

UPGRADING OF MOKUMONG ACCESS ROAD TO MARATENG TAXI RANK AND STORMWATER CONTROL

Situated in ELIAS MOTSOLEDI LOCAL MUNICIPALITY

C2.1: PRICING INSTRUCTIONS

1. GENERAL

The pricing instructions describe the criteria and assumptions which will be assumed in the Contract that the Bidder has taken into account when developing his prices. The Bills of Quantities record the Contractor's rates for providing supplies, services, engineering and construction works in accordance with the Scope of Work.

The terms of payment and the provisions for price adjustment, if applicable, are established in the Contract Data. These items are not described in the Pricing Data.

The Bidder's obligations in pricing the Bid offer and the Employer's undertakings in the checking and correction of arithmetical errors are dealt with in the Standard Conditions of Bid contained in Annexure c of SANS 10845-3:2015, as amended in and read in conjunction with the Bid Data.

2. DOCUMENTS MUTUALLY EXPLANATORY

The documents forming the Contract are to be taken as mutually explanatory of one another. The Bill of Quantities forms an integral part of the Contract Documents and shall be read in conjunction with the Bid Data, Contract Data, Scope of Work, Site Information General and Special Conditions of Contract, the Specifications and the Drawings.

3. DEFINITIONS

For the purpose of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit	:	The unit of measurement for each item of work as defined in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).
Quantity	:	The number of units of work for each item
Rate	:	The payment per unit of measurement at which the Bidder Bids to do the work.
Amount	:	The product of the quantity and the rate Bided for an item
Sum	:	An amount Bided for an item, the extent of which is described in the Schedule of Quantities, the specifications or elsewhere but the quantity of work of which is not measured in any units.
Prime Cost (or PC item)	:	A sum fixed by the Engineer and entered in the Schedule of Quantities as the net sum provided to cover the cost of specific goods or materials to be supplied under the contract, or the net sum to be paid by the Contractor to merchants or others for such articles or materials. ¹
Provisional Sum	:	A sum of money fixed by the Engineer and entered in the Schedule of Quantities to provide for work not defined at the Bid stage and includes any allowance specifically made for unforeseen contingencies. ¹
Extra Over (or EO)	:	Qualifies an operation (or combination of operations) which is common in a varying degree to a number of other operations and which is scheduled once as "extra over" those other operations in order to avoid a multiplicity of items each reflecting the degree to which the common operations apply. The term "extra over" invariably denoted double measurement, no deduction being made from one on account of the other. ¹

4. **DESCRIPTIONS**

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

5. **REFERENCES**

The general conditions of contract, the special conditions of contract (if any), the specifications (including the project specification) and the drawings are to be read in conjunction with the schedule of quantities.

Descriptions in the schedule of quantities are abbreviated and the schedule has been drawn up generally in accordance with the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition) as amended in the Scope of Works. Should any requirement of the measurement and payment clause of the applicable standardised specification², or the project specification², or the particular specification(s)² conflict with the terms of the schedule or, when relevant, COLTO¹, the requirement of the standardised, project or particular specification, as applicable, shall prevail.

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made for waste.

The prices and rates to be inserted in the schedule of quantities are to be the full inclusive prices to the Employer for the work described under the several items, value added tax excluded. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the quotation is based.

A price or rate is to be entered against each item in the schedule of quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the schedule

6. **UNITS OF MEASUREMENT**

The units of measurement indicated in the Bill of Quantities are metric units.

The following abbreviations are used in the Bill of Quantities:

%	=	per cent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
MN	=	mega newton

MN-m	=	mega newton-metre
MPa	=	mega Pascal
kPa	=	kilopascal
m ²	=	square metre
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
m ² -pass	=	square metre-pass
no	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional Sum
sum	=	lump sum
t	=	ton (1 000 kg)
R/only	=	Rate only
W/day	=	Work day

7. **NET MEASUREMENTS**

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for off-cuts and waste.

