

1R-36977 Rates-Based Panel Contract for Roadway Related Construction Works to be used As-and-When-Required, for a period of 3 Years (CIDB Grades 5 and 6)

BILL of QUANTITIES

1	PRELIMINARY AND GENERAL ITEMS		R 210,000.00
	0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS	R -	
	0104 C1.4 FACILITIES FOR THE ENGINEER	R 210,000.00	
	0105 C1.5 ACCOMMODATION OF TRAFFIC	R -	
2	SITE CLEARANCE		R -
	0106 C1.6 CLEARING AND GRUBBING	R -	
3	SERVICES		R 1,160,000.00
	0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE	R 1,160,000.00	
4	DRAINAGE		R -
	0302 C3.2 CULVERTS	R -	
	0303 C3.3 CONCRETE KERBING AND CHANNELING	R -	
5	EARTHWORKS		R 50,000.00
	0402 C4.2 CUT MATERIALS	R 50,000.00	
	0403 C4.3 EXISTING ROAD MATERIALS	R -	
	0404 C4.4 COMMERCIAL MATERIALS	R -	
6	LAYERWORKS		R -
	0501 C5.1 ROADBED	R -	
	0502 C5.2 FILL	R -	
	0503 C5.3 ROAD PAVEMENT LAYERS	R -	
	0504 C5.4 STABILISATION	R -	
	0601 C6.1 PAVER LAID CONCRETE LAYERS	R -	
	0901 C9.1 ASPHALT LAYERS	R -	
7	ANCILLARY ROAD WORKS		R 250,000.00
	1104 C11.4 ROAD RESTRAINT SYSTEMS	R -	
	1105 C11.5 FENCING	R -	
	1106 C11.6 ROAD SIGNS	R -	
	1107 C11.7 ROAD MARKINGS AND ROAD STUDS	R -	
	1108 C11.8 LANDSCAPING AND PLANTING PLANTS	R -	
	1109 C11.9 FINISHING ROAD AND ROAD RESERVE	R 250,000.00	
	1206 C12.6 MECH STABILISED FILL AND GABIONS	R -	

Sub-Total: R 1,670,000.00

VAT @ 15%: R 250,500.00

TOTAL CARRIED TO FORM OF OFFER (C1.1): R 1,920,500.00

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
1 PRELIMINARY AND GENERAL ITEMS							SECTION TOTAL:	R 210,000.00
1	0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS					Chapter Total:	R -
C1.3.1.1: Fixed Obligations per Work Package Order								
1	0102	1	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is <R1m	1,000,000	1	R 1,000,000.00
1	0102	2	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	1,000,000		R -
1	0102	3	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R1m and <R3m	3,000,000	1	R 3,000,000.00
1	0102	4	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	3,000,000		R -
1	0102	5	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R3m and <R6m	6,000,000	1	R 6,000,000.00
1	0102	6	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	6,000,000		R -
1	0102	7	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R6m and <R10m	10,000,000	1	R 10,000,000.00
1	0102	8	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	10,000,000		R -
1	0102	9	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R10m	20,000,000	1	R 20,000,000.00
1	0102	10	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	20,000,000		R -
C1.3.1.3: Time-related Obligations per Work Package Order								
1	0102	11	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is <R1m	1,000,000	1	R 1,000,000.00
1	0102	12	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	1,000,000		R -
1	0102	13	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R1m and <R3m	3,000,000	1	R 3,000,000.00
1	0102	14	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	3,000,000		R -
1	0102	15	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R3m and <R6m	6,000,000	1	R 6,000,000.00
1	0102	16	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	6,000,000		R -
1	0102	17	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R6m and <R10m	10,000,000	1	R 10,000,000.00
1	0102	18	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	10,000,000		R -
1	0102	19	PS.C1.3.1.1 PS.C1.3.1.2	PC Sum	Where Work Package Order is >R10m	20,000,000	1	R 20,000,000.00
1	0102	20	PS.C1.3.1.1 PS.C1.3.1.2	%	Enter % of Work Package Order	20,000,000		R -
PS.9: Environmental Management: Monitoring of compliance with and reporting on the EMP per Work Package Order								
1	0102	21	C1.2.1.1	PC Sum	Where Work Package Order is <R1m	1,000,000	1	R 1,000,000.00
1	0102	22	C1.2.1.1	%	Enter % of Work Package Order	1,000,000		R -
1	0102	23	C1.2.1.1	PC Sum	Where Work Package Order is >R1m and <R3m	3,000,000	1	R 3,000,000.00
1	0102	24	C1.2.1.1	%	Enter % of Work Package Order	3,000,000		R -
1	0102	25	C1.2.1.1	PC Sum	Where Work Package Order is >R3m and <R6m	6,000,000	1	R 6,000,000.00
1	0102	26	C1.2.1.1	%	Enter % of Work Package Order	6,000,000		R -
1	0102	27	C1.2.1.1	PC Sum	Where Work Package Order is >R6m and <R10m	10,000,000	1	R 10,000,000.00
1	0102	28	C1.2.1.1	%	Enter % of Work Package Order	10,000,000		R -
1	0102	29	C1.2.1.1	PC Sum	Where Work Package Order is >R10m	20,000,000	1	R 20,000,000.00

