O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: NewTown

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
1.	SANS 1200 A		**SECTION 1 : PRELIMINARY AND GENERAL**				
1.1	8.3		**FIXED-CHARGE ITEMS**				
1.1.1	8.3.1		Contractual Requirements	L/Sum	1		-
1.1.2	8.3.2		**Provision of facilities on site:**				-
1.1.2.1	8.3.2.1 PSA & PSAB		**Establishment of Facilities on the Site**				-
1.1.2.1.1	PSAB3.1		a) Furnished Office (20 m² minimum)	L/Sum	1		-
1.1.2.1.2	PSAB3.2		b) Electronic Equipment for the Engineer	L/Sum	1		-
1.1.2.1.3	PSAB3.3		c) Name Boards (1 No.)	L/Sum	1		-
1.1.3	8.3.2.2		Facilities for Contractor as well as compliance with the requirements of the Environmental Specification				-
1.1.3.1			a) Offices, workshops and storage sheds	L/Sum	1		-
1.1.3.2			b) Workshops	L/Sum	1		-
1.1.3.3			c) Laboratories	L/Sum	1		-
1.1.3.4			d) Living Accomodation	L/Sum	1		-
1.1.3.5			e) Ablution and latrine facilities	L/Sum	1		-
1.1.3.6			f) Tools and Equipment	L/Sum	1		-
1.1.3.7			g) Water Suppliers, electric power and communications	L/Sum	1		-
1.1.3.8			h) Dealing with water (see 5.5)	L/Sum			
1.1.3.9			i) Access (see 5.8)	L/Sum			
1.1.3.10			j) Plant	L/Sum			
1.1.3.8	8.3.3		Other fixed-charge obligations:	L/Sum	1		-
1.1.4	8.3.4		Removal of Engineer's and Contractor's site establishment on completion	L/Sum	1		-
1.1.5	8.3.5		Compliance with Occupational Health & Safety. The sum shall cover the fixed cost associated with the Contractor's Health & Safety Obligations	L/Sum	1		
1,16	8.3.6		Compliance with Environmental Management Obligations. The sum shall cover the fixed cost associated with the Contractor's Environmental Management Obligations	L/Sum	1		-
1,2	8,4		**TIME RELATED ITEMS (PSA 8.2.2)**				-
1.2.1	8.4.1		Contractual Requirements	Sum	1		-
1.2.2	8.4.2		Operate and maintain facilities on the site:				-
1.2.2.1	8.4.2.1		Facilities for Engineer for duration of construction:				-
1.2.2.1.1	PSAB3.1		a) Furnished Offices	Sum	1		-
1.2.2.1.2	PSAB 4.1		b) Telephone	Sum	1		-
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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
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1.2.2.1.3			c) Nameboard (1 No)	Sum	2		-
1.2.2.1.4			d) Survey assistance and materials	Sum	1		-
1.2.2.2	8.4.2		Facilities for Contractor for duration of construction except where otherwise stated				-
1.2.2.2.1			a) Offices, workshops and storage sheds	Sum	1		-
1.2.2.2.2			b) Living accommodation, ablution and latrine facilities	Sum	1		-
1.2.2.2.3			c) Tools and equipment	Sum	1		-
1.2.2.2.4			d) Water supplies, electric power and communications	Sum	1		-
1.2.2.2.5			e) Dealing with water	Sum	1		-
1.2.2.2.6			f) Access to works and properties for the duration of the contract	Sum	1		-
			g) Workshops & Laboratories				
1.2.2.2.7			h) Plant	Sum	1		-
1.2.2.3	8.4.3		Supervision for duration of Contract	Sum	1		-
1.1.3.8.1	8.4.4		Company and head office overhead costs for the duration of contract.	Sum	1		-
1.2.2.4.1	PSA 8.4.6		Compliance with Occupational Health & Safety	Sum	1		-
1.2.2.4.2	PSA 8.4.7		Compliance with Environmental Management Obligations	Sum	1		-
1.2.5	8.4.5		Other time-related obligations:	Sum	1		-
1.2.6	PSA 8.8.2		Accomodation of traffic	Sum	1		-
1.2.7	PSA 8.8.4		Expose and relocation of existing services	Sum	1		-
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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
BROUGHT FORWARD FROM PREVIOUS PAGE							-
							-
1,3	PSA 8.5		SUMS STATED PROVISIONALLY BY ENGINEER				-
							-
1.3.1	PSA 8.5.1		Labour Desk/Community Liaison Officer (include 300 airtime monthly allownace)	Prov Sum	18	6 800,00	122 400,00
1.3.2	PSA 8.5.2		Overheads, charges & profit on above provisional sum	%	122 400	10%	12 240,00
1.3.3	PSA 8.5.3		Reimbursement of Project Steering Committee Members for attendance of meetings to the value of R 500 per meeting per member (5 Members)	Prov Sum	18	2 500,00	45 000,00
1.3.4	PSA 8.5.4		Overheads, charges & profit on above provisional sum	%	45 000	10%	4 500,00
1.3.5	PSA 8.5.5		Additional Survey	Prov Sum	1	50 000	50 000,00
1.3.6	PSA 8.5.6		Overheads, charges & profit on above provisional sum	%	50 000,00	10%	5 000,00
1.3.7	PSA 8.5.10		Accomodation for Employer Agent	Prov Sum	18	18 000	324 000,00
1.3.8	PSA 8.5.11		Overheads, charges & profit on above provisional sum	%	324 000	10%	32 400,00
1.3.9	PSA 8.5.12		Transportation for Employers Agent and asisstant for the duration of the construction	Prov Sum	18	25 000	450 000,00
1.3.10	PSA 8.5.13		Overheads, charges & profit on above provisional sum	%	450 000	10%	45 000,00
1.3.11	PSA 8.5.14		Telephone for Employers Agent & Assistant	Prov Sum	18	1 500	27 000,00
1.3.12	PSA 8.5.15		Overheads, charges & profit on above provisional sum	%	27 000	10%	2 700,00
1.3.13	PSA 8.5.16		Data (Internet Access) for Employers Agent & Assistant	Prov Sum	18	1 500	27 000,00
1.3.14	PSA 8.5.17		Overheads, charges & profit on above provisional sum	%	27 000	10%	2 700,00
1.3.13	PSA 8.5.18		Provide training to local Civil Engineering Student	Prov Sum	18	12 000	216 000,00
1.3.14	PSA 8.5.19		Overheads, charges & profit on above provisional sum		216 000	10%	21 600,00
1.3.15	PSA 8.9.1		Allow provisional sum for an Engineering surveyor for when as directed by the Employers Agent	Prov Sum	1	50 000	50 000,00
1.3.16			Overheads, charges & profit on above provisional sum	%		10%	5 000,00
1.3.17	PSA 8.9.2		Allow provisional sum for the specialised testing of the works, either material or completd works as instructed by the Employers Agent	Prov Sum	1	35 000	35 000,00
1.3.18			Overheads, charges & profit on above provisional sum	%		10%	3 500,00
1.3.19	PSA 8.9.3		Allow provisional sum for the accredited training of selected potential local labours	Prov Sum	1	100 000	100 000,00
1.3.20			Overheads, charges & profit on above provisional sum	%		10%	
							-
1,4	PSA 8.7		DAYWORKS				-
							-
1.4.1			I) LABOUR CHARGES				-
							-
1.4.1.1			a) Labourer	h	500		-
							-
1.4.1.2			b) Chargehand	h	200		-
							-
1.4.1.3			c) Foreman	h	200		-
							-
1.4.1.4			d) Artisan	h	200		-
							-
1.4.1.5			e) Plant Operator	h	200		-
							-

