



**CONSTRUCTION OF MSHOLOZI ROAD
(BILL OF QUANTITIES)**

88



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B12.05	(b) Handling costs and profit in respect of subitem B12.05(a) <u>Training</u> - (a) Accredited and approved training courses for selected local and other labourers including wages during training (b) Allow for stipend payments for the training of interns who will be appointed through the Chis Hani Local Municipality technical services unit at R12 500p/m) (c) Handling costs and profit in respect of sub-item B12.07 (a) & (b)	% Prov. Sum month %	25 000.00 12		200 000.00 150 000.00
B12.06	Contractor to allow in his rates to meet requirements regarding Environmental Specifications (compliance with environmental management plan)	Sum	1		
B12.07	<u>Health and Safety Act (For Borrow Pit)</u> (a) Health and Safety obligations (b) Special information signs (c) Handling costs and profit in respect of sub-item B12.07 (b) & (c) (d) Provision of Security Guards	Month PC Sum % Months	12 10 000.00 12		10 000.00
B12.08	<u>Health and Safety</u> (a) Contractor's time obligation in respect of OHS and contract regulation (b) Submission of Health and Safety File	Month Sum	12 1		
1200	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
13.01	<u>The contractor's general obligations:</u>				
	(a) Fixed obligations	L. Sum	1		
	(b) Value-related obligations	L. Sum	1		
	(c) Time-related obligations	Month	12		
	<u>NOTE:</u>				
	<i>The combined total tendered for subitems (a), (b) & (c) shall not exceed 15% of the Tender Sum.</i>				
B13.02	Project Name Boards	No.	1		
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1300	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL				
14.01	<u>Office and laboratory accommodation:</u> The provision of accommodation as specified, including roof, external and internal walls, windows complete with glazing, doors with locks and fittings, burglar proofing, painting, floors, fencing, the provision of a 220/250 volt electrical installation with wiring, switchboards, etc, water and sewerage installation, and stores, complete in accordance with the drawings and specifications, except for items scheduled elsewhere: (a) Offices - 1 for Engineer (3m X 3m) & 1 for Contractor (3m X 3m), 1 Boardroom (6m X 3m) (interior floor space only) (e) Ablution units	m ²	36.00		
		Months	12		
14.02	<u>Office and laboratory furniture:</u> (a) Chairs (b) Desks, complete with drawers and locks (c) Drawing tables (d) Conference tables (e) Computer complete with Laser printer (f) Pinboard (size 1.0m x 1.5m)	No. No. No. No. Prov.Sum No.	15 2 1 1 2		Rate Only
14.03	<u>Office and laboratory fittings, installations and equipment:</u> (a) Items measured by number: (i) 220/250-volt power points (iii) Double 80-watt fluorescent light fittings complete with ballast and tubes (x) Fire extinguishers, 9,0 kg, all-purpose dry powder type, complete, mounted on wall with brackets (xi) Air-conditioning units with 2,2 kW minimum capacity mounted and with own power connection (xiv) General-purpose steel cupboards with shelves (xvi) Refrigerators (200 litres minimum) (xviii) Voltage stabilizers	No. No. No. No. No. No. No.	4 4 2 3 2 2 3		
B14.03	<u>(b) Prime-cost items and items paid for in a Lump Sum:</u> (i) The provision of a cellular telephones for contract administration (ii) Provisional sum for the costs of cellular calls and other charges in relation with scope of work of the construction services	Prov. Sum Prov. Sum			10 000.00 7 500.00
B14.03	<u>(c) Items measured by area:</u> (vii) Venetian blinds (viii) Notice boards as specified (ix) Whiteboard	m ² No No.	10.00 1.00 1		
1400	TOTAL CARRIED FORWARD				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
14.04	<u>Car ports:</u>				
	Car ports, as specified, at offices and laboratory buildings	No.	2		