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
1	0102	30	C1.2.1.1	%	Enter % of Work Package Order	20,000,000		R -
1	0102	31	C1.2.1.1	months	Dedicated environmental officer per Work Package Order	12		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
<u>PS.14: Liasing, coordinating and mentoring CPG Sub-contractors per Work Package Order</u>								
1	0102	32	C1.3.1.1	sum	Where Work Package Order is <R1m	1		R -
1	0102	33	C1.3.1.1	sum	Where Work Package Order is >R1m and <R3m	1		R -
1	0102	34	C1.3.1.1	sum	Where Work Package Order is >R3m and <R6m	1		R -
1	0102	35	C1.3.1.1	sum	Where Work Package Order is >R6m and <R10m	1		R -
1	0102	36	C1.3.1.1	sum	Where Work Package Order is >R10m	1		R -
<u>PS.12.4: Submission of As-Built Data per Work Package Order</u>								
1	0102	37	C1.3.1.1	sum	Where Work Package Order is <R1m	1		R -
1	0102	38	C1.3.1.1	sum	Where Work Package Order is >R1m and <R3m	1		R -
1	0102	39	C1.3.1.1	sum	Where Work Package Order is >R3m and <R6m	1		R -
1	0102	40	C1.3.1.1	sum	Where Work Package Order is >R6m and <R10m	1		R -
1	0102	41	C1.3.1.1	sum	Where Work Package Order is >R10m	1		R -
<u>PS.10: Health and Safety Plan and Implementation of Health and Safety Plan per Work Package Order</u>								
1	0102	42	C1.2.5.1	PC Sum	Where Work Package Order is <R1m	1,000,000	1	R 1,000,000.00
1	0102	43	C1.2.5.1	%	Enter % of Work Package Order	1,000,000		R -
1	0102	44	C1.2.5.1	PC Sum	Where Work Package Order is >R1m and <R3m	3,000,000	1	R 3,000,000.00
1	0102	45	C1.2.5.1	%	Enter % of Work Package Order	3,000,000		R -
1	0102	46	C1.2.5.1	PC Sum	Where Work Package Order is >R3m and <R6m	6,000,000	1	R 6,000,000.00
1	0102	47	C1.2.5.1	%	Enter % of Work Package Order	6,000,000		R -
1	0102	48	C1.2.5.1	PC Sum	Where Work Package Order is >R6m and <R10m	10,000,000	1	R 10,000,000.00
1	0102	49	C1.2.5.1	%	Enter % of Work Package Order	10,000,000		R -
1	0102	50	C1.2.5.1	PC Sum	Where Work Package Order is >R10m	20,000,000	1	R 20,000,000.00
1	0102	51	C1.2.5.1	%	Enter % of Work Package Order	20,000,000		R -
<u>Programming and Reporting Per Work Package Order: Where Work Package Order is <R6m</u>								
1	0102	52	C1.2.1.1 PS.1	Lump sum	Submission of a Scheme 1 Programme	1		R -
1	0102	53	C1.2.1.1 PS.1	months	Reviewing and updating a Scheme 1 Programme	12		R -
<u>Programming and Reporting Per Work Package Order: Where Work Package Order is >R6m</u>								
1	0102	54	C1.2.2.4 PS.1	Lump sum	Submission of a Scheme 2 Full Programme	1		R -
1	0102	55	C1.2.2.5 PS.1	months	Reviewing and updating a Scheme 2 programme every month	12		R -
<u>PS.14: Stakeholder Management & Liaison per Work Package Order</u>								
1	0102	56	C1.2.4	PC Sum	Where Work Package Order is <R6m	6,000,000	1	R 6,000,000.00
1	0102	57	C1.2.4	%	Enter % of Work Package Order	6,000,000		R -
1	0102	58	C1.2.4	PC Sum	Where Work Package Order is >R6m	10,000,000	1	R 10,000,000.00
1	0102	59	C1.2.4	%	Enter % of Work Package Order	10,000,000		R -

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
<u>Community Liaison Officer</u>								
1	0102	60	PS.11	PC Sum	Allow for CLO to be appointed per Work Package Order	100,000	1	R 100,000.00
1	0102	61	PS.11	%	Handling costs and profit in respect of item above	100,000		R -
<u>Provision of security on site to guard against any disruption of the works throughout the duration of each Work Package Order</u>								
1	0102	62	PS.11.4	PC Sum	Where Work Package Order is <R1m	1,000,000	1	R 1,000,000.00
1	0102	63	PS.11.4	%	Enter % of Work Package Order	1,000,000		R -
1	0102	64	PS.11.4	PC Sum	Where Work Package Order is >R1m and <R3m	3,000,000	1	R 3,000,000.00
1	0102	65	PS.11.4	%	Enter % of Work Package Order	3,000,000		R -
1	0102	66	PS.11.4	PC Sum	Where Work Package Order is >R3m and <R6m	6,000,000	1	R 6,000,000.00
1	0102	67	PS.11.4	%	Enter % of Work Package Order	6,000,000		R -
1	0102	68	PS.11.4	PC Sum	Where Work Package Order is >R6m and <R10m	10,000,000	1	R 10,000,000.00
1	0102	69	PS.11.4	%	Enter % of Work Package Order	10,000,000		R -
1	0102	70	PS.11.4	PC Sum	Where Work Package Order is >R10m	20,000,000	1	R 20,000,000.00
1	0102	71	PS.11.4	%	Enter % of Work Package Order	20,000,000		R -
1	0102	72	C1.3.2 PS.C1.3.2	no.	Contract sign boards	1		R -
<u>Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of the Works which are used as detours</u>								
1	0102	73	C1.2.3.1 PS.12.1	m2	Grass cutting	5,000		R -
1	0102	74	C1.2.3.2 PS.12.1	m	Drain cleaning	250		R -
1	0102	75	C1.2.3.3 PS.12.1	m3	Cleaning out culverts	25		R -
1	0102	76	C1.2.3.7 PS.12.1	m2	Base and/or surface patching using hot plant mixed asphalt	20		R -
1	0102	77	C1.2.3.10 PS.12.1	kl	Watering of temporary gravel deviations and existing roads used as detours	5		R -
1	0102	78	C1.2.3.11 PS.12.1	PC Sum	Other road maintenance work ordered by the Engineer	50,000	1	R 50,000.00
1	0102	79	C1.2.3.12 PS.12.1	%	Handling cost, profit and all other charges in respect of item C1.2.3.11	50,000		R -

