

SECTION A1 : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1	SANS 1200 A	SECTION 1 : PRELIMINARY AND GENERAL				
1.1	8.3	FIXED-CHARGE ITEMS				
1.1.1	PSA.8.3.1	Contractual Requirements	Sum	1,0		
	8.3.2	Establish Facilities on the Site :				
	PSAB.8.3.2.1	a) Facilities for Engineer (SANS 1200 AB)				
	& PSA.8.3.2					
1.1.2	PSAB.3.2	(i) Engineer's Offices	Sum	1,0		
1.1.3	PSAB.3.2	(ii) Board Room and Facilities	No.	1,0		
1.1.4	PSAB.3.3	(iii) Car Ports (3No.)	Sum	1,0		
1.1.5	PSAB..3.3	(iv) Protective clothing	Sum	1,0		
1.1.6		b) Facilities for Contractor	Sum	1,0		
1.1.7	PSA.8.10	(c) Name board (2 No.)	Sum	1,0		
1.1.8	SANS 1200 8.3.2.2	Offices and storage sheds	Sum	1,0		
1.1.9		Ablution and latrine facilities	Sum	1,0		
1.1.10		Tools and equipment	Sum	1,0		
1.1.11	8.3.3	Other fixed-charge obligations	Sum	1,0		
1.1.12	PSA.8.3.4	Remove Engineer's and Contractor's Site establishment on completion	Sum	1,0		
1.2	PSA.8.4	TIME-RELATED ITEMS				
	PSA.8.4.1	Time related preliminary and general charges				
1.2.1		a) Construction work period	Months	6,0		
1.2.2	PSA.8.4.2.1	Facilities for the Employer's Agent as specified in PSAB	Sum	1,0		
1.2.3	PSA.8.4.2.2	b) Facilities for the Employer's Agent as specified in PSA & PSAB	Sum	1,0		
1.2.4	8.4.3	Contractors Supervision during the course of the Contract	Months	6,0		
1.2.5	8.4.4	Company and head office overhead costs for the duration of the Contract	Months	6,0		
	PSA.8.4.6	Compensation in terms of Subclause 5.12.2.4 and Clause 9 of the Conditions of Contract for delays incurred:				
1.2.6		a) Plant	Day	10,0		
1.2.7		b) Labour	Day	10,0		
1.2.8		c) Supervision	Day	10,0		
Total Carried Forward						

SECTION A1 : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						0,00
1.2.9		d) Other services & facilities not covered above	Day	10,0		
1.3	8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
1.3.1	8.5.1	a) Relocation of existing services and fences where ordered by Engineer	Prov. Sum	1,0	10 000,00	10 000,00
1.3.2	8.5.1	b) Overhead, Charges and Profit on Item above	%	10 000,00		
1.3.3	8.5.3	a) Provisional Sum for crop and land compensation and damages to private property	Prov. Sum	1,0	50 000,00	50 000,00
1.3.4	8.5.3	b) Overhead, Charges and Profit on Item above	%	50 000,00		
1.3.5	PSA.8.11	Quality Management Plan	Sum	1,0		
1.3.6	PSA.8.12	Provision of security personnel	Sum	1,0		
1.3.7	PSA.8.14	Allow for OHS Trainee	Prov Sum	1,0	72 000,00	72 000,00
1.3.8		Contractors markup on item above	%	72 000,00		
1.3.9		Allow for Civil Engineering Trainee x 2	Prov Sum	1,0	144 000,00	144 000,00
1.3.10		Contractors markup on item above	%	144 000,0		
1.3.11		Allow for ECO Trainee	Prov Sum	1,0	72 000,00	72 000,00
1.3.12		Contractors markup on item above	%	72 000,0		
1.3.13		Provision for Additional Site Supervision by Engineers' Personel, namely Civil Technician, OHS Agent and ECO.	Prov Sum	1,0	450 000,00	450 000,00
1.3.14		Provision of Geotechnical Investigation / any other Tests as instructed by the Engineer a	Prov Sum	1,0	50 000,00	50 000,00
1.3.15		Allow for the provision of the Engineer's Bakkie for the duration of the Contract	Prov Sum	1,0	120 000,00	120 000,00
1.3.16		Percetange mark-up on item 1.3.13 to 1.3.15	%	620 000,0		
	8.8.1 & PSDM13, PSDM9	Acceptance testing				
1.3.17		a) Establishment costs (travel)	PS	1,0	5 000,00	5 000,00
1.3.18		b) Testing staff	PS	1,0	5 000,00	5 000,00
1.3.19		c) Testing	PS	1,0	5 000,00	5 000,00
1.3.20		e) Provision of Troxler on site	PS	1,0	5 000,00	5 000,00
1.3.21		f) Overheads & markup	%	20 000,0		
1.3.22	8.5.2 & PSA.5.12	Providing access	Sum	1,0		
1.4	PSA.8.7	DAYWORK				
Total Carried Forward						