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
1.4.1.6			g) Driver	h	200		-
							-
1.4.2			**ii) MATERIAL CHARGES**				-
1.4.2.1			a) Actual cost of material (excl.VAT)	Prov Sum	1	150 000,00	150 000,00
1.4.2.2			b) Handling cost in respect of subitem 1.4.2.1	%	150 000	10%	15 000,00
							-
1.4.3			**iii) PLANT CHARGES**				-
							-
1.4.3.1			a) Backhoe/loader	h			-
							-
1.4.3.2			b) Tip truck				-
							-
1.4.3.2.1			(i) Capacity of 6 m³	h			-
							-
1.4.3.2.1			(ii) Capacity of 10 m³	h			-
							-
1.4.3.3			c) Walk-behind vibrating roller (1t)	h			-
							-
1.4.3.7			d) Plate Compactor	h			-
							-
1.4.3.9			e) Concrete mixer	h			-
							-
1.4.3.10			f) Dumper	h			-
							-
1.4.3.11			g) Flat bed truck (3t)	h			-
							-
1.4.3.12			h) Excavator	h			-
							-
1.4.3.13			i) Bomag Roller	h			-
							-
CARRIED FORWARD TO NEXT PAGE							**1 746 040,00**

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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
BROUGHT FORWARD FROM PREVIOUS PAGE							**1 746 040,00**
1,5	**PSA 5.9**		**PROVISIONAL SUMS FOR WORK UNDERTAKEN BY EME**				
1.5.3	**PSA5.9.1.2**		Provision of supervision for duration of the contract. The	Prov Sum	1	150 000,00	150 000,00
1.5.4	**PSA.5.9.1.3**		Success Fee on completion of the EME works	Prov Sum	%		-
SECTION 1 - GENERAL : TOTAL CARRIED TO SUMMARY:							

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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
2	SANS 1200C		**SECTION 2: SITE CLEARANCE**				
2,1	8.2.1	LI	Clear and grub for sewer pipeline routes up to a width of 4m.	ha	3,38		
2,4	8.2.2	LI	Remove and grub large trees and tree stumps of girth:				
2.4.1			a) Over 1.0m and up to 2.0m	No	5,00		
2.4.2			b) Over 2.0m and up to 3.0m	No	5,00		
2.4.3			c) Over 3m	No	5,00		
2,5	8.2.5	LI	Take down existing fences:				
2.5.1			Remove and/or secure existing fences that intersect a trench				
2.5.1.1			Diamond mesh fencing up to 2m high	m	80,00		
2.5.1.2			Palisade fencing up to 2m high	m	10,00		
2.5.1.3			Single brickwall boundary walls up to 2m high	m²	72,00		
2.5.1.4			Double brickwall boundary walls up to 2m high	m²	72,00		
2.5.2			Remove and secure existing fences that adjoin a trench				
2.5.2.1			Diamond mesh fencing up to 2m high	m	180,00		
2.5.2.2			Palisade fencing up to 2m high	m	30,00		
2.5.2.3			Single brickwall boundary walls up to 2m high	m	82,00		
2.5.2.4			Double brickwall boundary walls up to 2m high	m	82,00		
2.5.3			Replace fences				
2.5.3.1			Diamond mesh fencing up to 2m high	m	180,00		
2.5.3.2			Palisade fencing up to 2m high	m	30,00		
2.5.3.3			Single brickwall boundary walls up to 2m high	m	82,00		
2.5.3.4			Double brickwall boundary walls up to 2m high	m	82,00		
2.5.3.5			Remove flowers and lawns	m²	50,00		
2.5.3.6			Reinstate flowers and lawns	m²	50,00		
2.5.4	8.3.6.1 (b)		Remove & Replace existing Roads				
2.5.4.1			Gravel	m²	50		
2.5.4.2			Blocked Paved	m²	50		
SECTION 2 - SITE CLEARANCE : TOTAL CARRIED TO SUMMARY:							

