



## INDEX

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*Tenderer*

*Witness 1*

*Witness 2*

*Employer*

*Witness 1*

*Witness 2*



ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	SABS 1200A	<b>SECTION 1 : PRELIMINARY &amp; GENERAL</b>				
1.1	8.3	<b>FIXED-CHARGES AND VALUE RELATED ITEMS</b>				
1.1.1	8.3.1	Contractual Requirements (PSA 4.1, PCY13.5)	Sum	1		
	8.3.2	<u>Establishment of Facilities on Site</u>				
	8.3.2.1	<u>Facilities for the Engineer</u>				
1.1.2	PSAB- 3.1	a) Engineer's Office (PSA 4.3.1)	Sum	1		
1.1.3	1200AB -3.1	b) Name Board (PSA 4.3.2)	Sum	2		
1.1.4	PSAB- 4.2	c) Survey Equipment	Sum	1		
1.1.5		d) Survey Assistant	Sum	1		
		-				
1.2	8.3.2.2	<u>Facilities for the Contractor</u>				
1.2.1		a) Offices, storage sheds	Sum	1		
1.2.2		e) Ablution and latrine facilities	Sum	1		
1.2.3		g) Water Supply, Electric Power and Communications	Sum	1		
1.2.4		h) Dealing with water	Sum	1		
1.2.5		i) Access	Sum	1		
1.2.6	8.3.3	Other Fixed-charge Obligations	Sum	1		
1.2.7	8.3.4	Removal of Site Establishment	Sum	1		
1.3	8.4	<b>TIME-RELATED ITEMS</b>				
1.3.1	8.4.1	Contractual Requirements (PSA 4.2)	Sum	1		
	8.4.2	<u>Operation and Maintain of Facilities on site for the Duration of the Construction</u>				
	8.4.2.1	<u>Facilities for the Engineer</u>				
1.3.2	1200AB -3.1	Furnished Offices, toilets facilities and carports	Sum	1		
1.3.3		Name Boards (PSA 4.3.2)	Sum	1		
1.3.4	PSA- 4.2	Survey Equipment	Sum	1		
1.3.5		Survey Assistant (Approx. 4 hours/week)	Sum	1		
1.3.6		Engineer Staff Accommodation	Prov.Sum			R440,000.00
<b>Sub-Total Carried Forward</b>						<b>R -</b>

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Sub-Total Brought Forward						R	-
	SABS 1200A						
	8.4.2.2	<u>Facilities for Contractor</u>					
1.3.6		a) Offices and storage sheds	Sum	1			
1.3.7		e) Ablution and latrine facilities	Sum	1			
1.3.8		g) Water Supply, Electric Power and Communications	Sum	1			
1.3.9		h) Dealing with Water	Sum	1			
1.3.10		i) Access	Sum	1			
1.3.11	8.4.3	Supervision (PCY 13.3)	Sum	1			
1.3.12	8.4.4	Company and Head Office Overhead Costs for the Duration of the Construction	Sum	1			
13.13	8.4.5	Other Time-related Obligations	Sum	1			
1.4	<b>PSA 4.5</b>	<b>OCCUPATIONAL HEALTH AND SAFETY</b>					
		Provision for thee cost related to the Occupational Health and Safety Act, 85 of 1993, and the relevant regulations					
1.4.1		(a) Preparing of a Health and Safety Plan	Sum	1			
1.4.2		(b) Compilation of a risk assessment prior to construction	Sum	1			
1.4.3		(c.) Health and Safety induction training of employes	Sum	1			
1.4.4		(d) Compilation and keeping up to date the health and safety file which shall include all documentation required in terms of the Act.	Sum	1			
1.4.5		(e.) Implementation of the health and safety plan over the entire construction period.	Sum	1			

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CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)

SUB-TOTAL CARRIED FORWARD TO SUMMARY						

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ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2		<b>SCHEDULE 2: PROVISIONAL SUMS, PRIME COST ITEMS, DAY WORKS AND TEMPORARY WORKS</b>				
2.1	SABS 1200 - A  PSA 4.6	<b><u>SUMS STATED PROVISIONALLY BY THE ENGINEER</u></b>				
		- <u>Remuneration</u>				
		-				
2.1.1	PCY 13.1	(a) Project Liaison Officer	Prov.Sum		220,000.00	R 220,000.00
2.1.2	PCY 13.1(a)	(b) Project Liaison Committee	Prov. Sum		300,000.00	R 300,000.00
2.1.3		(c.) Additional Laboratory Testing	Prov.Sum		150,000.00	R 150,000.00
2.1.4		(d) AS Built Survey/Drawings	Prov.Sum		85,000.00	R 85,000.00
2.1.5		(e.) Overheads, charges and profits on the above	%			
2.2		- <b><u>Training</u></b>				
2.2.1	PCY 13.5	(a) Accredited and Approved training courses for selected local and other labourers including wages during training	Prov.Sum	1	250,000.00	R 250,000.00
2.2.2		(b) Overheads, charges and profits on the above	%			
2.3	8.8	<b>TEMPORARY WORKS</b>				
2.3.1	8.8.1	Main Access Road to Works (Construct and maintain)	Sum	1		
2.3.2	8.8.2	Dealing with Traffic (or accomodation of traffic)	Sum	1		
2.3.3	8.8.3	Protection of existing structure until construction in vicinity is complete	Sum	1		
<b>Sub-Total Carried Forward</b>						