SECTION A1 : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
1.5		LABOUR				
1.5.1		Site Agent	hours	8,0		
1.5.2		Foreman	hours	20,0		
1.5.3		Skilled Labour (Plumber, Electrician)	hours	27,0		
1.5.4		Unskilled Labour	hours	27,0		
1.6		PLANT				
1.6.1		For plant use in the execution of Dayworks as agreed with Engineer	Prov. Sum	1,0	25 000,00	25 000,00
1.6.2		Overhead, Charges and Profit on Item above	%	25 000,00		
1.7	8.8	TEMPORARY WORKS				
	PS8.8.2	Dealing with Traffic				
1.7.1		a) Accommodation of traffic	Sum	1,0		
		b) Supply of signs, barriers and lamps				
1.7.2		i) Delineators including mounting bases and ballast. Single sided, reversible left or right. 800mmx200mm:	No.	10,0		
1.7.3		(ii) Traffic cones, minimum height 600 mm	No.	10,0		
1.7.4		(iii) Retroreflective road sign – R & TR series: 600 diam	No.	5,0		
1.7.5		(iv) Illuminated road sign – W & TW series 900 sides	No.	5,0		
1.7.6		c) Signposting	Weeks	26,0		
	PSA.8.8.7	Dealing with water				
1.7.7		a) dealing with surface water	Sum	1,0		
1.7.8		b) dealing with sub-surface water	Sum	1,0		
1.7.9	8.8.3	Locate and Protect existing structures on a construction vicinity during project duration	Sum	1,0		
	PSA.8.8.4, PSDM17, PSDM4	Existing services				
1.7.10		a) Protection of existing services	Sum	1,0		
1.7.11	PSA.8.8.4	c) Excavate by hand in soft material to expose existing services	m3	40,0		
	8.8.5	Land Survey Act				
1.7.12		a) Search for and record trigonometrical survey beacons, bench marks and plot boundary pegs, and expose on completion of Works	Sum	1,0		
Total Carried Forward						

SECTION A1 : PRELIMINARY AND GENERAL

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SECTION A2: COMPLIANCE REQUIREMENTS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
2	PHS APP D	PART A2 : COMPLIANCE REQUIREMENTS				
2.1	PHS APP D	SECTION 2A: OCCUPATIONAL HEALTH & SAFETY				
2.1.1		Contractor's initial obligation in respect of the Occupational Health and Safety Act and Construction Regulations	Sum	1,0		
2.1.2	PHS	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Sum	1,0		
		Penalty for late submission of the Health and Safety File				
2.1.3		(a) Initial once off penalty	Sum	0,0	-5 000,00	
2.1.4		(b) Time related penalty	Week	0,0	- 500,00	
		Costs of medical certificate and Medical Surveillance including Screenings for Employees with fever Symptoms				
2.1.5		a) Initial (baseline) medical examinations	No	20,0		
2.1.6		b) Exit examinations	No	20,0		
2.1.7		Allowance for Health & Safety Officer	Sum	1,0		
2.2	PEM	SECTION 2B: ENVIRONMENTAL OBLIGATIONS				
2.3		COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT PLAN (EMP)				
2.3.1	PEM.4.2	Contractor's obligation in respect of compliance with the Environmental Management Plan	Sum	1,0		
2.3.2	PEM.4.3	Contractor's time related obligations in respect of compliance with the Environmental Management Plan	Sum	1,0		
2.3.3	PEM.4.4	Contractor's Environmental Liason Officer (ELO) for duration of the contract	Sum	1,0		
2.4		TRANSGRESSION FINES				
	PEM.4.5	Fine for transgression of the Environmental Management plan (EMP)				
2.4.1		(a) Any persons, vehicles, plant or anything related to the Contractor's operations within the designated boundaries of a No-Go area	Sum	0,0	-5 000,00	
2.4.2		(b) Any vehicle being driven, and items of plant or materials being parked or stored outside the demarcated boundaries of the site	Sum	0,0	-3 000,00	
2.4.3		(c) Persons walking outside the demarcated boundaries of the site	Sum	0,0	-1 000,00	
2.4.4		(e) Persistent and un-repaired oil leaks from machinery	Sum	0,0	-1 000,00	
2.4.5		(f) The use of inappropriate methods of refuelling	Sum	0,0	-1 000,00	
Total Carried Forward						