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3	SABS 1200 DB PSDB		**SECTION 3: EARTHWORKS (PIPE TRENCHES)**				
3,1			**EXCAVATION**				
3.1.1	8.3.1c	LI	**Removal of Topsoil**				
3.1.1.1			Remove topsoil along the trench width of sewer pipilines and manholes to a depth of 150mm and stockpile differently from other excavations at positions to be directed by the Engineer.	m³	532		
3.1.2	8.3.2 a PSDB5.4	LI	**Hand excavation**				
3.1.2.1			Excavate in all materials for trenches, backfill, compact and disposal of surplus material for 110 mm diameter sewer pipes - 600mm wide - for the following depth ranges:				
3.1.2.1.1			- up to 1,5 m	m	1 000,00		
3.1.2.2	8.3.2b	LI	Extra-over item 3.2.1.1 for excavation (provisional) in:				
3.1.2.2.1			a) Intermediate material	m³	170,00		
3.1.2.2.2			b) Hard Rock Material	m³	85,00		
3.1.3	8.3.2a PSDB5.4		**Machine Class excavation**				
3.1.3.1			Excavate in all materials for trenches for 160 mm diameter Sewer pipes - 800mm wide - for the following depth ranges: Excavate, Backfill, compact and disposal of surplus material from excavated material along:				
3.1.3.1.1			-up to - 1,5m	m	1 220,00		
3.1.3.1.2			- 1,5m - 2.0m	m	1 350,00		
3.1.3.1.3			- 2.0m - 2.5m	m	480,00		
3.1.3.1.4			- 2.5m - 3.0m	m	195,00		
3.1.3.1.5			- 3.0m - 3.5m	m	50,00		
3.1.3.1.6			- 3.5m - 4.0m	m	35,00		
3.1.3.2	8.3.2b		Extra-over items 3.2.3.1 to 3.2.3.4 for excavation (provisional) in:				
3.1.3.2.1			a) Intermediate material	m³	635,00		
3.1.3.2.2			b) Hard Rock Material	m³	317,00		
3.1.3.2.4			c) Excavate unsuitable material from the bottom of trench incl backfil compact and dispose of surplus material within free haul distance of 1km	m³	120,00		
3.1.3.2.7	8.3.3		**EXCAVATION ANCILLARIES**				
3.1.3.2.8	8.3.3.1		Make up deficiency in backfill material by importing from commercial sources	m³	402		
3.1.3.2.9	8.3.3.3		Compaction in Road Reserve	m³	400		
3.1.3.2.10	PSDB 8.3.3.1(d)		Backfill on roads using soilcrete as specified by DOR	m³	51		
	8.3.4		PARTICULAR ITEMS				
	8.3.4 (a)		Shore trench opposite structures or services	m	350,00		

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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
	8.3.4 (b)		Stormwater, Seepage and Dewatering of Excavation	m	800,00		
3,2	PSA 5.2		**Trench Barricading**				
3.2.1			1.8m Fencing standards driven 0.6m into the ground at 4.0m centres and two strands of wire with red & white plastictape strung between standards barricades shall be installed around excavations adjacent to walkways, roads, paths or other traffic areas				
3.2.2			Barricade all open trench affect the operation or safety of the general public	m	1 500		
3,3			Protection of Trench				
3.3.1			Benching 1:1 slope excavation on areas of unstable material to allow the forces of cohesion and internal friction to hopd the soil together	m	1 200		
	8.3.7		Accomodation of Traffic	Prov Sum	1,00		-
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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
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3,4	SABS1200D		**EXISTING SERVICES**				-
	PSA8.3.8.1		Expose existing Services				
			Excavate by hand in soft material to expose services				
			a) uPVC water mains	m^3	90,00		
			b) uPVC sewer main	m^3	90,00		
			c) Electrical cables	m^3	90,00		
			d) Concrete stormawater pipes	m^3	90,00		
3.4.1	PSDB 8.3.5.(a)	LI	Services that intersect a trench a pipe trench				
3.4.1.1			i) ESKOM cables	No.	15,00		
3.4.1.2			ii) Telecommunication cables	No.	15,00		
3.4.1.3			iii) Watermains up to 300mm dia	No.	15,00		
3.4.1.5			v) Sewers up 250mm dia	No.	20,00		
3.4.1.6			vi) Stormwater up to 700mm dia	No.	20,00		
3.4.1.7			vii) Manholes				
			Removal and disposal of sewer manholes crossing proposed pipeline route on the following depths				
			- 0,0 m - 1,5 m	No.	1		
			- 1,5 m - 2,0 m	No.	1		
			- 2.0 m - 3,0 m	No.	1		
3.4.2	8.3.5 (b)	LI	Services that adjoining a trench				
3.4.2.1			i) Telecommunication tables	m	50,00		
3.4.2.2			ii) Water mains up to 300mm dia	m	80,00		
3.4.2.3			iv) Sewer up to 250mm dia	m	500,00		
3.4.2.4			v) Eskom cables	m	200,00		-
3.4.2.5			vi) Stormwater up to 700mm dia	m	100,00		
	PSDB8.3.8		Existing Surfaced Roads				
3.4.8			Saw-Cut existing premix to nominal depth of 40mm	m	40,00		
3.4.9			Break and remove to spoil existing premix	m^2	48,00		
	PSDB8.3.8		Existing Unsurfaced Roads				
3.4.10			150mm thick Gravel Wearing Course(complying with PSD 3.2.4) from commercial sources for regravelling of Access Road Compacted to 95% MOD AASHTO	m^3	21,60		
3,5	8.3.6		**FINISHING**				
3.5.1	8.3.6.1	LI	Re-instate road surfaces complete with all courses				
3.5.1.1	8.3.6.1.b	LI	Gravel wearing course for gravel roads	m^2	120		
3.5.1.2	8.3.6.1d	LI	Block paving	m^2	20		
3.5.1.3	8.3.6.1c	LI	Reinstate complete existing asphalt surfaced road inclusive of surfacing, base course and subbase material and compaction	m^2	25		

