

CONTRACT:**BILL OF QUANTITIES****CONTRACT TITLE:** Ntlenzi to Mcetheni Road**BILL:****SECTION:** 1 1200 : GENERAL REQUIREMENTS AND PROVISION

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
1.1	12.01	(a) Allowance for provision of Community Liaison Officer at R6000 per month plus R500 airtime	Month	6	6 500,00	R39 000,00
1.2		(b) Civil Engineering student for in-service @ 6000 per month plus R 500 airtime	Month	6	6 500,00	R39 000,00
1.3		(C) Remuneration of PSC members to attend official meetings, 6 members, R300,00 per seating	Month	6	1 800,00	R10 800,00
1.4		(d) Contractor's handling costs in respect of sub item 13.2 (a,b & C) above	%	268 000,00	0,10	R26 800,00
1.5		OCCUPATIONAL HEALTH AND SAFETY COMPLIANCE				
		(a) Preparation of Contractor's site specific Health and Safety Plan	Sum	1		
1.6		(b) Principal Contractor's initial obligations in respect of the OHS Act and Construction Regulations	Sum	1		
1.7		(c) Principal Contractor's time related obligations in respect of the OHS Act and Construction Regulations	Month	6		
1.8		(d) Health and safety compliance officer	Sum	1		
1.9		(e) OHS monthly safety monthly audits	P/Sum	1	100 000,00	R100 000,00
1.10		Contractor's handling cost item above. sub item 1.9	%	100 000,00	10,00%	R10 000,00
1.11		Additional survey as required by the Engineer	P/Sum	1	50 000,00	R50 000,00
1.12	12.03	Geotechnical Investigation	P/Sum	1	50 000,00	R50 000,00
1.13		ENVIRONMENTAL COMPLIANCE				
1.14	12.04	(a) Environmental Management Plan	P/Sum	1	25 000,00	R25 000,00
1.14.1		(b) Environmental Compliance officer	P/Sum	1	75 000,00	R75 000,00
1.14.2		Allowance for environmental monthly audit as per EMPr	P/Sum	1	150 000,00	R150 000,00
1.14.3		Contractor's handling cost item above.	%	350 000,00	10,00%	R15 000,00
TOTAL FOR SECTION 1 CARRIED FORWARD TO SUMMARY						

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SECTION:

2 1300 : CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
2.1	13.01	CONTRACTOR'S GENERAL OBLIGATIONS				
2.1.1		(a) Fixed obligations	L/Sum	1		
2.1.2		(b) Value-related obligations	L/Sum	1		
2.1.3		(c) Time-related obligations	Month	6		
		Note : Preliminary & general cost must not exceed 20% of the works				
TOTAL FOR SECTION 2 CARRIED FORWARD TO SUMMARY						

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SECTION:

3 1400 : HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
3.1	14.01	Office and laboratory accommodation				
3.1.1		(a) Offices (interior floor space only)	Month	6		
3.1.2		(e) Ablution units	Month	6		
3.1.3		(f) Stores	Month	6		
3.2	14.02	Office and laboratory furniture				
3.2.1		(a) Chairs	No	4		
3.2.2		(d) Desks, complete with drawers and locks	No	4		
3.2.3		(f) Notice boards as specified	No	2		
3.2.4		Allowance for Facilities for the Engineer	P/Sum	1	30 000,00	R30 000,00
3.2.5		Contractor's handling cost as per item above.	%	30 000,00	10,00%	R3 000,00
TOTAL FOR SECTION 3 CARRIED FORWARD TO SUMMARY						

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SECTION: 4 1500 : ACCOMMODATION OF TRAFFIC

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
4.1	15.01	Accommodation of traffic and maintaining deviations	Km	11,5		
4.2	15.03	Temporary traffic-control facilities				
4.2.1		(a) Flagperson	No	2		
4.2.2		(b) Portable STOP and GO-RY signs	Month	6		
TOTAL FOR SECTION 4 CARRIED FORWARD TO SUMMARY						

CONTRACT:
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SECTION: 5 1600 : OVERHAUL

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
5.1	16.02	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m ³ -km	10000		
TOTAL FOR SECTION 5 CARRIED FORWARD TO SUMMARY						