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value		
Dayworks										
1	0102	80	C1.2.8.1(a)	hour	Personnel: (a) Unskilled labourer	30		R	-	
1	0102	81	C1.2.8.1(b)	hour	(b) Semi-skilled labourer	10		R	-	
1	0102	82	C1.2.8.1 (c)	hour	(c) Skilled labourer	10		R	-	
1	0102	83	C1.2.8.1(d)	hour	(d) Gang leader	10		R	-	
1	0102	84	C1.2.8.1 (e)	hour	(e) Foreman	10		R	-	
1	0102	85	C1.2.8.2(a)	hour	Construction equipment : (a) Motor grader	15		R	-	
1	0102	86	C1.2.8.2(b)	hour	(b) Vibratory roller	15		R	-	
1	0102	87	C1.2.8.2 (c)	hour	(c) Pneumatic roller	15		R	-	
1	0102	88	C1.2.8.2€	hour	(e) Tractor loader backhoe	15		R	-	
1	0102	89	C1.2.8.2(f)	hour	(f) Excavator	15		R	-	
1	0102	90	C1.2.8.3(a)	km	Vehicles : (a) Light delivery vehicle	40		R	-	
1	0102	91	C1.2.8.3 (c)	km	(c) Dump truck	40		R	-	
1	0102	92	C1.2.8.4(a)	PC Sum	Materials - Procurement of materials	100,000	1	R	100,000.00	
1	0102	93	C1.2.8.4(b)	%	(b) Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	100,000		R	-	
***** NOTE ***** The following item (with a negative value) is to be included in the summation of item Amounts										
1	0102	94	-	PC Sum	PC Sum reversal	-216,250,000	1	-R	216,250,000.00	
1	0104	C1.4	FACILITIES FOR THE ENGINEER				Chapter Total:		R	210,000.00
1	0104	1	C1.4.3.35	no	3,0 m aluminium straight edge complete with two measuring wedges	1		R	-	
1	0104	2	C1.4.3.36	no	Measuring wheel	5		R	-	
1	0104	3	PS.12.3	PC Sum	Allowance for the additional survey required by the Engineer	70,000	1	R	70,000.00	
1	0104	4	PS.12.3	%	Handling costs and profit in respect of item above	70,000		R	-	
1	0104	5	PS.12.5	PC Sum	Allowance for Progress Photographs every second month, digital and aerial	40,000	1	R	40,000.00	
1	0104	6	PS.12.5	%	Handling costs and profit in respect of item above	40,000		R	-	
1	0104	7	PS.11.7	PR Sum	Ad-hoc adjudication, Employer's contribution	100,000	1	R	100,000.00	
1	0104	8	PS.11.7	%	Handling costs in respect of item above	100,000		R	-	

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value	
1	0105	C1.5 ACCOMMODATION OF TRAFFIC					Chapter Total:		R -
<u>Accommodation of pedestrian, non-motorised and motorised traffic</u>									
1	0105	1	C1.5.1.1 PS.1.3	PC Sum	Where Work Package Order is <R1m	1,000,000	1	R 1,000,000.00	
1	0105	2	C1.5.1.1 PS.1.3	%	Enter % of Work Package Order	1,000,000		R -	
1	0105	3	C1.5.1.1 PS.1.3	PC Sum	Where Work Package Order is >R1m and <R3m	3,000,000	1	R 3,000,000.00	
1	0105	4	C1.5.1.1 PS.1.3	%	Enter % of Work Package Order	3,000,000		R -	
1	0105	5	C1.5.1.1 PS.1.3	PC Sum	Where Work Package Order is >R3m and <R6m	6,000,000	1	R 6,000,000.00	
1	0105	6	C1.5.1.1 PS.1.3	%	Enter % of Work Package Order	6,000,000		R -	
1	0105	7	C1.5.1.1 PS.1.3	PC Sum	Where Work Package Order is >R6m and <R10m	10,000,000	1	R 10,000,000.00	
1	0105	8	C1.5.1.1 PS.1.3	%	Enter % of Work Package Order	10,000,000		R -	
1	0105	9	C1.5.1.1 PS.1.3	PC Sum	Where Work Package Order is >R10m	20,000,000	1	R 20,000,000.00	
1	0105	10	C1.5.1.1 PS.1.3	%	Enter % of Work Package Order	20,000,000		R -	
1	0105	11	C1.5.1.1 PS.1.3	man-day	Traffic safety officer	100		R -	
<u>Traffic Safety Officer: Penalties</u>									
1	0105	12	A1.5.3.7 PS.1.3.7	RateOnly	(a) Fixed Penalty per occurrence, R2000 per day	0			
1	0105	13	A1.5.3.7 PS.1.3.7	RateOnly	(b) Time-Related Penalty, R1000 per hour	0			
1	0105	14	C1.5.7.1(b)	no	Delineators including mounting bases and ballast: Double sided, reversible left or right (1200mm x 250mm)	200		R -	
1	0105	15	PS.1.3.6	m	Temporary barriers for accommodation of traffic, concrete New Jersey type, Contractor's own source	30		R -	
1	0105	16	C1.5.7.3	man-day	Flagmen	100		R -	
1	0105	17	C1.5.7.4	man-day	Traffic controllers	100		R -	
<u>Provision of Illuminated Traffic Signs</u>									
1	0105	18	C1.5.7.5(a)(i)	no	Sign mounted flashing amber lights (2 lights with the specified power supply) mounted on a backing board which is:	6		R -	
1	0105	19	C1.5.7.5(b)	no	(b) Flashing LED illuminated arrow board	6		R -	
<u>Maintenance of Illuminated Traffic Signs</u>									
								R -	
1	0105	20	C1.5.7.6(a)	no	(a) Sign mounted flashing amber lights (i and ii)	2		R -	
1	0105	21	C1.5.7.6(b)	no	(b) Flashing LED illuminated arrow board	2		R -	
1	0105	22	C1.5.7.6 (c)	no	(c) Illuminated road sign – R & TR series (1200mm diameter)	2		R -	
1	0105	23	C1.5.7.6(d)	no	(d) Illuminated road sign – TW series (1200mm sides)	2		R -	
1	0105	24	C1.5.7.9	no	Cleaning of traffic control facilities	2		R -	
<u>Traffic Calming Devices</u>									
1	0105	25	C1.5.7.7(a)	m	(a) 25 mm high x 100 mm wide asphalt rumble strips	50		R -	
***** NOTE ***** <u>The following item (with a negative value) is to be included in the summation of item Amounts</u>									
1	0105	26	-	PC Sum	PC Sum reversal	-40,000,000	1	-R 40,000,000.00	