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Sub-Total Brought Forward						
2.4	Section DWK	<b>DAYWORKS (PROVISIONAL)</b>				
		<b>NOTE: Dayworks executed on instruction of the Engineer only</b>				
		<u>Labour</u>				
2.4.1		Skilled	hr	20		Rate Only
2.4.2		Semi-skilled	hr	20		Rate Only
2.4.3		Un-skilled	hr	60		Rate Only
		-				
		<u>Plant (wet rate)</u>				
		<u>Trucks (specify capacity)</u>				
2.4.4		Small - Tipper truck 10m3	hr	8		Rate Only
2.4.5		Small - Flatbed truck 6m3	hr	5		Rate Only
		<u>LDV (specify capacity)</u>				
2.4.6		LDV 1ton	hr	500		Rate Only
		<u>Water Tankers (specify capacity)</u>				
2.4.7		Watercart towable 8000 litres	hr	15		Rate Only
2.4.8		Watercart tanker 10000 litres	Km	10		Rate Only
		<u>Excavators (specify models)</u>				
2.4.9		20 ton	hr	50		Rate Only
		<u>TLB's</u>				
2.4.10		TLB's 4 x 4 - (0.5m3 bucket)	hr	60		Rate Only
		<u>Pedestrian roller</u>				
2.4.11		Equivalent to Bomag BW90	hr	100		Rate Only
		<u>Compactors (specify model)</u>				
2.4.12		Plate compactor	hr	45		Rate Only
2.4.13		Wackers (Rammers)	hr	45		Rate Only
		<u>Concrete Mixers (specify capacity)</u>				
2.4.14		Small - volume (250) litre	hr	25		Rate Only
2.4.15		Medium - volume (500) litre	Km	10		Rate Only
Sub-Total Carried Forward						

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Sub-Total Brought Forward						
		<u>Compressors Mixers (specify capacity)</u>				
2.4.16		Small - volume (.....) cfm	hr	10		Rate Only
2.4.17		Medium - volume (.....) cfm	Km	40		Rate Only
		<u>Water pumps (specify capacity)</u>				
2.4.18		Small - volume 1l/s	hr	80		Rate Only
2.4.19		Medium - volume 5 l/s	Km	20		Rate Only
		<u>Generators (specify KVA)</u>				
2.4.20		Small capacity (10) KVA	hr	40		Rate Only
2.4.21		Medium capacity (50) KVA	Km	80		Rate Only
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

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ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3		<b>SCHEDULE 3: SITE CLEARANCE</b>				
3.1	SABS 1200C	<b>SITE CLEARANCE</b>				
3.1.1	8.2.1	Clear and grub (PSC 4.1)	ha	2		
	8.2.2	Remove and grub large trees and tree stumps of girth				
3.1.2		a) Over 1m and up to and including 2m	No			Rate Only
3.1.3		b) Over 2m and up to and including 3m	No			Rate Only
3.1.4	8.2.3	Remove and grub all trees and tree stumps regardless of girth	ha	1		
3.1.5	8.2.4	Re-clear surfaces (only on instruction from the Engineer)				Rate Only
3.1.6	8.2.10	Remove topsoil to a nominal depth of 150mm, stockpile and replace as instructed by Engineer	m <sup>2</sup>	1450		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

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ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4		<b>SCHEDULE 4: EARTHWORKS</b>				
4.1	SABS 1200 DB	<b>EARTHWORKS</b>				
	8.3.1	Excavation				
4.1.1	8.3.1	a) Remove top soil to nominal depth of 150 mm, stockpile and maintain	m <sup>2</sup>	11200		
4.1.2		b) Excavate in all materials and dispose	m <sup>3</sup>	10800		
4.1.3		c) Extra-over for				
4.1.3		1) Intermediate excavation	m <sup>3</sup>	2160		
4.1.4		2) Hard rock excavation	m <sup>3</sup>	1080		
4.1.5		3) Boulder excavation, Class A	m <sup>3</sup>			Rate Only
4.1.6		4) Boulder excavation, Class B	m <sup>3</sup>			Rate Only
	8.3.2	Restricted Excavation				
4.1.7		a) Excavate for restricted foundations, footings, and trenches in all materials and dispose	m <sup>3</sup>	60		
4.2	SABS 1200DB	<b>EARTHWORKS (PLATEFORM)</b>				
4.2.1	PSDB 8.3.9	Importation, place and compact to 95% Mod AASHTO of fill material from commercial source (material to be G5 quality or better)	m <sup>3</sup>	3600		
4.3	SABS 1200DM	<b>EARTHWORKS</b>				
4.3.1	8.3.5	Selected layer compacted to 93 % of modified AASHTO maximum density 150 mm thick layer under the reservoir slab (Provisional)	m <sup>3</sup>	310		
	8.3.3	Excavation Ancillaries				
	8.3.3.1	Make up deficiency in backfill material				
4.3.2		a) From other necessary excavations on site	m <sup>3</sup>	250		
4.3.3		b) By importation from designated borrow pits	m <sup>3</sup>	650		
4.3.4		c) By importation from commercial or off site sources selected by the contractor	m <sup>3</sup>	250		
4.3.5	8.3.3.2	Opening up and closing down of designated borrow pit	Sum	1		
	8.3.3.3	<b>COMPACTION IN ROAD RESERVES</b>				
4.3.6		Additional compaction to 93% mod AASHTO density in road reserves	m <sup>3</sup>	150		
	8.3.3.4	Overhaul				
4.3.7		b) Long overhaul	m <sup>3</sup> /Km	18750		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

