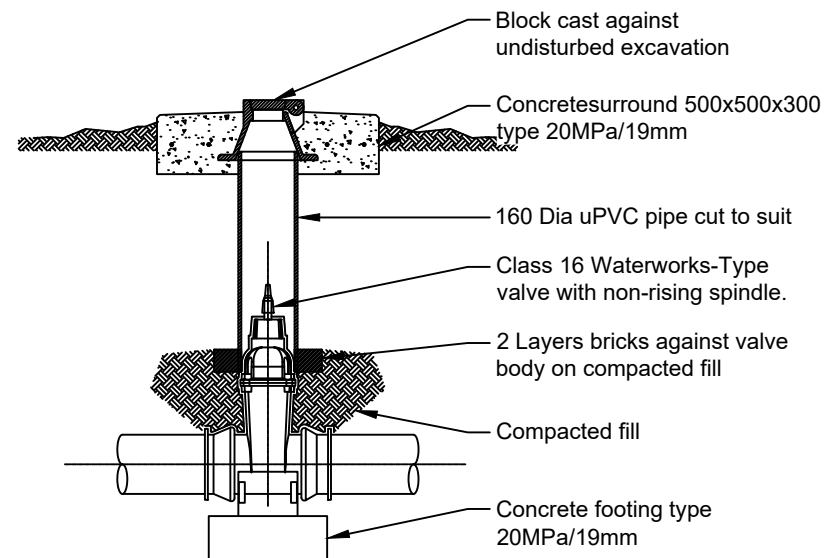
SECTION A - A: SCOUR VALVE ASSEMBLY

SCALE 1:50



SECTION C - C

SCALE 1:50



ISOLATION VALVE

NTS

PIPE FITTING SCHEDULE: BULK WATER PUMP MAIN		
CODE	DESCRIPTION	QUANTITY
SVL 1	G.M.S SCOUR TEE PIECE WITH 100mm DIA. BRANCH FLANGED ALL 3 ENDS AND DRILLED SABS 1123, TABLE 1600/3	1
SVL 2	1400mm LONG G.M.S PIPE PIECE, FLANGED ONE END ONLY, OTHER END PLAIN, FLANGE DRILLED SABS 1123, TABLE 1600/3	1
SVL 3	FLANGED ADAPTOR, DRILLED SABS 1123, TABLE 1600/3	1
SVL 4	CLASS 16 WATERWORKS-TYPE RSV VALVE WITH NON-RISING SPINDLE, WITH DIRECTION INDICATED ON THE BODY, DRILLED BS 4504 PN 16 (16BAR RATING)	1
SVL 5	530mm LONG G.M.S PUDDLE PIPE PIECE, FLANGED ON ONE END ONLY, PUDDLE FLANGE = 280mm FROM FLANGE FACE. FLANGE DRILLED SABS 1123, TABLE 1600/3	1
SVL 6	G.M.S SCOUR TEE PIECE WITH 100mm DIA. BRANCH FLANGED ALL 3 ENDS AND DRILLED SABS 1123, TABLE 1600/3	1

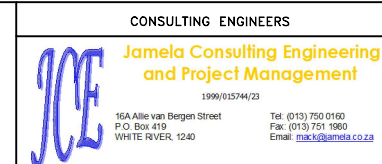
NOTE:

ALL BOLTS, NUTS, WASHERS AND GASKETS TO BE SUPPLIED WITH THE ABOVE FITTINGS. BOLTS MUST BE LONG ENOUGH SO THAT A MINIMUM OF THREE THREADS PROTRUDE BEYOND THE NUTS. ALL BOLTS AT CONNECTION MUST BE INSTALLED IN THE SAME DIRECTION. ALL BOLTS, NUTS AND WASHERS EXPOSED TO SUBSOIL CONDITIONS SHALL BE DENSO WRAPPED OR PROTECTED AGAINST CORROSION IN AN APPROVED MANNER (SEE DWAF SPECIFICATION DWS-1130, DWS-1131)

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CHECKED BY:	M.M.S								
ISSUED BY:	M.M.S								