B14.05	(ix) Provision of a cellular telephone service, including the running cost of 1 phone and all calls in connection with contract administration	PC Sum			10 000.00
	(x) Provision of a computer and A4 printer for The Engineer for use in contract administration	PC Sum			15 000.00
B14.06	(xi) Handling costs and profit in respect of subitem B14.05 (ix) & (x) above	%	25 000.00		
B14.07	<u>Rented, hotel and other accommodation:</u>				
	(a) Provisional sum for providing rented housing, hotel or other accommodation for the engineer's representative (RE)	PC Sum			108 000.00
	(b) Handling costs & profit in respect of sub item B14.07(a)	%	108 000.00		
B14.08	<u>Services:</u>				
	The provision of water, electricity, low pressure gas, sewerage, septic tanks, sewage and rubbish removal, cleaning services, maintenance and repairs, all as specified in clause 1404, including the construction and maintenance of the access roads, footpaths, etc				
	(a) Services at offices and laboratories:				
	(i) Fixed costs	L. Sum			
	(ii) Running costs	Month	12		
B14.10	Provision of photostat facilities	Month	12		
B14.11	Provision and erection of security fencing (including gate)	m	400.00	180.00	72 000.00
1400	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1500	ACCOMMODATION OF TRAFFIC				
15.01	Accommodating traffic and maintaining temporary deviations	km	7.00		
15.02	<u>Earthworks for temporary deviations:</u> (a) Shaping of temporary deviations	km	7.00		
15.03	<u>Temporary traffic control facilities</u> (a) Flagmen (2 persons) (b) Portable STOP and GO-RY signs (e) Road signs, R- and TR-series, 1 200 mm in diameter (f) Road signs, TW-series, 1 524 mm sides (g) Road signs, STW-, DTG-, TGS- and TG-series(excluding delineators and barricades) (h) Delineators 800 mm x 200 mm sides: (i) Single (ii) Mounted back-to-back (j) Traffic cones, 750 mm high (n) Provision of high visibility safety jackets & safety hats	man-day No. No. No. No. No. No. No. No. No. No.	528 2 5 5 5 20 20 3 20		
15.04	Relocation of traffic-control facilities	L. Sum			
15.05	Gravelling and repair of temporary deviations and existing gravel shoulders used as temporary deviations	m ³	90.00		
15.06	Watering of temporary deviations	kL	500.00		
15.07	<u>Blading by road grader of:</u> (a) Temporary Deviations	km-pass	2.20		
B15.12	<u>Temporary culverts:</u> (a) Provision and laying of temporary prefabricated culverts complete (Using existing culverts): (1) 600mm dia (2) 900mm dia (b) Re-use of prefabricated culverts complete: (1) 600mm dia (2) 900mm dia (c) Eventual removal of prefabricated culverts: (1) 600mm dia (2) 900mm dia (d) Overhaul on excavated material carted to spoil, backfill material (but excluding Portland cement), prefabricated culverts removed and reinstalled, and prefabricated culverts removed and stacked, for haul in excess of a free-haul distance of 1,0km.	m m m m m m m ³ -km	50.00 50.00 50.00 150.00		
1500	TOTAL CARRIED FORWARD				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B15.14	<u>Allow provisional sums for:</u>				
	(a) Repair of damaged temporary road signs and delineators	Prov. Sum			5 000.00
	(b) Replacement of damaged temporary road signs and delineators	Prov. Sum			10 000.00
B15.16	<u>Provision of traffic safety equipment for the Engineer</u>				
	(a) Amber rotating beacon (with magnetic base)	No	2		
	(b) Magnetic "Construction Vehicle" sticker for vehicles with 100mm lettering	No	2		
	(c) Safety Jackets	No	2		
15/16.02	Overhaul on material hauled in excess of 1.0km (Ordinary overhaul)	m ³ -km	630.00		
1500	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1700	CLEARING AND GRUBBING				
B17.01	<u>Clearing and grubbing of:</u>				
	(a) Normal areas:				
	(i) Within the road reserve	m ²	3.36		
	(ii) In borrow pits	ha	0.50		
	(iii) Existing fill embankments with slopes > 1:4	ha			
17.02	<u>Removal and grubbing of large trees and tree stumps:</u>				