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ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5	SABS 1200-L	<b>SCHEDULE 5: MEDIUM PRESSURE PIPELINES</b>				
5.1	PSG 8.16	<b>PRESSURE PIPES</b>  Supply, deliver, store, protect, handle, lay, cut, bed clean, disinfect and test pipes, complete with couplings				
5.1.1		Diameter 500mm uPVC PN9	m	300		
5.2		<b>PRESSURE FITTINGS</b>  Supply, deliver, store, protect, handle, lay, cut, bed fittings and couplings including testing and disinfection				
		<u>Bends</u>				
5.2.1		Diameter 500mm X 11.5 degree CLASS 9	No	1		
5.2.2		Diameter 500mm X 22.5 degree CLASS 9	No	2		
5.2.3		Diameter 500mm X 45 degree CLASS 9	No	2		
5.2.4		Diameter 500mm X 90 degree CLASS 9	No	3		
		<u>T Junctions (Type steel - flanged)</u>				
5.2.5		Diameter 500mm X 500mm	No	2		
5.3		<b>CONCRETE THRUST BLOCKS</b>  Anchor blocks, thrust blocks and pedestals for up to 500mm pipes including excavation, formwork and finishing on Class 25Mpa/19mm concrete				
5.3.1			m3	20		
5.4		<b>CONNECTION INTO EXISTING BULKLINE</b>  Connect into existing water pipe lines including all labour and materials to complete the connections				
5.4.1		630mm	No	2		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

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ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>6</b>		<b>SCHEDULE 6: BEDDING</b>				
6.1	8.2.1	<b>BEDDING FROM TRENCH EXCAVATION</b> Provision for bedding material from trench excavation				
6.1.1		Selected granular material	m <sup>3</sup>	68		
6.1.2		Selected fill material	m <sup>3</sup>	250		
6.2	8.2.2	<b>BEDDING BY IMPORTATION</b> Provision for bedding by importation from other necessary excavations within the freehaul distance				
6.2.1	8.2.2.1	Selected granular material	m <sup>3</sup>	15		
6.2.2		Selected fill material	m <sup>3</sup>	100		
6.2.3	8.2.2.3	Provision for bedding by importation from commercial sources selected by the contractor Selected granular material	m <sup>3</sup>	50		
6.2.4		Selected fill material	m <sup>3</sup>	50		
6.2.5	8.2.4	Encasing of pipes up to 630mm diameter on 15 Mpa concrete complete including all formwork	m <sup>3</sup>	25		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

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ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>7</b>		<b>SCHEDULE 7 - RESERVOIR CHAMBERS</b>				
<b>7.1</b>		<b>RESERVOIR CHAMBERS</b>				
	SABS 1200 D	<b>EARTHWORKS</b>				
	8.3.3	Restricted excavation				
7.1.1		a) Excavation in all materials and use for backfill - including temporary stockpiling to form embankment later (compacted to 95% MOD AASHTO)	m <sup>3</sup>	410		
7.1.2		b) Extra-over for (1) Hard rock excavation	m <sup>3</sup>			Rate Only
7.1.3	8.3.5	Extra excavation in all materials to provide working space around structure	m <sup>2</sup>	300		
	8.3.9	Extra-over for backfill or fill against structures using:				
7.1.4		(a) 2% Soil cement	m <sup>3</sup>	90		
7.1.5		(b) 5% Soil cement	m <sup>3</sup>	90		
<b>7.2</b>	SABS 1200 G	<b>CONCRETE</b>				
	8.2	SCHEDULED FORMWORK ITEMS				
	8.2.2	Smooth (a) Vertical				
7.2.1		(1) Sides of surface beds	m <sup>2</sup>	25		
7.2.2		(2) Walls	m <sup>2</sup>	396		
	8.2.5	Narrow widths (up to 250mm wide)				
7.2.3		(a) Smooth	m	66		
	8.2.6	Box out holes/form voids				
		(a) Large, other than circular, of area over 0,1m <sup>2</sup> and up to and including 2 m <sup>2</sup>				

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)**

		Over and up to				
7.2.4		(1) 0m 0.6m deep	No	16		
7.3	8.3	SCHEDULED REINFORCEMENT ITEMS				
	8.3.1	Steel Bars				
7.3.1		(1) Mild Steel reinforcement	t	2		
7.3.2		(2) High-tensile reinforcement	t	5		
7.3.3		(3) mesh reinforcing	Kg	250		
<b>Sub-Total Carried Forward</b>						
<b>Sub-Total Brought Forward</b>						
7.4	8.4	SCHEDULED CONCRETE ITEMS				
	8.4.2	Blinding layer				
7.4.1		(a) 50mm minimum thickness grade 15MPa/19mm concrete under floors	m <sup>2</sup>	138		
	8.4.3	Strength concrete				
		(a) Grade 25MPa/19mm concrete,				
7.4.2		(i) Floors	m <sup>3</sup>	10		
7.4.3		(ii) Walls	m <sup>3</sup>	40		
7.4.4		(iii) Roofs	m <sup>3</sup>	10		
7.4.5		(iv) Anchor pipes	m <sup>3</sup>	25		
	8.4.4	Unformed surface finishes				
7.4.6		(a) Wood-floated finish	m <sup>2</sup>	396		
7.4.7		(b) Steel-floated finish	m <sup>2</sup>	416		
	8.7	GROUTING IN ALL THICKNESS WALLS				
7.4.8		(a) Grout into place pipes with diameter greater than 300mm and equal to or less than 600mm	No	16		
7.5	<b>SABS 1200 L</b>	<b>STEEL PIPES AND FITTINGS</b>				