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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3.5.2	8.3.6.1d	LI	Reinstate concrete surfaces				
3.5.2.1		LI	Reinforced Concrete property access and driveways	m^2	30		
3.5.2.2			Reinstate and maintain grass verges with Cynodo grass from commercial source	m^2	50		
	SABS1200DK		GABIONS:				
3.5.4			Gablons/ Reno mattresses using 6 x 8 mesh with 1.0m diaphram spacing of sizes				
3.5.4	8.2.2		2,0 x 1,0 x 1,0m	m^3	80		
3.5.5			2,0 x 1,0 x 0.3m	m^3	80		
3.5.6			Excavation and compaction in all classes of material	m^3	300		
3.5.7			Surface preparation for bedding the gabions	m^2	150		
3.5.8			Filter fabric Grade 4 geotextile with minimum 2.5KN penentration and at least 235 l/s/m through flow	m^2	500		

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SECTION 3 - EARTHWORKS (PIPE TRENCHES) : TOTAL CARRIED TO SUMMARY:					-		-
4	SANS 1200 LD & PSLD						
			SECTION 4: SEWERS				
			Hillbrow Sewer Reticulation				
							-
4,1	8.2.1		Supply, lay, joint, bed, including testing of Sewer pipe Class 34				
		LI	PVC				-
							-
4.1.1			a) 110mm diam	m	1 000		
4.1.2			b) 160 mm diam.	m	3 340		
4.1.3			SUBSURFACE DRAINS				
4.1.3.1			Excavate in all material at bottom of sewer trenches for subsoil drain trench (300mm x 300mm deep) and backfill, compact and dispose of surplus material	m	500		
4.1.3.2			Prepare and excavate for 110mm drainage pipes to be installed under bedding in arears of high water table	m	500		
4.1.3.3			Supply and Install Geotextile membrane	m²	600		
4.1.3	8.2.5		Rodding eye supply and install complete.Inclusive of 45° junction,110mm ø end cap,110mm ø Pipe (max length 1.2m) rodding eye and 300x300x50mm yellow painted concrete				
		LI	marker post and slab	No	80		
							-
4,2	8.2.2		**SPECIALS**				-
		LI	Supply, handle, lay, bed (class B), joint and test specials				-
							-
4.2.1			110 x 110 mm diam x 45deg. Y- junction	No.	80		
4.2.2			160 x 110 mm diam x 45deg. Y- junction	No.	10		
4.2.3			110 mm diam 45 deg. bends	No.	160		
4.2.4			110 mm diam 90 deg. bend	No.	5		
4.2.5			110 mm diam. End caps	No	80		
4.2.6			160 mm diam End caps	No	20		
4.2.7			200 mm diam End caps	No	10		
4,3			**SUNDRIES**				
4.3.1	8.2.9		Concrete Marker posts at erf sewer connections complete, installed, painted with two coats of red gloss enamel and connected to pipe by means of buried danger tape. Positions				
		LI	and invert levels to be recorded on AS BUILT drawings.	No	47		
							-
4,4	SANS 1200 LD & PSLD						
			MANHOLES, ETC.				-
4.4.1	8.2.3						
			Concrete ring manholes complete inclusive of base slab, cover slab, manhole cover and frame, straight or radiused channel, benching, step irons and all required fittings per Drawing as well as stepping of manholes as indicated on longsections.				
		LI	Dolomitic aggregate and dolomitic sand to be used.				-
			Manholes Type 1 complete with Type 4 cover and frame. Internal diameter of 1.00 m				-
			Over and up to				-
							-
4.4.1.1			- up to 1.5m	No.	55		
4.4.1.2			- 1,5m - 2m	No.	12		

