

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
1.	SANS 1200 A	<u>SECTION 1 : PRELIMINARY AND GENERAL</u>				
1.1	8.3	<u>FIXED-CHARGE ITEMS</u>				
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 m ² 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		-
1.1.2.1.4	PSAB 4.4	d) Survey Equipment	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 Accommodation	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)				-
1.1.3.9		i) Access (see 5.8)				-
1.1.3.10		j) Plant				-
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		-
1.1.6	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	<u>TIME RELATED ITEMS (PSA 8.2.2)</u>				-
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		-
CARRIED FORWARD TO NEXT PAGE						-

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
BROUGHT FORWARD FROM PREVIOUS PAGE						-
1.2.2.1.3		c) Nameboard (1 No)	Sum	1		-
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	Accommodation of traffic	Sum	1		-
1.2.7	PSA 8.8.4	Expose and relocation of existing services	Sum	1		-
CARRIED FORWARD TO NEXT PAGE						-

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

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 allowance)	Prov Sum	12	6 800,00	81 600,00
1.3.2	PSA 8.5.2	Overheads, charges & profit on above provisional sum	%	81 600	10%	8 160,00
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	12	2 500,00	30 000,00
1.3.4	PSA 8.5.4	Overheads, charges & profit on above provisional sum	%	30 000	10%	3 000,00
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	Accommodation for Employer Agent	Prov Sum	12	20 000	240 000,00
1.3.8	PSA 8.5.11	Overheads, charges & profit on above provisional sum	%	240 000	10%	24 000,00
1.3.9	PSA 8.5.12	Transportation for Employers Agent and asisstant for the duration of the construction	Prov Sum	12	25 000	300 000,00
1.3.10	PSA 8.5.13	Overheads, charges & profit on above provisional sum	%	300 000	10%	30 000,00
1.3.11	PSA 8.5.14	Telephone for Employers Agent & Assistant	Prov Sum	12	1 500	18 000,00
1.3.12	PSA 8.5.15	Overheads, charges & profit on above provisional sum	%	18 000	10%	1 800,00
1.3.13	PSA 8.5.16	Data (Internet Access) for Employers Agent & Assistant	Prov Sum	12	1 500	18 000,00
1.3.14	PSA 8.5.17	Overheads, charges & profit on above provisional sum	%	18 000	10%	1 800,00
1.3.13	PSA 8.5.18	Provide training to local Civil Engineering Student	Prov Sum	12	12 000	144 000,00
1.3.14	PSA 8.5.19	Overheads, charges & profit on above provisional sum	%	144 000	10%	14 400,00
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	30 000	30 000,00
1.3.16		Overheads, charges & profit on above provisional sum	%		10%	3 000,00
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		l) 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		-

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
1.4.1.6		g) Driver	h	200		-
1.4.2		<u>ii) MATERIAL CHARGES</u>				-
1.4.2.1		a) Actual cost of material (excl.VAT)	Prov Sum	1	100 000,00	100 000,00
1.4.2.2		b) Handling cost in respect of subitem 1.4.2.1	%	100 000	10%	10 000,00
1.4.3		<u>iii) PLANT CHARGES</u>				-
1.4.3.1		a) Backhoe/loader	h			-
1.4.3.2		b) Tip truck				-
1.4.3.2.1		(i) Capacity of 6 m ³	h			-
1.4.3.2.1		(ii) Capacity of 10 m ³	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						1 251 260,00

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
BROUGHT FORWARD FROM PREVIOUS PAGE						1 251 260,00
1,5	PSA 5.9	PROVISIONAL SUMS FOR WORK UNDERTAKEN BY SMME				-
1.5.3	PSA5.9.1.2	Provision of supervision for duration of the contract. The monthly sum shall cover the cost of all activities necessary for the Contractor to provide a dedicated manager for dealing with EME's and their packages for the duration of the contract. (Refer to C3.3 Procurement)	Prov Sum	1	150 000,00	150 000,00
1.5.4	PSA.5.9.1.3	Success Fee on completion of the SMME works	Prov Sum	%		-
SECTION 1 - GENERAL : TOTAL CARRIED TO SUMMARY:						1 401 260,00

