

**SUMMARY OF BILL OF QUANTITIES: UPGRADING OF PHATSIMA ROADS AND STORMWATER**

<b>SCHEDULE A : ROADWORKS</b>		<b>Amount</b>
1200	General requirements and provisions	
1300	Contractor's establishment on site and general obligation	
1400	Housing, Office and laboratory for the engineer's site personnel	
1500	Accommodation of traffic	
1700	Clearing and Grabbing	
B1800	Dayworks	
2100	Drains	
2200	Prefabricated Culverts	
2300	Concrete Kerbing, Concrete Channeling, Chutes and Down Pipes, and Concrete Linings for Open Drains	
3300	Mass Earthworks	
3400	Pavement Layers of gravel material	
3500	Stabilization	
3600	Crushed stone base	
4100	Prime coat	
4200	Asphalt surfacing and base	
5600	Road signs	
5700	Road Markings	
5900	Finishing the road and road reserve and treating old roads	
7300	Concrete block paving for roads	
8100	Testing materials and workmanship	
<b>TOTAL CONSTRUCTION</b>		
7.3% CONTIGENCIES		
<b>SUB-TOTAL A</b>		
VAT AT 15%		
<b>SUB-TOTAL C</b>		

**RUSTENBURG LOCAL MUNICIPALITY**  
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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>1200</b>		<b><u>GENERAL REQUIREMENTS AND PROVISION</u></b>				
B12.01		Project liaison				
		(a) Community Liaison officer (CLO)	Month	7.0	6 500.00	45 500.00
		(b) Contractor's charges to allow for handling cost and profit in respect of B12.01(a)	%	45 500.0		
B12.02		Training				
		(a) Civil engineering technician/engineer trainee	L Sum	1.0	42 000.00	42 000.00
		(b) Technical skills	Prov Sum	1.0	55 000.00	55 000.00
		(c) Management of Local Contractors	Month	7.0		
		(d) Training venue	L Sum	1.0	5 000.00	5 000.00
		(e) Remuneration of workers undergoing technical skills training	Prov Sum	1	5 000.00	5 000.00
		(f) Contractor's handling costs, profit and all other charges in respect of Sub items B12.01(a) and (b)	%	97 000.0		
B12.03		Occupational Health and Safety obligation				
		(a) Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	L Sum	1.0	40 000.00	40 000.00
		(b) Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month	7.0		
		(c) Submission of the Health and Safety File	L Sum	1.0		
		(d) Provision of full time health and safety officer	Month	7		
B12.05		Contractor's time related obligations in respect of Environmental management plans and specifications	Month			
B12.06		Construction Nameboard	No	1.0		
B12.07		Provision for compensation to land owners				
		(a) Provisional sum for royalties of borrow pit material	Prov Sum	1.0	1 000.00	1 000.00
		(b) Handling cost and profit in respect of subitem B12.08 (a)	%	1 000.0		
B12.08		Services:				
		(a) Searching, locating and relocation of existing services and installation of street lighting after completion ( Telkom, existing street lightings, water services, etc)	Prov Sum	1.0	50 000.00	50 000.00
B12.09		Dumping fees at spoil sites	Prov Sum	1.0	R 2 000.00	R 2 000.00
<b>1200</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1300  B13.01		<p><b><u>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</u></b></p> <p>The Contractor's general obligations:</p> <p>(a) Fixed obligations</p> <p>(b) Value-related obligations</p> <p>(c) Time-related obligations</p> <p><b>NB: The combined total tendered amount for sub items (a), (b) and c, should NOT exceed 15% of tendered amount</b></p>	L/Sum  L/Sum  Month	1.0  1.0  7.0		
1300		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1400		<b><u>HOUSIN, OFFICE AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL</u></b>				
14.01		Offices and laboratory accommodation				
		(a) Offices (interior floor space only)				
		(i) Type 1 (6m x 3,5,)	m <sup>2</sup>	21		
		(ii) Type 2 (4m x 3,5)	m <sup>2</sup>			
14.02		Offices and laboratory furniture				
		(a) Chairs	No	10.0		
		(d) Desks, complete with drawers and locks	No	1.0		
		(f) Conference tables	No	1.0		
B14.03		Offices and laboratory fittings Installations and equipment.				
		(a) Items measured by number				
		(i) 220/250 volt power points	No	2		
		(iii) Double 80 watt flourescent light fittings complete with ballast and tubes	No	2		
		(v) Single incandescent light fittings complete with 100 watt	No	2		
		(vi) Hand wash basins complete with taps and drains globes	No	1		
		(iv) Double 55 watt fluorescent light fittings complete with ballast and tubes	No	3		
		(x) Fire extinguishers, 9,0 kg, all purpose dry powder type, complete, mounted on wall with brackets	No	4		
		(xiv) General-purpose steel cupboards with shelves	No	1		
1400		<b>TOTAL CARRIED FOWARD</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
14.04		(b) Prime-cost items and items paid for in a lump sum: (ix) Cell phones costs, including pro-rata rentals, for calls in connection with contract administration (x) Handling costs and profit in respect of subitem B14.03 (b)(ix)above	PC Sum %	1 15 000.0	15 000.00	15 000.00
14.07		Car ports (a) Car ports, as specified,at offices and laboratory buildings	No	4		