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ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
4.4.1.3			- 2.0m - 2.5m	No.	6		
4.4.1.4			- 2.5m - 3.0m	No.	1		
4.4.1.5			- 3.0m - 3.5m	No.	1		
4.4.1.6			- 3.5m - 4.0m	No.	2		
4.4.2	8.2.4		Extra-over item 3.4.1 to 3.4.3 for construction of temporary speed ramps as per detail	No.	1		
4.4.3		LI	Extra-over item 3.4.1 to 3.4.3 for construction of backdrops as per detail	No	1		
4.4.4	PSLD3.5.8	LI	Extra-over item 4.4.1 for Type 2A manhole covers and frame in road reserves	No	10		
4.4.5	PSLD7.2.6	LI	Testing water tightness of manhole	No	77		-
SECTION 5 -	SEWERS : TOTAL CARRIED TO SUMMARY:						-
6	SANS		BEDDING (PIPES)				
5,1	PSLB1		PROVISION OF BEDDING				
5.1.1	8.2.1		Available from trench from 5 m to 2 km.				-
5.1.1.1	a)		Selected granular material	m³	211		-
5.1.1.2	b)		Selected fill blanket material	m³	130		
5.1.2	8.2.2		Imported from other necessary excavations (Prov.) including				-
5.1.2.1	8.2.2 a)		Selected backfill material	m³	106		-
5.1.2.2	8.2.2 b)		Selected fill blanket material	m³	65		
5.1.3	8.2.2.3		Imported from commercial source (including haul).				
5.1.3.1	a)		Selected granular material	m³	740		
5.1.3.2	b)		Selected fill blanket material	m³	455		
5,15	8.2.5		Overhaul of bedding material	m³.km	11 949		

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Hillbrow

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
5.2.1	8.2.7		Concrete encasement on 160 mm dia PVC pipe as shown on details inclusive joints at 4m centres. Concrete class 20/19	m^3	30		-
5.2.2	8.2.8		Concrete anchor blocks 160 mm dia PVC pipe as shown on details . Concrete class 20/19	m^3	3		-
5.3.	8.2.2.3		Stone Bedding				-
5.3.1			Supply and lay 19mm stone covered with Bidim A4 for dainage of sub-suface water on treanch bottom as instructed by the Engineer.	m^3	60		-
5.3.2			Extra-over 5.3.1 for the supply of A4 Bidim	m^2	950		-
TOTAL TO SUMMARY:							-

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Hillbrow

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 6- SEWER CONNECTIONS							
	PSLD		**SEWER CONNECTIONS**				-
6,1	8.2.5		**Manholes**				-
6.1.1			a) Inspection of Chambers: Tie HDPE sewer main into Manhole chamber. Repair manhole chamber by replacing the bencing and sealing the liner ends into the walls after rehabilitation.	No	8		-
6.1.2	8.2.12		Raising or lowering of existing Manholes	No	4		
	8.2.11		**Connection to Existing Manholes**				
6.1.3			Locate and reconnect existing lateral property connections to the HDPE sewer main using UPVC saddle fittinigs, including the relaying up to 2,0m of new 110diameter pipe.	No			
6,2	8.2.6	LI	Erf Connections				
6.2.1		LI	Supply, lay Y-junction, fittings, end cap and connection pipeline up to the erf boundary complete inclusive connecting into sewer mains. Inclusive of excavation, backfill, bedding and disposal of surplus material.				-
6.2.1.1			Type 1	No.	12		
6.2.1.2			Type 2	No.	12		
		LI	Construct future erf connection markers inclusive of wired brick bond, painted y-section standard, concrete bed and concrete marker.				
6.2.1.3			Type 1	No.	23		
6.2.1.4			Type 2	No.	24		
6.2.1.5			Unblock existing manholes for connection of new sewer pipeline using roding Iron or machinery as instructed by the Engineer	No	10		
6,3	8.2.11		**CONNECTING TO EXISTING SEWERS**				
6,3,1		LI	Connecting to existing sewers	No.	2		
6.3.2		LI	Break into existing manhole for new sewer line, bench, caulk and make good	No.	5		
6.3.3		LI	Break into existing conservancy tanks where the new sewer line joins the the tank	No.	6		
6.3.4			Provision for maintaining sewage level in conservancy tanks to a level that can enable the contractor to work efficiently for the duration of works related to connecting to conservancy tanks. (Rate to include all acquiring equipment and plant required)	No	10		
6.3.5			Disconnect existing conservancy tanks and connect to new sewer pipeline	No	10		
SECTION 6 - SEWER CONNECTIONS : TOTAL TO SUMMARY:							-

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
2	SANS 1200C		SECTION 2: SITE CLEARANCE				
2,1	8.2.1	LI	Clear and grub for sewer pipeline routes up to a width of 4m.	ha	6,86		
2,4	8.2.2	LI	Remove and grub large trees and tree stumps of girth:				
2.4.1			a) Over 1.0m and up to 2.0m	No	50,00		
2.4.2			b) Over 2.0m and up to 3.0m	No	25,00		
2.4.3			c) Over 3m	No	25,00		
2,5	8.2.5	LI	Take down existing fences:				
2.5.1			Remove and/or secure existing fences that intersect a trench				
2.5.1.1			Diamond mesh fencing up to 2m high	m	160,00		
2.5.1.2			Palisade fencing up to 2m high	m	500,00		
2.5.1.3			Single brickwall boundary walls up to 2m high	m²	150,00		
2.5.1.4			Double brickwall boundary walls up to 2m high	m²	150,00		
2.5.2			Remove and secure existing fences that adjoin a trench				
2.5.2.1			Diamond mesh fencing up to 2m high	m	1 500,00		
2.5.2.2			Palisade fencing up to 2m high	m	500,00		
2.5.2.3			Single brickwall boundary walls up to 2m high	m	500,00		
2.5.2.4			Double brickwall boundary walls up to 2m high	m	500,00		
2.5.3			Replace fences				
2.5.3.1			Diamond mesh fencing up to 2m high	m	1 660,00		
2.5.3.2			Palisade fencing up to 2m high	m	1 000,00		
2.5.3.3			Single brickwall boundary walls up to 2m high	m	500,00		
2.5.3.4			Double brickwall boundary walls up to 2m high	m	500,00		
2.5.3.5			Remove flowers and lawns	m²	50,00		
2.5.3.6			Reinstate flowers and lawns	m²	50,00		
2.5.4	8.3.6.1 (b)		Remove & Replace existing pavement				
2.5.4.1			Flexible Pavements	m²	300		
2.5.4.2			Rigid Pavements	m²	300		-
SECTION 2 - SITE CLEARANCE : TOTAL CARRIED TO SUMMARY:							-