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
2 SITE CLEARANCE							SECTION TOTAL:	R -
2 0106 ING AND GRUBBING							Chapter Total:	R -
<u>Clearing</u>								
2	0106	1	C1.6.1.1	m2	Clearing with machines and some hand labour where necessary	2,000		R -
2	0106	2	C1.6.1.2	m2	Clearing with hand labour only when labour enhanced work is specified	2,000		R -
<u>Grubbing</u>								
2	0106	3	C1.6.2.1	m2	Grubbing with machines and some hand labour where necessary	2,000		R -
2	0106	4	C1.6.2.2	m2	Grubbing with hand labour when labour enhancement work is specified or it is not practical to use a machine	2,000		R -
<u>Removal and Grubbing of Large Trees and Tree Stumps</u>								
2	0106	5	C1.6.3.1	no	Girth equal to or exceeding 1,0 m up to and including 2,0 m	5		R -
2	0106	6	C1.6.3.2	no	Girth exceeding 2,0 m up to and including 3,0 m	3		R -
<u>Stockpile Site</u>								
2	0106	7	C4.1.10	m3	Compacting the floor of the stockpile sites	20		R -
2	0106	8	C4.1.15.2(c)	m3	Finishing of the stockpile sites	20		R -
2	0106	9	C1.6.9.1	m3	Conservation of topsoil: Stockpiling topsoil	200		R -
2	0106	10	C1.6.9.2	m3	Windrowing topsoil	200		R -
<u>Hauling Material</u>								
2	0106	11	C1.7.2.1(a) PS.C1.7	m3	Hauling material for use in the Works and off-loading it on the site of the Works:	5,000		R -
2	0106	12	C1.7.2.2(a) PS.C1.7	m3	Hauling material to spoil and off-loading it at a designated spoil area:	3,000		R -
2	0106	13	C1.7.2.2(b) PS.C1.7	m3	(b) Soil and gravel material	1,000		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
3 SERVICES							SECTION TOTAL:	R 1,160,000.00
3	0201	C2.1 GEN REQMENTS AND TRENCHING SERVICE					Chapter Total:	R 1,160,000.00
<u>Relocation of Services by Others:</u>								
<u>Water</u>								
3	0201	1	C2.1.1.2 PS.3	PC Sum	Permanent services relocation or protection work by others	150,000	1	R 150,000.00
3	0201	2	C2.1.1.3 PS.3	%	Handling costs and profit in respect of item above	150,000		R -
<u>Sewer</u>								
3	0201	3	C2.1.1.2 PS.4	PC Sum	Permanent services relocation or protection work by others	150,000	1	R 150,000.00
3	0201	4	C2.1.1.3 PS.4	%	Handling costs and profit in respect of item above	150,000		R -
<u>Electricity</u>								
3	0201	5	C2.1.1.2 PS.6	PC Sum	Permanent services relocation or protection work by others	150,000	1	R 150,000.00
3	0201	6	C2.1.1.3 PS.6	%	Handling costs and profit in respect of item above	150,000		R -
<u>Telecommunications</u>								
3	0201	7	C2.1.1.2 PS.7	PC Sum	Permanent services relocation or protection work by others	150,000	1	R 150,000.00
3	0201	8	C2.1.1.3 PS.7	%	Handling costs and profit in respect of item above	150,000		R -
<u>Relocation of Services by the Contractor:</u>								
<u>Water</u>								
3	0201	9	C2.1.1.4 PS.3	ProvSum	Permanent services relocation or protection work by the Contractor	1	R 150,000.00	R 150,000.00
<u>Sewer</u>								
3	0201	10	C2.1.1.4 PS.4	ProvSum	Permanent services relocation or protection work by the Contractor	1	R 150,000.00	R 150,000.00
<u>Electricity</u>								
3	0201	11	C2.1.1.4 PS.6	ProvSum	Permanent services relocation or protection work by the Contractor	1	R 120,000.00	R 120,000.00
<u>Telecommunications</u>								
3	0201	12	C2.1.1.4 PS.7	ProvSum	Permanent services relocation or protection work by the Contractor	1	R 120,000.00	R 120,000.00
<u>Existing Services Location, Detection and Verification</u>								
3	0201	13	C2.1.2.1 PS.2	PC Sum	Using specialist detection services (ground penetrating radar, radio detection etc.)	20,000	1	R 20,000.00
3	0201	14	C2.1.2.2 PS.2	%	Handling costs and profit in respect of item above	20,000		R -
3	0201	15	C2.1.2.5 PS.2	m3	Using hand excavation to locate, expose and verify services	30		R -
3	0201	16	C2.1.27.1 PS.C2.1.27.1	m3	Demolition of existing manholes, access chambers and other service structures consisting of: Unreinforced concrete	5		R -
3	0201	17	C2.1.27.2 PS.C2.1.27.1	m3	Demolition of existing manholes, access chambers and other service structures consisting of: Reinforced concrete	5		R -
3	0201	18	C2.1.27.3 PS.C2.1.27.2	m3	Demolition of existing manholes, access chambers and other service structures consisting of: Masonry	5		R -
3	0201	19	C2.2.5.2	m3	Concrete encasement of services (class 20/26)	30		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
4 DRAINAGE							SECTION TOTAL:	R -
4 0302 C3.2 CULVERTS							Chapter Total:	R -
Excavation:								
375mm Pipes								
4	0302	1	C3.2.1.1(a) PS.C3.2.3.2 PS.C2.1	m3	Excavation for culvert structures: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	30		R -
4	0302	2	C3.2.1.1(b) PS.C3.2.3.2 PS.C2.1	m3	(b) Exceeding 1,5 m and up to 3,0 m	20		R -
450mm Pipes								
4	0302	3	C3.2.1.1(a) PS.C3.2.3.2 PS.C2.1	m3	Excavation for culvert structures: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	30		R -
4	0302	4	C3.2.1.1(b) PS.C3.2.3.2 PS.C2.1	m3	(b) Exceeding 1,5 m and up to 3,0 m	20		R -
600mm Pipes								
4	0302	5	C3.2.1.1(a) PS.C3.2.3.2 PS.C2.1	m3	Excavation for culvert structures: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	30		R -
4	0302	6	C3.2.1.1(b) PS.C3.2.3.2 PS.C2.1	m3	(b) Exceeding 1,5 m and up to 3,0 m	20		R -
900mm Pipes								
4	0302	7	C3.2.1.1(a) PS.C3.2.3.2 PS.C2.1	m3	Excavation for culvert structures: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	30		R -
4	0302	8	C3.2.1.1(b) PS.C3.2.3.2 PS.C2.1	m3	(b) Exceeding 1,5 m and up to 3,0 m	20		R -
4	0302	9	C3.2.1.1(c) PS.C3.2.3.2 PS.C2.1	m3	(c) Exceeding 3,0 m and up to 4,5 m	10		R -
Culverts (up to 3m x 3m)								
4	0302	10	C3.2.1.1(a) PS.C3.2.3.2 PS.C2.1	m3	Excavation for culvert structures: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	30		R -
4	0302	11	C3.2.1.1(b) PS.C3.2.3.2 PS.C2.1	m3	(b) Exceeding 1,5 m and up to 3,0 m	10		R -
4	0302	12	C3.2.1.1(c) PS.C3.2.3.2 PS.C2.1	m3	(c) Exceeding 3,0 m and up to 4,5 m	50		R -
4	0302	13	C3.2.1.4 PS.C3.2.3.2 PS.C2.1	m3	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	50		R -
Backfilling								
4	0302	14	C3.2.2.1 PS.C3.2.3.2	m3	Backfilling: Using the excavated material	250		R -
4	0302	15	C3.2.2.2(a) PS.C3.2.3.2	m3	Backfilling: Using granular material	100		R -
4	0302	16	C3.2.8 PS.C3.2.3.2	m3	Concrete backfill or encasement for culverts (Grade 20/26)	20		R -
4	0302	17	C3.2.12.1	m	Demolition of concrete members or elements: 0 mm - 450 mm diameter pipes for spoil	30		R -
4	0302	18	C3.2.12.1	m	Demolition of concrete members or elements: 575 mm - 900 mm diameter pipes for spoil	30		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
<u>Concrete Pipes: Spigot and Socket Type</u>								
4	0302	19	C3.2.3.2 PS.C3.2.3.2	m	Concrete pipe culverts: On Class B bedding (375mm diameter concrete Class 100D)	20		R -
4	0302	20	C3.2.3.3 PS.C3.2.3.2	m	Concrete pipe culverts: On Class C bedding (375mm diameter concrete Class 100D)	20		R -
4	0302	21	C3.2.3.2 PS.C3.2.3.2	m	Concrete pipe culverts: On Class B bedding (450mm diameter concrete Class 100D)	20		R -
4	0302	22	C3.2.3.3 PS.C3.2.3.2	m	Concrete pipe culverts: On Class C bedding (450mm diameter concrete Class 100D)	20		R -
4	0302	23	C3.2.3.2 PS.C3.2.3.2	m	Concrete pipe culverts: On Class B bedding (600mm diameter concrete Class 100D)	15		R -
4	0302	24	C3.2.3.3 PS.C3.2.3.2	m	Concrete pipe culverts: On Class C bedding (600mm diameter concrete Class 100D)	15		R -
4	0302	25	C3.2.3.2 PS.C3.2.3.2	m	Concrete pipe culverts: On Class B bedding (900mm diameter concrete Class 100D)	10		R -
4	0302	26	C3.2.3.3 PS.C3.2.3.2	m	Concrete pipe culverts: On Class C bedding (900mm diameter concrete Class 100D)	10		R -
4	0302	27	C3.2.5.1	m	Prefabricated portal culverts; wall and roof combination (1500 x 1500 culvert)	10		R -
4	0302	28	C3.2.5.2	m	Prefabricated floor slabs (for 1500 x 1500 culvert)	10		R -
4	0302	29	C3.2.5.1	m	Prefabricated portal culverts; wall and roof combination (3000 x 3000 culvert)	10		R -
4	0302	30	C3.2.5.2	m	Prefabricated floor slabs (for 3000 x 3000 culvert)	10		R -
<u>8KN/m2 HDPE Pipe</u>								
4	0302	31	C2.2.1.1	m	Supply and lay 450mm HDPE (8KN/m2) pipe in restrictive conditions as directed by the Engineer	16		R -
4	0302	32	C2.2.1.1	no	Supply and install 450mm HDPE connector clamps in restrictive conditions	2		R -
4	0302	33	C2.2.4.4	m3	Clean coarse sand bedding	4		R -
<u>Inlets with Heavy Duty Concrete Covers</u>								
4	0302	34	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S1; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	2		R -
4	0302	35	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S1; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	2		R -
4	0302	36	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S2; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	5		R -
4	0302	37	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S2; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	5		R -
4	0302	38	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type D3; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	2		R -
4	0302	39	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type D3; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	2		R -
<u>Inlets with Heavy Duty Polymer Concrete Covers</u>								
4	0302	40	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S1; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	2		R -
4	0302	41	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S1; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	2		R -
4	0302	42	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S2; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	5		R -
4	0302	43	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type S2; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	5		R -
4	0302	44	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type D3; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	3		R -
4	0302	45	C3.2.15.2 PS.C3.2.15.3	no	Inlet: Type D3; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	3		R -
4	0302	46	C3.2.15.2 PS.C3.2.15.2	no	Manhole: Type A (Dwg 38571), including brickwork for inlet walls	3		R -
4	0302	47	C3.2.15.2 PS.C3.2.15.2	no	Manhole: Type B (Dwg 38571), including brickwork for inlet walls	3		R -
4	0302	48	C13.4.11	m3	Additional cast in situ concrete for blinding as directed by the Engineer (Grade 15/19)	5		R -