14.08		Rented, hotel and other accomodation a) Provisional Sum for providing rented housing, or other accommodation as decribed in subclause 1403(c)(ii) b) Handling cost and profit in respect of subitem 14.07(a)	Prov Sum %			
14.10		Services (a) Services at office and laboratories (i) Fixed costs (ii) Running costs	L/sum month	1 7.0		
14.10		Provision of photostat facilities	month	7.0		
1400		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1500		<b><u>ACCOMMODATION OF TRAFFIC</u></b>				
B15.01		Accommodating traffic and maintaining temporary deviations	km	1.6		
15.03		Temporary traffic-control facilities				
		(a) Flagmen	man-days	616.0		
		(b) Portable STOP and GO-RY signs	no	4.0		
		(e) Road signs, R- and TR-series, (1200mm diameter)	No	4.0		
		(f) Road signs, TW-series, (1500mm)	No	4.0		
		(g) Road signs, STW-, DTG-, TGS- AND TG-series excluding delineators and barricades)	No	4.0		
		(h) Delineators (DTG50(j) (200mm x 800mm)				
		(1) Single	No	55.0		
		(2) Mounted back to back	No	55.0		
		(i) Moveable barricade/road sign combination (1970mm x 3000mm)	No	4.0		
		(j) Traffic cones (750mm)	No	50.0		
15.04		Relocation of traffic-control facilities	No	3.0		
15.06		Watering of temporary deviations	kl	1 000.0		
B15.15		Provision of safety equipment to be used by the Engineer				
		(a) Safety Jackets	No	4.0		
1500		<b>TOTAL CARRIED FORWARD</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
B15.17		Penalty to be deducted for non-compliance with requirements for accomodation of traffic				
		(a) Fixed penalty per occurance	Nº		-2 000.00	
		(b) Time-related penalty	hr		-1 000.00	
15/16.02		Overhaul on material hauled in excess of 1,0km	m <sup>3</sup> -km		8.00	
1500		TOTAL CARRIED FORWARD TO SUMMARY				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>1700</b>		<b><u>CLEARING AND GRUBBING</u></b>				
17.01		Clearing and grubbing	ha	2.7		
17.02		Removal and grubbing of large trees and stumps				
		(a) Girth exceeding 1 m up to and including 2 m	No	1.0		
		(b) Girth exceeding 2 m up to and including 3 m	No			Rate Only
17.03		Reclearing of surfaces (on the written instruction of the engineer only)	ha	0.5		
17.04		Clearing and grubbing at inlets and outlets of hydraulic structures	m <sup>2</sup>			Rate Only
17.05		Clearing out of hydraulic structures:				
		(a) Pipes with an internal diameter up to and including 750 mm	m <sup>3</sup>			Rate Only
		(b) Pipes with an internal diameter exceeding 750 mm	m <sup>3</sup>			Rate Only
		(c) Box culverts up to and including 1,5 m vertical dimension	m <sup>3</sup>			Rate Only
		(d) Box culverts exceeding 1,5 m vertical dimension	m <sup>3</sup>			Rate Only
B17.08		Demolition and removal of rubble				
		(a) Concrete and concrete foundation	m <sup>3</sup>			
		(b) Brickwork, Stone mansory work, brick	m <sup>3</sup>	20.00		
<b>1700</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1800		DAYWORKS <i>Note: Executed on the instruction of Engineer only</i>				
B18.01		Personnel during normal working hours				
		(a) Unskilled labour	hour	48.00		
		(b) Semi-skilled labour	hour	30.00		
		(c) Skilled Labour	hour	24.00		
		(d) Foreman - Section Leader	hour	12.00		
		(e) Flagman	hour			Rate Only
		(f) Operator	hour			Rate Only
B18.02		Personnel outside normal working hours				
		(a) Outside normal working hours and Saturdays:				
		(i) Unskilled labour	hour	48.00		
		(ii) Semi-skilled labour	hour	30.00		
		(iii) Skilled Labour	hour	24.00		
		(iv) Foreman - Section Leader	hour	12.00		
		(v) Flagman	hour			Rate Only
		(vi) Operator	hour			Rate Only
		(b) Sunday and Public holidays:				
		(i) Unskilled labour	hour			Rate Only
		(ii) Semi-skilled labour	hour			Rate Only
		(iii) Skilled Labour	hour			Rate Only
		(iv) Foreman - Section Leader	hour			Rate Only
		(v) Flagman	hour			Rate Only
		(vi) Operator	hour			Rate Only
<b>1800</b>		<b>TOTAL CARRIED FORWARD</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
B18.03		Plant:				
		(a) Tipper Trucks				
		(i) 6m3 capacity	hour	48.00		
		(ii) 10m3 capacity	hour			Rate Only
		(c) TLB	hour	48.00		
		(e) Pneumatic Roller (10 to 25 tons)	hour			Rate Only
		(j) Wate pumps				
		(i) Capacity smaller than 400litre/min	hour	48.00		
		(ii) Capacity bigger than 400 litres/min but smaller than 600 litres/min	hour	24.00		
		(iii) Capacity bigger than 600 litre/min but smaller than 1100 litre/min	hour			Rate Only
		(g) Air Compressors and equipment	hour			Rate Only
		(k) Pedestrian roller (bomag 120 or similar)	hour			Rate Only
B18.04		Materials:				
		(a) Procurement of materials	PC Sum	1.00	58 000.00	58 000.00
		(b) Contractor's handling costs, profit and all other charges in respect of subitem B18.04 (a)	%	58 000		
B18.05		Transport:				
		(a) LDV	km			Rate Only
		(b) Flatbed truck	km			Rate Only
		(c) Semi-trailer and truck	km			Rate Only
<b>1800</b>		<b>TOTAL CARRIED SUMMARY</b>				