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3	SABS 1200 DB PSDB		**SECTION 3: EARTHWORKS (PIPE TRENCHES)**				
3,1			**EXCAVATION**				-
3.1.1	8.3.1c	LI	**Removal of Topsoil**				
3.1.1.1			Remove topsoil along the trench width of sewer pipilines and manholes to a depth of 150mm and stockpile differently from other excavations at positions to be directed by the Engineer.	m³	2 058		
3.1.2	8.3.2 a PSDB5.4	LI	**Hand excavation**				
3.1.2.1			Excavate in all materials for trenches, backfill, compact and disposal of surplus material for 110 mm diameter sewer pipes - 600mm wide - for the following depth ranges:				
3.1.2.1.1			- up to 1,5 m	m	8 291,50		
3.1.2.2	8.3.2b	LI	Extra-over item 3.2.1.1 for excavation (provisional) in:				
3.1.2.2.1			a) Intermediate material	m³	1 407,00		
3.1.2.2.2			b) Hard Rock Material	m³	703,00		
3.1.3	8.3.2a PSDB5.4		**Machine Class excavation**				
3.1.3.1			Excavate in all materials for trenches for 160 mm diameter Sewer pipes - 800mm wide - for the following depth ranges: Excavate, Backfill, compact and disposal of surplus material from excavated material along:				
3.1.3.1.1			-up to - 1,5m	m	2 994,30		
3.1.3.1.2			- 1,5m - 2.0m	m	3 416,48		
3.1.3.1.3			- 2.0m - 2.5m	m	1 499,81		
3.1.3.1.4			- 2.5m - 3.0m	m	558,52		
3.1.3.1.5			- 3.0m - 3.5m	m	302,70		
3.1.3.1.6			- 3.5m - 4.0m	m	88,36		
3.1.3.2	8.3.2b		Extra-over items 3.2.3.1 to 3.2.3.4 for excavation (provisional) in:				
3.1.3.2.1			a) Intermediate material	m³	1 684,00		
3.1.3.2.2			b) Hard Rock Material	m³	842,00		
3.1.3.2.4			c) Excavate unsuitable material from the bottom of trench incl backfil compact and dispose of surplus material within free haul distance of 1km	m³	1 545,00		
3.1.3.2.7	8.3.3		**EXCAVATION ANCILLARIES**				
3.1.3.2.8	8.3.3.1		Make up deficiency in backfill material by importing from commercial sources	m³	1 545		
3.1.3.2.9	8.3.3.3		Compaction in Road Reserve	m³	2 400		
3.1.3.2.10	PSDB 8.3.3.1(d)		Backfill on roads using soilcrete as specified by DOR	m³	416		
	PSDB 8.3.3.1e)		Backfilling trenches using 13mm washed stone	m³	70,00		
	8.3.4		PARTICULAR ITEMS				
	8.3.4 (a)		Shore trench opposite structures or services	m	1 000,00		

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
	8.3.4 (b)		Stormwater, Seepage and Dewatering of Excavation	m	3 000,00		
3,2	PSA 5.2		**Trench Barricading**				
3.2.1			1.8m Fencing standards driven 0.6m into the ground at 4.0m centres and two strands of wire with red & white plastictape strung between standards barricades shall be installed around excavations adjacent to walkways, roads, paths or other traffic areas				
3.2.2			Barricade all open trench affect the operation or safety of the general public	m	8 000		
3,3			Protection of Trench				
3.3.1			Benching 1:1 slope excavation on areas of unstable material to allow the forces of cohesion and internal friction to hopd the soil together	m	5 000		
	8.3.7		Accomodation of Traffic	Prov Sum	1,00		
CARRIED FORWARD TO NEXT PAGE							

