

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 1

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
	SABS1200A		SECTION 1: PRELIMINARY AND GENERAL				
1.1	8.3		FIXED-CHARGE ITEMS				
1.1.1	8.3.1		Contractor's Contractual Requirements.	Lump Sum	1		
	8.3.2		Establish Facilities on the Site:				
1.2	8.3.2.1		Facilities for Employer's Agent:				
1.2.1	PSA 4.1		Establish furnished, air-conditioned offices for the Employer's Agent: deliver, install and commission the specified office accommodation, including furniture, lighting, electrical fittings, service connections and access. Size, fittings and layout shall comply with PSA 4.1	Lump Sum	1		
1.2.2	8.3.2.1 b) PSAB 3.1		Establish telephone and internet facilities for the Employer's Agent: supply, install, connect and test the specified communication equipment, network connections and Wi-Fi facilities, including initial activation. Provide the minimum internet speed of 6MBstated in the project specification	Lump Sum	1		
1.2.3	PSA 4.1		Provide and commission an A3 colour printer and photocopying facility for the Employer's Agent, complete with the specified accessories, connections, drivers and initial consumables in accordance with PSA 4.1	Lump Sum	1		
1.2.4	8.4.2.1 c) PSA 4. 3.2		Supply and install two project nameboards at approved positions, including approved artwork, manufacture, supporting posts, foundations, fixings and installation complete to the project specification. Obtain approval of wording and layout before manufacture	Lump Sum	1		
1.2.5	PSA 4.1		Establish one male and one female ablution facility for the Employer's Agent, including sanitary fittings, privacy arrangements, handwashing facilities, water supply and approved wastewater or sewage connections. Deliver, connect and commission complete to PSA 4.1 specification	Lump Sum	1		
1.2.6			Provide Shaded parking to accomodate 6 cars	Lump Sum	1		
1.2.7	PSA4.1		Establish an air-conditioned boardroom accommodating 30 persons, including the specified tables, chairs, lighting, electrical connections and meeting facilities. Deliver, installed and commission complete in accordance with PSA 4.1.	Lump Sum	1		
1.2.8			(a).Conduct HIV/AIDS awareness programme workshops on site for not less than 90% of the workers inclusive of all direct and indirect cost, (b)Provide and maintain condom dispenser, (c) Provide and maintain HIV/AIDS awareness posters	Prov Sum	1	R10 000,00	R10 000,00
1.2.9			Management, Overheads, Charges & Profit on Item 1.2.8	%		R10 000,00	
Total Carried Forward							

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ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
1.3	8.3.2.2		Facilities for Contractor:				
1.3.1	8.3.2.2.a)		Offices and storage sheds.	Lump Sum	1		
1.3.2	8.3.2.2.b)		Workshops.	Lump Sum	1		
1.3.3	8.3.2.2.c)		Laboratories.	Lump Sum	1		
1.3.4	PSA 4.1		Establish Contractor's ablution and latrine facilities, including sanitary fittings, washing facilities, privacy, service connections and approved sewage disposal arrangements	Lump Sum	1		
1.3.5	8.3.2.2.f)		Tools and equipment.	Lump Sum	1		
1.3.6	8.3.2.2.g)		Establish temporary water supply, electric power and communication services for the Contractor's facilities, including initial applications, connections, meters, distribution and commissioning as specified	Lump Sum	1		
1.3.7	8.3.2.2.h)		Control of ground water, sub-surface, stormwater or spoiled water during construction.	Lump Sum	1		
1.3.8	8.3.2.2.i)		Establish temporary access required for construction in accordance with subclause 5.8 and approved site arrangements. Include initial preparation of access routes, temporary crossings and protective measures within the specified scope	Lump Sum	1		
1.3.9	8.3.2.2.j)		Mobilise and establish construction plant required for the Works, including initial transport, delivery, assembly, installation and commissioning	Lump Sum	1		
1.3.10	8.3.3		Other fixed-charge obligations.	Lump Sum	1		
1.3.11	PSA 5		Issuing of notices to conLump Sumers, also refer to C3.4.1	Lump Sum	1		
1.3.12			EMP Obligations	Lump Sum	1		
1.3.13	8.3.4		Remove Contractor's Site: Establishment.Dismantle and remove temporary offices, storage sheds, ablution facilities, temporary services, plant, equipment and other site establishment facilities; remove associated waste and debris; make good disturbed areas and restore the site to the Engineer's satisfaction.	Lump Sum	1		
1.3.13			Provide suitable and legally compliant transport for employees to, from, and within the site. Including transportation between work fronts.	Lump Sum	1		
Total Carried Forward							

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ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
	8.4		TIME-RELATED ITEMS				
1.4.1	8.4.1		Contractual Requirements.	Month	36		
	8.4.2		Operate and maintain facilities on the Site for duration of Construction:				
	PSA 4.3		Facilities for the Employer's Agent:				
1.4.2	PSA 4.2.1		Operate and maintain the Engineers office and six parking spaces for the construction period in accordance with PSA 4.2.1(a).	Month	36		
1.4.3	PSA 4.3.1		Operate and maintain site telephone, internet and Wi-Fi facilities for the construction period to PSA 4.3.1. Include recurring subscriptions, specified usage charges, support, repairs and replacement necessary to maintain the required service	Month	36		
1.4.4			Operate and maintain the air-conditioned boardroom for 30 persons including cleaning, servicing, repairs and specified hygiene provisions. Payment is per month.	Month	36		
1.4.5			Operate and maintain the Engineers ablution facilities, including cleaning, disinfecting, consumables, water service, sewage removal where required	Month	36		
Total Carried Forward							

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ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
	8.4.2.2		Facilities for Contractor:				
1.5.1	8.4.2.2.a)		Office and storage sheds.	Month	36		
1.5.2	8.4.2.2.b)		Workshops.	Month	36		
1.5.3	8.4.2.2.c)		Laboratories.	Month	36		
1.5.4	8.4.2.2.e)		Operate and maintain Contractor's ablution and latrine facilities throughout construction, including cleaning, disinfecting, consumables, servicing, sewage removal where required and repairs	Month	36		
1.5.5	8.4.2.2.f)		Tools and equipment.	Month	36		
1.5.6	8.4.2.2.g)		Operate and maintain Contractor's water supply, electric power and communication services throughout construction, including recurring service charges	Month	36		
1.5.7	8.4.2.2.h)		Control of ground water, sub-surface, stormwater or spoiled water during construction, as and when needed	Month	36		
1.5.8	8.4.2.2.i)		Maintain temporary construction access throughout the construction period, including routine grading, repair and upkeep of the access arrangements required by the specification	Month	36		
1.5.9	8.4.2.2.j)		Provide and maintain construction plant availability allocated to the time-related preliminary and general item, including recurring hire, servicing and upkeep as specified	Month	36		
1.5.10	8.4.3		Contractor's supervision for duration of construction.	Month	36		
1.5.11	8.4.4		Company and Head Office overhead costs for the duration of construction.	Month	36		
1.5.12	PSA 4.7		Provide security services in accordance with PSA 4.7 for the specified construction period, including personnel, supervision, access control, patrols, registers and incident reporting to the extent specified	Month	36		
1.5.13	8.4.5		Other time related obligations.	Month	36		
1.5.14			Operate and maintain suitable and legally compliant transport for employees to, from and within the site. including transportation between work fronts.	Month	36		
Total Carried Forward							

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ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			HEALTH AND SAFETY				
1.5.15	PSA 4.5		OHS Act Obligations (Maintenance of OHS Act file)	Month	36		
1.5.16	PSA 4.5		Provision of a Health and Safety Officer	Month	36		
1.5.17	PSA 4.5		OHS Act Obligations (Compilation of OHS Act file)	Month	36		
1.5.18			Compilation of Risk Assessment prior to construction	Lump Sum	1		
1.5.19			Health and Safety Induction training of employees	Lump Sum	1		
	8.5		SUMS STATED PROVISIONALLY BY THE Employer's Agent				
1.6.1			Additional testing as instructed by the Engineer	Prov Sum	1	R500 000,00	R500 000,00
1.6.2			Management, Overheads, Charges & Profit on Item 1.6.1	%		R500 000,00	
1.6.3	8.5 b) 1 & PSA 8.4.6.3		Community Liaison Officer (CLO) – Provision of a CLO for community liaison and stakeholder coordination	Prov Sum	1	R1 120 000,00	R1 120 000,00
1.6.4			Management, Overheads, Charges & Profit on Item 1.6.3	%		R1 120 000,00	
1.6.5			Provision for Contractor to Manage CPG	Prov Sum	1	R1 203 000,00	R1 203 000,00
1.6.6			Management, Overheads, Charges & Profit on Item 1.6.5	%		R1 203 000,00	
Total Carried Forward							

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ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.6.7			PSC – Project Steering Committee/PSC attendance and participation(Max of 10 people)	Prov Sum	1	R2 520 000,00	R2 520 000,00
1.6.8			Management, Overheads, Charges & Profit on Item 1.6.7	%		R2 520 000,00	
1.6.9			Removal and re-establishment of existing services by Telkom, Eskom and/or the Local Authority	Prov Sum	1	R400 000,00	R400 000,00
1.6.10			Overheads, Charges and Profit on item 1.6.9 above	%		R400 000,00	
1.6.11			Allowance for Administration Costs for Wayleave liaison with Transnet, Sanral, Eskom etc	Prov Sum	1	R2 150 000,00	R2 150 000,00
1.6.12			Overheads and profits on item 1.6.11	%		R2 150 000,00	
1.6.13			Additional surveying requested by the Employers Agent.	Prov Sum	1	R1 000 000,00	R1 000 000,00
1.6.14			Overheads and profits on item 1.6.13	%		R1 000 000,00	
1.6.15	PSA 4.66		Student Allowance - Monthly Allowance payable to participating for Students/trainees	Prov Sum	1	R3 285 090,00	R3 285 090,00
1.6.16			Overheads and profits on item 1.6.15	%		R3 285 090,00	
1.6.17			Allowance for Environmental Control Officer (ECO) to inspect, monitor, assess construction site and prepare monthly site audit reports to the client and to be appointed under the Engineer	Prov Sum	1	R1 500 000,00	R1 500 000,00
1.6.18			Overheads and profits on item 1.6.17	%		R1 500 000,00	
1.6.19			Allowance for SHE Officer to inspect, monitor, assess construction site and prepare monthly site audit reports to the client and to be appointed under the Engineer	Prov Sum	1	R1 160 000,00	R1 160 000,00
1.6.20			Overheads and profits on item 1.6.19	%		R1 160 000,00	
1.6.21			Provide, supply, maintain and replace PPE for employees(2 pairs), the Employer, Employer's Agent and authorised personnel, including safety helmets, protective overalls, safety boots, high-visibility vests and other PPE required for the Works, in accordance with applicable OHS requirements.	Prov Sum	1	R1 000 000,00	R1 000 000,00
1.6.22			Overheads and profits on item 1.6.21	%		R1 000 000,00	
Total Carried Forward							