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	<b>INLET CHAMBERS (MONDE/W/20/01/DR01)</b> Fabrication, supply, transport and install and test the following pipe fittings and valves. All items to be approved by Engineer prior to ordering				
7.5.1	Item 4.1.1 500 Dia. 45 deg. Flanged MS elbow	No	2		
7.5.2	Item 4.1.2 500mm dia. 90 deg. Flanged MS elbow extended with pubble flange	No	2		
7.5.3	Item 4.1.3 500mm dia. Flanged MS pipe	No	2		
7.5.4	Item 4.1.4 500mm dia. Flanged MS pipe	No	2		
7.5.5	Item 4.1.5 500mm dia. 90 deg. Flanged MS elbow	No	2		
7.5.6	Item 4.1.6 500mm dia. Pubble flange	No	1		
7.5.7	Item 4.1.7 500mm dia. Flanged adaptor	No	1		
7.5.8	Item 4.1.8 500mm dia. MS pubble flange	No	1		
7.5.9	Item 4.1.9 500mm dia. X 450mm dia. , GMS concentric reducer, flanged both ends and drilled to SABS 1123, Table 2500/3	No	1		
7.5.10	Item 4.1.10 450mm dia. Flanged Bermad Valve	No	1		
7.5.11	Item 4.1.11 450mm dia. Pipe piece flanged one end and other end suitable for flange adaptor	No	1		
7.5.12	Item 4.1.12 450mm dia. Battery operated flowmeter	No	1		
7.5.13	Item 4.1.13 450mm flanged MS pipe	No	1		
7.5.14	Item 4.1.14 450mm dia RSV Gate valve flanged both ends	No	1		
7.5.15	Item 4.1.15 500mm dia. Flanged adaptor	No	2		
7.5.16	Item 4.1.16 450mm dia. Flanged adaptor	No	2		
7.5.17	Item 4.1.17 500mm dia. RSV Gate valve, flanged both ends	No	2		
7.5.18	Item 4.1.18 500mm dia. T-piece MS pipe	No	1		
7.5.19	Item 4.1.19 500mm dia. MS pubble flange	No	1		
7.5.20	Item 4.1.20 500mm dia. MS pubble flange	No	1		
7.5.21	Item 4.1.21 500mm dia. X 450mm dia., GMS concentric reducer, flanged both ends	No	1		
7.5.22	Item 4.1.22 500mm dia. MS pabble flange	No	1		
<b>Sub-Total Carried Forward</b>					

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Sub-Total Brought Forward					
<b>7.6</b>		<b>OUTLET CHAMBERS</b> Fabrication, supply, transport and install and test the following pipe fittings and valves. All items to be approved by Engineer prior to ordering			
7.6.1		Item 4.4.1 500mm dia. Adaptor	No	1	
7.6.2		Item 4.4.2 500mm flanged, GMS pipe piece	No	1	
7.6.3		Item 4.4.3 500mm dia. 90 deg. Flanged MS elbow	No	1	
7.6.4		Item 4.4.4 500mm dia. RSV Gate Valve	No	1	
7.6.5		Item 4.4.5 500mm dia. Flanged, GMS pipe piece, with pubble flange	No	1	
7.6.6		Item 4.5.1 500mm dia. Flange adaptor	No	1	
7.6.7		item 4.5.2 500mm dia. Flanged GMS pipe piece with pubble flange	No	1	
7.6.8		Item 4.5.3 500mm flanged, GMS pipe piece with pubble flange	No	1	
7.6.9		Item 4.5.4 500mm dia. RSV Gate Valve	No	1	
7.6.10		Item 4.5.5 500mm dia. 90 deg flanged Equal Tee	No	1	
<b>7.7</b>		<b>OVERFLOW AND SCOUR CHAMBER</b> Fabrication, supply, transport and install and test the following pipe fittings and valves. All items to be approved by Engineer prior to ordering			
7.7.1		Item sc 4.2.1 700mm dia to 500mm dia. MS reducing pipe piece flanged one end.	No	2	
7.7.2		Item sc 4.2.2 500mm dia. Flanged MS pipe	No	4	
7.7.3		Item sc 4.2.3 500mm dia. 90 deg. Flanged MS elbow	No	4	
7.7.4		Item sc 4.2.4 500mm dia. MS pipe piece flanged one end and other end suitable for flexible coupling	No	1	
7.7.5		Item sc 4.2.5 500mm dia flexible coupling	No	2	
7.7.6		Item sc 4.2.6 500mm dia. MS pipe piece, flanged one End and other end suitable for flexible coupling	No	2	

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
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OF 2x10ML CONCRETE RESERVOIR)**