	(a) Girth exceeding 1 m up to and including 2 m	No.	5		
	(a) Girth exceeding 2 m up to and including 3 m	No.	5		
17.05	Cleaning out of hydraulic structures:				
	(a) Pipes with an internal diameter up to and including 750 mm	m ³			
	(b) Pipes with an internal diameter exceeding 750mm	m ³			
	(c) Box culverts up to and including 1.5m vertical dimension	m ³			
	(d) Box culverts exceeding 1.5m vertical dimension	m ³			
1700	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1800	DAY WORK AND HIRE OF CONSTRUCTION EQUIPMENT				
B18.01	<u>Labourers:</u>				
	(i) Unskilled	hour	8.00		
	(ii) Semi-skilled	hour	8.00		
	(iii) Skilled	hour	8.00		
B18.02	Foreman	hour	8.00		
B18.03	<u>Tipper trucks</u>				
	(i) Size.....m ³	hour	8.00		
	(ii) Size.....m ³	hour	8.00		
B18.04	Tractor Loader Backhoe (TLB)	hour	8.00		
B18.05	Loader (0,5m ³)	hour	8.00		
B18.06	Grader (CAT 140G or similar)	hour	8.00		
B18.07	LDV	hour	8.00		
B18.08	<u>Compaction Rollers</u>				
	(i) Vibrating roller	hour	8.00		
	(ii) Tamping roller	hour	8.00		
	(iii) Grid roller	hour	8.00		
B18.09	<u>Hand Controlled Compactors</u>				
	(i) Pedestrian roller (Bomag BW90)	hour	8.00		
	(ii) Vibratory plate (Plate Compactor)	hour	8.00		
	(iii) Rammers	hour	8.00		
B18.10	Water truck (min 10 000 litre)	hour	8.00		
B18.11	Dozer (D7 or similar)	hour	8.00		
B18.12	Excavator.....tonne				
	(i) Size.....m ³	hour	8.00		
	(ii) Size.....m ³	hour	8.00		
B18.13	Materials				
	(a) Procurement of Materials for Dayworks	Prov Sum			
	(b) Handling cost in respect of B13.03 (a) above	%	100 000.00		
1800	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2100	DRAINS				
21.01	Excavation for open drains: (a) Excavating soft material situated within the following depth ranges below the surface level: (i) 0 m up to 1,5 m (ii) Exceeding 1,5 m and up to 3,0 m (b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m ³ m ³ m ³	816.75 81.68		
21.02	Clearing and shaping existing open drains	m ³			
21.03	Excavation for subsoil drainage systems: (a) Excavating soft material situated within the following depth ranges below the surface level: (i) 0 m and up to 1,5 m (ii) Exceeding 1,5 m and up to 3,0 m (iii) Etc, in increments of 1,5 m (b) Extra over subitem 21.03(a) for excavation in hard material irrespective of depth	m ³ m ³ m ³ m ³	480.00 		
21.04	Impermeable backfilling to subsoil drainage systems	m ³	120.00		
21.05	Banks and dykes	m ³			
21.06	Natural permeable material in subsoil drainage systems (crushed stone): (b) Crushed stone obtained from commercial sources (i) Coarse graded stone (36 mm nominal size aggregate)	m ³	10.80		
21.07	Natural permeable material in subsoil drainage systems (crushed stone): (b) Sand obtained from commercial sources (i) Washed/Cleaned Riversand - No Overhaul	m ³	38.40		
21.08	Pipes in subsoil drainage systems: (c) Unplasticised PVC pipe and fittings, normal duty complete with couplings (1) 110 mm internal dia. Perforated	m	500.00		
21.09	Polythylene sheeting 0,15 mm thick, or similar approved material, for lining subsoil drainage systems	m ²			
21.10	Synthetic fibre filter fabric (a) Kaytech Grade A2 or similar approved material	m ²	650.00		
2100	TOTAL CARRIED FORWARD				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
21.12	Concrete outlet structures, manhole boxes junction boxes and cleaning eyes for subsoil drainage systems:				
	(a) Outlet structures	No	2.00		
	(b) Manhole boxes	No	2.00		
	(c) Junction boxes	No	2.00		
	(d) Cleaning eyes	No	5.00		
21.13	Concrete caps for subsoil drainpipes	No	5.00		
21.15	Overhaul for material hauled in excess of 1,0 km km free-haul (normal overhaul)	m ³ -km	3 890.25		
21.16	Backfilling existing eroded side drains	m ³			
21.17	Test flushing of subsoil drainage	No.	10.00		
21.19	Selected backfill material under concrete-lined side drains compacted to 93% of modified AASHTO	m ³	945.00		
21/22.24	Duct marker blocks for subsoil cleaning eyes	No	20.00		