CONTRACT:
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SECTION: 6 1700 : CLEARING AND GRUBBING

BILL OF QUANTITIES

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
6.1	17.01	Clearing and grubbing	ha	5,5		
TOTAL FOR SECTION 6 CARRIED FORWARD TO SUMMARY						

CONTRACT:
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SECTION: 7 1800 : DAYWORKS

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	18.01	LABOUR				
7.1		Unskilled labour	Hr	1		Rate Only
7.2		Semi-skilled labour	Hr	1		Rate Only
7.3		Skilled labour	Hr	1		Rate Only
7.4		Ganger	Hr	1		Rate Only
7.5		Flagman	Hr	1		Rate Only
7.6		Foreman	Hr	1		Rate Only
	18.02	PLANT				
		Truck as follows				
7.7		5-10t	Hr	1		Rate Only
7.8		5.10-20t	Hr	1		Rate Only
7.9		Excavator D324 excavation of materials,stockpilling	Hr	1		Rate Only
7.10		Roller. Compaction & skimming	Hr	1		Rate Only
7.11		Watercart 10000lt sprinkler water	Hr	1		Rate Only
7.12		Grader 140G Ripping shaping processing cruching	Hr	1		Rate Only
7.13		Plant for laying asphalt (All inclusive)	Hr	1		Rate Only
TOTAL FOR SECTION 7 CARRIED FORWARD TO SUMMARY						R0,00

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SECTION: 8 2200 : PREFABRICATED CULVERTS

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.1	22.01	Excavation				
		(a) Excavating soft material situated within the following depth ranges below the surface level:				
8.1.1		(i) 0 m up to 1.5 m	m ³	600		
8.1.2		(i) 1.5 m up to 3 m	m ³	50		
8.1.3		(i) 3 m up to 4.5 m	m ³	50		
8.2	22.02	Backfilling:				
8.2.1		(a) Using the excavated material	m ³	700		
8.3	22.03	Precast Concrete pipe culverts:				
		(b) On class C bedding				
8.3.1		(i) 600 mm dia. Type 100D	m	100		
		Inlets and Outlets				
8.3.2		Construction of both the inlet and outlet as per the attached drawings	No	24		
TOTAL FOR SECTION 8 CARRIED FORWARD TO SUMMARY						

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SECTION: 9 3300 : MASS EARTHWORKS

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
9.1	33.01	Cut and borrow to fill, including free-haul up to 0.5km				
		(a) Material in compacted layer thickness of 200 mm and less:				
9.1.1		(i) Compacted to 90% of modified AASHTO density	m ³	15000		
9.2	33.04	Cut to spoil, including free-haul up to 0,5 km. Material obtained from:				
9.2.1		(a) Soft excavation	m ³	90		
9.2.2		(b) Intermediate excavation	m ³	900		
9.2.3		(c) Hard excavation	m ³	90		
9.3	33.10	Roadbed preparation and the compaction of material:				
9.3.1		(b) Compaction to 93% of modified AASHTO density	m ³	9900		
TOTAL FOR SECTION 9 CARRIED FORWARD TO SUMMARY						

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SECTION: 10 3400 : PAVEMENT LAYERS OF GRAVEL MATERIAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
10.1	34.01	Pavement layers constructed from gravel obtained from approved borrowpit or commercially as described, including unlimited free-haul up to 1,0 km				
10.1.1		(h) Gravel Wearing Course minimum (G5) layer compacted to: (from commercial source)				
		(ii) 95% of modified AASHTO density for a compacted layer thickness of 150mm.	m ³	8500		
TOTAL FOR SECTION 10 CARRIED FORWARD TO SUMMARY						

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BILL:
SECTION: 11 3800 : BREAKING UP EXISTING PAVEMENT LAYERS

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
11.1	38.01	Excavating and removing existing bituminous material (except milled material):				
11.1.1		Material to be disposed of with the average depth of excavation:				
11.1.1.1		Exceeding 30 mm but not exceeding 60 mm	m ³	2800		
TOTAL FOR SECTION 11 CARRIED FORWARD TO SUMMARY						

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SECTION: 12 4200 : ASPHALT BASE AND SURFACING