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<b>ITEM NO</b>	<b>LIC</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>RATE</b>	<b>AMOUNT</b>
<b>2100</b>		<b><u>DRAINS</u></b>				
21.01		Excavation for open drains				
		(a) Excavating soft material situated within the following depth ranges below the surface level:				
		(i) 0m up to 1.5m	m <sup>3</sup>	1 158		
		(ii) exceeding 1.5m to 3.0m	m <sup>3</sup>			Rate Only
		(b) Extra over subitem 21.01 (a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	116		
21.03		Excavation for subsoil drains systems				
		(a) Excavating soft material situated within the following depth ranges below the surface level:				
		(i) 0m up to 1.5m	m <sup>3</sup>	413		
		(ii) Excveding 1.5m and up to 3.0m	m <sup>3</sup>			Rate Only
		(b) Extra over subitem 21.03 (a) for excavation in hard material, irrespective of depth	m <sup>3</sup>			Rate Only
21.04		Ipermeable backfilling to subsoil drainage system	m <sup>3</sup>			Rate Only
21.04		Banks and dykes	m <sup>3</sup>			Rate Only
21.06		Natural permeable material in subsoil drainage system (crushed stone)				
		(b) Chrushed stone obtained from commercial sources (19,0mm aggregates)	m <sup>3</sup>	150		
21.06		Natural permeable material in subsoil drainage system (stand)				
		(b) Sand obtained from commercial sources	m <sup>3</sup>			Rate Only
21.08		Pipes in subsoil drainage systems				
		(b) Unplasticized PVC pipes and fittings, normal duty, complete with couplings				
		(i) 150mm internal dia Perforated slotted	m	250		
<b>2100</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>						
21.09		Polythene sheeting, 0.15mm thick, or similar approved material, for lining subsoil drainage system	m <sup>2</sup>	800		
21.12		Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems as in drawing No. AC.....				
		(b) Manhole boxes	No			Rate Only
		(c) Junction boxes	No			Rate Only
21.13		Concrete caps for subsoil drain pipes	No			Rate Only
21.15		Overhaul for material hauled in excess of 1,0km free hauled (normal overhaul)	m <sup>3</sup> - km			Rate Only
21.17		Test flushing of pipe subsoil drains	No			Rate Only
21.19		Selected backfill material under concrete lined side drains compacted to 93% of mod AASHTO density	m <sup>3</sup>	386		
<b>2100</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>2200</b>		<b><u>PREFABRICATED CULVERTS</u></b>				
22.01		Excavation				
		(a) Excavating soft material situated within the following depth ranges below the surface level:				
		(i) 0m up to 1.5m	m <sup>3</sup>	45		
		(ii) exceeding 1.5m to 3.0m	m <sup>3</sup>	16		
		(b) Extra over subitem 21.01 (a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	7		
22.02		Backfilling				
		(a) Using excavated material	m <sup>3</sup>	27		
		(b) Using Imported material	m <sup>3</sup>	9		
		(c) Extra over subitem 22.0(a) and 22.02(b) for soil cement backfilling				
		(i) with 2% stabilization (soil screte) cem II 32.5N	m <sup>3</sup>			Rate Only
22.03		Concrete culvert pipes	m <sup>3</sup>			
		(b) On class "B" bedding,				
		(i) OG Class 100D - SABS 677 Type SC				
		(1) 450mm dia.	m			Rate Only
		(2) 600mm dia.	m			Rate Only
		(3) 675mm dia.	m	15		
		(3) 750mm dia.	m			Rate Only
22.05		Portal and rectangular culverts:				
		(a) Without prefabricated floor slabs				