21/22.25	Outlet stilling basin for concrete drifts (where applicable) as per typical drawing	m ²	25.00		
2100	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2200	PREFABRICATED CULVERTS				
22.01	<u>Excavation</u> (a) Excavating soft material situated within the following depth ranges below the surface level: (i) 0 m up to 1,5 m (ii) Exceeding 1,5 m and up to 3,0m (iii) Exceeding 3.0m and up to 4,5m (b) Extra over sub-item 22.01(a) for excavation in hard material, irrespective of depth (c) Extra over sub item 22.01(a) for excavation by hand using hand tool	m ³ m ³ m ³ m ³ m ³	3780.00 1500.00 528.00 264.00		
22.02	<u>Backfilling</u> (a) Using the excavated material (b) Using imported selected material (c) Extra over sub-items 22.02(a) and (b) for soil cement backfilling with 5% cement	m ³ m ³ m ³	756.00 300.00 100.00		
22.03	<u>Concrete pipe culverts, with ogee joints:</u> (c) On class C bedding (trench condition) (i) 600mm dia. Type 75D (ii) 750mm dia. Type 75D (iii) 900mm dia. Type 75D (iv) 1350mm dia. Type 75D (v) 1800mm dia. Type 75D	m m m m m	600.00 700.00 500.00 400.00 400.00		
22.05	<u>Portal and rectangular culverts:</u> (a) Complete with prefabricated floor slabs (i) 1500x3000 100s (b) Without prefabricated slabs: (i) 1500x3000 100s	m m	 30.00		Rate Only Rate Only
22.07	<u>Cast in situ concrete and formwork</u> (a) In class A bedding, screeds and the encasing for pipes, including formwork (i) Class 30/19	m ³	15.00		
	(c) In inlet and outlet structures, skewed ends, catchpits, manholes, thrust and anchors blocks, excluding formwork but including class U2 surface finish (Class 25/19 concrete)	m ³	10.00		
2200	TOTAL CARRIED FORWARD				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	(d) Formwork of concrete under sub-item 22.07(c) above				
	(i) Type F1 finish	m ²	180.00		
	(ii) Type F2 finish	m ²			
22.08	Concrete Backfill for culverts (15MPa)	m ³	20.00		
22.10	<u>Steel reinforcement</u>				
	(a) Mild steel bars	t			
	(b) High tensile steel bars	t	2.00		
	(c) Welded steel fabric (ref 617)	m ²	220.00		
22.12	<u>Removing existing concrete</u>				
	(a) Plain concrete	m ³	20.00		
	(b) Reinforced concrete	m ³	180.00		
22.14	<u>Removing and stacking existing prefabricated culverts as indicated on the detail drawings</u>				
	(1) 450 mm dia. concrete	m			
	(2) 600 mm dia. concrete	m	200.00		
	(3) 750 mm dia. concrete	m			
	(4) 900 mm dia. concrete	m			
22.17	<u>Manholes, catchpits, precast inlet and outlet structures complete</u>				
	(a) Manholes - Precast concrete for drainage: shallow depth using 1050mm dia. rings				
	(i) 1,0 m to 1,5 m deep	No	8.00		
	(ii) 1,5 m to 2,0 m deep	No	4.00		
	(b) Catchpits				
	(i) Double Grid (Kerb Inlet)	No	8.00		
	(ii) 4,8m Side Inlet	No	10.00		
	(b)(iii) 6,0m Side Inlet	No	2.00		
22.18	<u>Brickwork (facebrick)</u>				
	(a) 115 mm thick	m ²			
	(b) 230 mm thick	m ²	250.00		
	(c) 345 mm thick	m ²	125.00		
B22/51.01	<u>(b) Grouted Stone Pitching</u>				
	(i) 150 mm thick	m ²	0.00		
2200	TOTAL CARRIED FORWARD				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
22.19	<u>Plaster</u>	m ²	600.00		
22.20	<u>Benching</u>	m ²			
22.21	Accessories				
	(a) Manhole covers including frames (description)	No.	9.00		
22.25	Overhaul on excavated material carted to spoil, backfill material (but excluding Portland cement in case of soil cement), existing structures demolished and removed to spoil , and removing and relaying and removing and stacking existing prefabricated culverts, for haul in excess of the free haul distance	m ³ -km	18324.00		
22.27	Reinstating trenches crossing roads:				
	(a) Selected layers	m ²			
	(b) Subbase	m ²			
	(c) Base (including prime coat)	m ²			
	(d) Bituminous surfacing (including tack coat)	m ²			
	(e) Kerbing	m			
B22.30	(a) Preparation and compaction of in-situ bedding material to 90% of mod. AASHTO density	m ²			