7.7.7		Item sc 4.2.7 500mm dia. MS flanged pipe piece with pubble flange	No	2		
7.7.8		Item sc 4.3.1 500mm dia. MS pipe piece both ends plain with pubble flange	No	2		
7.7.9		Item sc 4.3.2 500mm dia. Flexible coupling	No	4		
7.7.10		Item sc 4.3.3 500mm dia. MS pipe piece, both ends plain with pubble flange	No	2		
7.7.11		Item sc 4.3.4 500mm dia. Flange adaptor	No	2		
7.7.12		Item sc 4.3.5 500mm dia., RSV Gate Valve flanged both ends	No	2		
7.7.13		Item sc 4.3.6 500mm dia x 500mm dia. MS Tee-Piece	No	2		
7.7.14		Item sc 4.3.7 500mm dia. MS pipe piece flanged one end and other end suitable for flexible coupling	No	2		
<b>Sub-Total Carried Forward</b>						
<b>Sub-Total Brought Forward</b>						
<b>7.8</b>		<b>BALANCING CHAMBERS</b> Fabrication, supply, transport and install and test the following pipe fittings and valves. All items to be approved by Engineer prior to ordering				
7.8.1		Item 4.6.1 500mm dia. Flange adaptor	No	1		
7.8.2		Item 4.6.2 500mm dia. Flange, GMS pipe piece with pubble flange	No	1		
7.8.3		Item 4.6.3 500mm dia. Flanged GMS pipe piece with pubble flange	No	1		
7.8.4		Item 4.6.4 500mm dia. RSV Gate Valve	No	1		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2





ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8		<b>SECTION 8: CONCRETE (RESERVOIR)</b>				
8.1	SABS 1200G	<b>CONCRETE</b>				
		<b>CONCRETE (STRUCTURAL)</b>				
	8.2	<b>SCHEDULED FORMWORK ITEMS</b>				
	8.2.1	<u>Rough</u>				
8.1.1		a) Rough vertical plane to walls, footings and slabs in reservoir below ground	m <sup>2</sup>	540		
8.1.2		b) Rough vertical planes to walls and footings in pipe chambers and sumps below the ground	m <sup>2</sup>	100		
8.1.3		c) Vertical planes to curved wall of 125mm high concrete apron	m <sup>2</sup>	100		
	8.2.2	<u>Smooth</u>				
8.1.4		a) Vertical plane to curved walls above ground level	m <sup>2</sup>	4250		
8.1.5		b) Horizontal plane to roof soffit	m <sup>2</sup>	3620		
8.1.6		c) Vertical plane to beam around roof	m <sup>2</sup>	285		
8.1.7		d) Inclined plane to form shear cone at column heads	m <sup>2</sup>	600		
8.1.8		e) Circular vertical plane to 400 mm diameter columns	m <sup>2</sup>	570		
8.1.9		f) horizontal plane to roof slab soffit of chambers	m <sup>2</sup>	216		
8.1.10		g) 25mm drip notch as per details on drawing	m	650		
	8.2.5	Narrow Widths (up to 300 mm wide)				
8.1.11		a) In reservoir structure	m	300		
8.1.12		b) In vertical plane to chamber roof slab	m	300		
8.1.13		c) Form 25 mm x 25 mm fillets around all exposed edges	m	450		
	8.2.6	Box Out Holes / Form Voids				
		Small, circular, of diameter up to and including 0,65 m				
		Over and up to and including				
8.1.14		1) - 0,5 m deep	number	4		
		Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2				

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2



CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)

8.1.15		Over and up to and including 1) - 0,5 m deep	number	4		
Sub-Total Carried Forward						

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Sub-Total Brought Forward						
8.2	SABS 1200G	<b>SCHEDULED REINFORCEMENT ITEMS</b>				
8.2.1	8.3.1	a) High tensile steel bars	t	360		
8.2.2	8.3.1	b) Mild steel bars	t	15		
8.2.2	PSG 8.3.2	High-tensile welded mesh	t	2		
8.3	SABS 1200GF	<b>PRESTRESSED CONCRETE</b> The prestressed of the concrete reservoir should be done by specialist contractor. The specialist contractor to produce the construction drawing that need to be approved by the Engineer.				
8.3.1	8.2.1	Establishing on site, maintenance and dismantling of tensioning beds and equipment	Sum	1		
8.3.2	8.2.7.1	Supply and install sheathing and tendons	MN.m	6450		
8.3.3	8.2.7.2	Supply and install anchorages and couplers to suit tendons				
		a) Anchorage at jacking end	MN	1250		
8.3.4	8.2.3.4	Post-tensioning and grouting of items supplied under items 8.3.2 and 8.3.3	No	650		
8.3.5	8.2.6	Special tests	Sum	1		
8.4	SABS 1200G	<b>CONCRETE (STRUCTURAL)</b>				
	8.4	<b>SCHEDULED CONCRETE ITEMS</b>				
	8.4.2	Blinding layers				
8.4.1		(a) Blinding layer in class 15/19 concrete (100 mm thick)	m <sup>3</sup>	380		
8.4.2		(b) No fines concrete, 85 mm thick	m <sup>3</sup>	380		
8.4.3		(c.) No fines concrete, sub-soil drainage system	m <sup>3</sup>	270		
	8.4.3	<u>Strength Concrete</u>				
		<u>c) Grade 35/19 in reservoir:</u>				
8.4.4		i) To wall footings	m <sup>3</sup>	228		
8.4.5		ii) Reservoir floor slab	m <sup>3</sup>	980		
8.4.6		iii) To Reservoir walls	m <sup>3</sup>	780		
8.4.7		iv) To internal columns and column heads (shear cones)	m <sup>3</sup>	174		

Tenderer

Witness 1

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Project No: 150362/4

**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)**

8.4.8		v) To roof ring beam	m <sup>3</sup>	130		
8.4.9		(d) Grade 25/19 for apron and v-drain	m <sup>3</sup>	80		
Sub-Total Carried Forward						