8. **QUANTITIES**

The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The Contract Amount to be determined in accordance with the conditions of contract identified in the Contract Data shall be computed from the actual quantities of authorized work done, value at rates determined in terms of the Contract Data, against the respective items in the Bill of Quantities.

The item numbers appearing in the Bills of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition).

9. **CURRENCY**

All rates and sums of money quoted in the Bill of Quantities shall be in Rand and whole cents. Fractions of a cent shall be discounted.

10. **VALUE ADDED TAX**

Value Added Tax shall be excluded from the rates and sums contracted for the various items of work included in the Bill of Quantities. VAT will be added as a single entry to the summary.

11. **RATES AND PRICES**

11.1 **General**

- a) The Contractor must price each item in the Bill of Quantities in BLACK INK. Reproduced computer printouts of the Bills of Quantities will not be acceptable.
- b) The rates and prices to be inserted in the Bill of Quantities shall cover all the services and incidentals for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the

cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Bid is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.

- c) Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Data, all costs thereof shall be deemed to have been provided for and included in the unit rates and sum amounts contracted for the items scheduled in the Bill of Quantities. Separate additional payments will not be made.
- d) A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill. The Contractor will not be paid for items against which no rate or lump sum has been entered in the Bill of Quantities.
- e) Should the Contractor group a number of items and contract one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item.
- f) Should the Contractor indicate against any item that compensation for such item is included in another item; the rate for the item included in another item shall be deemed nil.
- g) A submission may be regarded as non-responsive if any rates or lump sums in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion.

11.2 "Rate only" items

The Contractor shall fill in a rate (in the rate column) against all items where the words "rate only" appear in the Amount column, which rate will constitute payment for work which may be done in terms of this item. Such "rate-only" items are used where it is estimated that little or no work will be required under the item or where the item is to be considered as an alternative to another item for which a quantity is given.

11.3 Arithmetic

Excepting where Sum Amounts are required or where Provisional Sums have been indicated, the Contractor shall enter an applicable rate in the Rate Column of the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the Amount column for each scheduled item, by determining in the applicable line item the product of the Quantity and the Unit Rate.

If there is an error in the line item resulting from the product of the unit rate and the quantity, the rate shall be binding, and the error of extension as entered in the Bid offer will be corrected by the Employer in determining the Contract Price.

Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.

12. VARIATION IN TEXT

No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognized; the original wording of the Bill of Quantities will be adhered to.

- 13 Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letters LI in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only.

The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a deviation from the contract. The items marked with the letters 'LI' are not necessarily an exhaustive list of all the activities, which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.

- 14 Where minimum labour intensity is specified by the design the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity target.
- 15 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the scope of works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work, which was to be done labour-intensively will not be condoned, and any works so constructed will not be certified for payment.