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
2	SANS 1200C		<u>SECTION 2: SITE CLEARANCE</u>				
2,1	8.2.1	LI	Clear and grub for sewer pipeline routes up to a width of 6m.	ha	8,00		
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	10,00		
2.4.2			b) Over 2.0m and up to 3.0m	No	10,00		
2.4.3			c) Over 3m	No	3,00		
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	35,00		
2.5.1.2			Palisade fencing up to 2m high	m	35,00		
2.5.1.3			Single brickwall boundary walls up to 2m high	m ²	35,00		
2.5.1.4			Double brickwall boundary walls up to 2m high	m ²	35,00		
2.5.2			Remove and secure existing fences that adjoin a trench				
2.5.2.1			Diamond mesh fencing up to 2m high	m	35,00		
2.5.2.2			Palisade fencing up to 2m high	m	35,00		
2.5.2.3			Single brickwall boundary walls up to 2m high	m	35,00		
2.5.2.4			Double brickwall boundary walls up to 2m high	m	35,00		
2.5.3			Replace fences				
2.5.3.1			Diamond mesh fencing up to 2m high	m	35,00		
2.5.3.2			Palisade fencing up to 2m high	m	35,00		
2.5.3.3			Single brickwall boundary walls up to 2m high	m	35,00		
2.5.3.4			Double brickwall boundary walls up to 2m high	m	35,00		
2.5.3.5			Remove flowers and lawns	m ²	40,00		
2.5.3.6			Reinstate flowers and lawns	m ²	40,00		
2.5.4	8.3.6.1 (b)		Remove & Replace existing pavement				
SECTION 2 - SITE CLEARANCE : TOTAL CARRIED TO SUMMARY:							

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
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 pipelines and manholes to a depth of 150mm and stockpile differently from other excavations at positions to be directed by the Engineer.	m ³	180		
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			
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	m ³			
3.1.2.2.2			b) Hard Rock Material	m ³			
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	657,49		
3.1.3.1.2			- 1,5m - 2.0m	m	239,42		
3.1.3.1.3			- 2.0m - 2.5m	m	104,16		
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	m ³	179,00		
3.1.3.2.2			b) Hard Rock Material	m ³	89,00		
3.1.3.2.4			c) Excavate unsuitable material from the bottom of trench incl backfill compact and dispose of surplus material within free haul distance of 1km	m ³	89,00		
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	m ³	148		
3.1.3.2.9	8.3.3.3		Compaction in Road Reserve	m ³	12		
3.1.3.2.10	PSDB 8.3.3.1(d)		Backfill on roads using soilcrete as specified by DOR	m ³	6		
	PSDB 8.3.3.1(e)		Backfilling trenches using 13mm washed stone	m ³	30,00		
	8.3.4		PARTICULAR ITEMS				
	8.3.4 (a)		Shore trench opposite structures or services	m	450,00		
	8.3.4 (b)		Stormwater, Seepage and Dewatering of Excavation	m	450,00		

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
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	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	700		
	8.3.7	Accomodation of Traffic	Prov Sum	1,00		
CARRIED FORWARD TO NEXT PAGE						

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

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	m ³	15,00		
			b) uPVC sewer main	m ³	15,00		
			c) Electrical cables	m ³	15,00		
			d) Concrete stormwater pipes	m ³	15,00		
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.	10,00		
3.4.1.2			ii) Telecommunication cables	No.	10,00		
3.4.1.3			iii) Watermains up to 300mm dia	No.	5,00		
3.4.1.5			v) Sewers up 250mm dia	No.	5,00		
3.4.1.6			vi) Stormwater up to 700mm dia	No.	5,00		
3.4.1.7			vii) Manholes				
3.4.1.8			Removal and disposal of sewer manholes crossing proposed pipeline route on the following depths				
3.4.1.8.1			- 0,0 m - 1,5 m	No.	1		
3.4.1.8.2			- 1,5 m - 2,0 m	No.	1		
3.4.1.8.3			- 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	20,00		
3.4.2.2			ii) Water mains up to 300mm dia	m	20,00		
3.4.2.3			iv) Sewer up to 250mm dia	m	20,00		
3.4.2.4			v) Eskom cables	m	20,00		
3.4.2.5			vi) Stormwater up to 700mm dia	m	10,00		
	PSDB8.3.8		Existing Unsurfaced Roads				
3.4.10			150mm thick Gravel Wearing Course(complying with PSD 3.2.4) from commercial sources for regraveling of Access Road Compacted to 95% MOD AASHTO	m ³	9,00		
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	m ²	15,00		
3.5.1.2	8.3.6.1d	LI	Block paving	m ²	50,00		
3.5.2	8.3.6.1d	LI	Reinstate concrete surfaces				
3.5.2.1		LI	Reinforced Concrete property access and driveways	m ²	30,00		
3.5.2.2			Reinstate and maintain grass verges with Cynodo grass from commercial source	m ²	100,00		
	SABS1200D K		GABIONS:				

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3.5.4		Gablons/ Reno mattresses using 6 x 8 mesh with 1.0m diaphragm spacing of sizes				
3.5.4	8.2.2	2,0 x 1,0 x 1,0m	m ³	40		
3.5.5		2,0 x 1,0 x 0.3m	m ³	90		
3.5.6		Excavation and compaction in all classes of material	m ³	100		
3.5.7		Surface preparation for bedding the gabions	m ²	180		
3.5.8		Filter fabric Grade 4 geotextile with minimum 2.5KN penetration and at least 235 l/s/m through flow	m ²	600		

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 3 - EARTHWORKS (PIPE TRENCHES) : TOTAL CARRIED TO SUMMARY:							
ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
4	SANS 1200 LD & PSLD		SECTION 4: SEWERS Arthur Homes Sewer Interceptor				
4.1	8.2.1	LI	Supply, lay, joint, bed, including testing of Sewer pipe Class 34 PVC				
4.1.2			b) 160 mm diam.	m	981		
4.1.3			SUBSURFACE DRAIN				
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	400		
4.1.3.2			Prepare and excavate for 110mm drainage pipes to be installed under bedding in areas of high water table	m	400		
4.1.3.3			Supply and Install Geotextile membrane	m ²	480		
4.4	SANS 1200 LD & PSLD		MANHOLES, ETC.				
4.4.1	8.2.3	LI	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. 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.	5		
4.4.1.2			- 1,5m - 2m	No.	23		
4.4.5	PSLD7.2.6	LI	Testing water tightness of manhole	No	28		
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	m ³	24		
5.1.1.2	b)		Selected fill blanket material	m ³	14		
5.1.2	8.2.2		Imported from other necessary excavations (Prov.) including				
5.1.2.1	8.2.2 a)		Selected backfill material	m ³	24		
5.1.2.2	8.2.2 b)		Selected fill blanket material	m ³	12		
5.1.3	8.2.2.3		Imported from commercial source (including haul).				

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
5.1.3.1	a)	Selected granular material	m ³	198		
5.1.3.2	b)	Selected fill blanket material	m ³	115		
5.15	8.2.5	Overhaul of bedding material	m ² .km	3 130		
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 drainage of sub-surface water on trench bottom as instructed by the Engineer.	m ³	17		
5.3.2		Extra-over 5.3.1 for the supply of A4 Bidim	m ³	266		
TOTAL TO SUMMARY:						

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Interceptor: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 6- SEWER CONNECTIONS						
6,3	PSLD	SEWER CONNECTIONS				
6,3,1	8.2.11	CONNECTING TO EXISTING MANHOLES				
	LI	Connecting to existing manhole	No.	1		
SECTION 6 - SEWER CONNECTIONS : TOTAL TO SUMMARY:						

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
2	SANS 1200C		<u>SECTION 2: SITE CLEARANCE</u>				
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	10,00		
2.4.2			b) Over 2.0m and up to 3.0m	No	10,00		
2.4.3			c) Over 3m	No	3,00		
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	150,00		
2.5.1.2			Palisade fencing up to 2m high	m	100,00		
2.5.1.3			Single brickwall boundary walls up to 2m high	m ²	100,00		
2.5.1.4			Double brickwall boundary walls up to 2m high	m ²	100,00		
2.5.2			Remove and secure existing fences that adjoin a trench				
2.5.2.1			Diamond mesh fencing up to 2m high	m	50,00		
2.5.2.2			Palisade fencing up to 2m high	m	50,00		
2.5.2.3			Single brickwall boundary walls up to 2m high	m	50,00		
2.5.2.4			Double brickwall boundary walls up to 2m high	m	50,00		
2.5.3			Replace fences				
2.5.3.1			Diamond mesh fencing up to 2m high	m	50,00		
2.5.3.2			Palisade fencing up to 2m high	m	50,00		
2.5.3.3			Single brickwall boundary walls up to 2m high	m	50,00		
2.5.3.4			Double brickwall boundary walls up to 2m high	m	50,00		
2.5.3.5			Remove flowers and lawns	m ²	80,00		
2.5.3.6			Reinstate flowers and lawns	m ²	80,00		
2.5.4	8.3.6.1 (b)		Remove & Replace existing pavement				
2.5.4.1			Flexible Pavements	m ²	200		
2.5.4.2			Rigid Pavements	m ²	200		

SECTION 2 - SITE CLEARANCE : TOTAL CARRIED TO SUMMARY:

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3	SABS 1200 DB		SECTION 3: EARTHWORKS (PIPE TRENCHES)	UNIT	QUANTITY	RATE	TOTAL AMOUNT
	PSDB						
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 pipelines and manholes to a depth of 150mm and stockpile differently from other excavations at positions to be directed by the Engineer.	m ²	1 265		
3.1.2	8.3.2 a	LI	Hand excavation				
3.1.2.1	PSDB5.4		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	3 280,00		
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	m ³	696,00		
3.1.2.2.2			b) Hard Rock Material	m ³	348,00		
3.1.3	8.3.2a	LI	Machine Class excavation				
3.1.3.1	PSDB5.4		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	1 120,00		
3.1.3.1.2			- 1,5m - 2,0m	m	2 820,00		
3.1.3.1.3			- 2,0m - 2,5m	m	950,00		
3.1.3.1.4			- 2,5m - 3,0m	m	210,00		
3.1.3.1.5			- 3,0m - 3,5m	m	35,00		
3.1.3.1.6			- 3,5m - 4,0m	m	15,00		
3.1.3.2	8.3.2b	LI	Extra-over items 3.2.3.1 to 3.2.3.4 for excavation (provisional) in:				
3.1.3.2.1			a) Intermediate material	m ³	979,00		
3.1.3.2.2			b) Hard Rock Material	m ³	489,00		
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	m ³	837,00		
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	m ³	837		
3.1.3.2.9	8.3.3.3		Compaction in Road Reserve	m ³	2 400		
3.1.3.2.10	PSDB						
	8.3.3.1(d)		Backfill on roads using soilcrete as specified by DOR	m ³	224		
	PSDB						
	8.3.3.1e)		Backfilling trenches using 13mm washed stone	m ³	75,00		
	8.3.4		PARTICULAR ITEMS				

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
	8.3.4 (a)	Shore trench opposite structures or services	m	2 000,00		
	8.3.4 (b)	Stormwater, Seepage and Dewatering of Excavation	m	4 000,00		
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	4 000		
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 hold the soil together	m	3 000		
	8.3.7	Accomodation of Traffic	Prov Sum	1,00		

CARRIED FORWARD TO NEXT PAGE

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
BROUGHT FORWARD FROM PREVIOUS PAGE							
3,4	SABS1200D		<u>EXISTING SERVICES</u>				
	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 stormwater 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.	20,00		
3.4.1.2			ii) Telecommunication cables	No.	20,00		
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		
			- 5,0 m - 6,0 m	No.	1		
3.4.2	8.3.5 (b)	LI	Services that adjoining a trench				
3.4.2.1			i) Telecommunication tables	m			
3.4.2.2			ii) Water mains up to 300mm dia	m			
3.4.2.3			iii) Water mains over 300mm dia	m			
3.4.2.4			iv) Sewer up to 250mm dia	m			
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	100,00		
3.4.9			Break and remove to spoil existing premix	m ²	120,00		
	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	90,00		
3,5	8.3.6		<u>FINISHING</u>				
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	200		

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
3.5.1.2	8.3.6.1d	LI	Block paving	m ²	150		
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	105		
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		
	SABS1200D K		GABIONS:				
3.5.4			Gabions/ Reno mattresses using 6 x 8 mesh with 1.0m diaphragm 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 penetration and at least 235 l/s/m through flow	m ²	300		

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 3 - EARTHWORKS (PIPE TRENCHES) : TOTAL CARRIED TO SUMMARY:							
ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
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	3 280		
4.1.2			b) 160 mm diam.	m	5 150		
4.1.3			c) 200mm diam	m	30		
			Drainage Pipes				
4.1.3			Prepare and excavate for 110mm drainage pipes to be installed under bedding in areas of high water table	m	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	112		
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.	112		
4.2.2			160 x 110 mm diam x 45deg. Y- junction	No.	90		
4.2.3			110 mm diam 45 deg. bends	No.	112		
4.2.4			110 mm diam 90 deg. bend	No.			
4.2.5			110 mm diam. End caps	No	44		
4.2.6			160 mm diam End caps	No	50		
4.2.7			200 mm diam End caps	No	2		
4,3			SUNDRIES				
4.3.1	8.2.9	LI	installed, painted with two coats of red gloss enamel and	No	50		
4,4	SANS 1200 LD & PSLD						
4.4.1	8.2.3	LI	MANHOLES, ETC. slab, manhole cover and frame, straight or radiused channel, benching, step irons and all required fittings per Drawing as Internal diameter of 1.00 m Over and up to				
4.4.1.1			- up to 1.5m	No.	16		
4.4.1.2			- 1,5m - 2m	No.	121		
4.4.1.3			- 2.0m - 2.5m	No.	13		
4.4.1.4			- 2.5m - 3.0m	No.	4		
4.4.1.5			- 3.0m - 3.5m	No.	2		
4.4.1.6			- 3.5m - 4.0m	No.	1		

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
4.4.2	8.2.4		speed ramps as per detail	No.	5		
4.4.3		LI	Extra-over item 3.4.1 to 3.4.3 for construction of backdrops as	No	5		
4.4.4	PSLD3.5.8	LI	frame in road reserves	No	96		
4.4.5	PSLD7.2.6	LI	Testing water tightness of manhole	No	157		

SECTION 5- SEWERS : TOTAL CARRIED TO SUMMARY:

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
6	SANS		<u>SECTION 5 : BEDDING (PIPES)</u>				
5,1	PSLB1		<u>PROVISION OF BEDDING</u>				
5.1.1	8.2.1		Available from trench from 5 m to 2 km.				
5.1.1.1	a)		Selected granular material	m ³	399		
5.1.1.2	b)		Selected fill blanket material	m ³	250		
5.1.2	8.2.2		Imported from other necessary excavations (Prov.) including				
5.1.2.1	8.2.2 a)		Selected backfill material	m ³	200		
5.1.2.2	8.2.2 b)		Selected fill blanket material	m ³	125		
5.1.3	8.2.2.3		Imported from commercial source (including haul).				
5.1.3.1	a)		Selected granular material	m ³	1 397		
5.1.3.2	b)		Selected fill blanket material	m ³	874		

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
5.15	8.2.5	Overhaul of bedding material	m ² .km	22 715		
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-surface water on trench 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 MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
SECTION 6- SEWER CONNECTIONS							
ITEM No.	PAYMENT		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL AMOUNT
6,1	PSLD		SEWER CONNECTIONS				
	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	16		
6.1.2	8.2.12		Raising or lowering of existing Manholes	No			
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 fittings, 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.	60		
6.2.1.2			Type 2	No.	60		
		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	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.	13		
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	20		
SECTION 6 - SEWER CONNECTIONS : TOTAL TO SUMMARY:							

O.R. TAMBO DISTRICT MUNICIPALITY
Lusikisiki Sewer Reticulation: Arthur Homes

SUMMARY

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