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
BROUGHT FORWARD FROM PREVIOUS PAGE							
3,4	SABS1200D		**EXISTING SERVICES**				
	PSA8.3.8.1		Expose existing Services				
			Excavate by hand in soft material to expose services				
			a) uPVC water mains	m³	600,00		
			b) uPVC sewer main	m³	600,00		
			c) Electrical cables	m³	240,00		
			d) Concrete stormawater pipes	m³	240,00		
3.4.1	PSDB 8.3.5.(a)	LI	Services that intersect a trench a pipe trench				
3.4.1.1			i) ESKOM cables	No.			
3.4.1.2			ii) Telecommunication cables	No.			
3.4.1.3			iii) Watermains up to 300mm dia	No.			
3.4.1.4			iv) Watermains over 300mm dia	No.			
3.4.1.5			v) Sewers up 250mm dia	No.			
3.4.1.6			vi) Stormwater up to 700mm dia	No.	20,00		
3.4.1.7			vii) Manholes				
			Removal and disposal of sewer manholes crossing proposed pipeline route on the following depths				
			- 0,0 m - 1,5 m	No.	1		
			- 1,5 m - 2,0 m	No.	1		
			- 2.0 m - 3,0 m	No.	1		
			- 3.0 m - 4,0 m	No.	1		
			- 4.0 m - 5,0 m	No.	1		
3.4.2	8.3.5 (b)	LI	Services that adjoining a trench				
3.4.2.1			i) Telecommunication tables	m	100,00		
3.4.2.2			ii) Water mains up to 300mm dia	m	250,00		
3.4.2.3			iii) Water mains over 300mm dia	m	250,00		
3.4.2.4			iv) Sewer up to 250mm dia	m	750,00		
3.4.2.5			v) Eskom cables	m	250,00		
3.4.2.6			vi) Stormwater up to 700mm dia	m	250,00		
	PSDB8.3.8		Existing Surfaced Roads				
3.4.8			Saw-Cut existing premix to nominal depth of 40mm	m	200,00		
3.4.9			Break and remove to spoil existing premix	m²	240,00		
	PSDB8.3.8		Existing Unsurfaced Roads				
3.4.10			150mm thick Gravel Wearing Course(complying with PSD 3.2.4) from commercial sources for regravelling of Access Road Compacted to 95% MOD AASHTO	m³	108,00		
3,5	8.3.6		**FINISHING**				
3.5.1	8.3.6.1	LI	Re-instate road surfaces complete with all courses				
3.5.1.1	8.3.6.1.b	LI	Gravel wearing course for gravel roads	m²	200		
3.5.1.2	8.3.6.1d	LI	Block paving	m²			

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3.5.1.3	8.3.6.1c	LI	Reinstate complete existing asphalt surfaced road inclusive of surfacing, base course and subbase material and compaction	m²	250		-
3.5.2	8.3.6.1d	LI	Reinstate concrete surfaces				-
3.5.2.1		LI	Reinforced Concrete property access and driveways	m²	300		-
3.5.2.2			Reinstate and maintain grass verges with Cynodo grass from commercial source	m²	200		
	SABS1200DK		GABIONS:				
3.5.4			Gabions/ Reno mattresses using 6 x 8 mesh with 1.0m diaphram spacing of sizes				
3.5.4	8.2.2		2,0 x 1,0 x 1,0m	m³	250		
3.5.5			2,0 x 1,0 x 0.3m	m³	100		
3.5.6			Excavation and compaction in all classes of material	m³	300		
3.5.7			Surface preparation for bedding the gabions	m²	300		
3.5.8			Filter fabric Grade 4 geotextile with minimum 2.5KN penentration and at least 235 l/s/m through flow	m²	900		

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 3 - EARTHWORKS (PIPE TRENCHES) : TOTAL CARRIED TO SUMMARY:							
4	SANS 1200 LD & PSLD		**SECTION 4: SEWERS**				
4,1	8.2.1	LI	Supply, lay, joint, bed, including testing of Sewer pipe Class 34 PVC				
4.1.1			a) 110mm diam	m	8 292		
4.1.2			b) 160 mm diam.	m	8 860		
4.1.1.1			SUBSURFACE DRAINS				
4.1.1.1.1			Excavate in all material at bottom of sewer trenches for subsoil drain trench (300mm x 300mm deep) and backfill, compact and dispose of surplus material	m	2 000		
4.1.1.1.2			Prepare and excavate for 110mm drainage pipes to be installed under bedding in arears of high water table	m	2 000		
4.1.1.1.3			Supply and Install Geotextile membrane	m²	2 400		
4.1.3	8.2.5	LI	Rodding eye supply and install complete.Inclusive of 45° junction,110mm ø end cap,110mm ø Pipe (max length 1.2m) rodding eye and 300x300x50mm yellow painted concrete marker post and slab	No			
4,2	8.2.2	LI	**SPECIALS** Supply, handle, lay, bed (class B), joint and test specials				
4.2.1			110 x 110 mm diam x 45deg. Y- junction	No.	170		
4.2.2			160 x 110 mm diam x 45deg. Y- junction	No.	85		
4.2.3			110 mm diam 45 deg. bends	No.	85		
4.2.4			110 mm diam 90 deg. bend	No.			
4.2.5			110 mm diam. End caps	No	80		
4.2.6			160 mm diam End caps	No	150		
4,3			**SUNDRIES**				
4.3.1	8.2.9	LI	Concrete Marker posts at erf sewer connections complete, installed, painted with two coats of red gloss enamel and connected to pipe by means of buried danger tape. Positions and invert levels to be recorded on AS BUILT drawings,	No	85		
4,4	SANS 1200 LD & PSLD		**MANHOLES, ETC.**				
4.4.1	8.2.3	LI	Supply and erect precast concrete manloes of type Rocla or Similar approved completed as per details on standard detail drawings including excavation, backfilling and compaction, including construction of insitu concrete bases, concrete benching and channeling, water proof sealant,step irons for all depths and cover slab Manholes Type 1 complete with Type 4 cover and frame. Internal diameter of 1.00 m Over and up to				
4.4.1.1			- up to 1.5m	No.	50		
4.4.1.2			- 1,5m - 2m	No.	128		
4.4.1.3			- 2.0m - 2.5m	No.	23		
4.4.1.4			- 2.5m - 3.0m	No.	17		
4.4.1.5			- 3.0m - 3.5m	No.	7		
4.4.1.6			- 3.5m - 4.0m	No.	3		