UPGRADING OF MOKUMONG ACCESS ROAD TO MARATENG TAXI RANK AND STORMWATER CONTROL

**Situated in
ELIAS MOTSOALEDI LOCAL MUNICIPALITY
of the Limpopo Province**

BID No. EMLM 04/2024



ROADWORKS
SECTION 1200

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
12	GENERAL REQUIREMENTS AND PROVISIONS				
B12.30	Excavation for existing services: (a) Excavation in search of existing services in soft material situated in the following depth ranges: (i) 0 m to 2 m (ii) 2 m to 3 m (b) Extra over B12.01(a) for excavation in hard material in close vicinity of services using picks, jackhammers, powertools etc. where no blasting or machine excavation is permitted	m³ m³ m³	400,00 240,00 320,00		
B12.31	Relocating of services: (a) Allow a provisional sum for the repair and / or relocation of existing services which is not allowed for in the schedule of quantities (b) Handling costs and profit in respect of sub-item B12.31 (a)	Prov. Sum %	1,00 300000,00	R 300 000,00	300 000,00
B12.32	Backfilling (a) Using the excavated material (b) Using imported selected material	m³ m³	320,00 64,00		
B12.33	Provision of training: (a) General skills training (technical and entrepreneurial skills) (b) Handling cost and Profit with respect to sub-item B13.33	Prov. Sum %	1,00 200000,00	R 200 000,00	200 000,00
B12.34	Provision for the implementation and monitoring of Enviromental Management Plan (a) Handling cost and profit with respect to sub-item B13.34	Prov Sum %	1,00 320000,00	R320 000,00	320 000,00
B12.35	Public Participation (a) Allow a provisional sum for payment of salary for CLO including cellphone allowance (b) Allow a provisional sum for payment of salary for 2 students (c) Provisional Sum for PSC (R200/member/sitting) (d) Provisional sum for payment of royalties (e) Allow a provisional sum for payment of SHE Rep (e) Social Facilitation (d) Occupational Health and Safety obligations (items covered are included in the specifications) (f) Handling cost and profit in respect of sub-item B12.35	Prov. Sum Prov. Sum Prov. Sum Prov Sum Prov. Sum Prov. Sum %	1,00 1,00 1,00 1,00 1,00 1,00 R1 279 200,00	R 96 000,00 R 192 000,00 R 19 200,00 R 20 000,00 R 72 000,00 R320 000,00 R 560 000,00	96 000,00 192 000,00 19 200,00 20 000,00 72 000,00 320 000,00 560 000,00
Total Carried Forward to Summary					

ROADWORKS

SECTION 1300

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
13	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
13.01	Contractor's general obligations				
	(a) Fixed obligations	Lump Sum	1,00		
	(b) Value-related obligations	Lump Sum	1,00		
	(c) Time-related obligations	Month	16,00		
	Note: Should the combined total tendered sub-items (a), (b) and (c) exceeds 15% of the tender sum (excluding VAT), the tenderer shall state their reasons in writing a letter attached to Form				
Total Carried Forward to Summary					

ROADWORKS
SECTION 1400

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
14	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEERS SITE PERSONNEL				
14.01	Office and laboratory accommodation:				
	(a) Offices (interior floor space only)	m²	40,00		Rate Only
	(b) Laboratories (interior floor space only)	m²			
	(c) Open concrete working floors (150 mm thick)	m²	15,00		
	(d) Roofs over open concrete working floors	m²	15,00		
	(e) Ablution units	m²	15,00		
	(f) Stores	m²	20,00		
14.02	Office and laboratory furniture:				
	(a) Chairs	No	15,00		Rate Only
	(b) Draughtsman's stools	No			
	(c) High chairs for laboratory	No			
	(d) Desks, complete with drawers and locks	No	2,00		
	(e) Drawing tables	No			
	(f) Conference tables	No	2,00		
14.03	Office and laboratory fittings, Installations and equipment:				
	(a) Items measured by number				
	(i) 220/250 volt power points	No	1,00		
	(ii) 400/231 volt 3-phase power points	No	1,00		
	(iii) Double 80 watt fluorescent light fittings complete with ballast and tubes	No	2,00		
	(iv) Double 55 watt fluorescent-light fittings complete with ballast and tubes	No	2,00		
	(v) Single incandescent-light fittings complete with 100 watt globes	No	1,00		
	(vi) Wash-hand basins complete with taps and drains	No	2,00		
	(x) Fire extinguishers, 9 kg,all purpose dry powder type, complete, mounted on wall with brackets	No	2,00		
	(xi) Air-conditioning unit with, 2,2kW minimum capacity, mounted and with own power connection	No	1,00		
	(xii) Heater, space-heating type, minimum capacity 1,5 kW	No	1,00		
	(xiv) General-purpose steel cupboards with shelves	No	2,00		
	(xvi) Refrigerators	No	1,00		
Total Carried Forward					
3					

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Upgrading Of Mokumong Access Road To Marateng Taxi Rank And Stormwater Control