2200	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2300	CONCRETE KERBING, CONCRETE CHANNELING, CHUTES AND DOWN PIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23.01	<u>Concrete kerbing:</u> (a) Prefabricated mountable kerb, SABS 927 fig 8C (b) 250 mm x 200 mm cast in situ class 25/19 concrete edge beam, as shown on the detailed drawings (c) 150 mm x 100 mm cast in situ class 25/19 concrete edge beam, as shown on the detailed drawings (d) Garden Kerbs as barrier kerbs	m m m m	1700.00 2600.00		
23.02	<u>Concrete kerbing-channelling combination:</u> (a) Prefabricated mountable kerb, SABS 927 fig 8C, with 300mm X 100mm wide cast in situ class 25/19 concrete channel (b) Prefabricated battered kerb, SABS 927 fig 7 (semi-mountable), with 300mm X 100mm wide cast in situ class 25/19 concrete channel	m m	1900 200		
23.03	<u>Concrete chutes</u> (a) Cast in situ class 25/19 concrete with energy breakers	m ³	15		
23.05	<u>Inlet, outlet, transition and similar structures (typical designs):</u> (b) Transition, mountable kerb, SABS 927 fig 8C to stormwater drain or edge beam, or mountable kerb or SABS 927 fig 8C class 25/19 concrete, complete with joints (2m long)	No.	15		
23.07	<u>Trimming of excavations for concrete-lined open drains</u> (a) In soft material (b) In hard material	m ² m ²			
23.08	<u>Concrete lining for open drains:</u> (a) Cast in situ class 25/19 concrete lining in drains and across road as shown on the detailed drawings (b) Class U2 surface finish to cast in situ concrete in across road	m ³ m ²	435.00 4350.00		
B23.08	(a) Concrete property access slabs using 25/19 concrete (100mm thick) - wood floated finish (b) Concrete drift using 25/19 concrete (100mm thick) - wood float finish	m ³ m ³	50.00 10.00		
2300	TOTAL CARRIED FORWARD				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
23.09	Formwork to cast in situ concrete lining for open drains (class F2 surface finish): (a) To sides with formwork on the internal face only (b) To sides with formwork on both internal and external faces (each face measured) (c) To ends of slabs	m ² m ² m ²	840		Rate Only
23.12	Steel reinforcement: (a) Mild steel bars (b) High tensile steel bars (c) Mesh Ref 245	t t m ²	4350.00		Rate Only Rate Only
23.13	Polyethylene Sheeting (0.15mm thick), for concrete lined open drains	m ²	4350.00		
23.14	Cutting bituminous surfacing and pavement layers for concrete kerbing, channelling or concrete-lined drains	m			Rate Only
23.15	Precast concrete blocks in outlet structures	No.	12		
B23.01	PREFERENTIAL LOCAL SUBCONTRACTING (a) Allow a Provisional amount on above items 23.01 - B23.15 for preferential Procurement for subcontracting to local SMME's (b) Handling costs and profit in respect of sub-item B23.01 (a)	Prov sum %	 330 000.00		330 000.00
2300	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3100	BORROW MATERIALS				
31.01	Excess overburden (a) Depth up to and including 0.5m	m³	4 900.50		
31.03	<u>Finishing-off borrow areas in:</u> (a) Hard material (c) Soft material	ha ha	0.20		Rate Only
B31.04	<u>Compensation to landowners</u> (a) Prime cost sum for compensation to landowners (b) Handling cost and profit in respect of sub-item B31.04(a) above	PC Sum %	50 000.00		50 000.00
3100	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3300	MASS EARTHWORKS				
33.01	Cut and borrow to fill, including free-haul up to 1,0km: (a) Gravel Material in compacted layer thicknesses of 200mm and less: (i) Compacted to 90% of mod. AASHTO density (ii) Compacted to 93% of mod. AASHTO density (c) Rock fill (as specified in subclause 3209(c)) with 500mm - 750mm rocks	m ³ m ³ m ³	7 242.00 500.00		Rate Only
B33.03	<u>Extra over item 33.01 for excavating and breaking down material in:</u> (a) Intermediate excavation (b) Hard excavation (c) Boulder excavation class A (d) Boulder excavation class B	m ³ m ³ m ³ m ³	724.20		Rate Only Rate Only Rate Only