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
Headwalls								
4	0302	49	PS.C3.2.15.2 PS.C3.2.15.4	no	Headwalls, Type A, for 375mm and 450mm pipes	3		R -
4	0302	50	PS.C3.2.15.2 PS.C3.2.15.4	no	Headwalls, Type B, for 375mm and 450mm pipes	1		R -
4	0302	51	PS.C3.2.15.2 PS.C3.2.15.4	no	Headwalls, Type A, for 600mm and 900mm pipes	2		R -
4	0302	52	PS.C3.2.15.2 PS.C3.2.15.4	no	Headwalls, Type B, for 600mm and 900mm pipes	1		R -
4	0302	53	C2.1.19.2	sum	Dealing with subsurface water	1		R -
4	0303	C3.3 CONCRETE KERBING AND CHANNELING					Chapter Total:	R -
4	0303	1	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing, cast in-situ channeling (Type A Barrier Kerb, with 300mm channel, Drawing 38577)	150		R -
4	0303	2	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing, cast in-situ channeling (Type A Barrier Kerb, with 300mm fillet, Drawing 38577)	150		R -
4	0303	3	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing, cast in-situ channeling (Type C Mountable Kerb, with 300mm channel, Drawing 38577)	150		R -
4	0303	4	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing, cast in-situ channeling (Type C Mountable Kerb, with 300mm fillet, Drawing 38577)	150		R -
4	0303	5	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing, cast in-situ channeling (Type D Barrier Kerb, with 300mm channel, Drawing 38577)	150		R -
4	0303	6	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing, cast in-situ channeling (Type D Barrier Kerb, with 300mm fillet, Drawing 38577)	150		R -
4	0303	7	C3.3.3.1 PS.C3.3.2.1	m	Extra over item C3.3.1 for concrete kerbing and channeling on curves of radii more than or equal to 2,0 m but less than 25 m	30		R -
4	0303	8	C3.3.3.2 PS.C3.3.2.1	m	Extra over items C3.3.1 for concrete kerbing and channeling on curves with radii less than 2,0 m	10		R -
4	0303	9	C3.3.4 PS.C3.3.2.1	m	Drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	20		R -
Sidewalk Edge Restraint								
4	0303	10	C3.3.2.1 PS.C3.3.2.1	m	Prefabricated kerbing (edge restraint, Figure 12 kerb including 100mm x 100mm haunching)	500		R -
Sidewalk Edge Restraint								
4	0303	11	C13.4.11	m3	Cast in situ concrete for Pedestrian / Vehicular Scoop (Grade 20/13)	10		R -
4	0303	12	C13.4.11	m3	Additional cast in situ concrete for kerbs and channels as directed by the Engineer (Grade 20/13)	10		R -
4	0303	13	C3.3.8.1	m3	Linings for open drains: 600mm Cast in situ concrete v-drain, inclusive of formwork and reinforcing (class 20/13)	10		R -
4	0303	14	C2.1.16 PS.C2.1.16	m	Subsurface drains in trench bottoms (Drawing 38575 - Type A)	100		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
5 EARTHWORKS							SECTION TOTAL:	R 50,000.00
5	0402	C4.2 CUT MATERIALS					Chapter Total:	R 50,000.00
5	0402	1	C4.2.1.1	no	Compiling and implementing M&U plans for the cuttings exceeding 5 000 m3 up to 10 000 m3	1		R -
5	0402	2	C4.2.2.1	PC Sum	Cost of additional trial pits and/or drilling and laboratory testing	50,000	1	R 50,000.00
5	0402	3	C4.2.2.2	%	Handling costs and profit in respect of item C4.2.2.1	50,000		R -
5	0402	4	C4.2.4.1 PS.C4.2	m3	Excavating of materials in box cuts for use in the works, material obtained from: Soft excavation	500		R -
5	0402	5	C4.2.9.1 PS.C4.3	m3	Excavate material to spoil in sites designated by the Contractor, material obtained from: Soft excavation. overburden and unsuitable material	500		R -
5	0402	6	C4.2.9.3	m3	Boulder excavation class B	50		R -
5	0402	7	C4.2.9.4	m3	Hard excavation (other than by blasting)	50		R -
5	0402	8	C4.2.12.1(a)	m2	Finishing the side slopes of Cuttings: (a) In soft material	2,000		R -
5	0402	9	C4.2.12.1(c)	m2	(c) In hard material	50		R -
5	0403	C4.3 EXISTING ROAD MATERIALS				17	Chapter Total:	R -
Saw-cut								
5	0403	1	C4.3.4.1(a)	m	Saw-cutting existing materials within the following average depth ranges: Asphalt: (a) Un to 50 mm	20		R -
5	0403	2	C4.3.4.1(b)	m	(b) Exceeding 50 mm and up to 100 mm	10		R -
5	0403	3	C4.3.9.2 PS.C4.3	m3	Excavating material by using conventional road construction equipment to stockpile: Crushed stone and macadam	2,000		R -
5	0403	4	C4.3.9.4 PS.C4.3	m3	Excavating material by using conventional road construction equipment to stockpile: Natural gravel and sand materials	2,000		R -
5	0403	5	C4.3.18.1 PS.C4.4	m3	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, material consisting of: Asphalt material	2,000		R -
5	0403	6	C4.3.18.2 PS.C4.3	m3	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, material consisting of: Crushed stone, macadam, gravel and sand material	1,000		R -
5	0403	7	C4.3.18.4 PS.C4.4	m3	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, material consisting of: Concrete material	20		R -
5	0403	8	C4.3.14.1(a)(iii)	m3	Removing of existing road edging using construction equipment: (a) Kerbing and edge beams: (iii) Precast concrete kerbing and situ concrete channel	30		R -
5	0403	9	C4.3.14.1(b)	m3	Removing of existing road edging using construction equipment: (b) Kerb inlets	10		R -
5	0403	10	C4.3.15.4	m3	Stockpiling of road layer materials	4,000		R -
5	0403	11	C4.3.5.2	no	Providing large milling machine with a cutting width exceeding 1,2 m	1		R -
5	0403	12	C4.3.7.1	m3	Milling and removal of existing asphalt layers with an average milling depth (Emplover takes ownership): Not exceeding 50mm	175		R -
5	0403	13	PS.C4.3.5.3	no	Providing a mobile cold asphalt recycling plant	1		R -
5	0403	14	C5.4.5.1(a)	t	Addition of stabilisation agents for pavement layers - Cement	10		R -
5	0403	15	C5.4.5.1(b)	t	Addition of stabilisation agents for pavement layers - lime	10		R -
5	0403	16	C5.4.8.3	l	Addition of stabilisation agents for pavement layers - Foamed bitumen (70/100)	100		R -
5	0403	17	PS.C4.3.5.3	m3	Stabilisation of pavement layers using mobile cold asphalt recycling plant and laid with paver	175		R -