ROADWORKS
SECTION 1500

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
15	ACCOMMODATION OF TRAFFIC				
15.01	Accommodating traffic and maintaining temporary deviations	km	7,00		
15.02	Earthworks for temporary deviations:				
	(a) Shaping of temporary deviations	km	7,00		
	(b) Cut and borrow to fill	m ³	7000,00		
	(c) Cut to spoil	m ³	2600,00		
15.03	Temporary traffic-control facilities:				
	(a) Flagmen	Man-day	1408		
	(b) Portable STOP (R1.5A) and GO-RY (R1.5B) signs	No	2,00		
	(c) Temporary traffic-control signals as specified or shown on the drawing	No	2,00		Rate Only
	(e) Road signs, R- and TR-series (1200x1600mm)	No	30,00		0,00
	i. TR103/104 (Keep left/right)	No	4,00		
	ii. TR214 (Overtaking prohibited)	No	2,00		
	iii. TR201 - 80 (speed limit)	No	2,00		
	iv. TR201 - 60 (speed limit)	No	2,00		
	v. TR201 - 40 (speed limit)	No	6,00		
	vi. TR218 (Pedestrians prohibited)	No	2,00		
	(f) Road signs, TW-series (1200x1600 mm)				
	i. TW336 (Road work ahead)	No	5,00		
	ii. TW343.TIN11.3 (Stop/Ry-Go control ahead)	No	2,00		
	iii. TW411 (Temporary barricade)	No	5,00		
	iv. TW304 (Traffic control ahead)	No	2,00		
	v. TW305 (Scholar patrol ahead)	No	5,00		
	vi. TW308 (Children)	No	10,00		
	vii. TW				
	(g) Road signs, STW-, DTG-, TGS-, and TG-series (excluding delineators and barricades)	No	10,00	R 1 000,00	Rate Only
	(h) Delineators (DTG50J) 250x1000 mm:				
	(i) Single	No	25,00		
	(ii) Mounted back to back	No	50,00		
	(i) Movable barricades/road sign combination (2400x1500 mm)	No	4,00		
	(j) Traffic cones (750 mm high)	No	250,00		
	(l) Movable barriers (steel or hard plastic)	No	15,00		Rate Only
	(m) Two-way communication devices	No	2,00		
15.04	Relocation of traffic-control facilities	Lump Sum	1,00		
15.05	Gravelling and repair of temporary deviations and existing gravel shoulders used as temporary deviations:				
	(a) Temporary deviations	m ³	6300,00		
	(b) Existing gravel shoulders	m ³	45,00		
15.06	Watering of temporary deviations	kℓ	500,00		
Total Carried Forward					
5					

ROADWORKS
SECTION 1500

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward					
15.07	Blading by road grader of:				
	(a) Temporary deviations	km-pass			Rate Only
	(b) Existing roads used as temporary deviations	km-pass			Rate Only
	(c) Existing gravel shoulders used as temporary deviations	km-pass			Rate Only
B15.14	Provision of traffic safety equipment for the Engineer				
	(a) 'Construction' sticker for vehicles with 100 mm high lettering	No	3,00		
	(b) Safety jackets	No	3,00		
	(c) Amber flicker lights	No	3,00		
Total Carried Forward To Summary					

ROADWORKS

SECTION 1700

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
17	CLEARING AND GRUBBING				
17.01	Clearing and Grubbing	ha	5,00		
17.02	Removal and grubbing of large trees and tree stumps				
	(a) Girth exceeding 1m up to and including 2m	No	30,00		
	(b) Girth exceeding 2m up to and including 3m	No	20,00		
17.04	Clearing and grubbing at inlets and outlets of hydraulic structures	m³	15,00		
17.05	Cleaning out of hydraulic structures:				
	(a) Pipes with an internal diameter up to and including 750mm	m³			Rate Only
	(b) Pipes with an internal diameter exceeding 750mm	m³			Rate only
	(c) Box culverts up to and including 1,5 m vertical dimension	m³	15,00		
	(d) Box culverts exceeding 1,5 m vertical dimension	m³	15,00		
Total Carried Forward To Summary					