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ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward							
1.7			TRAINING				
1.7.1			Submit detail As-built drawings of all existing services and adjustments to construction drawings at completion.	Prov Sum	1	R250 000,00	R250 000,00
1.7.2			a) Accredited Training-Provision of accredited traing,including training materials,assessment on site(on the job training)	Prov Sum	1	R855 000,00	R855 000,00
1.7.3			Overheads and profits on item 1.7.2	%		R855 000,00	
1.8	SANS 1200 A8.7 AND DWK 5		DAYWORKS				
			Labour				
1.8.1			Foreman	hrs	200		
1.8.2			Skilled Labour	hrs	800		
1.8.3			Semi-skilled labour	hrs	800		
1.8.4			Unskilled labour	hrs	800		
1.8.5			Bricklayer	hrs	50		
1.8.6			Pipe Fitter	hrs	50		
1.8.7			Semi Skilled Labourers	hrs	50		
1.8.8			Construction hand and Operator	hrs	50		
1.8.9			Carpenter	hrs	50		
1.8.10			Clerk	hrs	50		
1.8.11			Artisans	hrs	50		
1.8.12			Foreman	hrs	50		
1.8.13			Welder	hrs	40		
1.8.14			Painter	hrs	40		
1.8.15			Electrician	hrs	20		
1.9	DWK4		PLANT				
1.9.1			Excavator 20t	hrs	200		
1.9.2			Loader 12t	hrs	100		
1.9.3			Tipper truck 10m ³	hrs	100		
1.9.4			Pipe Cutting Machine (steel)	hrs	50		
1.9.5			Welding Machine	hrs	50		
Total Carried Forward							

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ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward							
1.9.6			Compressor and Jack Hammer	hrs	50		
1.9.7			Tip Truck	hrs	50		
1.9.8			Water Tanker	hrs	50		
1.9.9			Plate Compactor	hrs	50		
1.9.10			Materials to be used during the execution of dayworks	hrs	143		
1.10			TEMPORARY WORKS				
1.10.1			Accommodation of Traffic. (Local - Within Site Boundaries)	Sum	1		
1.10.2			Excavate and backfill by hand in soft material to expose existing services - only on approval of Employer's Agent, within freehaul distance of 5.5km.	m ³	300		
1.10.3			Detail setting out of the Works from survey beacons by a registered surveyor and all other survey related work.	Sum	1		
Total Carried Forward To Summary							

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SECTION 2

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
			SECTION 2: PIPEWORK, FITTINGS				
2.1	SABS1200C		CLEAR SITE				
	PSC 8.2.1		Clear and grub all shrubs and vegetation for areas as required and instructed by Employer's Agent for construction:				
2.1.1			Area for a strip (3m wide)	m ²	591360		
	8.2.2		Remove and grub large trees (including tree stumps and roots) of girth over:				
2.1.2	8.2.2.a)		and up to 1,0 m.	No.	650		
2.1.3	8.2.2.b)		1,0 m - 2,0 m.	No.	20		
2.1.4	8.2.2.c)		2,0 m - 3,0 m.	No.	19		
2.1.5	PSDB 3.1		Removal of Boulders Class A and B and dispose.	m ³	209		
2.1.6	8.2.10		Remove topsoil to nominal depth of 150mm and stockpile.	m ²	28224		
	SABS 1200DB 8.3		SCHEDULED EARTHWORKS ITEMS				
	8.3.2		Excavation:				
	PSDB 8.3.2a)		Excavate in all materials for trenches, backfill, compact and dispose of surplus material as ordered for depths up to 3m:				
2.2.1			Exceeding 0,0 m but not exceeding 1,0m	m ³	1114		
2.2.2			Exceeding 1,0 m but not exceeding 2,0 m	m ³	101843		
2.2.3			Exceeding 2,0 m but not exceeding 3,0 m	m ³	10806		
2.2.4			Exceeding 3,0 m but not exceeding 4,0 m	m ³	490		
2.2.5			Exceeding 4,0 m	m ³	100		
	8.3.2.b)		Extra-over for:				
2.2.6	8.3.2.b).i		Intermediate excavation.	m ³	60000		
2.2.7	8.3.2.b).ii		Hard rock excavation. (Blasting or Pneumatic Drilling)	m ³	1200		
2.2.8			Boulder excavation and dump, Class A and B.	m ³	6100		
2.2.9	8.3.2.c)		Excavate and dispose of unsuitable material from trench bottom.	m ³	650		
2.3	SABS 1200 LB		BEDDING (PIPES)				
	PSLB8.2.1		Provision of bedding from Trench Excavation requiring screening and /or treatment:				
2.3.1	8.2.1.a)		Selected granular material.	m ³	2699		
Total Carried Forward							

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SECTION 2

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
2.3.2	8.2.1.b)		Selected fill material.	m³	451		
	PSLB8.2.2		Supply only of Bedding by Importation:				
	8.2.2.2		Borrow Pits Source:				
2.3.3	8.2.2.3.a)		Selected granular material.	m³	19695		
2.3.4	8.2.2.3.b)		Selected fill material.	m³	14545		
	8.2.2.3		Commercial Source:				
2.3.5	8.2.2.3.a)		Selected granular material.	m³	51238		
2.3.6	8.2.2.3.b)		Selected fill material.	m³	14194		
			Subsoil drainage:				
2.3.7			Rate shall include full compensation for placing a layer of 150mm thick 19mm stone across the width of the trench, biddim, and a 110mm perforated pipe. Where instructed by the Engineer	m	1050		
	8.3.3DB		Excavation Ancillaries				
	8.3.3.1		Make up deficient in backfill material				
2.3.8			a) from other necessary excavation on site	m³	1419		
2.4	SABS 1200 L		MEDIUM PRESSURE PIPE LINES				
	PSL8.2.1		Supply, handle, lay, bed on bedding for flexible pipes, join, test and disinfect, as detailed on the drawings. PVC-O potable water pipeline, complete with rubber seals and sockets according to SABS 966-1.				
2.4.1			DN75 HDPE PN12.5	m	9600		
2.4.2			DN110 PVC-O PN12.5	m	7510		
2.4.3			DN110 PVC-O PN16	m	1500		
2.4.4			DN160 PVC-O PN12.5	m	2570		
2.4.5			DN160 PVC-O PN16	m	11100		
2.4.6			DN200 PVC-O PN12.5	m	6400		
2.4.7			DN200 PVC-O PN16	m	5300		
2.4.8			DN250 PVC-O PN12.5	m	2500		
2.4.9			DN315 PVC-O PN12.5	m	10110		
2.4.10			DN400 PVC-O PN12.5	m	9400		
2.4.11			DN450 PVC-O PN12.5	m	3100		
2.4.12			DN500 PVC-O PN12.5	m	23512		
Total Carried Forward							

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2.4.13			DN560 mPVC PN12.5	m	4000		
	8.2.11		Anchor / Thrust Blocks and Pedestals				
2.4.14			Supply all materials, labour, plant and construct 25MPa concrete anchor/thrust blocks and pedestals as detailed on the drawings including all trimming and formwork required. the concrete shall be mixed on site by labour intensive methods	m³	800		
	8.2.9 LD		MARKER POST				
2.4.15			Supply and install precast concrete pipe route markers every 100m along pipe route and at every intersection and change of direction. Pipe markers are to be painted with two coats yellow road marking paint and should include the letter 'W' (LI).	No	1379		
	8.2.2		SPECIALS AND FITTINGS FOR PIPELINE				
			Supply, lay, bed, join, incl. cut pipes to length where required, test and disinfect:				
			Bends :				
			75 mm HDPE Class 12,5				
2.4.16			11.25°	No.	26		
2.4.17			22.5°	No.	14		Rate Only
2.4.18			45°	No.	4		Rate Only
2.4.19			90°	No.	6		
			110 mm PVC-O Class 12,5				
2.4.20			11.25°	No.	16		
2.4.21			22.5°	No.	8		Rate Only
2.4.22			45°	No.	4		Rate Only
2.4.23			90°	No.	1		
			110 mm PVC-O Class 16				
2.4.24			11.25°	No.	6		
2.4.25			22.5°	No.	3		
2.4.26			45°	No.	3		
2.4.27			90°	No.	3		
			160 mm PVC-O Class 12,5				
2.4.28			11.25°	No.	33		
2.4.29			22.5°	No.	12		
Total Carried Forward							

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Brought Forward							
2.4.30			45°	No.	16		
2.4.31			90°	No.	4		
			200 mm PVC-O Class 12,5				
2.4.32			11.25°	No.	20		
2.4.33			22.5°	No.	2		
2.4.34			45°	No.	4		
2.4.35			90°	No.	3		
			250 mm PVC-O Class 12,5				
2.4.36			11.25°	No.	2		
2.4.37			22.5°	No.	2		
2.4.38			45°	No.	1		
2.4.39			90°	No.	2		
			315 mm PVC-O Class 12,5				
2.4.40			11.25°	No.	2		
2.4.41			22.5°	No.	2		
2.4.42			45°	No.			
2.4.43			90°	No.	2		
			400 mm PVC-O Class 12,5				
2.4.44			11.25°	No.	2		
2.4.45			22.5°	No.	2		
2.4.46			45°	No.			
2.4.47			90°	No.	2		
			450 mm PVC-O Class 12,5				
2.4.48			11.25°	No.	12		
2.4.49			22.5°	No.			
2.4.50			45°	No.	2		
2.4.51			90°	No.	2		
			500 mm PVC-O Class 12,5				
2.4.52			11.25°	No.	35		
2.4.53			22.5°	No.	9		
2.4.54			45°	No.	4		
2.4.55			90°	No.	5		
Total Carried Forward							