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
5	0404	C4.4 COMMERCIAL MATERIALS					Chapter Total:	R -
5	0404	1	C4.4.2.1(d)	m3	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G2	1,050		R -
5	0404	2	C4.4.2.1(d)	m3	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G4	1,050		R -
5	0404	3	C4.4.2.1(e)	m3	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G5	1,100		R -
5	0404	4	C4.4.2.1(g)	m3	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G7	1,150		R -
5	0404	5	C4.4.4.1 PS.C4.4.4.1	t	Cementitious stabilising agents: Cement	60		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
6 LAYERWORKS							SECTION TOTAL:	R -
6	0501	C5.1 ROADBED					Chapter Total:	R -
6	0501	1	C5.1.1.2 PS.C5.1.1.2	m3	Roadbed construction and compaction to 95 % of MDD	1,050		R -
6	0501	2	C5.1.3.1(a) PS.C4.2	m3	Excavate material to spoil from roadbed construction, material obtained from: (a) Soft excavation	35		R -
6	0501	3	C5.1.3.1(c) PS.C4.2	m3	(c) Boulder excavation Class B	10		R -
6	0501	4	C5.1.3.1(d) PS.C4.2	m3	(d) Hard excavation	5		R -
6	0501	5	C5.1.4.1	m3	In-place treatment of roadbed in hard material: by ripping	30		R -
6	0501	6	C5.1.5.2	m2	Roller passes compaction: Pad foot vibratory rollers	600		R -
6	0501	7	C5.1.5.3	m2	Roller passes compaction: Smooth drum vibratory rollers	600		R -
Subgrade Improvement								
6	0501	8	C12.3.20 PS.C.12.3.21	m3	Importing dump rock for subgrade improvement, 300mm thick	50		R -
6	0501	9	PS.C12.3.22	m2	Supply and place general grade geofabric, A5 or similar approved.	200		R -
6	0502	C5.2 FILL					Chapter Total:	R -
6	0502	1	C5.2.1.1	no	Compiling and implementing M&U plans: For fills more than 5000 m3	1		R -
6	0502	2	C5.2.2.1(a)	m3	Fill construction: Normal fill material in compacted layer thicknesses of 200 mm and less: (a) Compacted to 90 % of MDD	500		R -
6	0502	3	C5.2.2.1(b)	m3	(b) Compacted to 93 % of MDD	500		R -
6	0502	4	C5.2.3	m3	Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less	500		R -
6	0502	5	C5.2.9.1	m2	Finishing-off fill slopes	6,000		R -
6	0502	6	C5.2.2.1(a)	m3	Fill construction from stockpile: Haul fill material from stockpile and place in compacted layer thicknesses of 200 mm and less: (a) Compacted to 90 % of MDD	4,000		R -
6	0502	7	C5.2.2.1(b)	m3	(b) Compacted to 93 % of MDD	4,000		R -
6	0503	C5.3 ROAD PAVEMENT LAYERS					Chapter Total:	R -
6	0503	1	C5.3.1	no	Compiling and implementing M&U plans for the construction of all the pavement layers.	1		R -
6	0503	2	C5.3.2.1(h)	m3	150mm Upper subbase (C3) layer compacted to 95 % of MDD	1,050		R -
6	0503	3	C5.3.2.1(b)	m3	150mm Selected layer (G2) compacted to 98 % of MDD	1,050		R -
6	0503	4	C5.3.2.1(b)	m3	150mm Selected layer (G5) compacted to 98 % of MDD	1,100		R -
6	0503	5	C5.3.2.1(b)	m3	150mm Selected layer (G7) compacted to 95 % of MDD	1,150		R -
Riding Quality Measurements								
6	0503	6	C5.3.11.1	m	Using a 3,0 m straight edge	50		R -
6	0503	7	C5.3.11.2	m	Using a rolling straight edge	50		R -
6	0503	8	C5.3.11.3	m	Using an inertial profilometer	50		R -
Sidewalk								
6	0503	9	C5.3.2.1(b)	m3	Sidewalk selected layer (G5) compacted to 98 % of MDD	150		R -
6	0503	10	C5.3.2.1(b)	m3	Selected layer (G2) compacted to 98 % of MDD for driveways and restricted areas	10		R -