SECTION A2: COMPLIANCE REQUIREMENTS

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SECTION B: PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3	SANS 1200 DB	SECTION B: PIPELINES				
3.1	SANS 1200 C	SITE CLEARANCE				
3.1.1	PSC.8.2.1	Clear and grub Site	m2	34 500,0		
	8.2.2	Remove and grub large trees and tree stumps of girth Over and up to				
3.1.2		a) Over 1 m and up to and including 2 m	No.	2,0		
3.1.3	8.2.4	Reclear surfaces (provisional) (where ordered by Engineer)	ha	2,0		
	8.2.5	Take down and re-erect existing fences				
3.1.4		a) Wire fences up to 1,8m high	m	500,0		
3.1.5		b) PC concrete fences up to 1,8m high	m	100,0		
3.1.6	PSC.8.2.10	Remove topsoil 1m wide to a nominal depth of 150mm and stockpile	m³	1 000,0		
3.1.7	PSC.8.2.12	Temporary fencing closures (Veldspan) 1.5m high	m	200,0		
	PSC.8.2.16	Demarcation of servitude				
3.1.8		a) By wooden stakes	m	200,0		
	PSC.8.2.15	Remove & reinstate existing				
3.1.9		a) Kerbs of edge restraints	m	10,0		
	PA.12.02	New gates				
3.1.10		a) Single leaf	No.	2,0		
3.2		EXCAVATION				
	PSDB.8.3.2(a)	Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: Up to 110 mm diam. for total trench depth:				
		a) Exceeding 0,0 m but not exceeding 1,0 m				
3.2.1		i) Rising main borehole to reservoir	m	1 000,0		
3.2.2		ii) ND90 gravity main from reservoir to first junction	m	1 500,0		
3.2.3		iii) Pipelines up to and including ND75 HDPE	m	8 000,0		
		b) Exceeding 1,0 m but not exceeding 2,0 m				
3.2.4		i) Rising main borehole to reservoir	m	200,0		
3.2.5		ii) ND90 gravity main from reservoir to first junction	m	300,0		
3.2.6		iii) Pipelines up to and including ND75 HDPE	m	400,0		
	PSDB.8.3.2(b)	b) Extra-over items 3.2.1 to 3.2.6 incl. for (prov):				
Total Carried Forward						

SECTION B: PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
3.2.7		2) Hard rock excavation	m³	500,0		
3.2.8		3) Extra over 8.3.2a.and PSDB 8.3.2b for disposing of spoil material on a site provided by the Contractor	m³	100,0		
3.2.9		4) Backfill stabilised with 5% cement, where directed by the Employer's Agent	m³	10,0		
3.2.10		5) Soilcrete backfill where directed by the Employer's Agent	m³	10,0		
		EXCAVATION. ANCILLARIES Make up deficiency in backfill material (Provisional)				
3.2.11	8.3.3.1(a)	from other necessary excavations on site	m³	1 500,0		
3.2.12	8.3.3.1(b)	by importation from designated borrow pits	m³	500,0		
3.2.13	8.3.3.1(c)	by importation from commercial or off-site sources selected by the Contractor	m³	500,0		
3.2.14	PSDB. 8.3.3.3	Compaction in road reserves	m³	20,0		
3.3		SERVICES				
	PSA.8.8.4	Prove existing services by hand excavation on direction by Engineer (Provisional), where depth is over:				
		a) For depths:				
3.3.1		i) 0.0m and not exceeding 1,0m	m³	45,0		
3.3.2		ii) 1,0m and not exceeding 1,5m	m³	25,0		
		Existing services that intersect or adjoin a pipe trench				
3.3.3	8.3.5 (a)	a) Services that intersect a trench	No.	15,0		
3.3.4	8.3.5(b)	b) Services that adjoin a trench	m	70,0		
3.4		FINISHINGS				
	8.3.6	Reinstate road surfaces				
3.4.1		a) Complete with all courses except surfacing	m²	15,0		
3.4.2		b) Gravel surfaced	m²	50,0		
3.4.3		c) Asphalt 50 mm thick on roadway	m²	20,0		
3.4.4		e) Gravel shoulders	m²	10,0		
	PSDB.8.3.11	Slope stabilisation				
3.4.5		a) Cross Embankments	m³	30,0		
3.4.6		c) Anchor blocks	m³	10,0		
3.4.7		d) Erosion control berms	m³	30,0		
Total Carried Forward						