		(i) 1 200mm x 900mm Type SANS	m			
		(ii) 1 200mm x 1 200mm Type SANS	m			Rate Only
		(iii) 1 500mm x 1 500mm Type SANS	m			Rate Only
<b>2200</b>		<b>TOTAL CARRIED TO FOWARD</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>						
22.07	LIC	Cast in-situ concrete and formwork (a) In floor slabs for portal or rectangular culverts, including formwork and class U2 surface finish (i) Class 25/19	m <sup>3</sup>	5		
22.12		Removing existing concrete (a) Plain Concrete (b) Reinforced concrete	m <sup>3</sup> m <sup>3</sup>	50		
B22.13		Removing and re-laying of concrete pipes (a) All types and size	m			Rate Only
22.17		Manholes, catchpits, precast inlet and outlet structures complete (a) Manholes (1) Brick manholes for drainage: constructed on all pipes up to 750 mm diameter complete with covers				
	LIC	(i) Up to 1.0m deep	no			
	LIC	(ii) 1.0m up to 1.5m deep (iii) 1.5m up to 2.5m	no no			Rate Only
	LIC	(b) Catchpits constructed to complete	no			Rate Only
22.27		Reinstating trenches crossing road: (a) Selected layers (b) Subbase (c) Base (d) Asphalt surfacing (including tack coat) (e) kerbs (all types)	m <sup>3</sup> m <sup>3</sup> m <sup>3</sup> m <sup>2</sup> m	15 15 15 15		Rate Only
22/16.01		Overhaul material hauled in an excess of free haul distance of 1,0km (restricted haul overhaul)	m <sup>3</sup>			
22/16.02		Overhaul on material hauled in an excess of 1,0km (ordinary overhaul)	m <sup>3</sup> - km	338		
<b>2200</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	TENDERED RATE	TENDERED AMOUNT
<b>23.00</b>		<b>CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS</b>				
23.02		Concrete kerbing-channeling combination				
		(a) Precast kerb to SABS 927 and cast in situ channel (100mm x 100mm concrete class 20/19)				
		(1) Figure 8C kerb				
	LIC	(i) Radius 1m to 20m	m	123.00		
	LIC	(iii) Straight and to radius not less than 20m	m	4 374.00		
		(d) Cast in situ kerb and channel (concrete class 20/19)				
		(1) Fig8C mountable kerb-100mmx100mm channel	m <sup>3</sup>			Rate Only
23.08		Concrete lining for open drains				
		(a) Cast insitu concrete lining class 30/19 cast in 2.0m alternate sections				
		(1) standard side drain				
		(i) 1,5m wide Side Drain	m <sup>3</sup>	292.05		
		(ii) 1,6m wide Side Drain	m <sup>3</sup>			
		(iii) 1,7m wide Side Drain	m <sup>3</sup>			
		(iv) 2,m wide Side Drain	m <sup>3</sup>			
		(v) 2,5m wide Side Drain	m <sup>3</sup>	63.53		
		(vi) 4,6m wide Drift	m <sup>3</sup>	30.36		
23.09		Formwork to cast insitu concrete lining for open drains (class F2 surface finish)				
	LIC	(a) To sides with formwork on the internal face only	m <sup>2</sup>	453.42		
		(b) To sides with formwork on both internal and external faces (each face measured)	m <sup>2</sup>			Rate Only
23.10		Sealed joints in concrete linings of open drains				
	LIC	(a) Polysulphide sealants	m	489.13		
23.12		Steel Reinforcement				
	LIC	(c) Welded steel fabric	kg	1 016.00		
23.14		Cutting bituminous surfacing and pavement layers for concrete kerbing, channelling or concrete-lined drains	m			
23/73.02	LIC	Cast in situ concrete edge and intermediate beams (concrete class 30/19)	m <sup>3</sup>	5.00		
<b>2300</b>		<b>TOTAL CARRIED SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	TENDERED RATE	TENDERED AMOUNT