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Brought Forward							
			560 mm mPVC Class 12				
2.4.56			11.25°	No.	6		
2.4.57			22.5°	No.	1		
2.4.58			45°	No.	3		
2.4.59			90°	No.	4		
			Tees :				
			Equal Tees (PVC-O, mPVC) and HDPE Class 16				
2.4.60			a)75mm diameter equal tee	No.	12		
2.4.61			b)110mm diameter equal tee	No.	12		
2.4.62			c)160mm diameter equal tee	No.	9		
2.4.63			d)200mm diameter equal tee	No.	6		
2.4.64			e)250mm diameter equal tee	No.	12		
2.4.65			f)315mm diameter equal tee	No.	6		
2.4.66			g)400mm diameter equal tee	No.	6		
2.4.67			h)450mm diameter equal tee	No.	8		
2.4.68			i)500mm diameter equal tee	No.	9		
2.4.69			j)560mm diameter equal tee	No.	1		
			Unequal Tees (PVC-O) and mPVC Class 16				
			Socketed Reducers :				
2.4.70			i) 110 mm diameter × 75 mm diameter reducing tee	No.	13		
2.4.71			ii) 160 mm diameter × 110 mm diameter reducing tee	No.	11		
2.4.72			iii) 250 mm diameter × 160 mm diameter reducing tee	No.	10		
2.4.73			iv) 315 mm diameter × 250 mm diameter reducing tee	No.	7		
2.4.74			v) 400 mm diameter × 250 mm diameter fabricated reducing tee	No.	7		
2.4.75			vi) 500 mm diameter × 110 mm diameter fabricated steel reducing tee	No.	4		
2.4.76			vii) 500 mm diameter × 160 mm diameter fabricated steel reducing tee	No.	5		
2.4.77			viii) 500 mm diameter × 250 mm diameter fabricated steel reducing tee	No.	2		
2.4.78			ix) 560 mm diameter × 110 mm diameter fabricated steel reducing tee	No.	2		
Total Carried Forward To Summary							

Tenderer

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3.1	SABS 1200 L		SECTION 3 : VALVES				
			a) DN75 Air Valves PN16				
3.1.1	8.2.5		Supply, install and test multi DN25-orifice anti shock air valve or similar approved	No.	46		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.2			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.400 but excluding locks measured elsewhere	No.	46		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.3			75 - 110mm diameter	No.	46		
			CAST IRON FLANGE ADAPTORS				
3.1.4			75mm diameter	No.	46		
			a) DN110 Air Valves PN16				
3.1.5	8.2.5		Supply, install and test multi DN25-orifice anti shock air valve or similar approved	No.	70		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.6			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.400 but excluding locks measured elsewhere	No.	70		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.7			110 - 160mm diameter	No.	62		
			CAST IRON FLANGE ADAPTORS				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.8			110mm diameter	No.	62		
			a) DN160 Air Valves PN16				
3.1.9	8.2.5		Supply, install and test multi DN50-orifice anti shock air valve or similar approved	No.	50		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.10			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No. 402 but excluding locks measured elsewhere	No.	50		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.11			160 - 200mm diameter	No.	50		
			CAST IRON FLANGE ADAPTORS				
3.1.12			160mm diameter	No.	50		
			a) DN200 Air Valves PN16				
3.1.13	8.2.5		Supply, install and test multi DN50-orifice anti shock air valve or similar approved	No.	32		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.14			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings but excluding locks measured elsewhere	No.	32		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.15			200 - 250mm diameter	No.	30		
			CAST IRON FLANGE ADAPTORS				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.16			200mm diameter	No.	30		
			a) DN250 Air Valves PN16				
3.1.17	8.2.5		Supply, install and test multi DN50-orifice anti shock air valve or similar approved	No.	50		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.18			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings but excluding locks measured elsewhere	No.	50		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.19			250 - 315mm diameter	No.	50		
			CAST IRON FLANGE ADAPTORS				
3.1.20			250mm diameter	No.	50		
			a) DN315 Air Valves PN16				
3.1.21	8.2.5		Supply, install and test multi DN50-orifice anti shock air valve or similar approved	No.	30		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.22			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	30		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.23			315 - 400mm diameter	No.	30		
			CAST IRON FLANGE ADAPTORS				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.24			315mm diameter	No.	30		
			a) DN400 Air Valves PN16				
3.1.25	8.2.5		Supply, install and test multi DN80-orifice anti shock air valve or similar approved	No.	30		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.26			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	30		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.27			400 - 450mm diameter	No.	30		
			CAST IRON FLANGE ADAPTORS				
3.1.28			400mm diameter	No.	30		
			a) DN450 Air Valves PN16				
3.1.29	8.2.5		Supply, install and test multi DN80-orifice anti shock air valve or similar approved	No.	14		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.30			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	14		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.31			450 - 500mm diameter	No.	14		
			CAST IRON FLANGE ADAPTORS				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.32			450mm diameter	No.	14		
			a) DN500 Air Valves PN16				
3.1.33	8.2.5		Supply, install and test multi DN80-orifice anti shock air valve or similar approved	No.	40		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.34			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	40		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.35			500 - 560mm diameter	No.	45		
			CAST IRON FLANGE ADAPTORS				
3.1.36			500mm diameter	No.	45		
			a) DN560 Air Valves PN16				
3.1.33	8.2.5		Supply, install and test multi DN80-orifice anti shock air valve or similar approved	No.	8		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.34			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	6		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.35			500 - 560mm diameter	No.	6		
			CAST IRON FLANGE ADAPTORS				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.36			560mm diameter	No.	6		
			CONCRETE (SMALL WORKS)				
			VALVE MARKERS				
			Supply and install precast concrete valve markers. Valve markers are to be painted yellow with two coats road marking paint and should include the letter 'AV'. The rate shall include for all costs to excavate	No.	350		
3.1.38			Supply, install and test Isolation valve for DN80 to DN250 pipes assembly complete as per Drawing No.402	No.	132		
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.39			Supply all labour, plant and materials to construct/ install precast isolation valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	132		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.40			80 - 250mm diameter	No.	132		
			CAST IRON FLANGE ADAPTORS				
			b) 100mm ISOLATION VALVES PN16				
			CAST IRON FLANGE ADAPTORS				
3.1.41			80 - 250mm diameter	No.	132		
			80 - 250mm diameter	No.	132		
3.1.42	8.2.5		Supply, install and test isolation valve for DN250 to DN500 pipes assembly complete as per Drawing 402	No.	174		Rate Only
	8.2.15		CORROSION PROTECTION				
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.43			Supply all labour, plant and materials to construct/ install precast isolation valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	174		Rate Only
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
3.1.44			250 - 500mm diameter	No.	174		Rate Only
			CAST IRON FLANGE ADAPTORS				
3.1.45			250 - 500mm diameter	No.	174		Rate Only
			CONCRETE (SMALL WORKS)				
	PSLC8.2.8		VALVE MARKERS				
3.1.46			Supply and install precast concrete valve markers. Valve markers are to be painted yellow with two coats road marking paint and should include the letter 'IV'. The rate shall include for all costs to excavate	No.	306		Rate Only
			Fitting : Scour Valves				
			a) 80mm SCOUR VALVES PN16				
	8.2.13		Valve and Hydrant Chambers, etc				
			Supply all labour, plant and materials to construct/ install precast scour valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.407 but excluding locks measured elsewhere	No.	60		
3.1.48			Supply all labour, plant and materials to construct/ install precast scour valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.407 but excluding locks measured elsewhere	No.	30		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			TEES				
3.1.49			80 - 250mm diameter	No.	55		
			CAST IRON FLANGE ADAPTORS				
3.1.50			80 - 250mm diameter	No.	55		
			b) 100mm SCOUR VALVES PN16				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.51	8.2.5		Supply, install and test scour valve for DN250 to DN500 pipes assembly complete as per Drawing	No.	105		Rate Only
	8.2.13		Valve and Hydrant Chambers, etc				
3.1.52			Supply all labour, plant and materials to construct/	No.	105		Rate Only
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied				
			TEES				
3.1.53			250 - 500mm diameter	No.	98		Rate Only
			CAST IRON FLANGE ADAPTORS				
3.1.54			250 - 500mm diameter	No.	98		Rate Only
			CONCRETE (SMALL WORKS)				
	PSLC8.2.8		VALVE MARKERS				
3.1.55			Supply and install precast concrete valve markers.	No.	160		
			Fitting : Other Valves				
			Check valves				
3.1.56			Supply, install and test full stainless steel double	No.	143		Rate Only
			Flow control valve				
3.1.57			i) for DN 75 pipes	No.	6		
3.1.58			ii) for DN 160 pipes	No.	3		
3.1.59			iii) for DN 315 pipes	No.	6		
			Off-take Assembly, ref drawing 204:				
3.1.60			All fittings, specials and flange drillings PN25				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 3

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
3.1.61			DN110 Class 9 PVC-u Spindle Sleeve (Approx. 1.5m long)	No.	8		
3.1.62			25mm daimeter GMS Schedule 40 Tube with valve cap top one end and cap adaptor other end, length to suit (approx. 1.5m long)	No.	8		
			GRP Scour Tee				
3.1.63			DN300 x DN100 (FREE ISSUE ITEM)	No.	10		
3.1.64			DN400 x DN100 (FREE ISSUE ITEM)	No.	10		
3.1.65			DN100 Rilsan coated and lined mild steel flanged pipe 2000mm F/F complete with rilsan coated mild steel blank and S/S bolts and nuts Flanged Wedge Gate-valve with cap-top	No.	15		
	8.2.14 (a)		OFF-TAKE MANHOLE (As per detail drawing 204)	No.	15		
3.1.66			Supply and install 750mm Precast Concrete manhole rings 0,5m high	No.	48		Rate Only
3.1.67			MPa concrete cover slab (medium duty)	No.	8		Rate Only
3.1.68			Extra over item 3.1.68: Supply and cast polymer concrete municipal valve box type 3A by "Maverick Trading" or similar approved including cap and chain	No.	3		Rate Only
3.1.69			Supply and install 300x100 Grade 15/19 MPa Concrete footing (circular)	m³	3		Rate Only
3.1.70			Supply and construct 150mm deep chamber floor with 19mm Stone	m²	3		Rate Only
3.1.71			Supply and construct 150mm layer free-draining selected granular material compacted to 93% MOD AASHTO density	m²	3		Rate Only
			Universal flange adaptor				
3.1.72			Supply, install and test universal flange adaptor (DN250-DN560),	No.	146		Rate Only
Total Carried Forward To Summary							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 4