SECTION B: PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
3.4.8		e) Sack Breakers	m ³	30,0		
3.5	SANS 1200 LB	BEDDING				
	8.2.1	From trench excavations				
		Selected granular material				
		a) 200mm thick bedding cradle below pipe.				
3.5.1		i) Rising main borehole to reservoir	m ³	50,0		
3.5.2		ii) ND90 gravity main	m ³	50,0		
3.5.3		iii) Pipelines up to and including ND75 HDPE	m ³	100,0		
		b) For bedding around pipe up to 100mm above pipe crown.				
3.5.4		i) Rising main borehole to reservoir	m ³	20,0		
3.5.5		ii) ND90 gravity main from reservoir to first junction	m ³	20,0		
3.5.6		iii) Pipelines up to and including ND75 HDPE	m ³	50,0		
3.6	8.2.2	IMPORTED BEDDING				
	8.2.2.1	From other necessary excavations (including				
		a) 200mm thick bedding cradle below pipe.				
3.6.1		i) Rising main borehole to reservoir	m ³	10,0		
3.6.2		ii) ND90 gravity main	m ³	10,0		
3.6.3		iii) Pipelines up to and including ND75 HDPE	m ³	10,0		
		b) For bedding around pipe up to 100mm above pipe crown.				
3.6.4		i) Rising main borehole to reservoir	m ³	10,0		
3.6.5		ii) ND90 gravity main from reservoir to first junction	m ³	10,0		
3.6.6		iii) Pipelines up to and including ND75 HDPE	m ³	10,0		
	PSLB 8.2.2.3	From commercial sources (including hauling)				
		Selected granular material				
		a) 200mm thick bedding cradle below pipe.				
3.6.7		i) Rising main borehole to reservoir	m ³	50,0		
3.6.8		ii) ND90 gravity main	m ³	100,0		
3.6.9		iii) Pipelines up to and including ND75 HDPE	m ³	500,0		
		b) For bedding around pipe up to 100mm above pipe crown.				
Total Carried Forward						

SECTION B: PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
3.6.10		i) Rising main borehole to reservoir	m ³	50,0		
3.6.11		ii) ND90 gravity main from reservoir to first junction	m ³	100,0		
3.6.12		iii) Pipelines up to and including ND75 HDPE	m ³	400,0		
	PLSB 8.2.6	Extra over 8.2.1 and 8.2.2.1 to screen material for:				
3.6.13		a) Selected granular material	m ³	100,0		
3.6.14		b) Selected fill material	m ³	100,0		
3.6.15	PLSB 8.2.7	Provision of stone/geofabric to deal with water	m ³	50,0		
	PSLB.8.2.6	Supply only of geofabric				
3.6.16		a) Grade A4 geofabric	m ²	420,0		
3.7		ENCASING PIPES				
	8.2.4	a) Grade 20/19 to:				
3.7.1		i) Rising main borehole to reservoir	m ³	2,0		
3.7.2		ii) ND90 gravity main from reservoir to first junction	m ³	3,0		
3.7.3		iii) Pipelines up to and including ND75 HDPE	m ³	5,0		
	PSL.8.2.1	Supply, bed, lay, disinfect, join, backfill and test potable water pipelines. All works inclusive in the rate, except where specific items are provided. All activities in accordance with project specifications.:				
		HDPE Pipes to SABS 533				
3.7.4		50 mm dia. PN 10	m	3 400,0		
3.7.5		50 mm dia. PN 12	m	300,0		
3.7.6		63 mm dia. PN 10	m	4 000,0		
3.7.7		63mm dia. PN 12	m	300,0		
3.7.8		75mm dia. PN 10	m	400,0		
	PSL.8.2.1	mPVC Pipes class 9				
3.7.9		90 mm dia. mPVC pipes	m	1 800,0		
3.8	PSL.8.2.1	RISING MAIN PIPELINE				
3.8.1		63 mm dia. HDPE PN 16 to SABS 533	m	1 200,0		
3.8.2	PSL 8.2.16	Pipeline Markers (as per drawing)	No.	35,0		
3.8.3		Supply and install standpipe complete including HDPE saddle, 32mm HDPE pipe(20m), tap and galvanised riser pipe, concrete work including shuttering, elbows, nipples, etc, as per standard drawing. Work to be executed by a nominated sub contractor	No	30,0		
Total Carried Forward						