<b>33.00</b>		<b>MASS EARTHWORKS</b>				
B33.01		Cut and borrow to fill, including free-haul up to 10km				
		(a) Gravel material in compacted layer thickness of 200mm and less				
		(i) Compacted to 90% MOD. AASHTO	m <sup>3</sup>			Rate Only
		(g) Supply and compact dump rock	m <sup>3</sup>			
		(h) Fill from commercial sources	m <sup>3</sup>			Rate Only
33.04		Cut to spoil, including free-haul up to 0.5 km. Material obtained from:				
		(a) Soft Excavation	m <sup>3</sup>	13 652.0		
		(b) Intermediate Excavation	m <sup>3</sup>	1 365.0		
		(c) Hard Excavation	m <sup>3</sup>	137.0		
		(d) Boulder Excavation (class A)	m <sup>3</sup>			Rate Only
		(e) Boulder Excavation (class B)	m <sup>3</sup>			Rate Only
33.09		Material bladed to windrow	m <sup>3</sup>			
33.10		Roadbed preparation and the compaction of material				
		(a) Compacted to 93% modified AASHTO density	m <sup>3</sup>	2 048.0		
33.11		Three-roller-passes compaction				
		(a) Vibratory roller	m <sup>2</sup>			Rate Only
		(b) Grid roller	m <sup>2</sup>			Rate Only
		(f) Pneumatic-tyred roller	m <sup>2</sup>			Rate Only
33.14		Extra over item 33.01 for excavating material from the pavements and fills of existing roads				
		(a) Non cemented material	m <sup>3</sup>			Rate Only
		(b) cemented material	m <sup>3</sup>			Rate Only
33.12		In situ treatment of roadbed				
		(a) In situ treatment by ripping	m <sup>3</sup>	2 048.0		
33.13		Finishing off cut and fill slope, medians and interchange areas				
		a) Cut Slope	m <sup>2</sup>	7 208.0		
		b) Fill Slope	m <sup>2</sup>	720.8		
33/16.02		Overhaul on material hauled in excess of 1,0km (ordinary overhaul)	m <sup>3</sup> -km	75 770.0		
33/32.06		Stockpiling of material				Rate Only
<b>3300</b>		<b>TOTAL CARRIED SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	TENDERED RATE	TENDERED AMOUNT
34.00		<b>PAVEMENT LAYERS OF GRAVEL MATERIAL</b>				
34.01		Pavement layers constructed from gravel taken from cut or borrow including free-haul up to 1.0 km				
		(a) Gravel selected layer compacted to				
		(i) 93% of modified AASHTO density (150mm compacted layer thickness using material with CBR>20 at 93% modified AASHTO density, GM>0.75 and PI 3GM + 10)	m <sup>3</sup>	575.3		
		(i) 95% of modified AASHTO density (150mm compacted layer thickness using material with CBR>20 at 93% modified AASHTO density, GM>0.75 and PI 3GM + 10)	m <sup>3</sup>	5 978.7		
		(c) Gravel subbase (chemically stabilized materia) compacted to				
		(ii) 97% of modified AASHTO density (150mm compacted layer thickness)	m <sup>3</sup>	1 959.0		
		(g) Gravel shoulder/sidewalks compacted to:				
		(i) 93% MOD. AASHTO density	m <sup>3</sup>			Rate Only
34.02		Extra over item 34.01 for excavation of material in:				
		(a) Intermediate excavation	m <sup>3</sup>			Rate Only
		(b) Hard Excavation	m <sup>3</sup>			Rate Only
34.14		Extra-over item 34.03(a),(b) and (g) for additional costs for procuring gravel material from commercial sources (unrestricted freehaul)				
		(a) Selected layer (G9)	m <sup>3</sup>	575.3		
		(b) Selected layer (G7)	m <sup>3</sup>	5 978.7		
		(c) Subbase layer (G5)	m <sup>3</sup>	1 959.0		
34/16.02		Overhaul on material hauled in excess of 1,0km (ordinary overhaul)	m <sup>3</sup> -km			
<b>3400</b>		<b>TOTAL CARRIED SUMMARY</b>				