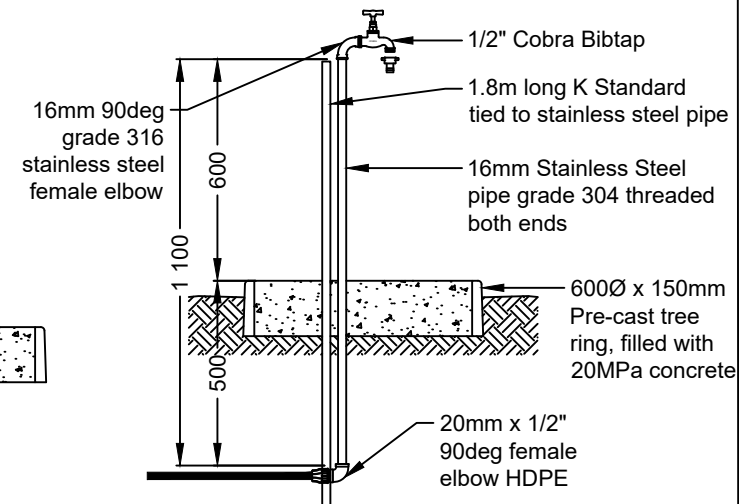
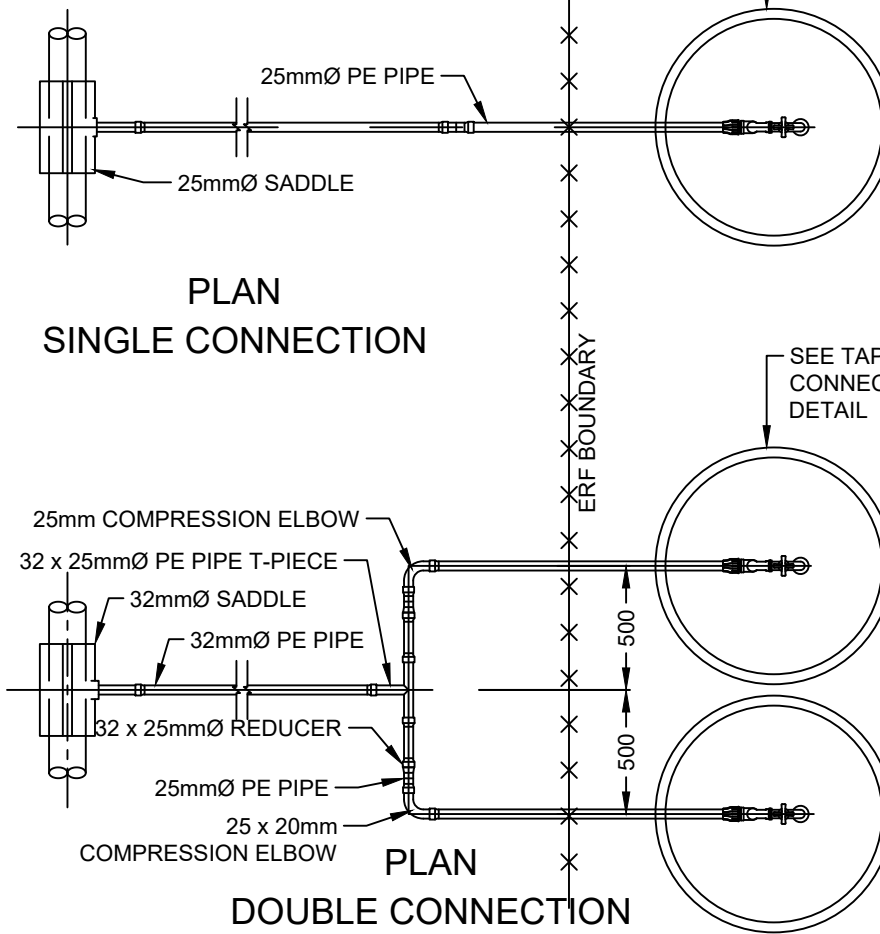
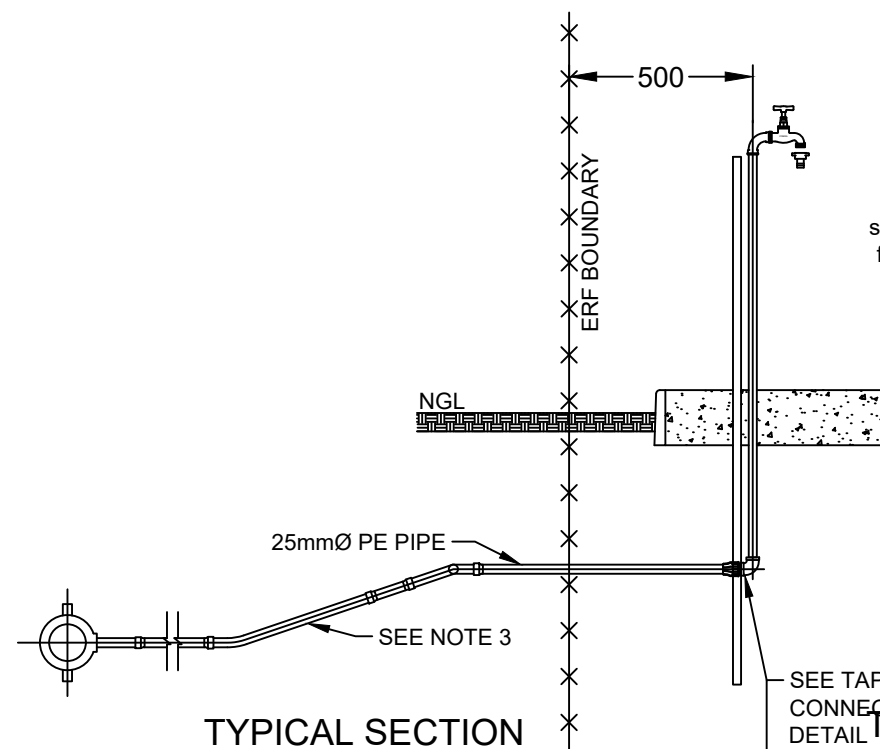
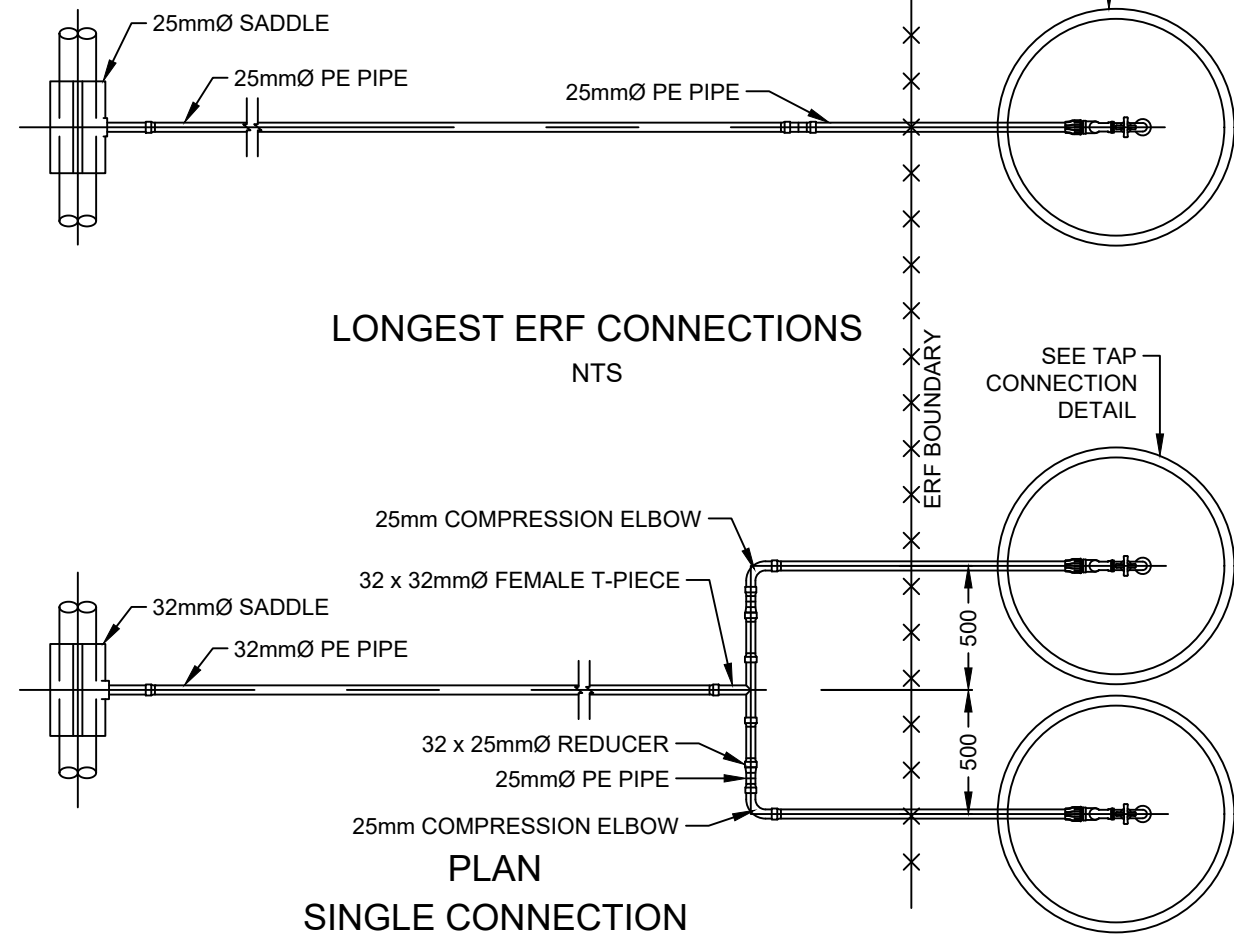
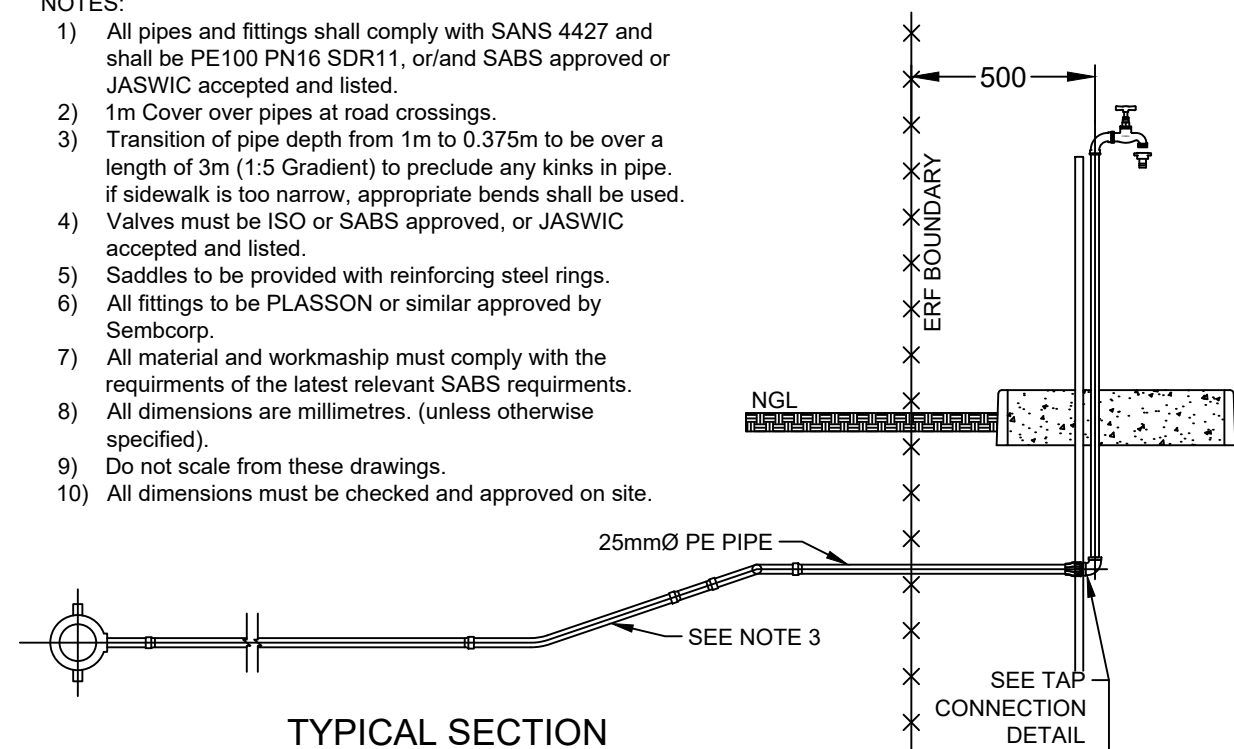
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BID NUMBER: COM17/2023	SHEET 1 OF 1
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION	SCALE: AS SHOWN
WATER DETAILS: SCOUR VALVE AND ISOLATION VALVE	DRAWING NO: COM17/2023-02-05