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
6	0504	C5.4 STABILISATION					Chapter Total:	R -
6	0504	1	C5.4.1.1	m3	Pre-treatment of (G4) gravel layer	1,050		R -
6	0504	2	C5.4.5.1(a)	t	Addition of cementitious soil stabilisation agents for pavement layers: (a) Cement (for pavement laver)	60		R -
6	0504	3	C5.4.2.1	m3	Cementitious stabilisation (150mm layers) of pavement layers (to C3 quality)	1,050		R -
6	0504	4	C5.4.10	kl	Provision and application of water for curing	50		R -
6	0504	5	C5.4.14	m2	Trial section for a cementitiously stabilised layer (3.5m wide)	70		R -
6	0601	C6.1 PAVER LAID CONCRETE LAYERS					Chapter Total:	R -
6	0601	1	C6.1.2.1(a)	m2	Construction of jointed concrete pavement (JCP) (Excluding texturing and curing) JCP with dowels: <i>(Hand laid construction (150mm 40MPa)</i>	500		R -
6	0601	2	C6.1.5.2	m2	Burlap-dragged and broom finish only	500		R -
6	0601	3	C6.1.5.3(b)	m2	(b) Curing: Labour enhanced construction	500		R -
6	0601	4	C6.1.7.1	m	Expansion joints complete (excluding dowels)	200		R -
6	0601	5	C6.1.7.4(a)	no	Dowel bars: mild steel inserted in new concrete (Y10, 500mm length):	300		R -
6	0601	6	C6.1.8.2	m2	Steel reinforcement in concrete pavements: Mesh ref 395	500		R -
6	0601	7	C6.1.9.1	no	100 mm cores drilled from pavement for testing of compressive strength	10		R -
6	0601	8		m2	80mm concrete interlocking G-block (40MPa) pavers or similar approved on 20mm sand bedding	300		R -
6	0901	C9.1 ASPHALT LAYERS					Chapter Total:	R -
<u>Asphalt Mix Designs</u>								
6	0901	1	C9.1.1.2(a) PS.C9.1	Lump sum	Sand skeletal mixes: Continuously graded base or surfacing (SA-S14).	1		R -
6	0901	2	C9.1.1.2(a) PS.C9.1	Lump sum	Sand skeletal mixes: Continuously graded base or surfacing (SA-S10).	1		R -
<u>Bond Coat</u>								
6	0901	3	C9.1.3.1 PS.C9.1	m2	Stable-grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributor	5,000		R -
6	0901	4	C9.1.3.2 PS.C9.1	m2	Applied in restricted areas using a portable pressure sprayer	2,000		R -
<u>Asphalt Surface</u>								
6	0901	5	C9.1.5.1(a) PS.C9.1 C3.4.3	m2	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S14) as defined (45mm laver)	3,000		R -
6	0901	6	C9.1.5.1(a) PS.C9.1 C3.4.3	m2	New construction (hand laid) (a) Stone skeletal mix – continuously graded (SA-S14) as defined (45mm laver)	1,000		R -
6	0901	7	C9.1.5.1(a) PS.C9.1 C3.4.3	m2	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S10) as defined (30mm laver)	3,000		R -
6	0901	8	C9.1.5.1(a) PS.C9.1 C3.4.3	m2	New construction (hand laid) (a) Stone skeletal mix – continuously graded (SA-S10) as defined (30mm laver)	1,000		R -
6	0901	9	C9.1.12	m2	Asphalt reinforcing - complete (Glassgrid GG100 or similar)	500		R -
<u>Coring of Asphalt Layers</u>								
6	0901	10	C9.1.13.1	no	100 mm diameter	20		R -
6	0901	11	C9.1.13.2	no	150 mm diameter	10		R -
6	0901	12	C8.1.1.2	m2	Prime coat: MC -30 cut-back bitumen	5,000		R -
6	0901	13	C8.1.3	m2	Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment	2,000		R -
<u>Sidewalk</u>								