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
			SECTION 4 : CROSSINGS				
4.1	SABS1200DK		GABIONS AND PITCHING				
	8.2.2		GABION MATRESSES (including material and delivery)				
4.1.1	8.2.1		Surface preparation for bedding of gabions	m ²	910		
	8.2.2		Gabions				
	8.2.2 (a)		Galvanized and PVC coated gabion boxes using 150mm stone and 80mm x 100mm x 2,5mm mesh:				
4.1.2	8.2.2 (a) (ii)		1 m x 1 m x 1 m	m ³	1560		
			Reno Mattresses				
	8.2.2 (b)		Galvanized and PVC coated gabions boxes using 150mm stone and 80mm x 100mm x 2,5mm mesh:				
4.1.3	8.2.2 (b) (ii)		3 m x 1 m x 0,3 m	m ³	1430		
4.1.4	8.2.2 (b) (iii)		3 m x 1 m x 0,15 m	m ³	1430		
			Soil erosion berms / Run-off energy dissipators				
4.1.5	8.2.4		Rock berms for erosion prevention on steep embankments	m ²	1304		
4.1.6	8.2.4		Earth berms for erosion prevention on steep embankments	m ³	1304		
			Pitching				
	8.2.5		Stone pitching:				
4.1.7	8.2.5 (b)		Grouted stone pitching	m ²	1025		
4.2	SABS1200LG		PIPE JACKING AND HORIZONTAL DIRECTIONAL DRILLING				
	8.2.1		Jacking/Drilling Establishment				
4.2.1	8.2.1 a)		Fixed Charged	Sum	27		
4.2.2	8.2.1 b)		Time Related	Month	36		
4.2.3	8.2.3		Jacking/Drilling of Pipes	m	330		
4.2.4	8.2.4		Excavation for Jacking in soft material, backfilling by hand and compacting.	m ³	924		
4.2.5	8.2.5		Extra-Over 4.2.3 for Jacking/Drilling in hard material	m	720		
4.2.6	8.2.6		Extra-Over 4.2.3 for Excavation in Rock	m ³	805		
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 4

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
4.2.7			Allowance Transnet Rail Supervisory Costs for Pipe Jacking activities	Prov Sum	1	R1 000 000,00	R1 000 000,00
4.2.8			Overheads, charges and profit on items 4.2.7	%		R1 000 000,00	
4.2.8			Provisional Sum for the cost of horizontal directional drilling where highly expansive soil are encountered	Prov Sum	1	R51 711 000,00	R51 711 000,00
4.2.9			Overheads, charges and profit on items 4.2.8	%		R51 711 000,00	
4.3	SABS 1200 DB		ROAD CROSSINGS				
	8.3.2		EXCAVATION				
			Excavate by machine in all materials for trenches, backfill, compact and dispose of surplus material, for pipe diameters up to 500mm in the following depth catagories :-				
4.3.1			a) 1,0 - 2,0 m. (machine and including shoring)	m ³	1980		
4.3.2			b) 2,0 - 3,0 m. (machine and including shoring)	m ³	1980		
4.4	SABS 1200 LB		BEDDING				
	8.2.2		Bedding from trench excavations				
4.4.1			a) Selected granular material	m ³	12500		
	8.2.2.3		Provision of bedding from commercial sources.				
4.4.2			a) Selected granular material	m ³	720		
	8.3.6DB		FINISHING				
	8.3.6.1		Extra-over item to reinstate road surfaces complete with all courses.				
4.4.3			a) layer G5 Gravel wearing course compacted to 95% MOD. AASHTO Density	m ²	1100		
4.4.4			b) layer selected G7 type material compacted to 93% MOD. AASHTO Density	m ²	1100		
4.4.5			c) Asphalt in roadway	m ²	1100		
4.5	SABS 1200 L		PIPEWORK				
	8.2.1		Supply, lay and bed pipes and specials complete with couplings - test and dis-infect				
4.5.1			i) 50mm diameter GMS steel pipe, flanged both ends with puddle flange (900mm long) (Item 1)	No	24		
4.5.2			ii) 50mm diameter flange adaptor (Item 2)	No	24		
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 4

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
4.5.3			iii) 50mm diameter resilient seal gate valve, class 12.5 (Item 3)	No	24		
4.5.4			iv) 75mm diameter heavy duty Class 34 Coreflow" pipe sleeve"	m	460		
			MISCELLANEOUS				
4.5.5			110mm heavy duty Class 34 Coreflow" drain to	m	460		
4.5.6			Headwall to 110mm diameter scour	No	24		
4.5.7			Chambers complete with concrete base and all	No	24		
			SECTION 5: BOREHOLES				
5.1	PSC 8.2.1		Clear and grub all shrubs and vegetation for areas				
			Area for a strip (3m wide)	m ²	84888		
5.1.1	8.2.2		Remove and grub large trees (including tree				
5.1.2	8.2.2.a)		and up to 1,0 m.	m	550		
	8.2.2.b)		1,0 m - 2,0 m.				
	8.2.2.c)		2,0 m - 3,0 m.				
5.1.3	PSDB 3.1		Removal of Boulders Class A and B and dispose.	m ³	267		
5.1.4	8.2.10		Remove topsoil to nominal depth of 150mm and stockpile.	m ³	4245		
	SABS 1200DB 8.3		SCHEDULED EARTHWORKS ITEMS				
	8.3.2		Excavation:				
5.1.5	PSDB 8.3.2a)		Excavate in all materials for trenches, backfill,				
5.1.6			Exceeding 0,0 m but not exceeding 1,0m	m ³	1885		
5.1.7			Exceeding 1,0 m but not exceeding 2,0 m	m ³	22608		
5.1.8			Exceeding 2,0 m but not exceeding 3,0 m	m ³	1672		
5.1.9			Exceeding 3,0 m but not exceeding 4,0 m	m ³	379		
5.1.10			Exceeding 4, m	m ³	1893		
	8.3.2.b)		Extra-over for:				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 5

ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5.1.11	8.3.2.b).i		Intermediate excavation.	m³	50895		
5.1.12	8.3.2.b).ii		Hard rock excavation. (Blasting or Pneumatic Drilling)	m³	26200		
			Boulder excavation and dump, Class A and B.				
5.1.13	8.3.2.c)		Excavate and dispose of unsuitable material from trench bottom.	m³	19544		
	SABS 1200 LB		BEDDING (PIPES)				
	PSLB8.2.1		Provision of bedding from Trench Excavation requiring screening and /or treatment:				
5.1.14	8.2.1.a)		Selected granular material.	m³	5139		
5.1.15	8.2.1.b)		Selected fill material.	m³	3822		
5.1.16	9.3.4.a)		Density tests as per the Engineer's instruction	Prov Sum	13	R10 000,00	R130 000,00
	SABS 1200 L		MEDIUM PRESSURE PIPE LINES				
	PSL8.2.1		Supply, handle, lay, bed on bedding for flexible pipes, join, test and disinfect, as detailed on the drawings. HDPE potable water pipeline, complete with rubber seals and sockets according to SABS 966-1.				
5.1.17			DN75 HDPE PN12,5	m	28330		
	8.2.11		Anchor / Thrust Blocks and Pedestals				
5.1.18			Supply all materials, labour, plant and construct 25MPa concrete anchor/thrust blocks and pedestals as detailed on the drawings including all trimming and formwork required. the concrete shall be mixed on site by labour intensive methods	m³	3000		
	8.2.9 LD		MARKER POST				
5.1.19			Supply and install precast concrete pipe route markers every 100m along pipe route and at every intersection and change of direction. Pipe markers are to be painted with two coats yellow road marking paint and should include the letter 'W' (LI).	No.	293		
	8.2.2		SPECIALS AND FITTINGS FOR PIPELINE				
			Supply, lay, bed, join, incl. cut pipes to length where required, test and disinfect:				
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 5

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			Bends :				
			75 mm HDPE Class 12,5				
5.1.20			11.25°	No.	30		
5.1.21			22.5°	No.	26		
5.1.22			45°	No.	12		
5.1.23			90°	No.	13		
			Fitting : Air Valves				
			a) DN75 Air Valves PN16				
5.1.24	8.2.5		Supply, install and test multi DN25-orifice anti shock air valve or similar approved	No.	35		
	8.2.13		Valve and Hydrant Chambers, etc				
5.1.25			Supply all labour, plant and materials to construct/install precast air valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	35		
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
5.1.26			75mm diameter	No.	22		
			CAST IRON FLANGE ADAPTORS				
5.1.27			75mm diameter	No.	22		
			Fitting : Scour Valves				
			a) DN75 Scour Valves PN16				
5.1.28			Supply, install, and test Scour valve for DN80 pipes assembly complete as per Drawing No.407	No.	3		
	8.2.13		Valve and Hydrant Chambers, etc				
5.1.29			Supply all labour, plant and materials to construct/ install precast scour valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.407 but excluding locks measured elsewhere	No.	3		
Total Carried Forward							

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 5

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
	8.2.15		CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
5.1.30			75 mm diameter	No.	3		
			CAST IRON FLANGE ADAPTORS				
			Fitting : Isolation Valves				
			a) DN75 Isolation Valves PN16				
5.1.31			Supply, install and test Isolation valve for DN75 pipes assembly complete as per Drawing 402	No.	36		
	8.2.13		Valve and Hydrant Chambers, etc				
5.1.32			Supply all labour, plant and materials to construct/ install precast isolation valve chamber complete including manhole cover slabs, GMS access cover etc as detailed on the drawings No.402 but excluding locks measured elsewhere	No.	36		
			CORROSION PROTECTION				
			Denso wrapping in corrosive soil inclusive of outer wrap layer.				
			External Denso" wrap of pipes and fittings including mastic where applicable and overwrap etc. applied in accordance with manufacturer's instruction."				
			TEES				
5.1.33			75mm diameter	No.	13		
			CAST IRON FLANGE ADAPTORS				
5.1.34			75mm diameter	No.	13		
5.2			Borehole Installation				
5.2.1			Retesting of bore holes	Prov Sum	13	R78 000,00	R1 014 000,00
Total Carried Forward							