Tenderer

Witness 1

Witness 2

Employer

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Sub-Total Brought Forward						
	8.4.4	<u>Unformed surface finishes</u>				
		a) Wood-floated finish				
8.4.10		i) To top of concrete	m <sup>2</sup>	152		
		<u>b) Steel-floated finish</u>				
8.4.11		i) To top of foundation inside reservoir and strip footing	m <sup>2</sup>	450		
8.4.12		ii) To reservoir floor	m <sup>2</sup>	3620		
8.4.13		iii) To reservoir roof	m <sup>2</sup>	3620		
8.4.14		iv) To top of reservoir wall	m <sup>2</sup>	110		
8.4.15		v) To top of roof beam	m <sup>2</sup>	135		
8.4.16		vi) To top of chamber floor slabs	m <sup>2</sup>	5		
8.4.17		vii) To top of chamber walls	m <sup>2</sup>	5		
8.4.18		viii) To top of chamber roof	m <sup>2</sup>	5		
8.4.19	PSG 3.7.3	Pipes and conduits embedded in concrete	No	16		
8.4.20	PSG 3.7	Grouting of pipes / specials through walls	No	22		
	8.5	<u>Joints</u>				
8.4.21		a) Wall construction joint complete as detailed on the drawings on the drawings with stainless steel	m	1260		
8.4.22		b) Joints between floor panels with 250 mm wide bandage and rear water bar complete as detailed on the drawings.	m	1070		
8.4.23		c) Joints between floor and wall complete as detailed on the drawing	m	302		
8.4.24		(d) Joints between reservoir wall and apron/drain (20mm Jointex with approved sealant)	m	302		
8.5		<u>Miscellaneous</u>				
		-				
8.5.1		a) Supply and install under reservoir wall footings 2 No Layers of DPC to form slip joint as per details on the drawings.	m <sup>2</sup>	200		
8.5.2		b) Supply and install Thermo insulation as detailed on the drawings.	m <sup>2</sup>			Rate Only
8.5.3		c) Supply and install 10 mm thick soft board to top of foundations and strip footing as per drawing	m <sup>2</sup>			Rate Only
8.5.4		110 mm diameter perforated drain pipe	m	1100		
8.5.5						

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Witness 1

Witness 2

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)**

		Supply and install Limitless bearing strip between wall and roof	m <sup>2</sup>	110		
8.5.6		Waterproof membrane under floor - 1 mm LLD Polyethylene sheeting	m <sup>2</sup>	3620		
8.5.7		Supply and install roof weep holes as per drawing	No	48		
		<u>Reservoir and chamber access and ventilation</u>				
8.5.8		a) Manhole cover and frame for reservoir access complete with locking bar and lock	number	4		
8.5.9		b) Supply and install hot dipped galvanised roof ventilators to the reservoir roof as indicated on the drawings	number	16		
<b>Sub-Total Carried Forward</b>						
<b>Sub-Total Brought Forward</b>						
8.5.10		c) Internal ladder to reservoir installed complete as indicated on the drawings	number	2		
8.5.11		d) External ladder to reservoir installed complete as indicated on the drawings	number	2		
8.5.12		e) PVC step irons installed in chambers	number	96		
8.5.13		f) Supply and install level control devices	No	2		
8.5.14	PSG 3.13	Testing for water tightness	Sum	1		
8.5.16	PSG 3.13	Cleansing and disinfection	Sum	1		
8.5.17		AGGREGATE 19MM Nominal aggregate supplied as insulation layer and placed uniformly to 100mm thick on reservoir roof	m <sup>2</sup>	3470		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

Tenderer

Witness 1

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Employer

Witness 1

Witness 2



ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>9</b>		<b>SCHEDULE 9 - BUILDINGS</b>				
9.1		<b>PUMP STATION AND GUARD HOUSE</b>				
	SABS 1200 D	<b>EARTHWORKS</b>				
	8.3.3	Restricted excavation				
9.1.1		a) Excavation in all materials and use for backfill - including temporary stockpiling to form embankment later (compacted to 95% MOD AASHTO)	m <sup>3</sup>	80		
		b) Extra-over for				
9.1.2		(1) Hard rock excavation	m <sup>3</sup>			Rate Only
9.1.3	8.3.5	Extra excavation in all materials to provide working space around structure	m <sup>2</sup>	132		
9.2	SABS 1200 G	<b>CONCRETE</b>				
	8.2	<b>SCHEDULED FORMWORK ITEMS</b>				
	8.2.2	Smooth				
		(a) Vertical				
9.2.1		(1) Column	m <sup>2</sup>	40		
9.2.2		(2) Beams	m <sup>2</sup>	70		
		(b) Horizontal				
9.2.3		(1) Beams	m <sup>2</sup>	20		
9.2.4		(2) Roof	m <sup>2</sup>	130		
	8.2.5	Narrow widths (up to 250mm wide)				
9.2.5		(a) Smooth	m	70		
	8.2.6	Box out holes/form voids				
		(a) Large, other than circular, of area over 0,1m <sup>2</sup> and up to and including 2 m <sup>2</sup>				

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Witness 1

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)**

		Over and up to				
9.2.6		(1) 0m 0.6m deep	No	4		
9.3	8.3	SCHEDULED REINFORCEMENT ITEMS				
	8.3.1	Steel Bars				
9.3.1		(1) Mild Steel reinforcement	t	1		
9.3.2		(2) High-tensile reinforcement	t	6		
9.3.2		(3) mesh reinforcing	Kg	520		
<b>Sub-Total Carried Forward</b>						