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
4.4.2	8.2.4		Extra-over item 3.4.1 to 3.4.3 for construction of temporary speed ramps as per detail	No.	6		
4.4.3		LI	Extra-over item 4.4.1 for construction of backdrops as per detail	No	6		
4.4.4	PSLD3.5.8	LI	Extra-over item 4.4.1 for Type 2A manhole covers and frame in road reserves	No	65		
4.4.5	PSLD7.2.6	LI	Testing water tightness of manhole	No	228		-
SECTION 5	SEWERS : TOTAL CARRIED TO SUMMARY:						-
6	SANS		**SECTION 5 : BEDDING (PIPES)**				
5,1	PSLB1		**PROVISION OF BEDDING**				
5.1.1	8.2.1		Available from trench from 5 m to 2 km.				-
5.1.1.1	a)		Selected granular material	m³	798		
5.1.1.2	b)		Selected fill blanket material	m³	505		
5.1.2	8.2.2		Imported from other necessary excavations (Prov.) including				
5.1.2.1	8.2.2 a)		Selected backfill material	m³	399		
5.1.2.2	8.2.2 b)		Selected fill blanket material	m³	252		
5.1.3	8.2.2.3		Imported from commercial source (including haul).				-
5.1.3.1	a)		Selected granular material	m³	2 595		
5.1.3.2	b)		Selected fill blanket material	m³	1 767		
5,15	8.2.5		Overhaul of bedding material	m³.km	21 810		

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
5.2.1	8.2.7		Concrete encasement on 160 mm dia PVC pipe as shown on details inclusive joints at 4m centres. Concrete class 20/19	m³	200		-
5.2.2	8.2.8		Concrete anchor blocks 160 mm dia PVC pipe as shown on details . Concrete class 20/19	m³	6		
5.3.	8.2.2.3		Stone Bedding				
5.3.1			Supply and lay 19mm stone covered with Bidim A4 for dainage of sub-suface water on treanch bottom as instructed by the Engineer.	m³	288,00		
5.3.2			Extra-over 5.3.1 for the supply of A4 Bidim	m²	- 4 560,00		-
TOTAL TO SUMMARY:							-

O.R. TAMBO DISTRICT MUNICIPALTIY

Lusikisiki Sewer Reticulation: Commercial

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 6- SEWER CONNECTIONS							
	PSLD		**SEWER CONNECTIONS**				-
6,1	8.2.5		**Manholes**				-
6.1.1			a) Inspection of Chambers: Tie HDPE sewer main into Manhole chamber. Repair manhole chamber by replacing the bencing and sealing the liner ends into the walls after rehabilitation.	No	10		-
6.1.2	8.2.12		Raising or lowering of existing Manholes	No	6		
6.1.3	8.2.11		**Connection to Existing Manholes** Locate and reconnect existing lateral property connections to the HDPE sewer main using UPVC saddle fittinigs, including the relaying up to 2,0m of new 110diameter pipe.	No			
6,2	8.2.6	LI	Erf Connections				
6.2.1		LI	Supply, lay Y-junction, fittings, end cap and connection pipeline up to the erf boundary complete inclusive connecting into sewer mains. Inclusive of excavation, backfill, bedding and disposal of surplus material.				
6.2.1.1			Type 1	No.	85		
6.2.1.2			Type 2	No.	85		
		LI	Construct future erf connection markers inclusive of wired brick bond, painted y-section standard, concrete bed and concrete marker.				
6.2.1.3			Type 1	No.	50		
6.2.1.4			Type 2	No.	50		
6.2.1.5			Unblock existing manholes for connection of new sewer pipeline using roding Iron or machinery as instructed by the Engineer	No	20		
6,3	8.2.11		**CONNECTING TO EXISTING SEWERS**				
6,3,1		LI	Connecting to existing sewers	No.	8		
6.3.2		LI	Break into existing manhole for new sewer line, bench, caulk and make good	No.	8		
6.3.3		LI	Break into existing conservancy tanks where the new sewer line joins the the tank	No.	9		
6.3.4			Provision for maintaining sewage level in conservancy tanks to a level that can enable the contractor to work efficiently for the duration of works related to connecting to conservancy tanks. (Rate to include all acquiring equipment and plant required)	No	20		
6.3.5			Disconnect existing conservancy tanks and connect to new sewer pipeline	No	20		
SECTION 6 - SEWER CONNECTIONS : TOTAL TO SUMMARY:							

O.R. TAMBO DISTRICT MUNICIPALTIY
Lusikisiki Sewer Reticulation

SUMMARY

ITEM	SECTION	DESCRIPTION	TOTAL AMOUNT
1	SECTION 1 :	PRELIMINARY AND GENERAL	R
2	SECTION 2 :	SITE CLEARANCE; COMMERCIAL	R -
		SITE CLEARANCE; HILBROW	R -
3	SECTION 3 :	EARTHWORKS (PIPE TRENCHES) COMMERCIAL	R -
		EARTHWORKS (PIPE TRENCHES) HILBROW	R -
4	SECTION 4 :	SEWERS: COMMERCIAL	R -
		SEWERS: HILBROW	R
	SECTION 5 :	BEDDING (PIPES) COMMERCIAL	R
5	SECTION 6 :	CONNECTIONS: COMMERCIAL	R
14	**SUBTOTAL 1**		
15	10% CONTINGENCIES		
16	**SUBTOTAL 2**		
17	ADD 15% VAT		
18	**TOTAL**		