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
12.1	42.01	Base-layer (150mm depth) compacted to 98% of modified AASHTO density using NME equivalent	m ³	8500		
12.2		Contractor's handling cost item above.				
TOTAL FOR SECTION 12 CARRIED FORWARD TO SUMMARY						

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SECTION: 13 5100 : PITCHING, STONework AND PROTECTION AGAINST EROSION

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
13.1	51.01	Stone pitching:				
		(a) Plain pitching:				
13.1.1		(i) Method 1	m ²	50		Rate Only
TOTAL FOR SECTION 13 CARRIED FORWARD TO SUMMARY						0,00

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
14.1	52.02	Surface preparation for bedding the gabions				
14.1.1		Surface preparation for bedding the gabions	m ²	1		Rate Only
14.2	52.03	Gabions:				
		(a) Supply and install galvanised gabion boxes including aggregate from commercial sources				
14.2.1		(i) 1,0m wide x 1,0m deep, with length between 1 and 4m, class A galvanised 80x100mm mesh, 2,7mm diameter wire and diaphragm spacing of 1,0m	m ³	1		Rate Only
		(b) Galvanised gabion mattresses				
14.2.2		(ii) 0,3m thick, 3m long x 2m wide class A galvanised 80x80mm mesh, 2,7mm diameter wire and diaphragm spacing of 1,0m to drainage outlets	m ³	1		Rate Only
14.3		Filter fabric, non-woven continuous filament needle-punched polyester geotextile ["Bidim grade A5" or other and approved equal]	m ²	1		Rate Only
TOTAL FOR SECTION 14 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
15.1	56.01	Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class 1 retro-reflective material, where the sign board is constructed from:				
		(c) Prepainted galvanised steel plate (1.2mm chromadek or approved)				
15.1.1		(i) 900mm diameter Round or Stop signs:	No.	4		
		(ii) 900mm Triangular signs:				
15.1.2		W326	No.	10		
15.2	56.03	Road sign supports(overhead road sign structures excluded):				
15.3		Road sign supports: Including installing and all materials required				
15.3.1		(i) 75mm diameter	No.	14		
15.4	56.05	Excavation and backfilling for road sign supports	m³	3		
TOTAL FOR SECTION 15 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
16.1	57.02	Retro-reflective road marking paint:				
		Retro-reflective road marking paint:				
16.2		(a) White lines (broken or unbroken)				
16.2.1		(1) 100 mm wide	km	5		
16.2.2		(2) 150 mm wide	km	4		
16.2.3		(3) 300 mm wide STOP	km	0,4		
16.3		(b) Yellow lines (broken or unbroken)				
16.3.1		(1) 100 mm wide	km	1		
16.3.2		(d) White lettering and symbols	m²	5		
16.3.3		(e) Yellow lettering and symbols	m²	5		
16.3.4		(f) Transverse lines, painted island and arrestor bed markings (any colour)	m²	2		
16.4	57.04	Variations in rate of application:				
16.4.1		(a) White paint	ℓ	50		
16.4.2		(b) Yellow paint	ℓ	50		
16.4.3	B57.05	(a) Road studs (100mm x 100mm x 20mm plastic stick-on type with 43 bead glass reflectors - Bi- directional (any colour))	No.	3800		
16.4.4		(b) Install temporary roadstuds	No.	950		
16.4.5	B57.06	Setting out and premarking the lines (excluding traffic-island markings, lettering and symbols)	km	9,5		
16.4.6	57.07	Re-establishing the painting unit at the end of the maintainance period	L/Sum	1		
TOTAL FOR SECTION 16 CARRIED FORWARD TO SUMMARY						

SECTION:

17 5900 : FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
17.1	59.01	Finishing the road and road reserve:				
17.1.1		(b) Single-carriageway road	km	11,5		
TOTAL FOR SECTION 17 CARRIED FORWARD TO SUMMARY						

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SECTION: 18 8100 : TESTING MATERIALS AND WORKMANSHIP

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
18.1	81.02	Other special tests requested by the engineer				
18.1.1		(a) Cost of testing	Prov.Sum	1	50 000,00	50 000,00
18.1.2		(b) Charge on prime cost	%	50 000,00	10,00%	5 000,00
TOTAL FOR SECTION 18 CARRIED FORWARD TO SUMMARY						55 000,00