**RUSTENBURG LOCAL MUNICIPALITY**

**UPGRADING OF PHATSIMA ROADS AND STORMWATER**

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	TENDERED RATE	TENDERED AMOUNT
<b>B35.00</b>		<b>STABILIZATION</b>				
35.01		Chemical stabilization extra over unstabilized 150mm thickness subbase	m <sup>3</sup>			
35.02		Chemical stabilization agent: (a) Ordinary portland cement (c) Road lime	t t			Rate Only
35.04		Provision and application of water for curing	kl			
<b>3500</b>		<b>TOTAL CARRIED SUMMARY</b>				

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UPGRADING OF PHATSIMA ROADS AND STORMWATER

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<p><b>B36.00</b></p> <p>36.01</p>		<p><b>CRUSHED STONE BASE</b></p> <p>Crushed-stone base</p> <p>(a) Constructed form type G1 material obtained from commercial sources and compacted to 88% of apparent relative density (150mm layer thickness)</p> <p>(1) 37mm nominal maximum size stone</p>	<p>m<sup>3</sup></p>			<p>Rate Only</p>
<p><b>3600</b></p>		<p><b>TOTAL CARRIED TO SUMMARY</b></p>				

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UPGRADING OF PHATSIMA ROADS AND STORMWATER

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
41.01		<p><b><u>PRIME COAT</u></b></p> <p><b>Prime coat:</b></p> <p>Prime coat rate at 0.7l/m<sup>2</sup></p> <p>(b) Quick drying RTH1/4P tar prime complying with SABS 748</p>	lt			Rate Only	
41.02		Aggregate for blinding	m <sup>2</sup>			Rate Only	
41.03		Extra over item 41.01 for applying the prime coat in areas accessible only to hand held equipment	litre			Rate Only	
4100		<b>TOTAL CARRIED TO SUMMARY</b>					

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		<b><u>ASPHALT BASE AND SURFACING</u></b>				
42.02		Asphalt surfacing (60/70 pen bitumen)				
		(a) Continuously graded				
		(2) Medium graded				
		(iii) 30 mm thick	m <sup>2</sup>			Rate Only
42.04		Tack coat of 30% stable-grade emulsion	l			Rate Only
42.08		100mm cores in asphalt	No			Rate Only
42.13		Placing and compacting Asphalt in restricted areas				
		(a) Extra over item 42.02	m <sup>2</sup>			Rate Only
42.14		Extra over item 42.04 for applying tack coat in restricted areas	l			Rate Only
4200		<b>TOTAL CARRIED TO SUMMARY</b>				

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UPGRADING OF PHATSIMA ROADS AND STORMWATER

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
51.01		<b><u>PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION</u></b>  Stone pitching				
		a) Plain pitching				
		(i) Method 1	m <sup>2</sup>			Rate Only
		(ii) Method 2	m <sup>2</sup>			Rate Only
		(b) Grouted stone pitching	m <sup>2</sup>			Rate Only
	LIC	(c) Grouted stone pitching on a concrete bed 150mm thick	m <sup>2</sup>	10.00		
51.04		Concrete pitching and block paving				
		a) Cast in situ concrete pitching Class 25/19 concrete	m <sup>3</sup>			Rate Only
4200		<b>TOTAL CARRIED TO SUMMARY</b>				