Tenderer

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 5

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
5.2.2			Supply, install, equip 1x Borehole Pumps per specification up to KW, control panel, electrical	Prov Sum	13	R710 000,00	R9 230 000,00
5.2.3			Management, overheard on item 5.2.2 above	%		R710 000,00	
5.2.4			Construct Borehole Pumphouse as per specification	Sum	13		
5.2.5			Construct High Lift Pump as per specification from 10KW up to 40KW with generator, 2 no of high lift pumps, control panel, electrical connection and all applicable valves for pressure control, including isolation, non-return, scour as per specification	Prov Sum	13	R720 000,00	R9 360 000,00
5.2.6			Management, overheard on item 5.2.5 above	%		R720 000,00	
5.2.7			Supply and install generator for up to 50KW power required for connection of boreholes.	Sum	13		
Tank Storage							
5.2.8			Allow for supply and installation 30KL Galvanised Steel Ground tank to act as sump with all fittings, chlorination, testing, floor slab, delivery costs, installation costs and automation mechanism	No.	13		
5.2.9			Any additional work Instructed by the engineer.	Prov Sum	1	R400 000,00	R400 000,00
5.2.10			Management, overheard on item 5.2.9 above	%		R400 000,00	
FENCING							
5.2.11			Supply and install a 2.4m high clearview fencing as per drawing No.209(Boreholes and storage tanks)	m	5500		
LANDSCAPING AND GRASSING							
5.2.12			Apply topsoil obtained from stockpile where ordered and trim to final surface.	m ³	3000		
Supply and sow grass seeds as specified:							
5.2.13			Buffalo grass, or similar approved.	m ²	2880		
5.2.14			Final finishing and cleaning up of the Site of the Works (Reservoir Site)	Sum	13		
Chlorination							
5.2.15			Line chlorination unit as per the suppliers specification	Prov Sum	13	R200 000,00	R2 600 000,00
5.2.16			Management, overheard on item 5.2.15 above	%		R200 000,00	
Total Carried Forward To Summary							

Tenderer

Witness 1

Witness 2

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Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
			SECTION 6: PUMP STATION				
6			PHAKE BOOSTER PUMP STATION				
6.1			Site Clearance				
6.1.1			Clear and Grub Pump station site	m ²	560		
			Remove and grub large trees and tree stumps of girth:				
6.1.2			a) over 1m and up to and including 2m	No.	5		
6.1.3			b) over 2m and up to and including 3m	No.	5		
6.1.4			Take down existing fences	km			
6.1.5			Remove topsoil to a nominal depth of 150mm and stockpile	m ³	84		
6.2			Earthworks				
			Bulk Excavation				
6.2.1			a) Excavate in all materials and use for embankment or backfill or dispose of as ordered for:				
6.2.2			i) For pump station platform	m ³	430		
			b) Extra- over for				
6.2.3			i) Intermediate excavation	m ³	90		
6.2.4			ii) Hard rock excavation	m ³	90		
			Restricted Excavation				
6.2.5			a) Excavate for restricted foundations, footings, and pipe trenches in all materials and use for backfill or embankment or dispose for:				
6.2.6			i) Pump station	m ³	120		
			Existing Services				
6.2.7			c) Excavate by hand in soft material to expose underground services	m ³	60		
6.2.8			Importation, placing and compaction of G7 gravel to grade level to 98% MOD AASHTO (at OMC) in layers not exceeding 200mm to replace pockets or layers of unsuitable material where directed by Engineer (Prov)	m ³	270		
			Overhaul				
6.2.9			a) Limited Overhaul (Provisional)	m ³	270		
6.2.10			b) Long Overhaul (Provisional)	m ³ .km	270		
			EARTHWORKS (ROADS, SUB-GRADE) - UNDER STRUCTURE				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			Treatment of Roadbed (Under Structure)				
			a) Road-bed preparation and compaction of				
6.2.11			i) minimum of 90% modified AASHTO maximum density	m³	270		
			SUBBASE (STABILIZATION UNDER STRUCTURE) -PROVISIONAL				
			Process material by the following process, as relevant and use under structure on instruction by Engineer				
6.2.12			a) Screening	m³	405		
6.2.13			b) Heavy grid rolling	m³	405		
6.2.14			c) Stabilization (6% Cement)	m³	205		
			Stabilising Agent				
6.2.15			a) Portland Cement	t	27		
6.3			CONCRETE STRUCTURAL				
6.3.1			Formwork				
6.3.2			Special off form to:				
6.3.3			a) soffit to roof slab	m²	502		
6.3.4			b) pump station plinths	m²	11		
6.3.5			c) 20 x10 drip to roof pump station	m	26		
			Narrow widths up to 300mm wide				
6.3.6			a Pump station foundations	m	90		
			Box out Holes/ Form Voids				
			a) Small circular, of diameter up to and including 0,35m				
6.3.7			i) 250mm diameter	No.	2		
			Reinforcement				
6.3.8			a) mild steel	ton	1		
6.3.9			b) High tensile steel	ton	1		
			Concrete				
6.3.10			Screed - 1:3 Cement/ Sand	m³	135		
6.3.11			No fines Concrete to underdrain system	m³	135		
6.3.12			15MPa concrete to platforms, aprons, steps, pipe supports etc.	m³	135		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
6.3.13			Concrete, Grade 25MPa/ 19mm for:				
6.3.14			i) Pump station footings	m ³	30		
6.3.15			ii) Pump station floor	m ³	76		
6.3.16			iii) Pump station roof	m ³	56		
			Unformed surface finishes				
6.3.17			a) Wood floated	m ²	205		
6.3.18			b) Steel floated	m ²	202		
6.4			Joints				
			Construct construction joints for:				
6.4.1			Isolations joint at floor/wall junction	m	100		
6.4.2			Horizontal roof sliding joint on top of wall. Rate to include for two layers of tempered masonite and two layers or 3 ply malthoid	m	100		
6.4.3			Roof water proofing	m	80		
6.5			Sundry Items				
6.5.1			110mm dia. uPVC sleeves long radius 90 degree	No.	5		
			Building Work				
6.5.2			230mm thick external Facebrick Wall - Corobrick "Firelight Satin" or similar Approved for internal / external wall of Pumpstation	m ²	380		
6.5.3			Pump stations double doors	Sum	1		
6.5.4			Pump station single doors	Sum	1		
6.5.5			Screed to pump station roof slab	m ³	2		
6.5.6			Windows to pump station as per drawing 204	No	9		
6.5.7			Airbricks to pump station building and chambers	No.	16		
			Structural steel work (Sundry Items)				
6.5.8			Supply and install expanded metal grid including angled frames with fishtails to cast in to concrete to all floor channels on pump station	Prov Sum	1	R60 000,00	R60 000,00
6.6			Site Drainage				
			Supply and lay "Kaymat U14 or similar approved geotextile, including all laps, cutting and wasting				
6.6.1			a) Beneath 1m wide gravel apron	m ²	80		
Total Carried Forward							

 Tenderer

 Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			Supply and lay to fall as indicated, drainage pipes, including all couplings cuttings and waste				
6.6.2			a) 110mm Ø uPVC pipe for stormwater drainage for pump station	m	5		
6.7			Fencing				
			Supply and erect new fencing material for pump station site				
6.7.1			i) Supply and Install 2.4m high, 40MPa Concrete Palisade Fence. Rate to include supply, delivery from source and installation	m	400		
6.7.2			ii) Gates	No.	2		
6.7.3			iii) Barbed tape concertina	m	400		
6.8			Medium Pressure Pipelines				
			Supply and install pipe fittings complete with all jointing materials such as gaskets, nuts and bolts etc				
6.8.1			Design, Manufacture, supply, install, connect, calibrate and commission Pump Station. The infrastructure shall be complete including compilation of operating manuals and provision of training to the WSP or scheme operators;				
6.8.2			a) DN150 steel pipe, F.B.E length=1050mm	No.	1		
6.8.3			b) DN150, 90 degree G.M.S, steel bend, F.B.E	No.	4		
6.8.4			c) DN50 bernard Pump control valve, flanged, class 25 or similar approved model	No.	1		
6.8.5			d) DN150 x DN150 G.M.S Tee, with Puddle Flange. 2400mm Long Flanged Barrel with Two No. DN150 Flanged Branches. Positioned at 1165mm And 2165mm From One End Of Barrel. 250mm C/F. Puddle Flange 650mm From One End	No.	1		
6.8.6			e) DN150 Flanged R.S.V Gate Valve, Class 16	No.	2		
6.8.7			f) DN150 G.M.S Pipe, 300mm Long Both End Flanged	No.	2		
6.8.8			g) DN50 bernard Pump control valve, flanged, class 25 or similar approved model	No.	1		
6.8.9			i) DN80 x DN50 Concentric Flanged Reducer, 100mm Long	No.	2		
6.8.10			j) DN80 Non Return Valve, Class 25 Flanged	No.	2		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
6.8.11			k) DN80 G.M.S Pipe ,200mm Long Both Ends Flanged	No.	2		
6.8.12			l) DN80 Flanged R.S.V Gate Valve, Class 25	No.	2		
			m) DN80 x 90° G.M.S Bend, Flanged Both Ends	No.	4		
6.8.14			n) DN80 x DN150 Flanged Eccentric Reducer 200mm Long	No.	4		
6.8.15			o) DN150 G.M.S Pipe 540mm Long Both End Flanged	No.	2		
6.8.16			p) DN 150 x 2520mm Long Flanged Pipe with three No. DN50, 45° Laterals, Positioned at 350mm, 1350mm and 2350mm from one end C/F of Laterals 250mm	No.	1		
6.8.20			q) DN150 x DN65 Concentric Flanged Reducer, 200mm Long	No.	2		
6.8.21			r) DN150 x 800mm Long Flange G.M.S Pipe with Puddle Flange	No.	1		
6.8.22			s) DN150 X 2645mm Long G.M.S Pipe Both Ends Flanged	No.	1		
6.8.23			t) DN50 Surge Anticipated Bermad 735 Valve (or Similar Approved) Completer with all pipework to make a complete installation as indicated on the drawing	No.	1		
6.9			Pumpsets				
6.9.1			Potable water pumps, to meet 80 litres per second at 70m head, together with 200kw motor at 2980rpm				
			a) Supply pump set complete with baseplate, motor, pump and instrumentation	No	3		
6.9.2			Motor for Pumps				
6.9.3			b) Supply holding down bolts and grouting	set	3		
6.9.4			c) Pump tests (Factory Acceptance Testing)	set	3		
6.9.5			d) Pump tests (Site Acceptance Testing)	set	3		
			Supply and install 356 x 171 x 46 UB crawl beam complete as detailed:				
6.9.6			11,9m long (rate to include complete with u-bolt plate and welding in accordance	No.	1		
6.9.7			Supply and install fixed aluminium louvre ventilation panel 660mm high x 2200mm wide. Allow for all sealing and fixing	No.	1		
Total Carried Forward							