NOTES:

- 1) All pipes and fittings shall comply with SANS 4427 and shall be PE100 PN16 SDR11, or/and SABS approved or JASWIC accepted and listed.
- 2) 1m Cover over pipes at road crossings.
- 3) Transition of pipe depth from 1m to 0.375m to be over a length of 3m (1:5 Gradient) to preclude any kinks in pipe. if sidewalk is too narrow, appropriate bends shall be used.
- 4) Valves must be ISO or SABS approved, or JASWIC accepted and listed.
- 5) Saddles to be provided with reinforcing steel rings.
- 6) All fittings to be PLASSON or similar approved by Sembcorp.
- 7) All material and workmanship must comply with the requirements of the latest relevant SABS requirements.
- 8) All dimensions are millimetres. (unless otherwise specified).
- 9) Do not scale from these drawings.
- 10) All dimensions must be checked and approved on site.



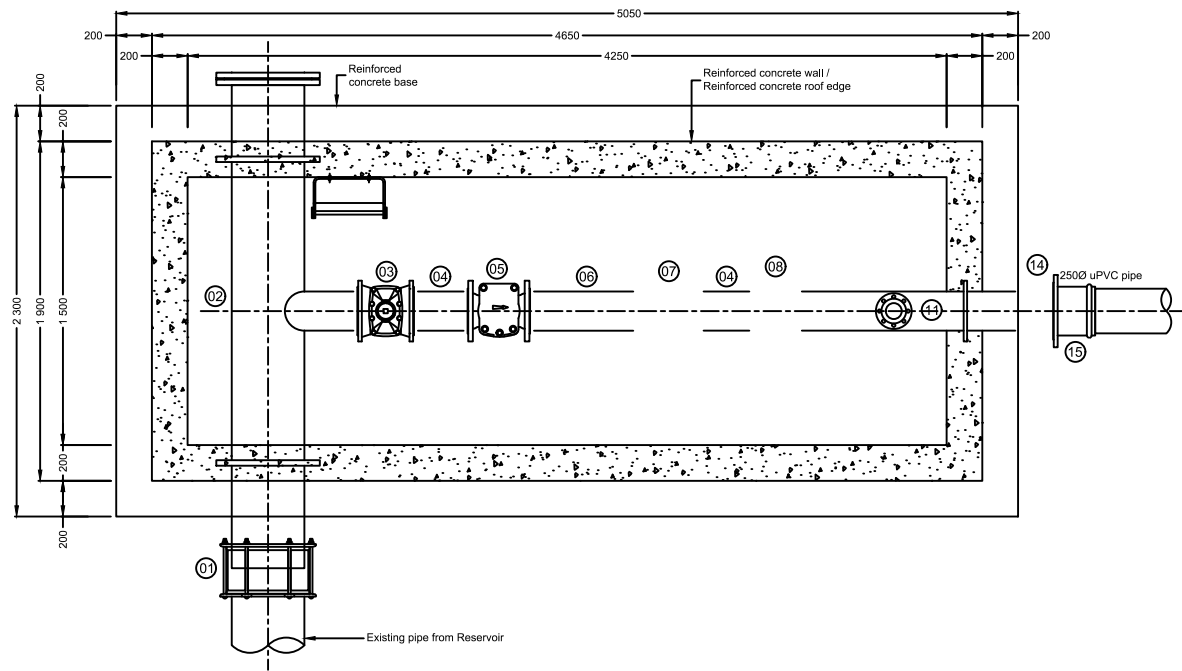
DESIGNED BY:	M.M.S	<div>INFORMATION Full Signatures</div> <div>For Client</div> <div>For Consulting Engineer</div> <div>Consultant's Drawing No.:</div>	<div>APPROVED</div> <div>For Client</div> <div>For Consulting Engineer</div>	NO.	REVISION DETAILS	REV NO.	DATE	REVISED BY	APPROVED BY
DRAWN BY:	TM			0	ISSUED FOR TENDER	0	FEB 2023		
CHECKED BY:	M.M.S								
ISSUED BY:	M.M.S								



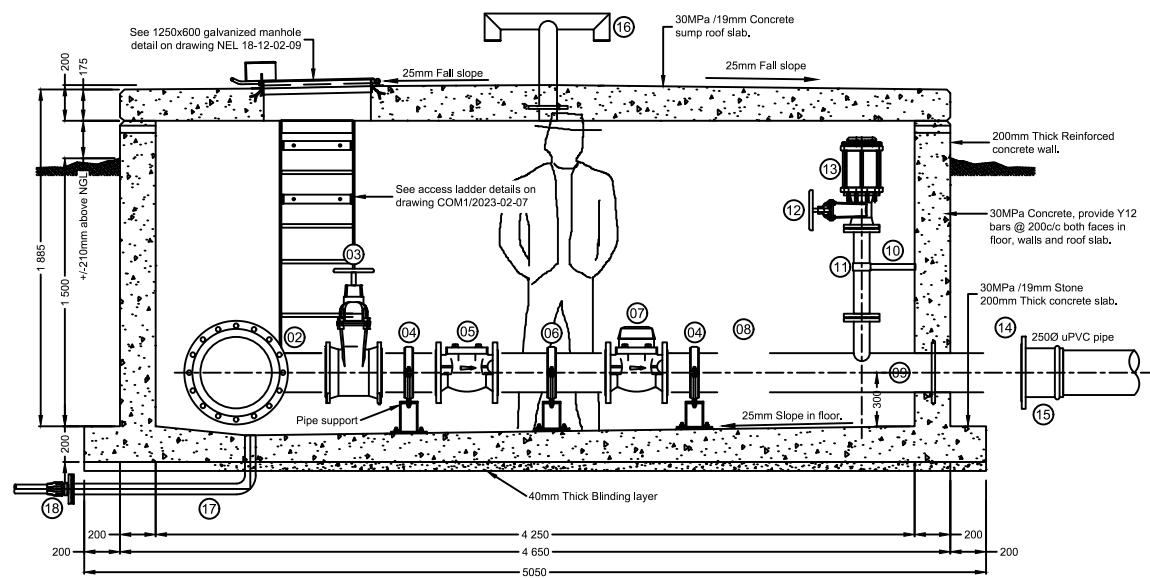
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BID NUMBER: COM17/2023	SHEET 1 OF 1
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION	SCALE: AS SHOWN
WATER DETAILS: HOUSE CONNECTION DETAILS	DRAWING NO: COM17/2023-02-06