ROADWORKS

SECTION 2100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
21	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	m³	1666,88		
	(ii) Exceeding 1,5 m up to 3 m	m³	600,00		
	(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m³	1333,50		
21.02	Clearing and shaping existing open drains	m³			Rate Only
21.03	Excavation for subsoil drainage systems:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0m up to 1,0m	m³	9112,50		
	(b) Extra over subitem 21.03(a) for excavation in hard material irrespective of depth	m³	1822,50		
21.04	Impermeable backfilling to subsoil drainage systems	m³	150,00		
21.05	Banks and dykes	m³			Rate Only
21.06	Natural permeable material in subsoil drainage systems (crushed-stone):				
	(a) Crushed-stone obtained from approved sources (no-overhaul):				
	(i) Fine grade stone (13,2mm nominal size aggregate)	m³	150,00		
	(ii) Coarse grade stone (19mm nominal size aggregate)	m³	150,00		
21.07	Natural permeable material in subsoil drainage systems (sand):				
	(b) Sand from commercial sources (no-overhaul)	m³	150,00		
21.08	Pipes in subsurface drainage systems:				
	(b) Unplasticized PVC pipes and fittings, normal duty, complete with couplings:				
	(i) 160mm diameter, perforated	m	200,00		
21.10	Synthetic-fibre filter fabric:				
	(a) Non-woven needle punched type:				
	(i) "Bidim Grade A4" or approved equivalent	m²	600,00		
Total Carried Forward					

ROADWORKS
SECTION 2100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward					
21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:				
	(a) Outlet structures	No	1,00		
	(d) Cleaning eyes	No	1,00		
21.13	Concrete caps for subsoil drain pipes	No	2,00		
21.15	Overhaul for material hauled in excess of 1,0 km free-haul (normal overhaul)	m ³ -km	3600,00		
21.17	Test flushing of pipe subsoil drains	No	1,00		
B21.20	Subsoil drainage markers	No	2,00		
B21.21	Cast In-situ reinforced Energy Breakers	m ³	10,76		
Total Carried Forward To Summary					

ROADWORKS
SECTION 2200

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
22	PREFABRICATED CULVERTS				
22.01	Excavation				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1.5 m	m³	504,00		
	(ii) Exceeding 1,5 m and up to 3,0 m	m³	151,20		
	(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m³	100,80		
22.02	Backfilling:				
	(a) Using the excavated material	m³	504,00		
	(b) Using imported selected material	m³	100,80		
	(c) Extra over subitems 22.02(a) and (b) for soil cement backfilling with 4% cement	m³	13,97		
22.05	Portal and rectangular culverts				
	a) Complete with prefabricated floor slabs:				
	(i) 1200mm x 600mm box culverts	m			Rate Only
	b) Without prefabricated floor slabs:				
	(i) 750mm x 750mm box culverts	m	18		
	(ii) 900mm x 600mm box culverts	m	10		
	(iii) 900mm x 750mm box culverts	m	18		
	(iv) 900mm x 900mm box culverts	m	18		
	(v) 1500mm x 900mm box culverts	m	18		
	(vi) 2000mm x 1500mm box culverts	m	18		
22.07	Cast in in-situ concrete and formwork				
	(b) In floor slabs for portal or rectangular culverts, including formwork, joints and class U2 surface finish:				
	(i) Class 25/19	m³	120,00		
	(c) In inlet and outlet structures, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including class U2 surface finish:				
	(i) Class 25/19	m³	120,00		
	(d) Formwork of concrete under subitem 22.07(a) and (c) above:				
	(i) Vertical formwork for F1 surface finish	m²	11,68		
	(ii) Vertical formwork for F2 surface finish	m²	6,70		
22.08	Concrete backfill for culverts:				
	(i) Class 15/19	m³	72,00		
22.10	Steel reinforcement:				
	(b) High steel bars:				
	(i) Y12 steel bar	t	3,00		
	(ii) Y16 steel bar	t	3,00		
	(c) Welded steel fabric (mesh-Ref 395)	kg	100		
Total Carried Forward					
10					