Tenderer

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Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward							
6.9.8			Supply and lay 50mmø HDPE drain pipe complete with 45° bend	m	50		
6.9.9			Supply and lay 110mmø uPVC drainage pipe complete with 110mmø equal tee and 90° bend.	m	50		
6.10			ELECTRICAL				
			TELEMETRY & SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) NETWORK				
			Telemetry and SCADA				
			Design, Manufacture, supply, install, connect, calibrate, commission, Telemetry System and SCADA Computerised System in order to ensure remote water supply scheme operation. The infrastructure shall be complete including compilation of operating manuals and provision of training to the WSP or scheme operators;-				
6,10,1			a) Hardware and Software	Prov Sum	1	R6 000 000,00	R6 000 000,00
6,10,2			Management and overheads on item 6.10.1 above	%		R6 000 000,00	
6,10,3			Test & certificate of compliance of item 7.10.1 above	Prov Sum	1	R30 000,00	R30 000,00
6,10,4			Management and overheads on item 6.10.3 above	%		R30 000,00	
			Surge Protection system				
6,10,5			24v devices	No	4		
6,10,6			240V devices	No	6		
6,10,7			LEVEL control PLC include all I/O cards, programming, cable, communication convertors and surge protection	No	3		
6,10,8			Ultrasonic level controller	No	3		
6,10,9			Lightning Protection System	Prov Sum	1	R2 000 000,00	R2 000 000,00
6,10,10			Management and overheads on item 6.10.9 above	%		R2 000 000,00	
6,10,11			Test & certificate of compliance	Sum	1		
			NB-Rate includes labour, materials, cable glands installation				
6,10,12			Power Supply and Motor Control 30kW VSD units complete with enclosures	No	4		
6,10,13			Main LV panel complete	No	3		
Total Carried Forward							

 Tenderer

 Witness 1

 Witness 2

 Employer

 Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
6,10,14			Cable PVCA x 4C x 50mm ²	m	100		
6,10,15			Cable PVCA x 3C x 16mm ²	m	100		
6,10,16			Cable x 1C x 70mm ²	m	100		
6,10,17			Cable PVCA x 4C x 50mm ² Termination-Envirogland	No	4		
6,10,18			Cable PVCA x 3C x 2 x 16mm ² Termination Envirogland	No	8		
6,10,19			Cable x 2C x 4mm ² Termination Envirogland	No	8		
6,10,20			Emergency stop button	No	4		
6,10,21			Earthing/Bonding	Sum	3		
6,10,22			Earth electrode	No	12		
			Surge Protection system				
6,10,23			24v devices	No	4		
6,10,24			400V devices	No	6		
6,10,25			Motor control PLC include all I/O cards, programming, cable, communication convertors and surge protection	No	3		
6,10,26			Pressure Transducer for pump station inlet and outlet pressure monitoring	No	4		
6,10,27			Pump discharge pressure switch suitably rated for the operating pressures	No	4		
6,10,28			Pump discharge flow switch suitably rated for the operating flows	No	4		
			Fibre Optic Cable				
6,10,29			Fibre Optic cable - supply and install single mode fibre, 24 core, SWA.	m	200		
6,10,30			Dome joints splicing, single mode fibre, SWA, all cores.	No	14		
6,10,31			Terminations complete at various points. All fibre to be terminated.	No	8		
6,10,32			Man hole double brick with concrete cover every 2000m.	No	18		
6,10,33			160mm Sleeve	m	100		
6,10,34			Fibre Optic to RS-485 converters. Interface with control room RTU and pumps station's RTU. Distance of fibre is 1,7 km.	No	3		
6,10,35			Danger warning Tape - 300 mm wide	m	3400		
			NB: The rates must include all materials and labour for the complete fibre optic cable installation and connections				
6,10,36			Test & certificate of compliance	Sum	3		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

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Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 6

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			NB-Rate includes labour, materials,				
			cable glands installation				
			SECTION 7: STORAGE TANK				
			1ML STORAGE TANKS 3 No. of @ Masobe,				
7.1	SANS 1200C		SITE CLEARANCE				
7,1,1	8.2.1		Clear and Grub Reservoir Site	m ²	3000		
7.2	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,2,1			a) Excavation for foundation to suit tank supply	m ³	3000		
7.3	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,3,1	8.4.3 PSG		Strength concrete, Grade 30 MPa/19mm watertight	m ³	500		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,3,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	6		
	PSA 8.10		FENCING				
7,3,3			Supply and install ripper wire fencing around	m	990		
7,3,4			E.O. for security access gate	No.	4		
7,3,5			Barbed tape concertina	m	990		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Intlet Meter Chamber				
7,3,6			Supply all labour, plant and materials to	No.	4		
			Outlet Meter Chamber				
Total Carried Forward							

Tenderer

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Witness 1

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WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,3,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber	No.	4		
7,3,8			Allow for supply and installation of 1ML Galvanised Steel Elevated by 15-25m Tank with all fittings, chlorination, testing, delivery costs, installation costs, and automation mechanism	No.	4		
7,3,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	65		
7,3,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	22		
7,3,11			Precast manhole rings DN2500mm x 1000mm	No.	12		
7,3,12			DN 2500mm Precast cover slab 900mm opening,	No.	12		
			450KL STORAGE TANKS 1 No. of @				
7.4	SANS 1200C		SITE CLEARANCE				
7,4,1	8.2.1		Clear and Grub Reservoir Site	m ²	420		
7.5	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,5,1			a) Excavation for foundation to suit tank supply	m ³	280		
7.6	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,6,1	8.4.3 PSG		Strength concrete, Grade 30 MPa/19mm watertight	m ³	70		
	8.1.2: PSG		REINFORCEMENT				
7,6,2	8.3.1		High tensile reinforcement including cutting and	t	4		
	PSA 8.10		FENCING				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward							
7,6,3			Supply and install ripper wire fencing around	m	80		
7,6,4			E.O. for security access gate	No.	1		
7,6,5			Barbed tape concertina	m	80		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,6,6			Supply all labour, plant and materials to	No.	1		
			Outlet Meter Chamber				
7,6,7			Supply all labour, plant and materials to	No.	1		
7,6,8			Allow for supply and installation 450KL Galvanised Steel Elevated by 20m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7.6.9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7.6.10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7.6.11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7.6.12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			MASONRY				
			All bricks to be SABS Brick Classification NFX				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7.6.13			230mm Thick to external walls	m ²	0		
7.6.14			110mm Thick NFP Double BrickWall	m ²	0		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7.6.15	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	1		
7.6.16			Reinforcing Mesh Ref. 245 with a Cover of 50mm	m ²	7		
	PSA 8.10		FENCING				
7.6.17			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	140		
7.6.18			E.O. for security access gate	No.	1		
7.6.19			Barbed tape concertina	m	140		
			400KL STORAGE TANKS 1 No. of @ Mmamethlake				
7.7	SANS 1200C		SITE CLEARANCE				
7,7,1	8.2.1		Clear and Grub Reservoir Site	m ²	300		
7.8	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,8,1			a) Excavation for foundation to suit tank supply	m ³	200		
7.9	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,9,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m ³	50		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,9,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	3		
	PSA 8.10		FENCING				
7,9,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	80		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,9,4			E.O. for security access gate	No.	1		
7,9,5			Barbed tape concertina	m	80		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,9,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	1		
			Outlet Meter Chamber				
7,9,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,9,8			Allow for supply and installation 400KL Galvanised Steel Elevated by 25m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,9,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,9,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,9,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,9,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			300KL STORAGE TANKS 1 No. of @ Rankaile				
7.10	SANS 1200C		SITE CLEARANCE				
7,10,1	8.2.1		Clear and Grub Reservoir Site	m ²	270		
7.11	SANS 1200 D		EARTHWORKS				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,11,1	8.3.2		Bulk excavation				
			a) Excavation for foundation to suit tank supply	m³	180		
7,12,1	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,12,2	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m³	45		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,12,3	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	3		
	PSA 8.10		FENCING				
7,12,4			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	80		
7,12,5			E.O. for security access gate	No.	1		
7,12,6			Barbed tape concertina	m	80		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,12,7			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	1		
			Outlet Meter Chamber				
7,12,8			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,12,9			Allow for supply and installation 300KL Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,12,10			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m³	10		
7,12,11			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m³	2		
7,12,12			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,12,13			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			150KL STORAGE TANKS 1 No. of @ MANTIOLE				
7.13	SANS 1200C		SITE CLEARANCE				
7,13,1	8.2.1		Clear and Grub Reservoir Site	m²	70		
7.14	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,14,1			a) Excavation for foundation to suit tank supply	m³	45		
7.15	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,15,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m³	12		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,15,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	1		
	PSA 8.10		FENCING				
7,15,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	60		
7,15,4			E.O. for security access gate	No.	1		
7,15,5			Barbed tape concertina	m	60		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,15,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	1		
			Outlet Meter Chamber				
7,15,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,15,8			Allow for supply and installation 150KL Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,15,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,15,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,15,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,15,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			1ML STORAGE TANKS 3 No. of @ Marapyane, Katjibane & Seabe				
7.16	SANS 1200C		SITE CLEARANCE				
7,16,1	8.2.1		Clear and Grub Reservoir Site	m ²	3000		
7.17	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,17,1			a) Excavation for foundation to suit tank supply	m ³	3000		
7.18	SANS 1200 G		CONCRETE WORKS				