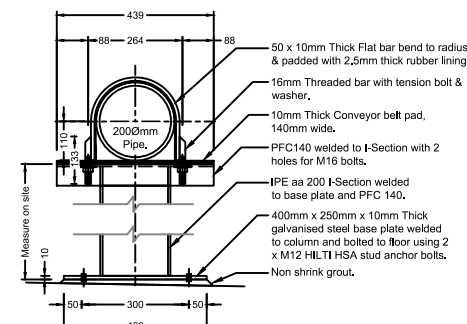
**BULK INLET CHAMBER TO
250mm PIPE LAYOUT**
Scale 1:20



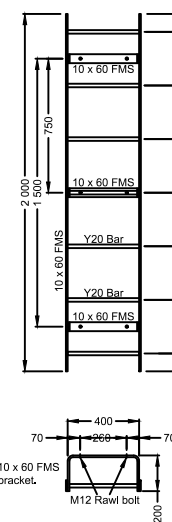
**BULK INLET CHAMBER TO
250mm PIPE SECTION**
Scale 1:20

DETAIL No.: -	SCALE: 1 : 10	DRAWING DESCRIPTION: BULK INLET CHAMBER TO 250mm PIPE LAYOUT AND SECTION	SEE DRAWING No.: -
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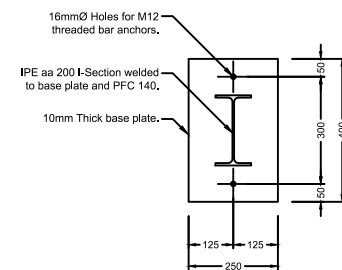
Item No.	No. Off.	Dim(mm) ND	Description	Drawing
01	01	4000	4000 VJ Step Covering or similar approved.	
02	01	4000	400mm Ø Straight pipe with push-fit flanges and 2000 Tee, T12 flanged. End cap at end of 400mm Ø straight pipe.	
03	01	2000	2000 RS Gate Valve to SANIT 66A & hand wheel T12 flanged.	
04	02	2000	2000 Straight pipe, T12 flanged.	
05	01	2000	WP-Dynamic, 2000, L=300 "SENSUS" Strainer T12 flanged or similar approved.	
06	01	2000	2000 Straight pipe, T12 flanged.	
07	01	2000	WP-Dynamic, 2000, L=300, Plain "SENSUS" Water Meter or similar approved T12 flanged.	
08	01	2000	2000 V2 Disconnecting joint & T12 flanges or similar approved.	
09	01	200 800	2000 Straight pipe with push-fit flanges and a 800 branch pipe & T12 flanged.	
10	01	800	800 HILTI Light fixed point pipe ring. 100 - 500mm long Measure On Site.	MFR/L NW50 M20-F M20 Rod MFR-GP 20
11	01	800	800 Straight pipe, T12 flanged.	MFR/L NW50 M20-F M20 Rod
12	01	800	800 RS Gate Valve to SANIT 66A & hand wheel, T12 flanged.	MFR/L NW50 M20-F M20 Rod
13	01	800	800 Air Valve - Type Variant model 1800/1800000 flanged Anti Shock air valve or similar approved.	MFR/L NW50 M20-F M20 Rod
14	01	2500 - 2000	2500 - 2000 Reducer T12 flanged.	MFR/L NW50 M20-F M20 Rod
15	01	2500	2500mm Ø uPVC flange adaptor, T12 flanged.	MFR/L NW50 M20-F M20 Rod
16	01	800	800 Air vent, with push-fit flange.	MFR/L NW50 M20-F M20 Rod
17	01	500	500 Straight pipe with 90° bend & 1 x T12 flange.	MFR/L NW50 M20-F M20 Rod
18	01	500	50 x 2" HDPE T12 flange adaptor.	MFR/L NW50 M20-F M20 Rod



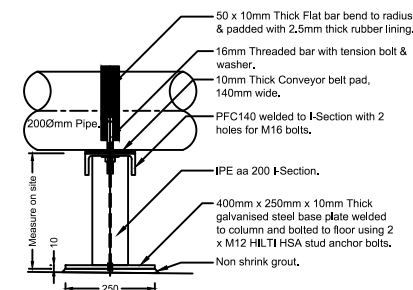
**200Ø PIPE FLOOR MOUNTED(x2)
PIPE BRACKET DETAIL**



DETAIL No.:
- SCALE:
1 : 25 DRAWING DESCRIPTION:
LADDER DETAILS



**FLOOR MOUNTED PIPE
BRACKET BASE PLATE DETAIL**



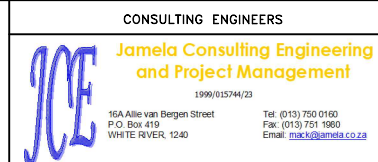
**FLOOR MOUNTED PIPE
BRACKET SIDE ELEVATION**

- * ALL STEEL FITTINGS AND METAL WORK MUST BE CLEANED, USING A MECHANICAL DRIVEN WIRE BRUSH AND BONDED EPOXY COATED TO DFT 300 MICRONS THICK.
- * ALL FLANGES TO BE TABLE 12.
- * ALL BOLTS TO BE GALVANISED BOLTS.

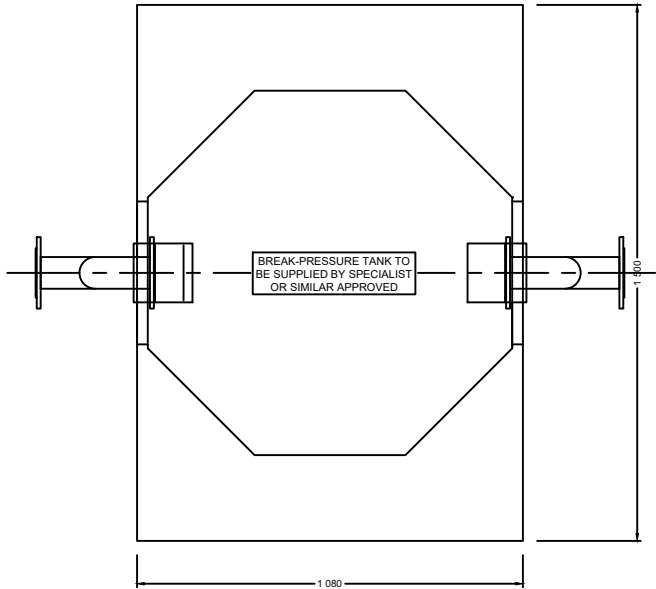
DESIGNED BY:	M.M.S	<div>INFORMATION Full Signatures</div> <div>For Client</div> <div>For Consulting Engineer</div> <div>Consultant's Drawing No.:</div>	<div>APPROVED</div> <div>For Client</div> <div>For Consulting Engineer</div>	NO.	REVISION DETAILS	REV NO.	DATE	REVISED BY	APPROV BY	
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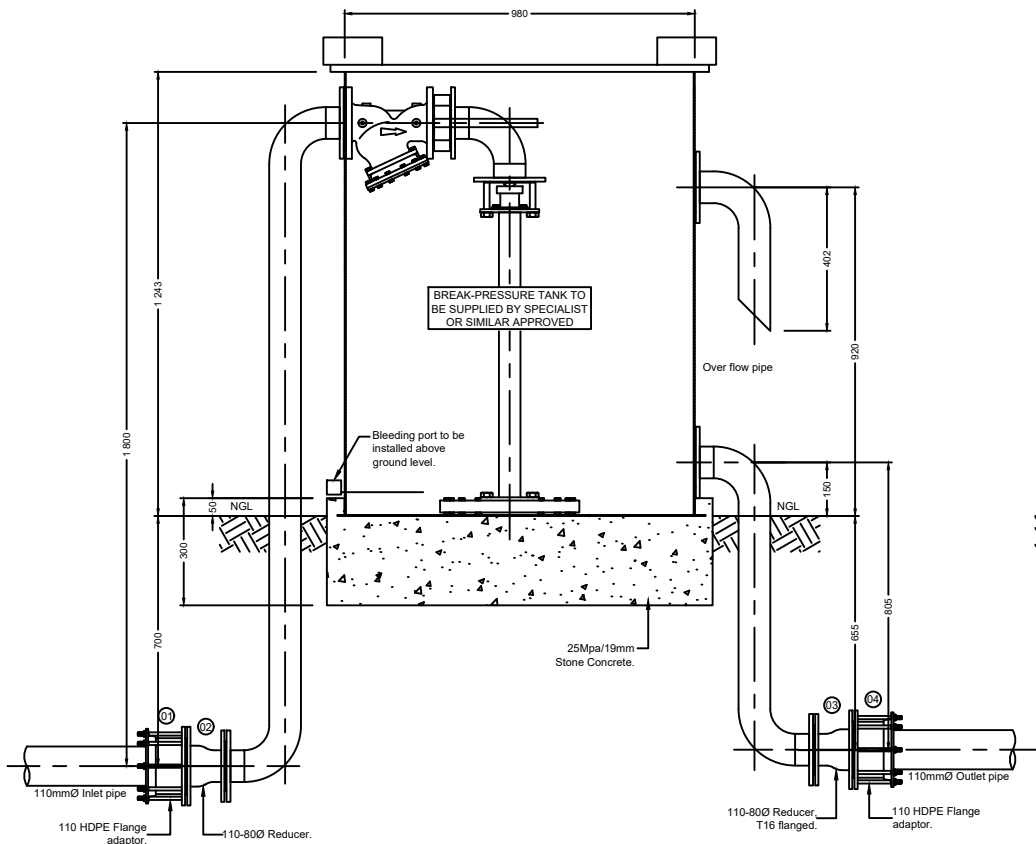
BID NUMBER: COM17/2023	SHEET 1 OF 1
PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION	SCALE: AS SHOWN
BULK INLET AND CHAMBER DETAILS	DRAWING NO: COM17/2023-02-07



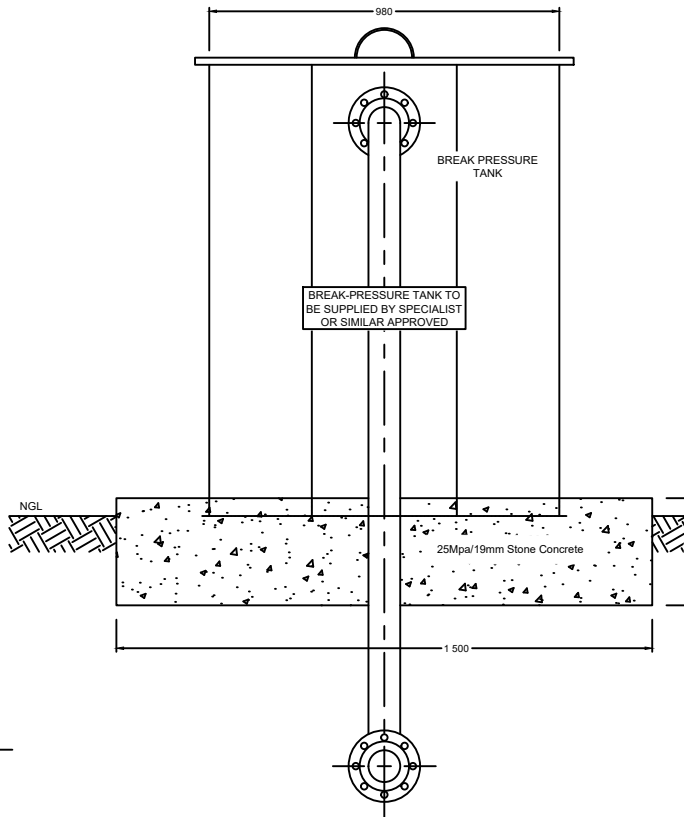
**BREAK PRESSURE TANK
PLAN**
Scale 1:10

- NOTE:**
1. All steel, piping, brackets, bolts, flanges etc. to be manufactured from Gr 304 stainless steel.
 2. Plate thickness 3,00mm minimum on side panels.
 3. Plate thickness 5,00mm minimum on lid and base panels.
 4. All flanges drilled to Table 16.

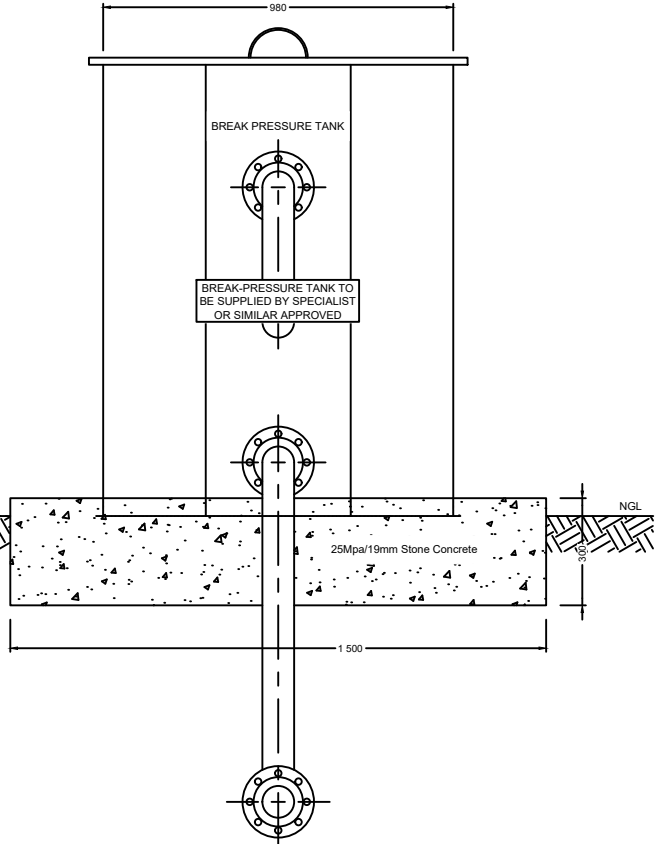
Item No.	No Off.	Dia(mm) ND	Description	Drawing
01	01	100Ø	100Ø HDPE flange adaptor T16 flanged.	
02	01	100Ø - 80Ø	100-80Ø Concentric reducer, T16 flanged.	
03	01	100Ø - 80Ø	100-80Ø Concentric reducer, T10 flanged.	
04	01	100Ø	100Ø HDPE flange adaptor T10 flanged.	



**BREAK PRESSURE TANK
TYPICAL SECTION**
Scale 1:10



**BREAK PRESSURE TANK
TYPICAL ELEVATION**
Scale 1:10



**BREAK PRESSURE TANK
TYPICAL ELEVATION**
Scale 1:10

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DRAWN BY:	TM			0	ISSUED FOR TENDER	0	FEB 2023		
CHECKED BY:	M.M.S								
ISSUED BY:	M.M.S								



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BID NUMBER: COM17/2023

PROVISION OF RETICULATION NETWORK AND RESERVOIR AT
MATSULU ENTRANCE AND YOUTH CENTRE SECTION

WATER DETAILS: BREAK PRESSURE TANK DETAILS

SHEET 1 OF 1

SCALE: AS SHOWN

DRAWING NO:
COM17/2023-02-08

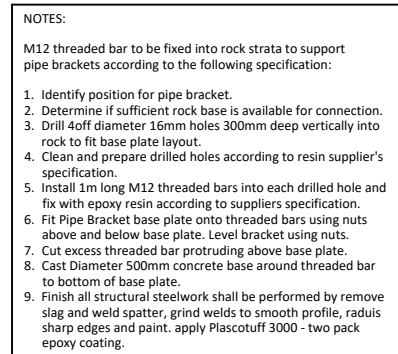
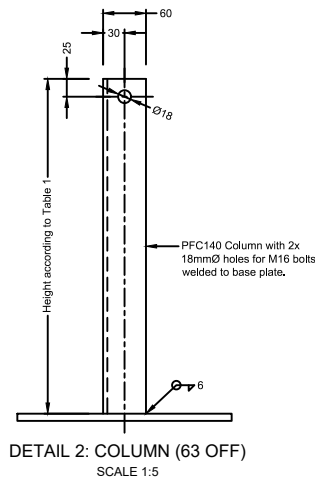
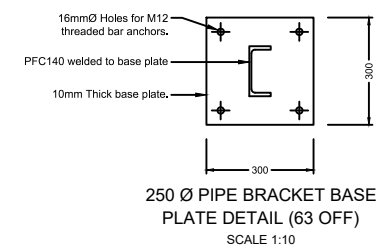


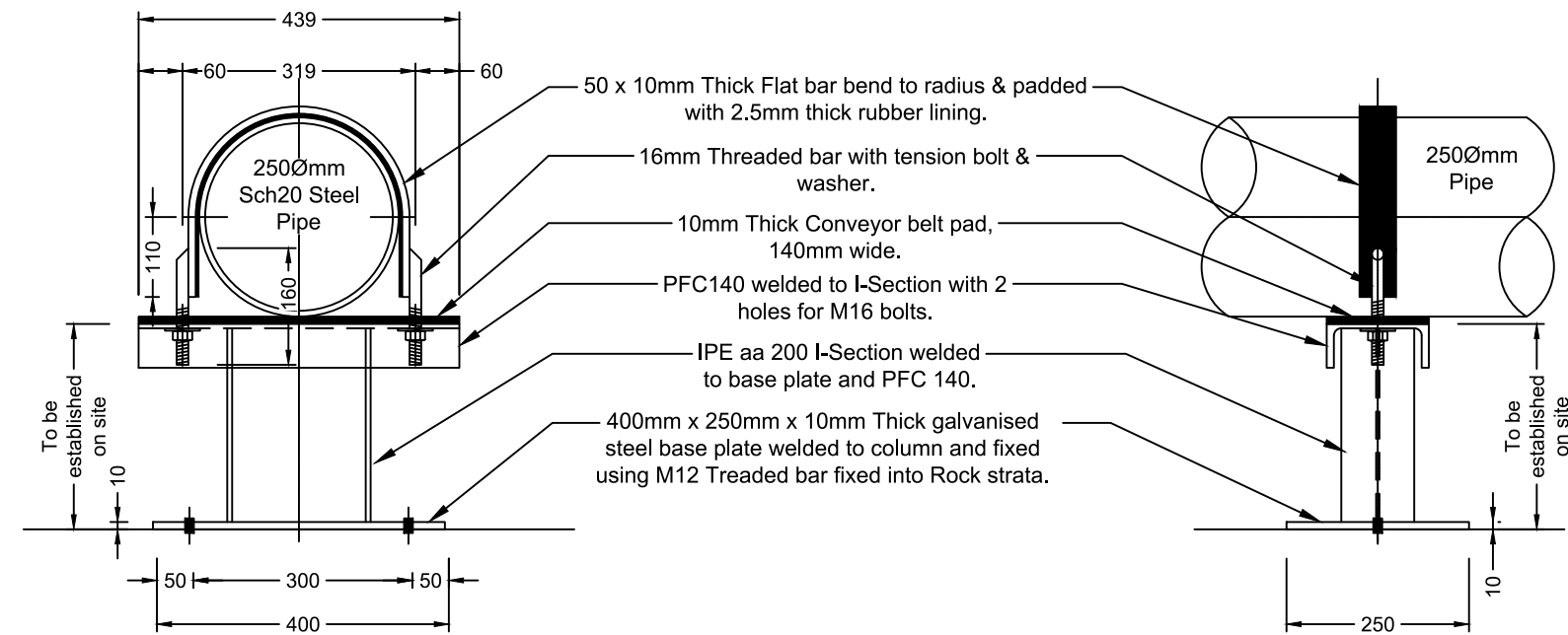


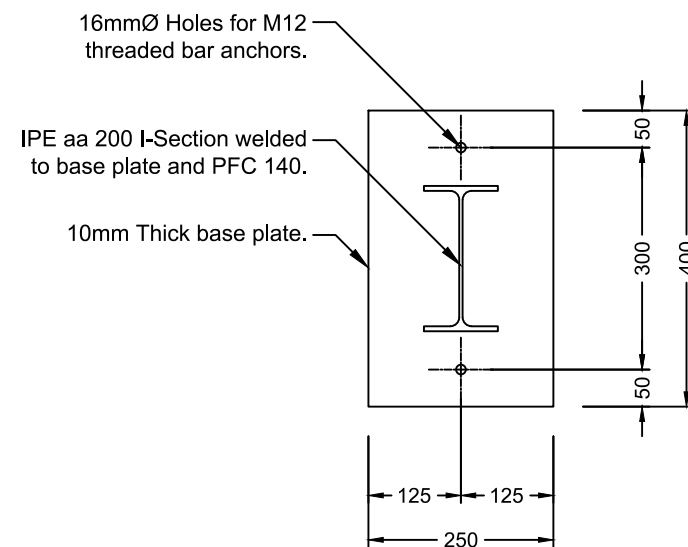
TABLE 1	
NO.	LENGTH
1	100mm
2	200mm
3	400mm
4	1200mm
5	1800mm
6	900mm
7	500mm
8	500mm
9	400mm
10	900mm
11	300mm
12	400mm
13	300mm
14	500mm
15	300mm
16	300mm
17	300mm
18	200mm
19	300mm
20	500mm
21	300mm
22	600mm
23	900mm
24	700mm
25	800mm
26	1100mm
27	800mm
28	500mm
29	500mm
30	300mm
31	600mm
32	900mm
33	1300mm
34	1100mm
35	1100mm
36	900mm
37	600mm
38	500mm
39	300mm
40	200mm
41	100mm
42	500mm
43	900mm
44	1100mm
45	700mm
46	500mm
47	300mm
48	1600mm
49	1200mm
50	800mm
51	500mm
52	400mm
53	400mm
54	500mm
55	300mm
56	500mm
57	300mm
58	300mm
59	300mm
60	500mm
61	300mm
62	300mm
63	300mm

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DRAWN BY:	TM		For Client	0	ISSUED FOR TENDER	0	FEB 2023						SCALE: AS SHOWN
CHECKED BY:	M.M.S		For Consulting Engineer										DRAWING NO:
ISSUED BY:	M.M.S		For Consulting Engineer										COM17/2023-02-09
												WATER DETAILS: PIPE SUPPORT DETAIL 01	



250 Ø PIPE BRACKET DETAIL (38 OFF)
SCALE 1:10

250 Ø PIPE BRACKET SIDE
ELEVATION (38 OFF)
SCALE 1:10



250 Ø PIPE BRACKET BASE
PLATE DETAIL (38 OFF)
SCALE 1:10

NOTES:

M12 threaded bar to be fixed into rock strata to support pipe brackets according to the following specification:

1. Identify position for pipe bracket.
2. Determine if sufficient rock base is available for connection.
3. Drill 4off diameter 16mm holes 300mm deep vertically into rock to fit base plate layout.
4. Clean and prepare drilled holes according to resin supplier's specification.
5. Install 1m long M12 threaded bars into each drilled hole and fix with epoxy resin according to suppliers specification.
6. Fit Pipe Bracket base plate onto threaded bars using nuts above and below base plate. Level bracket using nuts.
7. Cut excess threaded bar protruding above base plate.
8. Cast Diameter 500mm concrete base around threaded bar to bottom of base plate.

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DRAWN BY:	TM		0	ISSUED FOR TENDER	0	FEB 2023			
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ISSUED BY:	M.M.S								

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BID NUMBER: COM17/2023

PROVISION OF RETICULATION NETWORK AND RESERVOIR AT MATSULU ENTRANCE AND YOUTH CENTRE SECTION

WATER DETAILS: PIPE SUPPORT DETAIL 02

SHEET 1 OF 1

SCALE: AS SHOWN

DRAWING NO: COM17/2023-02-10