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UPGRADING OF PHATSIMA ROADS AND STORMWATER

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
56.00		ROAD SIGNS				
56.01		Road signs boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class 1 retro-effective material, where the sign board is constructed.				
		(c) Prepainted galvanized steel plate (chromadek 1,6 mm thick or approved equivalent):				
	LIC	(i) Area not exceeding 2m <sup>2</sup>	m <sup>2</sup>	17.00		
		(ii) Area exceeding 2m <sup>2</sup> but not 10m <sup>2</sup>	m <sup>2</sup>			
		(iii) Area exceeding 10m <sup>2</sup>	m <sup>2</sup>			Rate Only
56.02		Extra over item 56.01 for using:				
		(b) Lettering, symbols, number, arrows, emblems and borders or retro-reflective material of Class 1 Engineering grade	m <sup>2</sup>	30.00		
56.03		Road sign supports (overhead road sign structures excluded):				
		(a) Steel tubing, fully galvanised				
		(i) 50mm dia. D-Section 1,6mm thick	t			Rate Only
	LIC	(iii) 76mm dia. D-Section 2m thick	t	0.70		
		(iii) 100mm dia. D-Section 4mm thick	t			Rate Only
56.05		Excavation and backfilling for road sing supports	m <sup>3</sup>	1.00		
56.06		Extra over item 56.05 for cement-treated soil backfill	m <sup>3</sup>	1.00		
56.08		Dismantling, storing and re-erecting road signs with a surface area of:				
	LIC	(a) Up to 2 m <sup>2</sup>	No	6.00		
56.09		Dismantling and storing road signs with a surface area of:				
		(a) Up to 2 m <sup>2</sup>	No			Rate Only
<b>5600</b>		<b>TOTAL CARRIED FORWARD</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
57.02		<b><u>ROAD MARKINGS</u></b> Retro-reflective road-marking paint:				
	LIC	(a) White lines (broken or unbroken): (i) 100 mm wide	km	1.8		
	LIC	(b) Yellow lines (broken or unbroken): (i) 100 mm wide	km			Rate Only
	LIC	(c) White lettering and symbols	m <sup>2</sup>	10.0		
		(d) Yellow lettering and symbols	m <sup>2</sup>	10.0		
		(e) Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>			Rate Only
57.04		Variations in rate of application:				
	LIC	(a) White paint	litre	40.0		
		(b) Yellow paint	litre			Rate Only
57.06	LIC	Setting out and premarking the lines (excluding traffic-island markings, lettering and symbols)	km	1.8		
57.07		Re-establishing the painting unit at the end of the maintenance period	L/Sum			Rate Only
<b>5700</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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UPGRADING OF PHATSIMA ROADS AND STORMWATER

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
59.01		<p><b><u>FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS</u></b></p> <p><b>Finishing the road and road reserve:</b></p> <p>(a) Single-carriageway road</p>	km	1.8		
5900		<b>TOTAL CARRIED TO SUMMARY</b>				

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ITEM NO	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>7300</b>		<b><u>CONCRETE BLOCK PAVING FOR ROADS</u></b>				
73.01	LIC	80mm interlocking paving blocks (25Mpa) SABS approved on a 20mm bedding sand	m <sup>2</sup>	10 571.93		
73.03	LIC	Provision of approved herbicide and ant poison:				
		(a) Provision of materials	PC Sum	1.00	25 000.00	25 000.00
		(b) Contractor's charges and profit added to the prime cost sum	%	25 000.00		
B73,04		Removing and relaying concrete block paving				
		(a) 60mm S-A paving blocks	m <sup>2</sup>			Rate Only
		(b) 80mm S-A Paving blocks	m <sup>2</sup>	720.00		
<b>7300</b>		<b>TOTAL CARRIED TO SUMMARY</b>				

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 UPGRADING OF PHATSIMA ROADS AND STORMWATER

ITEM NO	LIC	DESCRIPTION	UNIT	QTY	TENDERED RATE	TENDERED AMOUNT
		<b><u>TESTING MATERIALS AND WORKMANSHIP</u></b>				
B81.02		Other special tests requested by the Engineer:				
		(a) Cost of testing	PC Sum	1.00	25 000.00	25 000.00
		(b) Charge on Prime Cost Sum	%	25 000		
81.03		Providing testing equipment:				
		(a) Rolling straight-edge	Nº			Rate Only
		(b) Core drill	Nº			Rate Only
<b>8100</b>		<b>TOTAL CARRIED TO SUMMARY</b>				