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2



SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
	8.4		Reinforced concrete for footings				
7,18,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m³	500		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,18,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	6		
	PSA 8.10		FENCING				
7,18,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	990		
7,18,4			E.O. for security access gate	No.	3		
7,18,5			Barbed tape concertina	m	990		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,18,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	3		
			Outlet Meter Chamber				
7,18,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawings No.406	No.	3		
7,18,8			Allow for supply and installation of 1ML Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs, and automation mechanism	No.	3		
7,18,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m³	45		
7,18,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m³	18		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,18,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	6		
7,18,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	6		
			500KL STORAGE TANKS 1 No. of @ SEABE(GARAMANTSHANE, TERATENG)				
7.19	SANS 1200C		SITE CLEARANCE				
7,19,1	8.2.1		Clear and Grub Reservoir Site	m ²	360		
7.2	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,20,1			a) Excavation for foundation to suit tank supply	m ³	220		
7.21	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,21,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m ³	60		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,21,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	4		
	PSA 8.10		FENCING				
7,21,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	160		
7,21,4			E.O. for security access gate	No.	3		
7,21,5			Barbed tape concertina	m	160		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,21,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawings No.405	No.	1		
			Outlet Meter Chamber				
7,21,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawings No.406	No.	1		
7,21,8			Allow for supply and installation 500KL Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,21,9			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,21,10			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,21,11			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			500KL STORAGE TANKS 1 No. of @ MARAPYANE				
7.22	SANS 1200C		SITE CLEARANCE				
7,22,1	8.2.1		Clear and Grub Reservoir Site	m ²	360		
7.23	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,23,1			a) Excavation for foundation to suit tank supply	m ³	220		
7.24	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,24,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m ³	60		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,24,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	4		
	PSA 8.10		FENCING				
7,24,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	160		
7,24,4			E.O. for security access gate	No.	3		
7,24,5			Barbed tape concertina	m	160		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,24,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	1		
			Outlet Meter Chamber				
7,24,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,24,8			Allow for supply and installation 500KL Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,24,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,24,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,24,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,24,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			30KL STORAGE TANKS No 1. of @ SEMAHLOSE				
7.25	SANS 1200C		SITE CLEARANCE				
7,25,1	8.2.1		Clear and Grub Reservoir Site	m²	30		
7.26	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,26,1			a) Excavation for foundation to suit tank supply	m³	20		
7.27	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,27,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m³	13		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,27,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	1		
	PSA 8.10		FENCING				
7,27,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	60		
7,27,4			E.O. for security access gate	No.	1		
7,27,5			Barbed tape concertina	m	60		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,27,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawings No.405	No.	1		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			Outlet Meter Chamber				
7,27,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,27,8			Allow for supply and installation 30KL Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,27,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m³	10		
7,27,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m³	2		
7,27,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,27,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			150KL STORAGE TANKS 1 No. of @ DIHAKENG/ RAMANTSHO				
7.28	SANS 1200C		SITE CLEARANCE				
7,28,1	8.2.1		Clear and Grub Reservoir Site	m²	75		
7.29	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,29,1			a) Excavation for foundation to suit tank supply	m³	50		
7.30	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,30,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m³	17		
	8.1.2: PSG 8.1.2		REINFORCEMENT				
7,30,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	1		
	PSA 8.10		FENCING				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,30,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	75		
7,30,4			E.O. for security access gate	No.	1		
7,30,5			Barbed tape concertina	m	75		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,30,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	1		
			Outlet Meter Chamber				
7,30,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,30,8			Allow for supply and installation 150KL Galvanised Steel Elevated by 10m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,30,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,30,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,30,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,30,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			300KL STORAGE TANKS 3 No. of @ KATJIBANE				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7.31	SANS 1200C		SITE CLEARANCE				
7,31,1	8.2.1		Clear and Grub Reservoir Site	m ²	270		
7.32	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,32,1			a) Excavation for foundation to suit tank supply	m ³	180		
7.33	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,33,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m ³	45		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,33,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	3		
	PSA 8.10		FENCING				
7,33,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	80		
7,33,4			E.O. for security access gate	No.	1		
7,33,5			Barbed tape concertina	m	80		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,33,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.405	No.	1		
			Outlet Meter Chamber				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,33,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,33,8			Allow for supply and installation 300KL Galvanised Steel Elevated by 10m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,33,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m³	10		
7,33,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m³	2		
7,33,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,33,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			700KL STORAGE TANKS 1 No. of @ LODING (SEHOKGO)				
7.34	SANS 1200C		SITE CLEARANCE				
7,34,1	8.2.1		Clear and Grub Reservoir Site	m²	360		
7.35	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,35,1			a) Excavation for foundation to suit tank supply	m³	240		
7.36	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,36,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m³	60		
	8.1.2: PSG 8.1.2		REINFORCEMENT				
7,36,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	6		
	PSA 8.10		FENCING				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,36,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	180		
7,36,4			E.O. for security access gate	No.	3		
7,36,5			Barbed tape concertina	m	180		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,36,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawings No.405	No.	1		
			Outlet Meter Chamber				
7,36,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No.406	No.	1		
7,36,8			Allow for supply and installation 700KL Galvanised Steel Elevated by 30m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,36,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,36,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,36,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,36,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
			100KL STORAGE TANKS 1 No. of @ MMADUMA GREENSIDE				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7.37	SANS 1200C		SITE CLEARANCE				
7,37,1	8.2.1		Clear and Grub Reservoir Site	m ²	30		
7.38	SANS 1200 D		EARTHWORKS				
	8.3.2		Bulk excavation				
7,38,1			a) Excavation for foundation to suit tank supply	m ³	20		
7.39	SANS 1200 G		CONCRETE WORKS				
	8.4		Reinforced concrete for footings				
7,39,1	8.4.3 PSG 8.1.3		Strength concrete, Grade 30 MPa/19mm watertight concrete foundation	m ³	5		
	8.1.2; PSG 8.1.2		REINFORCEMENT				
7,39,2	8.3.1		High tensile reinforcement including cutting and bending to various codes	t	1		
	PSA 8.10		FENCING				
7,39,3			Supply and install ripper wire fencing around elevated tank complete with vehicle access gates 5m wide complete with timber posts (3 quotes from local contractors to be arranged)	m	60		
7,39,4			E.O. for security access gate	No.	1		
7,39,5			Barbed tape concertina	m	60		
	"8.2.28.2.3"		SPECIALS AND FITTINGS FOR PRV, METER AND FLOW CONTROL CHAMBERS				
			Extra-over for supply, deliver, lay, bed and install specials and fittings (all flanges drilled to SANS1123, Table 16) suitable for:				
			Inlet Meter Chamber				
7,39,6			Supply all labour, plant and materials to construct/install reinforced concrete inlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawings No.405	No.	1		
			Outlet Meter Chamber				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 7