Tenderer

Witness 1

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Sub-Total Brought Forward					
9.4	8.4	SCHEDULED CONCRETE ITEMS			
	8.4.2	Blinding layer			
9.4.1		(a) 50mm minimum thickness grade 15MPa/19mm concrete under floors	m <sup>2</sup>	130	
	8.4.3	Strength concrete			
		(a) Grade 25MPa/19mm concrete,			
9.4.2		(i) Foundation	m <sup>3</sup>	20	
9.4.3		(ii) Floors	m <sup>3</sup>	35	
9.4.4		(iii) Column and beam	m <sup>3</sup>	10	
9.4.5		(iv) Roofs	m <sup>3</sup>	35	
9.4.6		(v) Anchor pipes	m <sup>3</sup>	10	
	8.4.4	Unformed surface finishes			
9.4.7		(a) Wood-floated finish	m <sup>2</sup>	135	
9.4.8		(b) Steel-floated finish	m <sup>2</sup>	195	
	8.7	GROUTING IN ALL THICKNESS WALLS			
9.4.9		(a) Grout into place pipes with diameter greater than 300mm and equal to or less than 600mm	No	4	
9.5	SABS 1200 H	STRUCTURAL STEELWORK			
		Supply,fabrication, install and test			
9.5.1		(1) 254x146x31 Kg/m I-Beam with trolley and chain hoist for 1 Ton lifting capacity	No	1	
	SABS 1200 HA	STRUCTURAL STEELWORK (SUNDRY ITEMS)			
	8.3.4	Flooring, Complete and Installed with frames			
9.5.2		(a) Open grid floors	m <sup>2</sup>	20	

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<b>Sub-Total Carried Forward</b>						
<b>Sub-Total Brought Forward</b>						
9.6	<b>PB</b>	<b>BUILDING WORK SPECIFICATIONS</b>				
	PB 8.2	SCHEDULE ITEMS				
	PB 8.2.1	Brickwork				
9.6.1		(a) 230mm wall, inner wall built with claytile clay brick and other wall built with FBX clay face brick (in stack bond with keyed joints).	m <sup>2</sup>	298		
9.6.2		(b) 230mm wall below ground foundation with clay brick	m <sup>2</sup>	58		
	PB 8.2.6	Plasterwork				
9.6.3		(a) One coat 1:4 cement plaster	m <sup>2</sup>	298		
	PB 8.2.7	Floor screeds and finishes				
9.6.4		(a) Normal cement screed	m <sup>2</sup>	110		
	PB 8.2.9	Waterproofing				
9.6.5		(a) Damp-proof course in walls	m	60		
9.6.6		(b) Damp-proof membrane under floors	m <sup>2</sup>	110		
9.6.7		(c.) Damp-proof course under window sills	m	15		
	PB 8.2.17	Joinery including stainless steel frames, ironmongery and installation thereof				
9.6.8		(a) Provisional Sum for Doors	Sum	1		
9.6.9		(b) Contractor's overheads and profit on item....	%			

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	PB 8.2.18	Metal work				
9.6.10		(a) Provisional Sum for windows and louvres	Sum	1		
9.6.11		(b) Contractor's overheads and profit on item.....	%			
<b>Sub-Total Carried Forward</b>						
<b>Sub-Total Brought Forward</b>						
	PB 8.2.20	Painting				
9.6.10		(a) Internal walls: Paint one coat primer and two coats low odour premium quality velvet sheen wall coatings that is highly washable and stain resistant. Paint to comply to total volatile organic compounds limits of the green building society - Table IEQ-9.1	m <sup>2</sup>	298		
	PB 8.2.22	Miscellaneous				
9.6.11		(a) Water supply pipework and plumbing for all sanitary ware for 2 standpipes, including connection to nearest potable water supply line, 100m away.	Sum	1		
9.6.12		(b) Sanitation facility including toilet seat, wash hand, plumbing at the Guardhouse, construction of septic tank (5m3) and connected to the guardhouse	Sum	1		
9.6.12		(c.) Precast concrete lintels over door frames and other brickwork openings, allow minimum 150mm bearing each side	m	20		
9.6.13		(d) Supply and install 5Kg fire extinguishers complete in fire closet with signage and all accessories	No	4		
9.6.14		(e.) Building signage	Prov-sum	1	5620	R
9.6.15		(f) Contractor's overheads and profit on item 9.5.29	%			5,620.00

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
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OF 2x10ML CONCRETE RESERVOIR)**

9.6.16	(g) Provisional sum for small power and lighting	Prov-sum	1	85600	R
9.6.17	(h) Contractor's overheads and profit on item....	%			85,600.00
	Fencing				
	Rates for fencing shall include supply and installation including all excavations and concrete for post foundations.				
9.6.18	(a) Invisible fence type 3m high supplied and installed complete with 4mm dia. High tensile wires.	m	450		
9.6.19	(b) Invisible fencing gate 6m wide 3m high supplied and installed complete including rails and wheels with 4mm dia. High tensile wires.	No	1		
9.6.20	(c.) Invisible fence pedestrian gate 3m high supplied and installed complete with 4mm dia. High tensile wires.	No	1		
<b>Sub-Total Carried Forward</b>					