ROADWORKS

SECTION 2200

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward					
22.12	Removing existing concrete				
	(a) Plain concrete	m³	50,00		
	(b) Reinforced concrete	m³	80,00		
22.14	Removing and stacking existing prefabricated culverts				
	(a) 450mm box culverts	m	40,00		
Total Carried Forward To Summary					

ROADWORKS
SECTION 2300

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
23	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23.01	Concrete kerbing				
	(a) Pre-cast mountable kerb (Fig 8C) complete with excavations, trimming, bedding and haunching	m	7500		
	(b) Pre-cast mountable kerb (Fig 7)	m			Rate Only
23.07	Trimming of Excavations for concrete-lined open drains:				
	(a) In soft material	m²	1687,50		
	(b) In hard material	m²	337,50		
23.08	Concrete lining for open drains				
	(a) Cast in situ concrete lining class 30/19:				
	(i) Type F1	m³			Rate Only
	(ii) Type F2 (1,5 m wide)	m³	1687,50		
	(iii) Type F3	m³			Rate Only
	(iv) Type F4	m³			Rate Only
	(b) Class U2 surface finish to cast in situ concrete for type F3 open drain	m²	9112,50		
23.09	Formwork to cast in situ concrete lining for open drains (Class F1 surface finish):				
	(a) To sides with formwork on the internal face only	m²			Rate Only
	(b) To sides with formwork on both internal and external faces (each face measured)	m²	2278,13		
23.10	Sealed joints in concrete linings of open drains and concrete kerbing:				
	(a) Silicone joint sealant (Bostic 22DS100 highway sealant or approved equivalent) in expansion joints, 15mm wide and 10mm deep	m	1125,00		
23.12	Steel reinforcement:				
	(c) Welded steel fabric:				
	(i) Ref 193	kg	21712,50		
Total Carried Forward To Summary					

ROADWORKS

SECTION 3100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
31	BORROW MATERIALS				
31.01	Excess overburden	m³	4500,00		
31.03	Rehabilitation of Borrowpit	Prov Sum	1,00	R 500 000,00	500 000,00
	(f) Handling cost and profit in respect of sub-item 31.03	%	500000,00		
Total Carried Forward To Summary					

ROADWORKS
SECTION 3300

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
33	MASS EARTHWORKS				
33.04	Cut to spoil, including free-haul up to 0,5 km. Material obtained from:				
	(a) Soft excavation	m³	1458,00		
	(b) Intermediate excavation	m³	7290,00		
	(c) Hard excavation	m³	18225,00		
	(d) Boulder Excavation Class A	m³	4374,00		
	(e) Boulder Excavation Class B	m³	874,80		
33.10	Roadbed preparation and the compaction of material				
	(b) Compaction to 93% of modified AASHTO density	m³	9112,50		
33.12	In situ treatment of roadbed				
	(a) In situ treatment by ripping	m³			Rate Only
	(b) In situ treatment by blasting	m³	4374,00		
B33.20	Overhaul on material hauled in excess of a freehaul distance of 0.5km, for haul up to or through 0,5km (restricted)	m³	20667,15		
B33.21	Overhaul on material hauled in excess of 1.0km (ordinary overhaul)	m³-km	206671,50		
B33.22	Rock fill	Prov Sum	1,00	R 850 000,00	850 000,00
	(a) Handling cost and profit	%	850000,00		
Total Carried Forward To Summary					

ROADWORKS
SECTION 3400

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
34	PAVEMENT LAYERS OF GRAVEL MATERIAL				
34.01	Pavement layers constructed from gravel taken from cut or borrow, including free-haul up to 1,0 km (Including bus stops):				
	(a) Gravel selected layer compacted to:				
	(ii) 95% of Modified AASHTO density (upper selected layer)	m³	9112,50		Rate Only
	(iii) 95% of modified AASHTO density (lower selected layer)	m³			
	(c) Gravel subbase layer (unstabilised) compacted to:				
	(iii) 97 % of modified AASHTO density (Including bus stops)	m³	8201,25		
	(f) Gravel base (chemically stabilised material) compacted to:				
	(ii) 98 % of modified AASHTO density (Including bus stops)	m³	7290,00		
	(c) Construct a pioneer layer	Prov Sum	1,00	R 3 200 000,00	3 200 000,00
	(d) Handling cost and profit	%	3200000,00		
B34.15	Overhaul on material hauled in excess of 1.0km (ordinary overhaul)	m³-km	9112,50		
Total Carried Forward To Summary					