SECTION B: PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
3.8.4		Install Aqua Flow limiters where instructed by the Engineer.	No	5,0		
3.9	SANS 1200 L	PIPE FITTINGS AND SPECIALS				
	PSL.8.2.2	Supplying, Laying and Bedding of Specials complete with Couplings as follows:-				
		Supply, lay, joint and bed including cutting pipes where required for the following:				
		HDPE Pipe Bends (Class 16)				
3.9.1		50mm dia. x 45° bends.	No.	10,0		
3.9.2		50mm dia. x 90° bends.	No.	10,0		
3.9.3		63mm dia. x 45° bends.	No.	10,0		
3.9.4		63mm dia. x 90° bends.	No.	10,0		
3.9.5		75mm dia. x 45° bends.	No	5,0		
3.9.6		75mm dia. x 90° bends.	No	5,0		
		Reducers (Class 16)				
3.9.7		63mm HPDe x 50mm HDPe	No.	5,0		
3.9.8		75mm HPDe x 50mm HDPs	No	2,0		
3.9.9		90mm mPVC x 63mm	No	2,0		
3.9.10		90mm mPVC x 75mm	No	2,0		
		Tee (Class 16)				
3.9.11		63mm HPDe x 50mm HDPE	No	5,0		
3.9.12		63mm HPDe x 63mm HDPE	No	3,0		
3.9.13		75mm HPDe x 75mm HDPE	No	3,0		
3.9.14		90mm mPVC x 90mm mPVC	No	2,0		
		HDPE End Caps(PN16)				
3.9.15		50mm HPDe	No	20,0		
3.9.16		63mm HPDe	No	5,0		
3.10	PSL.8.2.3	VALVES				
		Extra-over 8.2.1 for the supplying, fixing and Bedding of Valves as indicated below:				
	PSL 3.10.1	Supply and install the following flanged resilient seal gate valves complete with valve chamber with non-rising spindle, Clockwise closing, including all gaskets, bolts, nuts and washers as per detailed drawings				
3.10.1		a) 50mm on HDPE pipe	No.	11,0		
Total Carried Forward						