B33/32,06	<u>Stockpiling of material</u>	m ³	8 603.10		
B33.04	<u>Cut to spoil, including free-haul up to 1,0 km.</u> Material obtained from: (a) Soft excavation (b) Intermediate excavation (c) Hard excavation (d) Boulder excavation class A (e) Boulder excavation class B	m ³ m ³ m ³ m ³ m ³	8 603.10		Rate Only Rate Only Rate Only Rate Only
33.06	<u>Variations in the number of roller passes (applicable to subsubitems B33.01(a)(i) and B33.01 (a)(ii) and item 33.11):</u> (a) Vibratory rollers	m ² -pass			Rate Only
33.09	Material bladed to windrow	m ³			Rate Only
33.10	<u>Roadbed preparation and the compaction of material:</u> (b) Compaction to 93% of mod. AASHTO density	m ³	4 301.55		
33/16.00	Overhaul				
33/16.02	Overhaul on material hauled in excess of 1.0km (ordinary overhaul) - Dump site 3km from site in and around construction area	m ³ -km	17 206.20		
33.11	<u>Three-roller-passes compaction:</u> (a) Vibratory roller	m ²			Rate Only
B33.12	<u>In situ treatment of cut areas (surface left after box-cutting):</u> (a) In situ treatment by compaction of existing layer	m ³	3 267.00		
33.13	<u>Finishing-off cut and fill slopes, medians and interchange areas:</u> (a) Cut slopes (b) Fill slopes	m ² m ²	15 700.00 12 239.00		
3300	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL				
34.01	<u>Pavement layers constructed from gravel taken from cut or borrow including free-haul up to 1,0km:</u> (a) Gravel selected layer compacted to: (ii) 95% of modified AASHTO density (150mm compacted layer thickness) (d) 150mm Gravel subbase (chemically stabilised material) compacted to: B(i) 98% of modified AASHTO density (e) 150mm Gravel base (chemically stabilised material) compacted to: (i) 98% of modified AASHTO density compacted in layer thickness of 150 mm max. (g) Gravel shoulders compacted to: (i) 93% of modified AASHTO density compacted in layer thickness of 150 mm max.	m ³	4 301.55		
		m ³	5 793.48		
		m ³	4 531.33		
		m ³	653.40		
B34.01 (a)	<u>Pavement layers constructed from gravel taken from commercial sources including Haulage</u> (a) 150mm Gravel base (chemically stabilised material) compacted to: (i) 98% of modified AASHTO density compacted in layer thickness of 150 mm max.	m ³	4 531.33		
34.02	<u>Extra over item 34.01 for excavation of material in:</u> (a) Intermediate excavation (b) Hard excavation	m ³ m ³			Rate Only Rate Only
34/1600	OVERHAUL				
34/16.02	Overhaul on material hauled in excess of 1 km (ordinary overhaul)	m ³ -km	40 781.96		
34/32.04	Removal of oversize pavement material	m ³			Rate Only
34/32.05	Additional normal grid rolling	m ³	250.00		
3400	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3500	STABILIZATION				
35.01	Chemical stabilization extra over unstabilized compacted layers:				
	(i) Base layer (150mm thickness)	m ³	3 236.66		
35.02	Chemical stabilizing agent				
	(a) Ordinary portland cement	t	250.00		
	(c) Road lime	t			Rate Only
35.04	Provision and application of water for curing	kL	450.00		
35.05	Curing by covering with the subsequent layer	m ²			Rate Only
	-				
	-				
3500	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3600	CRUSHED STONE BASE				
36.01	Crushed stone base:				
	(a) Constructed from type G1 material obtained from commercial sources and compacted to 88% of apparent relative density (150mm layer)	m ³			Rate Only
	(b) Constructed from type G1 material obtained from approved borrow pits, crushed by the contractor, and compacted to 88% of apparent relative density (150mm layer)	m ³			Rate Only
	(c) Constructed from type G2 material obtained from commercial sources and compacted to 85% of bulk relative density (150mm layer)	m ³			Rate Only
	(d) Constructed from type G2 material obtained from approved borrow pits, crushed by the contractor, and compacted to 85% of bulk relative density (150mm layer)	m ³			Rate Only
	-				
	-				