ROADWORKS

SECTION 3500

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
35	STABILISATION				
35.02	Chemical Stabilisation Agent				
	(a) Ordinary portland cement	ton	380,72		
Total Carried Forward To Summary					

16

ROADWORKS

SECTION 4100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
41	PRIME COAT				
B41.01	Prime coat: MSP1 at an application rate of 0,75 l/m²	litre			Rate Only
41.03	Extra over item B41.01 for applying the prime coat in areas accessible only to hand held equipment	litre			Rate Only
Total Carried Forward To Summary					

ROADWORKS

SECTION 4200

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
42	<u>ASPHALT BASE AND SURFACING</u>				
42.02	Asphalt surfacing				
	(a) Continuously graded				
	(i) 30mm nominal thickness	m²			Rate Only
42.04	Tack coat of 30% stable-grade emulsion at an application rate of 0,6 l/m²	litre			Rate Only
42.08	100 mm cores in asphalt paving	No			Rate Only
B42.21	Construction of speed humps using asphalt	No			Rate Only
B42.22	Road crossing to install culverts	PC Sum			Rate Only
B42.23	Handling cost and profit in respect to sub-item B42.22	%			Rate Only
Total Carried Forward To Summary					
18					

ROADWORKS

SECTION 5100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
51	PITCHING, STONework AND PROTECTION AGAINST EROSION				
51.01	Stone pitching (complete with excavations trimming and compaction)				
	(b) Grouted stone pitching	m²	400,00		
51.05	Concrete edge beams				
	(a) Class 30/19	m³	300,00		
Total Carried Forward To Summary					
19					

ROADWORKS

5200					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5200	GABIONS				
B52.01	Foundation trench excavation and backfilling:				
	(a) In solid rock (material which requires blasting)	m³	67,5		-
	(b) In all other classes of materials	m³	50		-
B52.02	Surface preparation for bedding the gabions	m²	15		-
B52.03	Gabions:				
	(a) Galvanized gabion boxes				
	(1) 1,0 m wide by 0,3 m deep				
	(i) by 1,0 m long mesh	m³	67,5		-
	(ii) by 2,0 m long mesh	m³			Rate Only
	(iii) by 3,0 m long mesh	m³			Rate Only
	(iv) by 4,0 m long mesh	m³			Rate Only
	(b) PVC-coated gabion boxes (2000mm x 1000mm x 500mm with hexagon woven mesh wire)	m³	10		-
	(c) PVC-coated gabion mattresses (2000mm x 1000mm x 500mm with hexagon woven mesh wire)	m³	10		-
TOTAL CARRIED FORWARD TO SUMMARY					

ROADWORKS

SECTION 5500

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
55	FENCING				
55.01	Clearing the fence line, 2 m wide strip	Prov sum	1,00	R 50 000,00	50 000,00
55.02	Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:	Prov Sum	1,00	R 350 000,00	350 000,00
	(i) Handling cost and profit in respect to items 55.01 and 55.02	%	400000,00		
Total Carried Forward To Summary					