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
7,39,7			Supply all labour, plant and materials to construct/install reinforced concrete outlet chamber complete including manhole cover slabs, strainer, gate valve, meter, level control inlet valve, steel pipe work, GMS access cover etc as detailed on the drawing No. 406	No.	1		
7,39,8			Allow for supply and installation 100KL Galvanised Steel Elevated by 15m Tank with all fittings, chlorination, testing, delivery costs, installation costs and automation mechanism	No.	1		
7,39,9			Strength concrete, Grade 25 MPa/19mm watertight concrete foundation	m ³	10		
7,39,10			Strength concrete, Grade 20 MPa/19mm for pedestals (to include neoprene rubber top finish)	m ³	2		
7,39,11			Precast manhole rings DN2500mm x 1000mm including flexible reinforced waterproofing	No.	3		
7,39,12			DN 2500mm Precast cover slab 900mm opening, manhole cover with locking device and ventilation	No.	2		
Total Carried Forward To Summary							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
			SECTION 8: ELECTRICAL AND INSTRUMENTATION				
			BULK POWER SUPPLY				
8.1			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, supply, delivery, offloading, storage and installation of the following materials:				
8,1,1			KAT 01 Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,2			KAT 03 Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,3			MAS 04 Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,4			SE 03 Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,5			SE 04 Borehole Pump Station ; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,6			PRD 04 Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,7			ZP 01 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8,1,8			Public Works Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,9			NK NEW Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
8,1,10			PRD 01 Borehole Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	1		
8,1,11			Additional Boreholes Pump Station; Assessment and refurbishment of a 22kV/420V 25kVA Pole mount transformer, including switchgear and protection and accessories	Sum	3		
8.2			LV SWITCH GEAR AND CONTROL GEAR ASSEMBLIES				
			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, supply, delivery, offloading, storage and installation of the following materials:				
8.2.1			Potable Water Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.2			KAT 01 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.3			KAT 03 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.4			MAS 04 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.5			SE 03 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.6			SE 04 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.7			PRD 04 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.8			ZP 01 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
8.2.9			Public Works Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.10			NK NEW Borehole Pump MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.11			PRD 01 Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	1		
8.2.12			Additional Borehole Pump Station MCC complete (including PLC and RTU). As per drawings and specifications. Factory testing included	Sum	3		
8.3	1.2.2		LV CABLES				
			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, supply, delivery, offloading, storage and installation of the following materials:				
			ALL CABLE LENGTHS ARE ESTIMATED. THE ACTUAL IS ON THE CONTRACTOR TO MEASURE ACTUAL CABLE LENGTHS DURING CONSTRUCTION AND SUBMIT TO THE ENGINEER FOR APPROVAL BEFORE ORDERING OF ANY CABLES				
			Cu/PVC Insulated/PVC Bedded/SWA/PVC Sheathed 600/1000V single/multicore cable with stranded conductors. Cable fixed to cable tray, drawn into sleeves or laid into trenches, including terminations.				
8.3.1			1.5mm ² x 3 core + earth	m	200		
8.3.2			2.5mm ² x 3 core + earth	m	2000		
8.3.3			2.5mm ² x 4 core + earth	m	100		
8.3.4			4mm ² x 3 core + earth	m	300		
8.3.5			4mm ² x 4 core + earth	m	100		
8.3.6			6mm ² x 4 core + earth	m	400		
8.3.7			10mm ² x 4 core + earth	m	100		
8.3.8			16mm ² x 4 core + earth	m	300		
8.3.9			25mm ² x 4 core + earth	m	100		
8.3.10			35mm ² x 4 core + earth	m	100		
8.3.11			Cable marker with engraved steel plate	No.	10		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
8.3.12			Marking and labelling of cables and equipment	Sum	1		
8.3.13			Cable trench excavation and backfilling	m	700		
8.3.14			Excavation in soil 550 mm deep	m	700		
			Intermediate excavation	m ³	40		
8.3.16			Hard rock/ Concrete excavation	m ³	40		
			Import sand or stone - free soil including all handling	m ³	100		
8.3.18			Removal and dumping of access material including all handling	m ³	100		
			Exposing by hand to exposed civil pipework on the trench route	m ³	40		
8.3.20			Removing of paving and backfilling with paving	m ³	10		
8.3.21			LV cable tests and commissioning	Sum	1		
8.4			CABLE SUPPORTS				
			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, supply, delivery, offloading, storage and installation of the following materials:				
			Heavy Duty Hot Dipped Galvanised Mild Steel cable ladder, complete with T-sections, bends, splices, couplers, clamps, threaded rods, hangers, brackets etc to fix to trusses, walls etc				
8.4.1			100 x 100mm (W x H)	m	150		
8.4.2			200 x 100mm (W x H)	m	150		
8.4.3			300 x 100mm (W x H)	m	150		
8.4.4			600 x 100mm (W x H)	m	150		
8.4.5			800 x 100mm (W x H)	m	100		
			Hot dipped galvanised Mild Steel Wire Mesh Cable Tray, complete with T-sections, bends, splices, couplers, clamps, threaded rods, hangers, brackets etc to fix to trusses, walls etc				
8.4.6			100 x 50mm (W x H), Ø 4mm Wire	m	150		
8.4.7			200 x 50mm (W x H), Ø 4mm Wire	m	150		
8.4.8			300 x 50mm (W x H), Ø 4mm Wire	m	150		
8.4.9			400 x 50mm (W x H), Ø 4mm Wire	m	100		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			Hot Dipped Galvanised Steel Conduit: Complete with outlet boxes, bends, couplings, glue, flexible conduit connections/terminations, etc. connecting from sub-distribution boards/containment/galvanised conduits to relevant outlets, as indicated on the drawings and detailed in the specifications				
8.4.10			20mm Diameter	m	200		
8.4.11			25mm Diameter	m	200		
8.4.12			6 meter of 110 diameter flexible cable sleeves	No.	30		
8.5			CONTROL CABLES				
			Supply and install instrumentation and control cables Cu/PVC Insulated/PVC Bedded/SWA/PVC Sheathed 600/1000V multicore control cables with stranded conductors.				
8.5.1			1.5mm ² x 2 Core	m	500		
8.5.2			1.5mm ² x 4 Core	m	400		
8.5.3			1.5mm ² x 7 Core	m	250		
8.5.4			Supply and installation of cable accessories i.e Enviro gland, lugs, fasteners, cable marking etc.	Sum	1		
8.6			ELECTRICAL BUILDING SERVICES INSTALLATION				
			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, supply, delivery, offloading, storage and installation of the following materials:				
			Lighting Installation, in accordance with Building Electrical Layout: High Lift Pump Station and Intake Tower				
8.6.1			Luminaire L1: 42.8 W LED Vapour Proof Fitting	No.	60		
8.6.2			Luminaire L1: 42.8 W LED Vapour Proof Fitting Including Back-up Supply	No.	30		
8.6.3			Luminaire L3: 42.8 W LED Industrial Bulkhead light fitting.	No.	50		
			Power outlets, switches and isolators, in accordance with Building Electrical Layout				
8.6.4			16 Amp 3-pin 250V single industrial switched socket outlet	No.	10		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
8.6.5			16 Amp 3-pin 250V double industrial switched socket outlet	No.	6		
8.6.6			32 Amp 5-pin 400V industrial switched socket outlet	No.	5		
8.6.7			Motor local control stations equipped with local isolator, E-stop and start/stop push buttons including stainless steel mounting and supports	No.	6		
8.6.8			Actuators local control E-stop including mounting and supports	No.	12		
8.6.9			Photocell Daylight On/Off sensors (PS).	No.	4		
			Industrial Flush Mounted 16A Light Switches complete with boxes, cover plates switches etc; Similar or equivalent to Crabtree Classic Range				
8.6.10			1-Lever, 2-Way	No.	8		
			Single core PVC insulated house wire				
8.6.11			1.5 mm ²	m	1000		
8.6.12			2.5mm ²	m	500		
8.6.13			4mm ²	m	150		
	1.4.4.12		Single core PVC insulated earth wire				
8.6.14			1.5 mm ²	m	1000		
8.6.15			2.5mm ²	m	500		
8.6.16			4mm ²	m	150		
			Electronic Building Services				
8.6.16			Passive Infrared Occupancy Sensors, complete with mounting materials.	No.	8		
			Door Proximity Switch, complete with mounting materials.	No	8		
			Electromagnetic Door Lock, complete with mounting materials and management system (including back up power)	No	6		
	1.4.2		Solenoid Door Lock, complete with mounting materials	No	6		
			Optical smoke detection sensors	No	5		
			Fire Detection Panel	No	1		
			Electronic Building Services Wiring				
8.6.17	1.6.6/1.7.5		Access Control wiring	Sum	1		
8.6.18			Intruder Detection Wiring	Sum	1		
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
8.6.19			Fire detection wiring	Sum	1		
			Conduit surface mounted or installed to brickwork, concrete, steel or ceiling voids or cast into concrete or built/chased into brickwork or concrete. Complete with bends, couplings, glue etc.				
8.6.20			20mm Diameter, PVC	m	400		
8.6.21			25mm Diameter, PVC	m	300		
8.6.22			32mm Diameter, PVC	m	50		
8.6.23			20mm Diameter, Hot-dipped Galvanised Steel	m	100		
8.6.24			25mm Diameter, Hot-dipped Galvanised Steel	m	100		
			Round conduit boxes placed in position for casting into concrete or chased into brickwork or concrete				
8.6.25			20mm Diameter conduit, PVC	No	50		
8.6.26			25mm Diameter conduit, PVC	No	50		
8.6.27			20mm Diameter conduit, Hot-dipped Galvanised Steel	No	30		
8.6.28			25mm Diameter conduit, Hot-dipped Galvanised Steel	No	30		
			UPVC sleeve piping including short lengths and joining, laid in trench or through walls				
8.6.29			50mm Diameter pipe	m	80		
8.6.30			75mm Diameter pipe	m	80		
8.6.31			110mm Diameter pipe	m	50		
8.6.32			160mm Diameter pipe	m	80		
			Extra on UPVC piping for:				
8.6.33			50mm Long radius bend	No	50		
8.6.34			75mm Long radius bend	No	50		
8.6.35			110mm Long radius bend	No	50		
8.7			PROGRAMMABLE LOGIC CONTROLLER & TELEMETRY				
			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, factory acceptance testing (if indicated), supply, delivery, offloading, storage and installation of the following materials and equipment. In accordance with relevant specifications and drawings.				
Total Carried Forward							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SECTION 8

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RAND)
Brought Forward							
			PROGRAMMABLE PLC				
8.7.1			Programmable PLC panel complete in accordance to specification and drawings	Sum	1		
8.7.2			Programmable PLC hardware complete	Sum			
8.7.3			Supply PLC Software and Programming Complete (Simulation Testing included)	Sum	1		
			HMI				
8.7.4			MCC HMI (MCC Room)	No	1		
8.8			INDUSTRIAL NETWORK INSTALLATION				
			"Allow for all the costs and expenses in connection with the design, manufacture, routine testing, factory acceptance testing (if indicated), supply, delivery, offloading, storage and installation of the following materials and equipment. In accordance with relevant specifications and drawings."				
8.8.1			Steel Tape 8 core multimode fibre optic cable, directly buried.	m	200		
8.8.2			CAT6 Cables	m	150		
8.8.3			Fibre Optic to Ethernet Transceivers. Inclusive of patch panels, terminations, patch leads and fibre-to-copper converter modules.	No	6		
8.8.4			Supply miscellaneous hardware items (lugs, plugs, terminals and installation consumables)	Sum	1		
8.9			INSTRUMENTATION				
			Allow for all the costs and expenses in connection with the design, manufacture, routine testing, factory acceptance testing (if indicated), supply, delivery, offloading, storage and installation of the following materials and equipment. In accordance with relevant specifications and drawings.				
8.9.1			"Hydrostatic Level Meter (0-10 meters) including sensor, transmitter and mounting materials"	No	13		
8.9.2			"Wetted Ultrasonic Flow meter (0-10 m/s) including sensor, transmitter and mounting materials to DN 250 pipework. 16bar pressure rating."	No	4		
8.9.3			Pressure Switch complete with Transmitter including mounting materials	No	10		
Total Carried Forward To Summary							

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WESTERN HIGHVELD BULK WATER SUPPLY SCHEME
WORK PACKAGE 2

SUMMARY OF SECTIONS		
SECTION	DESCRIPTION	AMOUNT
1	PRELIMINARY AND GENERAL ITEMS	
2	PIPEWORK, FITTING	
3	VALVES	
4	CROSSING	
5	BOREHOLES	
6	PUMPSTATION	
7	STORAGE	
8	ELECTRICAL AND INSTRUMENTATION ☐	
SUBTOTAL A		
Plus 10% for Contingencies on Sub-Total A (Compulsory)		
SUBTOTAL B		
Plus 10% for Escalation on Sub-Total B (Compulsory)		
SUBTOTAL C		
PLUS 15% VAT on Sub-Total C (Compulsory)		
TOTAL TENDER PRICE		
COMPANY:		
ADDRESS:		
CELL:		
EMAIL:		
SIGNATURE:		
DATE:		

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2