3600	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5100	PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION				
51.01	Stone pitching:				
	(b) Grouted stone pitching of 150mm thickness	m ²	1 200.00		
B51.02	PREFERENTIAL LOCAL SUBCONTRACTING				
	(a) Allow a Provisional amount on above item 51.01 for preferential Procurement for subcontracting to local SMME's	Prov sum			55 000.00
	(b) Handling costs and profit in respect of sub-item B51.02 (a)	%	55 000.00		
5100	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5200	GABIONS				
52.01	<u>Foundation trench excavation and backfilling:</u>				
	(b) In all other classes of material	m ³	40		
52.02	Surface preparation for bedding the gabions	m ²	200		
52.03	<u>Gabions:</u>				
	(a) Galvanized gabion boxes 1m x 1m x 1m deep with 80mm x 100mm mesh and diaphragms at 1.0m centres and 2.7mm dia msh wire	m ³	30		
	(c) Galvanized gabion mattresses, 2m x 2m x 0.3m deep with 80mm x 100mm mesh and diaphragms at 1.0m centres and 2.7mm dia mesh wire	m ³	30		
52.04	Filter fabric, Kaymat U24 or approved equivalent	m ²	260		
5200	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5400	GUARDRAILS				
54.01	<u>Guardrails on timber posts:</u>				
	(a) Galvanized	m	600		
	(b) Painted	m			Rate Only
54.03	Extra over items 54.01 for horizontally curved guardrails factory bent to a radius of less than 45 m	m			
54.04	End treatments:				
	(a) End wings	No	8		
	(d) End treatments in accordance with the Drawings where single guardrail sections are used	No	8		
54.05	Additional guardrail posts:				
	(a) Timber	No	50		
54.06	Reflective plates	No	50		
B54.06	Concrete new Jersey barrier	m			Rate Only
B54.07	PREFERENTIAL LOCAL SUBCONTRACTING				
	(a) Allow a Provisional amount on above items 54.01 - B54.06 for preferential Procurement for subcontracting to local SMME's	Prov sum			125 000.00
	b) Handling costs and profit in respect of sub-item B54.07 (a)	%	125 000.00		
5400	TOTAL CARRIED TO SUMMARY				

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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5700	ROAD MARKINGS				
57.02	Retro-reflective road-marking paint:				
	(a) White lines (broken or unbroken):				
	(i) 100 mm wide	km	4.00		
	(ii) 150 mm wide	km	0.01		
	(iii) 300 mm wide	km	0.01		
	(b) Yellow lines (broken or unbroken):				
	(i) 100 mm wide	km	0.00		
	(ii) 150 mm wide	km	0.00		
	(iii) 200 mm wide	km	0.00		
	(d) White lettering and symbols	m ²	0.00		
	(e) Yellow lettering and symbols	m ²	0.00		
	(f) Transverse lines, painted island and arrestor bed markings (any colour)	m ²	0.00		
57.04	<u>Variations in rate of application:</u>				
	(a) White paint	litre			Rate Only
	(b) Yellow paint	litre			Rate Only
	(d) Retro-reflective beads	kg			Rate Only
57.06	Setting out and premarking the lines (excluding traffic-island markings, lettering and symbols)	km	4.00		
57.07	Re-establishing the painting unit at the end of maintenance period	L. Sum			
B57.11	Referencing of road markings	km			Rate Only
B57.12	Provisional amount for the provision and erection of road signs complete	Prov. Sum			
B57.13	PREFERENTIAL LOCAL SUBCONTRACTING				
	(a) Allow a Provisional amount on above items 57.02 - 57.13 for preferential Procurement for subcontracting to local SMME's	Prov sum			100 000.00
	b) Handling costs and profit in respect of sub-item B57.13 (a)	%	100 000.00		
5700	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
	-				
59.01	<u>Finishing the road and road reserve:</u>				
	(a) Dual carriageway road	km			Rate Only
	(b) Single carriageway road	km	3.36		
59.02	Treatment of old roads and temporary deviations	km			Rate Only
-					
5900	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
7300	CONCRETE BLOCK PAVING FOR ROADS				
	-				
LI 73.01	Concrete block paving (interlocking blocks) complete with a 20mm river sand base and weed killing chemical sprayed on the total area before paving.				