ROADWORKS
SECTION 5600

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
56	ROAD SIGNS				
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 galvanized steel plate (chromadek 1,6 mm thick or approved equivalent): (i) Area not exceeding 2 m² (d) Prepainted galvanized steel profiles (200 mm high chromadek or approved equivalent): (i) Area not exceeding 2 m² (ii) Area exceeding 2 m² but not 10 m²	m²	77,19		
		m²	16,00		
		m²	16,00		
56.02	Extra over item 56.01 for using: (a) Background of retro-reflective material of: (ii) Class III (b) Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material: (ii) Class III	m²	77,19		
		m²	46,31		
56.03	Road sign supports (overhead road sign structures excluded): (a) Steel tubing (75mm diameter galvanised)	t	2,62		0,00
56.05	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m³	2,85		0,00
56.06	Extra over item 56.05 for cement-treated soil backfill	m³	1,02		0,00
B56.10	Danger plates: (a) Type A (at bridges): 1200mm X 300mm (b) Type B (at culverts): 600mm x 150mm	No.	12,00		Rate Only 0,00
Total Carried Forward To Summary					

ROADWORKS
SECTION 5700

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
57	ROAD MARKINGS				
57.02	Retro-reflective road marking paint:				
	(a) White lines (broken or unbroken):				
	(i) 150 mm wide	km	6,38		
	(ii) 200 mm wide	km	6,99		
	(iii) 300 mm wide	m²	270,00		
	(b) Yellow lines (broken or unbroken):				
	(i) 100 mm wide	km	12,76		
	(ii) 300 mm wide	m²	270,00		
	(d) White lettering and symbols	m²	258,89		
	(e) Yellow lettering and symbols	m²	12,63		
	(f) Transverse lines, painted island and arrestor bed markings (yellow)	m²	1,08		
57.06	Setting out and premarking the lines (Excluding traffic-island markings, lettering and symbols)	km	6,68		
57.07	Re-establishing the painting unit at the end of the maintenance period	Lump Sum	1,00		
Total Carried Forward To Summary					

ROADWORKS

SECTION 5900

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
59	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
59.01	Finishing the road and road reserve: (b) Single carriageway road	km	6,08		
Total Carried Forward To Summary					
23					

ROADWORKS
SECTION 7300

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
73 LI	CONCRETE PAVING FOR ROADS				
73,01 LI	80mm interlocking concrete block paving complete with bedding sand, laying, filling sand, compaction and cleaning (Including bus stops)	m²	42600		
	Bedding sand to receive block paving	m³	852		
	Jointing sand for sealing joints	m³	341		
73,03 LI	Provision of approved herbicide and ant poison				
	(a) Provision of materials	PC Sum	1,00	R 20 000,00	R 20 000,00
	(b) Contractor's charges and profit added to the prime cost sum	%	20000,00		
B73,04	Construction of speed humps	No	8,00		
Total Carried Forward To Summary					

ROADWORKS

SECTION 8100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
81	TESTING MATERIALS AND WORKMANSHIP				
B81.04	Testing of materials				
	(a) Testing as required by the engineer	Prov. Sum	1,00	R 400 000,00	400 000,00
	(b) Handling cost and profit	%	400000,00		
Total Carried Forward To Summary					

ROADWORKS SUMMARY OF SECTIONS		
SECTION	DESCRIPTION	AMOUNT (RAND)
PART A	<u>SCHEDULE A: ROADWORKS</u>	
1200	GENERAL REQUIREMENTS AND PROVISIONS	
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL	
1500	ACCOMODATION OF TRAFFIC	
1700	CLEARING AND GRUBBING	
2100	DRAINS	
2200	PREFABRICATED CULVERTS	
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LINNING FOR OPEN DRAINS	
3100	BORROW MATERIALS	
3300	MASS EARTHWORKS	
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
3600	STABILISATION	
4100	PRIME COAT	
4200	ASPHALT BASE AND SURFACING	
5100	PITCHING, STONWORK AND PROTECTION AGAINST EROSION	
5200	GABIONS	
5500	FENCING	
5600	ROAD SIGNS	
5700	ROAD MARKINGS	
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	
7300	CONCRETE PAVING FOR ROADS	
8100	TESTING MATERIALS AND WORKMANSHIP	
SUBTOTAL 1		
ADD 3% CPA		
SUBTOTAL 2		
ADD 5% CONTIGENCIES		
SUBTOTAL 3		
ADD 15% VAT		
TOTAL CONSTRUCTION COST		