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Sub-Total Brought Forward						
<b>9.7</b>	<b>SABS 1200 L</b>	<b>STEEL PIPES AND FITTINGS</b>				
		<b>PUMP STATION</b>				
		Fabrication, supply, transport and install and test the following pipe fittings and valves. All items to be approved by Engineer prior to ordering				
9.7.1		Item 1 300x350mm dia. Eccentric reducer flanged	No	2		
9.7.2		Item 2 350mm dia. Expansion joint piece	No	2		
9.7.3		Item 4 350mm Dia. 45 deg. Flanged MS elbow	No	2		
9.7.4		Item 5 350mm dia. Flanged MS pipe	No	2		
9.7.5		Item 6 350mm dia, RSV Gate Valve	No	2		
9.7.6		Item 7 350mm dia. Y-filter both end flange	No	2		
9.7.7		Item 8 500mm x 350mm dia. Flange Y-piece	No	2		
9.7.8		Item 9 500mm dia. Flanged MS pipe	No	1		
9.7.9		Item 10 500mm dia. Flanged MS pipe	No	1		
9.7.10		Item 11 500mm dia flanged MS pipe with pubble flange	No	1		
9.7.11		Item 12 250mmx300mm concetric reducer flanged	No	2		
9.7.12		Item 13 300mm dia. Expansion joint piecee	No	2		
9.7.12		Item 14 300mm dia. Check Valve	No	2		
9.7.13		Item 15 300mm dia. Gate Valve	No	2		
9.7.14		Item 16 300mm dia. 90 deg. Flanged MS elbow	No	2		
9.7.15		Item 17 300mm dia. Flanged MS pipe	No	2		
9.7.16		Item 18 300mm dia. 90 deg. Flanged MS elbow	No	2		
9.7.17		Item 19 300mm dia. Flanged MS pipe	No	2		
9.7.18		Item 20 300mm dia. 90 deg. Flanged MS elbow	No	2		
9.7.19		Item 21 300mm dia. Flanged MS pipe	No	1		
9.7.20		Item 22 300mm dia. 90 deg. Flanged MS elbow	No	1		
9.7.21		Item 23 300mm dia. Flanged MS pipe	No	1		
9.7.22		Item 24 300mm dia. RSV Gate Valve	No	1		
9.7.23		Item 25 300mm x 300mm dia. Flanged MS pipe T-piece	No	1		
9.7.24		Item 26 300mm dia. Flanged MS pipe	No	1		
9.7.25		Item 27 300mm dia. Flanged MS pipe	No	1		

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY – WORK PACKAGE 4 (CONSTRUCTION  
OF 2x10ML CONCRETE RESERVOIR)**

9.7.26		Item 28 300mm dia. 90 deg. Flanged MS elbow	No	1		
9.7.27		Item 29 300mm dia. Flanged MS pipe	No	1		
9.7.28		Item 30 300mm dia. 90 deg. Flanged MS elbow	No	1		
9.7.29		Item 31 300mm dia. Flanged MS pipe	No	1		
9.7.30		Item 32 300mm x 500mm dia. Concentric reducer	No	1		
9.7.31		Item 33 500mm dia. Flanged MS pipe	No	2		
9.7.32		Item 34 500mm dia. 90 deg. Flanged MS elbow	No	1		
9.7.33		Item 35 500mm flange adaptor	No	4		
9.7.34		Item 36 500mm flexible coupling	No	4		
9.7.35		254x146x31 I-beam with base plate both end, including steel bracket to support a 300mm dia. Pipe (3300mm long)	No	2		
9.7.36		Supply, deliver, install, test and commission a water pump (ETA 250-40) or similar, duty point Q= 832m <sup>3</sup> /h @ 30m	No	2		
<b>Sub-Total Carried Forward</b>						
<b>Sub-Total Brought Forward</b>						
9.8		<b>ELECTRICAL INSTALLATION AND TELEMETRY</b>				
9.8.1		Supply, deliver and install electrical equipment all complete				
9.8.1		Apply, supply, deliver, install and commission 150KVA transformer	Sum	1		
9.8.2		Design, supply, deliver, install and commission of the Telemetry at the pump station and reservoir site	Sum	1		
9.8.3		Supply, deliver and install a stand by 150KVA generator at the pump station and				

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**CONSTRUCTION OF THE LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
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OF 2x10ML CONCRETE RESERVOIR)**

		reservoir site including the foundation and platform	Sum	1		
9.8.4		Design, supply, deliver, install and commission of electrical cable at the pump station and reservoir site	Sum	1		
9.8.5		Design, supply, deliver, install and commission of outside light around the site ( 4 position of light)	Sum	1		
9.8.6		Testing the complete installation and issue of COC	Sum	1		
<b>SUB-TOTAL CARRIED FORWARD TO SUMMARY</b>						

*Tenderer*

*Witness 1*

*Witness 2*

*Employer*

*Witness 1*

*Witness 2*



<b>SUMMARY</b>		
<b>SECTION</b>	<b>ITEM</b>	<b>AMOUNT</b>
Section 1	PRELIMINARY & GENERAL	
Section 2	PROVISIONAL SUMS, PRIME COST ITEMS, DAY WORKS AND TEMPORARY WORKS	
Section 3	SITE CLEARANCE	
Section 4	EARTHWORKS	
Section 5	MEDIUM PRESSURE PIPELINES	
Section 6	BEDDING	
Section 7	RESERVOIR CHAMBERS	
Section 8	CONCRETE (RESERVOIR)	
Section 9	BUILDINGS	
<b>Sub-Total</b>		
<b>10% Contingencies</b>		
<b>10% Escalation</b>		
<b>Sub-Total</b>		
<b>15% VAT</b>		
<b>CARRIED FORWARD TO THE FORM OF OFFER</b>		

*Tenderer*

*Witness 1*

*Witness 2*

*Employer*

*Witness 1*

*Witness 2*