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ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
3.10.2		b) 63mm on HDPE pipe	No.	5,0		
3.10.3		c) 75mm on HDPE pipe	No	3,0		
3.10.4		d) 90mm on uPVC pipe	No	2,0		
	PSL 3.10.2	Air Valves Complete (SANS 815 PN16)				
3.10.5	8.2.5	Supply and install Air Valve assemblies Complete with valve chamber as per detailed drawings. Rate is inclusive of valve chamber and all fittings. 50mm dia Variant 050LS16 air valve or similar approved air valve on:	No	15,0		
3.10.6		a) 50mm dia pipe	No	9,0		
3.10.7		b) 63mm dia pipe	No	5,0		
3.10.8		c) 75mm dia pipe	No	3,0		
3.10.9		d) 90mm dia pipe	No	1,0		
		Supply and install the following flanged wedge gate scour valves complete with valve chamber with non-rising spindle, Clockwise closing, including all gaskets, bolts, nuts and washers as per detailed drawing				
3.10.10		a) 50mm on HDPE pipe	No.	2,0		
3.10.11		b) 63mm on HDPE pipe	No.	1,0		
3.10.12		c) 75mm on HDPE pipe	No	2,0		
3.10.13		d) 90mm dia pipe	No	1,0		
	PSL 3.10.4	Non-return valves complete (check valves)				
		Supply, handle and install full swing non-return valve to pumped line AKV or similar incl. all pipework and fittings -ND50 PN16 (model 41/60).				
3.10.14		a) 50mm diameter	No	1,0		
3.10.15		b) 90mm diameter	No	1,0		
		Bulk Water Meter Complete				
3.10.16	PSL.3.10.3	Supply and install Bulk Water Meter assemblies Complete with valve chamber as per detailed drawings. 50-250 Kent Helix 4000	No.	3,0		
3.11		BREAK PRESSURE TANKS (BPTS)				
3.11.1	PSL.3.10.6	Supply, handle and install BPT's as supplied by LW Tank Sysrems or similar including all pipework and fittings - 80mm (model 03LW16).	No.	7,0		
3.12		SUNDRIES				
3.12.1	8.2.7	Connect to suction and delivery mains at pump station	No.	1,0		
	PSL.8.2.11	Anchor blocks, concrete mix, 20Mpa				
Total Carried Forward						

SECTION B: PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
3.12.2		Construct mass 20Mpa concrete anchor / thrust block complete as directed by RE on site. Rate to include for installation and removal of formwork.	m³	5,0		
	PSL.8.2.16	Marker blocks				
3.12.3		a) Valve markers	No.	9,0		
3.12.4		c) Road crossing markers	No.	15,0		
3.13	PC	REHABILITATION				
	PEM					
3.13.1	PEM.4.8	Ripping of compacted and disturbed areas to 150mm depth on designated areas	m²	500,0		
3.13.2	PEM.4.9	Hand trimming	m²	500,0		
3.13.3	PEM.4.10//PC.8.1	Topsoiling	m²	500,0		
	PC8/ PC3	Fertilizer				
3.13.4		a) Lime	t	0,1		
3.13.5		b) Superphosphate	t	0,1		
	PC3/PC.8.3	Grassing or other Vegetation Cover				
	PC8.4	a) Hydromulching				
3.13.6		i) Providing an approved seed mixture for hydroseeding	kg	6,0		
3.13.7		ii) Providing an approved mulch	kg	6,0		
3.13.8	PEM	Alien vegetation clearing programme	PS	1,0		
3.13.9		a) Shoulder Weed Spray: 300mm wide	m	3 500,0		
Total Carried Forward To Summary						

SECTION C: PIPE JACKING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
4	SANS 1200LG	SECTION C: PIPE JACKING				
4.1		PIPE JACKING ACROSS MAIN ROAD				
	8.2.1	Jacking establishment				
4.1.1		a) Fixed charges	Sum	1,0		
4.1.2		b) Time related charges (state duration)	Sum	1,0		
		Excavation and backfilling				
	8.2.4	Excavate for pipes at the jacking face (including removal and disposal of surplus excavated material within a 0,5 km radius of the working area) in material that is:				
4.1.3		a) Soft cohesive soil	m ³	30,0		
4.1.4		c) Hard pickable soil	m ³	10,0		
4.1.5		e) Very hard material occurring in bulk requiring extraordinary techniques for breaking, or boulders larger than 0.10 m ³ , or both	m ³	5,0		
4.1.6		f) A mixture of two or more of (a) - (e) above	m ³	5,0		
	8.2.2	Supply of pipes to be jacked				
4.1.7		a) 375 mm dia. Concrete jacking (In-the -wall-joint) 100D pipe	m	26,0		
	8.2.3	Jacking of pipes into their final positions				
4.1.8		a) 375 mm dia. Concrete jacking (In-the -wall-joint) 100D pipe	m	26,0		
	8.2.9	Grouting: Injection of low strength cement/sand grout,				
4.1.9		a) Provide equipment and remove on completion	Sum	1,0		
4.1.10		b) Operate equipment (Tenderer to fill in No. of days)	Days	0,0	9 500,00	
4.1.11		c) Materials	m ³	3,0		
4.1.12		Standing time for pipe jacking gang complete with equipment where approved (Tenderer to fill in No. of hours)	hours	0,0	7 000,00	
Total Carried Forward To Summary						

SECTION D: BOREHOLE PUMPSTATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5	SANS 1200G	SECTION D: BOREHOLE PUMPSTATION				
		Pump Station Building				
5.1	8.2.1	a) Supply all material and labour to construct borehole pump station building complete in accordance with standard drawing and as directed by the Engineer including a 914 x 2134 type BV transformer door. The tendered rate shall be inclusive of electrical wiring and fittings, all earthworks and relevant tests required. All materials and workmanship to conform to specifications.	Prov Sum	1,0	450 000,00	450 000,00
5.2		b) Contractor's mark up on item above	%	450 000,00		
		Guardroom				
5.3		a) Supply all material and labour to Construct of new security guard-house with Solar for Lighting at the borehole pumpstation entrance. The tendered rate shall be inclusive of all earthworks, Aluminium Gutters, Electrical Wiring, fittings and all relevant tests required, in accordance with standard drawing and as directed by the Engineer. All materials and workmanship to conform to specifications. Provision of a Water Tank (10 000 L) complete with Valves, Stand with Anchor Wires and a Double Pit VIP Toilet	Prov. Sum	1,0	200 000,00	200 000,00
5.4	8.2.4	b) Contractor's mark up on item above	%	150 000,00		
	PA.12.01	Supply and erection of new fencing material				
		d) Security Fencing - Clear view as per PA08				
5.5		Supply and install 2,4m high clear view fencing with 10mm shark tooth spikes fasten using anti vandal bolts at 150mm centres. Rate should include fence line clearance, excavations etc.	Prov Sum	1,0	350 000,00	350 000,00
5.6		b) Contractor's mark up on item above	%	350 000,00		
	PA.12.02	New gates				
5.7		b) Supply and install double leaf vehicle gates. Height 2.4m Clearview construction to match fence	No	2,0		
		Borehole and Booster pump installations				
5.8		a) Construct Pumping Station at Borehole BH-01(New). Supply and install electrical driven borehole pumpset with Grundfos pumps or similar approved. The tendered rate should include the installation of all Electrical and Mechanical works (electrical cabling, control panel, all pipework, water meters, valves, pump controls, etc). The contractor will also be required to compile an operations manual and train operators as identified by the Client. The electrical materials are measured else where under electrification of borehole pump station. Duty: H = 125m and Q = 1.1ℓ/s	Prov Sum	1,0	450 000,00	450 000,00
5.9		Contractor's mark up on item above	%	450 000,0		
	8.2.1	Power Connection from Eskom				
5.10		Power supply from Eskom Kiosk for both Borehole Pump Station.	Prov Sum	1,0	250 000,00	250 000,00
Total Carried Forward						

SECTION D: BOREHOLE PUMPSTATION

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SECTION E: GABIONS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
6	SABS 1200DK	SECTION E: GABIONS				
6.1		PREPARATION				
	8.2.1	Surface preparation for bedding of gabions				
6.1.1		a) Cavities filled with approved excavated material or rock	m ²	30,0		
6.2		BASKETS				
	8.2.2	Construct gabions using PVC-coated galvanized wire mesh				
6.2.1		a) Top mattresses of depth 0,17 m with diaphragms providing 2 m x 1 m cells	m ³	5,2		
6.2.2		b) Foundation mattresses of depth 0,23 m with diaphragms providing 2 m x 1 m cells	m ³	10,0		
6.2.3		c) Gabions of section 0,5 m x 0,5 m for walls	m ³	12,0		
6.3		GEOTEXTILE				
	8.2.4	Geotextile non-woven polyester grade A3 placed where ground water seepage occurs				
6.3.1		a) below foundation mattresses	m ²	30,0		
6.3.2		b) backing to gabion baskets	m ²	20,0		
6.4		PITCHING				
6.4.1	8.2.5	Plain pitching of thickness at least 100 mm as directed on site (Provisional)	m ²	14,0		
6.4.2	8.2.5	Grouted pitching of thickness at least 100 mm as directed on site (Provisional)	m ³	3,0		
Total Carried Forward To Summary						