	(a) 80mm	m ²	25 460		
	(b) 60mm	m ²	3 030		
B73.05	PREFERENTIAL LOCAL SUBCONTRACTING				
	(a) Allow a Provisional amount on above items 73.01 (a) & (b) for preferential Procurement for subcontracting to local SMME's	Prov sum			882 285.00
	b) Handling costs and profit in respect of sub-item B73.05 (a)	%	882 285.00		
7300	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8100	TESTING MATERIALS AND WORKMANSHIP				
81.02	Other special tests requested by the engineer:				
	(a) Cost of testing	PC Sum			150 000.00
	(b) Handling cost and profit in respect of Sub-item B81.02(a) above	%	150 000.00		
8100	TOTAL CARRIED TO SUMMARY				



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B8500	SUNDRIES				
B85.01	Speed humps complete as per attached drawing	No.	12		
8500	TOTAL CARRIED TO SUMMARY				



SECTION		DESCRIPTION	AMOUNT
1200	-	GENERAL REQUIREMENTS AND PROVISIONS	
1300	-	CONTRACTOR'S ESTABLISHMENT ON SITE AND	
		GENERAL OBLIGATIONS	
1400	-	HOUSING, OFFICES AND LABORATORIES FOR THE	
		ENGINEER'S SITE	
		PERSONNEL	
1500	-	ACCOMMODATION OF TRAFFIC	
1700	-	CLEARING AND GRUBBING	
1800	-	DAY WORK AND HIRE OF CONSTRUCTION EQUIPMENT	
2100	-	DRAINS	
2200	-	PREFABRICATED CULVERTS	
2300	-	CONCRETE KERBING, CONCRETE CHANNELING,	
		CHUTES AND DOWN PIPES, AND CONCRETE LININGS	
		FOR OPEN DRAINS	
3100	-	BORROW MATERIALS	
3300	-	MASS EARTHWORKS	
3400	-	PAVEMENT LAYERS OF GRAVEL MATERIAL	
3500	-	STABILISATION	
3600	-	CRUSHED STONE BASE	
5100	-	PITCHING, STONework AND PROTECTION AGAINST	
		EROSION	
5200	-	GABIONS	
5400	-	GUARDRAILS	
5600	-	ROAD SIGNS	
5700	-	ROAD MARKINGS	
5900	-	FINISHING THE ROAD AND ROAD RESERVE AND	
		TREATING OLD ROADS	
7300	-	CONCRETE BLOCK PAVING FOR INTERNAL STREETS	
8100	-	TESTING MATERIALS AND WORKMANSHIP	
B8500	-	SUNDRIES	
TOTAL OF SCHEDULE OF QUANTITIES (SUB TOTAL A)			
ESCALATION			
The Sum provided here is under the sole control of the Engineer and may be deducted in whole or in part. The tenderer shall add the total of schedule of quantities for escalation. (Sub Total "A" x 6%)			
CONTINGENCIES			
The Sum provided here is under the sole control of the Engineer and may be deducted in whole or in part. The tenderer shall add the total of schedule of quantities for contingencies. (Sub Total "A" x 10%)			
SUB TOTAL B			
VALUE ADDED TAX (VAT)			
The Tenderer shall add 15% of the subtotal for VAT. (Sub Total "B" x 15%)			
TOTAL AMOUNT CARRIED TO FORM OF OFFER			



THEMBISILE HANI LOCAL MUNICIPALITY



MSHOLOZI ROAD (WARD 4)

CALCULATION OF TENDER SUM

ITEM	AMOUNT
TOTAL SCHEDULE A: ROADWORKS	
TENDER (CONTRACT) SUM	
ESCALATION (6%)	
CONTINGENCIES (10%)	
SUB-TOTAL	
ADD 15% VAT	
TENDER (CONTRACT) PRICE CARRIED TO FORM OF OFFER OF ACCEPTANCE	

Note: Tender Sum is the value of the offered total of the prices exclusive of VAT,
Contingencies, CPA and specials materials but including contractual variations.

SIGNED ON BEHALF OF TENDERER:

DATE: