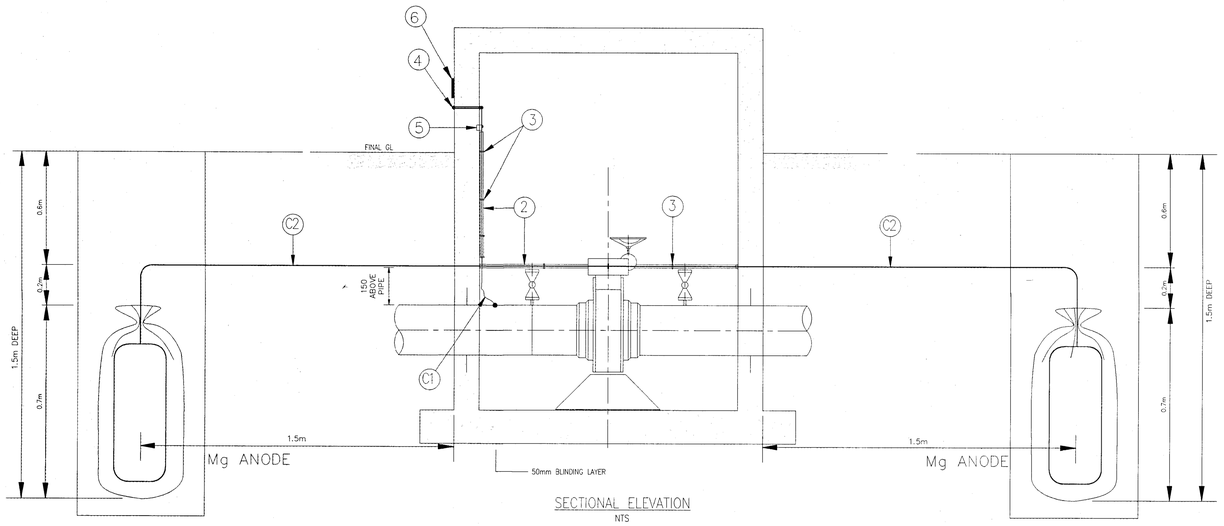
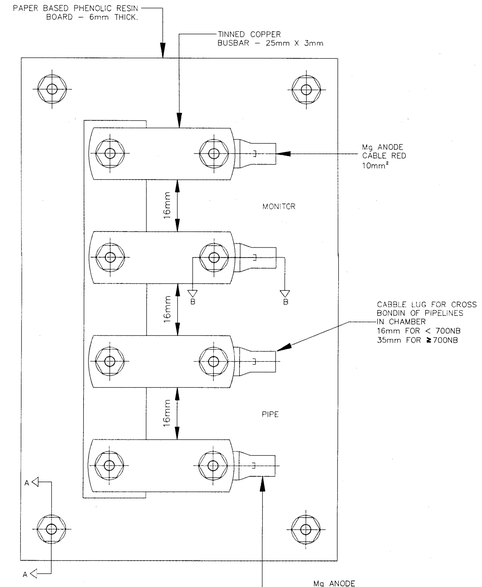
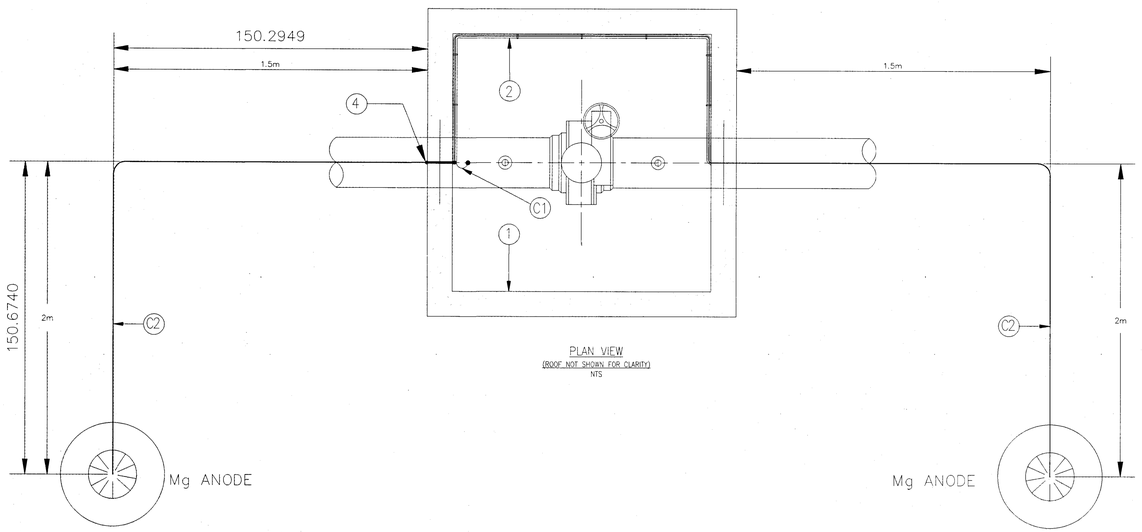


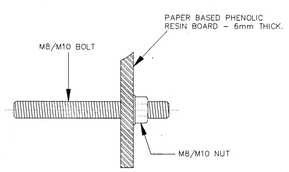
SECTIONAL ELEVATION
NTS



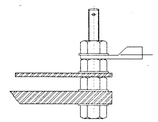
LINK PANEL
NTS



PLAN VIEW
(ROOF NOT SHOWN FOR CLARITY)
NTS



SECTION A–A
NTS



SECTION B–B
NTS

NO.	ACTIVITY	UNIT
A	INSTALLATION SITE PREPARATION	PIT DEPTH
B	ANODES AND CABLE	10kg
C	INSTALLATION OF TEMPORARY SACRIFICIAL ANODES	2 ANODES PER KM: IF PIPE ID=< 1.4m; 4 ANODES PER KM: IF PIPE ID>1.4m
D	VERIFY LOCATION	BUNKER OR CHAMBER LOCATION (MP)
E	PIT EXCAVATION	2m AWAY FROM PIPE AT PIPE DEPTH
F	ANODE INSTALLATION	2 OR 4 ANODES
G	PIPE CABLE CONNECTION AS PER	PIN BRAZING
H	TERMINATION	LINK PANEL
I	COATING MAKE GOOD	EPOXY OR EQUIVALENT
J	IDENTIFICATION	GPS CO-ORDINATE
K	CABLE TRENCH AND BACKFILLING	SOIL

MATERIAL LIST			
ITEM	QTY	DESCRIPTION	MATERIAL REFERENCE
1	1	VALVE CHAMBER	EXISTING
2	1	CONDUIT TO SUIT	GALVANISED
3	7	SADDLE CLAMPS	GALVANISED
4	1	MONITORING POINT	STAINLESS STEEL
5	1	LINK PANEL	PAPER-BASED PHELONIC RESIN BOARD – 6mm THICK
6	1	MARKER PLATE	STAINLESS STEEL – 85x40x3mm THICK

CABLE SCHEDULE & MATERIAL DESCRIPTION										
ITEM	QTY	LENGTH OF EACH	CABLE DESCRIPTION			STRAND	COLOUR		MATERIAL	
			CORE (mm2)	CORE QTY		TYPE	BODY	CORE	CORE	INSULATION
C1	2	5m	16	1		MULTI	BLACK		COPPER	PVC/PVC
C2	1	10m	10	1		MULTI	RED		COPPER	PVC/PVC

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NOTES:

1. CONFIRM LOCATION (DEPTH AND CO-ORDINATES) AND MARK OUT OF TRENCHING;
2. 10Kg HI-POTENTIAL MAGNESIUM ANODES, SURROUNDED BY A GYPSUM BENTONITE CLAY BACKFILL IN A CLOTH BEG WITH 10m LONG BY 10mm² RED PVC/ PVC CABLE;
3. THE CRITERIA FOR PROTECTION SHALL BE BASED ON PIPE TO SOIL POTENTIAL WITHIN A RAGE OF –0.850 VOLTS TO –1.050 VOLTS RELATIVE TO A COPPER-COPPER SULFATE REFERENCE ELECTRODE;
4. ENSURE THAT THE LOCATION OF THE SACRIFICIAL ANODE CORRESPOND WITH LOCATION OF THE VALVE CHAMBER OR MONITORING POINT (VCMP) OR BUNKER MONITORING POINT (BMP) SITE. INSTALLATION TO BE CROSS REFERENCED ON THE RELEVANT PIPE DRAWING OR PROJECT DRAWINGS;
5. EXCAVATION PIT 1.5m DEEP AND AT MOST 2m AWAY FROM PIPELINE AS PER DRAWING REMOVE PLASTIC COVER AND PLACE AT THE BASE OF PIT AND ROUTE CABLE AS PER DRAWING;
6. TO BE REMOVED ONCE PERMANENT CP INSTALLED. EACH ANODE TO BE INSTALLED ON EITHER SIDE OF THE CHAMBER AS PER DRAWING IN A VERTICAL POSITION;
7. THE CONNECTION BETWEEN THE ANODE AND THE PIPELINE MUST BE VIA THE PIPELINE MONITORING CABLE AND BOTH TO TERMINATE IN A LINK PANEL INSIDE VC OR BUNKER MP AS PER DRAWING;
8. TO BE TERMINATED INSIDE CHAMBER OR BUNKER IN A LINK PANEL. OTHERWISE ANODE TO BE CONNECTED DIRECTLY TO PIPE. CABLE TO PIPE CONNECTIONS SHALL BE BY PIN BRAZING;
9. THE MINIMUM AMOUNT OF COATING SHALL BE REMOVED. AFTER CONNECTING THE CABLE ENTIRE EXPOSED AREA SHALL BE ENCAPSULATED IN EPOXY;
10. POSITION TO BE GPS RECORDED;
11. CABLE TRENCH SHALL BE 0.6m DEEP AND THE CABLE SHALL BE ENCAPSULATED IN CONCRETE AS PER DRAWING;
12. THESE CATHODIC PROTECTION DRAWINGS MUST BE READ IN CONJUNCTION WITH THE LATEST REVISION OF THE CATHODIC PROTECTION SPECIFICATION TOGETHER WITH THE LATEST PIPELINE SPECIFICATION;
13. THE CATHODIC PROTECTION DRAWINGS MUST BE READ IN CONJUNCTION WITH THE APPLICABLE PIPELINE PLAN AND SECTIONS;
14. CATHODIC PROTECTION INFRASTRUCTURE MUST BE INSTALLED WITHIN THE SERVITUDE OR AS PER ENGINEER INSTRUCTIONS.

REVISIONS

No	DATE	CHECKED	APPROVED	DESCRIPTION

REFERENCE DRAWINGS

NUMBER	TITLE

RAND WATER
BOX 1127
JOHANNESBURG
2000
TEL: 011-682-0911

SAP No.		CHECKED BY	T. MOFOKENG
CONTRACT No.		D.O.M. c. TUMBARE	
DESIGNED BY	X. BUTHELEZI	APPROVED	Pr Eng
DRAWN BY	M. QOTYANA	REG. No.	20050220/4
DATE	2019-07-1	DATE	23/08/2019

RAND WATER
STANDARD DRAWING
SACRIFIAL ANODES CATHODIC PROTECTION INSTALLATION VALVE CHAMBER

STATION	WKS	DOC. TYPE	S.
P L	C P	D C P	A

SCALE N.T.S.

DRG No. RA_27645

REVISION 1