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
6	0901	14	C9.1.2.1 PS.C9.1 C3.4.3	m2	Asphalt layers (SA-S10, 30mm layers)	1,500		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value
7 ANCILLARY ROAD WORKS							SECTION TOTAL:	R 250,000.00
7	1104	C11.4 ROAD RESTRAINT SYSTEMS					Chapter Total:	R -
7	1104	1	C11.4.1.1(b) PS.C11.4.5.2	m	Erecting of guardrails at 3,81 m spacing: Complete galvanized system compliant to SANS 1350: (b) on CONCRETE post(Drawing 38580)	200		R -
7	1104	2	C11.4.1.1(b) PS.C11.4.5.2	no	Supply and install concrete posts (Drawing 38580)	15		R -
7	1104	3	C11.4.1.2(a) PS.C11.4.5.2	no	Terminal sections for 3,81 guardrails comprising of: (a) End wings to SANS 1350	5		R -
7	1104	4	C11.4.6.2 PS.C11.4.5.2	no	Reflective Plastic plates	200		R -
7	1104	5	C11.4.11.5 PS.C11.4.5.2	no	Spacer blocks compliant to SANS 1350	15		R -
7	1104	6	C11.4.11.7 PS.C11.4.5.2	no	Post bolt complete with nut and washer compliant to SANS 1350	30		R -
7	1104	7	C11.4.4.1 PS.C11.4.5.2	m	Extra over C11.4.1 and C11.4.11 for horizontally curved guard rails factory bent to a radius of less than 45m	5		R -
7	1104	8	C11.4.7	m	Removing existing guardrails, including posts, and backfilling holes	10		R -
7	1104	9	C11.4.9.1 PS.C11.4.5.2	m	Re-erection of guardrails with recovered or provided material: Single guardrail	10		R -
7	1105	C11.5 FENCING					Chapter Total:	R -
Wire Mesh Fence - Drawing 38583								
7	1105	1	C11.5.1.3	m2	Diamond mesh	20		R -
7	1105	2	C11.5.1.9(a)(i)	no	Straining posts, stays and anchors: (a) Vertical (Concrete straining post)	10		R -
7	1105	3	C11.5.1.9(a)(i)	no	Straining posts, stays and anchors: (a) Inclined post (Concrete straining post) (Drawing 38583)	5		R -
7	1105	4	C11.5.4.1(a)	m	Dismantling existing fences: (a) Stock-proof fences	20		R -
7	1105	5	C11.5.5.1	m	Providing temporary fences and gates: Stock-proof fence	20		R -
7	1106	C11.6 ROAD SIGNS					Chapter Total:	R -
7	1106	1	C11.6.1.3(a)	m2	Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi- matt black or in Class I retro-reflective material, where the sign board is constructed from: Prepainted galvanized steel plate: (a) Area 0 to 0,5 m2	5		R -
7	1106	2	C11.6.1.3(b)	m2	(b) Area exceeding 0,5 m2 but not 2,0 m2	5		R -
7	1106	3	C11.6.3.2	m	Road sign supports (overhead road sign structures excluded):Timber (100mm diameter)	5		R -
7	1106	4	C11.6.5.1	m3	Excavation and backfilling for road sign supports (not applicable to kilometre posts): Excavating soft material and backfilling	2		R -
7	1106	5	C11.6.5.4	m3	Extra over item C11.6.5.1 for hard material excavation	1		R -
7	1106	6	C13.4.11	m3	Cast in situ concrete for road sign footings as directed by the Engineer (Grade 20/19)	1		R -
7	1106	7	C11.6.7.1(a)	m2	Dismantling and storing of road signs with a surface area of: (a) Area 0 to 0,5 m2	5		R -
7	1106	8	C11.6.7.1(b)	m2	(b) Area exceeding 0,5 m2 but not 2,0 m2	5		R -
7	1106	9	C11.6.10.1	m2	Disposing of road signs with a surface area of: Area 0 to 0,5 m2	5		R -
7	1106	10	C11.6.10.2	m2	Area exceeding 0,5 m2 but not 2,0 m2	5		R -

Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value		
7	1107	C11.7 ROAD MARKINGS AND ROAD STUDS					Chapter Total:		R	-
Lettering and Symbols										
7	1107	1	C11.7.1.4	m2	White lettering and symbols (Thermoplastic)	5		R	-	
Transverse Lines and Islands										
7	1107	2	C11.7.1.7	m2	Transverse lines, painted island and arrestor bed markings (White) (Thermoplastic)	50		R	-	
Broken and Unbroken Lines										
7	1107	3	C11.7.3.1	m	Thermoplastic road marking, broken or unbroken (White, 100mm wide)	2,000		R	-	
7	1107	4	C11.7.3.1	m	Thermoplastic road marking, broken or unbroken (Yellow, 100mm wide)	250		R	-	
Road Studs										
7	1107	5	C11.7.7.1	no	Permanent road studs compliant to SANS 1442 (Tempered glass 360 degree, Clear Holophane or similar approved)	20		R	-	
7	1107	6	C11.7.7.1	no	Permanent road studs compliant to SANS 1442 (Tempered glass 360 degree, two colour, Clear & Yellow Holophane or similar approved)	10		R	-	
7	1107	7	C11.7.7.1	no	Permanent road studs compliant to SANS 1442 (Tempered glass 360 degree, two colour, Clear & Red Holophane or similar approved)	10		R	-	
7	1107	8	C11.7.7.3	no	Temporary road studs compliant to SANS 1442 or 1463 (red or yellow)	200		R	-	
7	1107	9	C11.7.8	m	Setting out and premarking the lines	100		R	-	
7	1108	C11.8 LANDSCAPING AND PLANTING PLANTS					Chapter Total:		R	-
7	1108	1	C11.8.1.1	m2	Machine trimming	200		R	-	
7	1108	2	C11.8.3.3(a)	m3	(a) Topsoil obtained from within the road reserve or borrow areas	5		R	-	
7	1108	3	C11.8.3.3(b)	m3	(b) Topsoil obtained from commercial sources by the Contractor	5		R	-	
7	1108	4	C11.8.4.2(a)	m2	Sodding by using the following types of sods: (a) Nursery sod	200		R	-	
7	1108	5	C11.8.6	kl	Watering the already planted grass, trees and shrubs during the growing season	2		R	-	
7	1108	6	C11.8.7	m2	Mowing the grass	200		R	-	
7	1108	7	C11.8.10	ProvSum	Unspecified work for landscaping	1		R	-	
7	1109	C11.9 FINISHING ROAD AND ROAD RESERVE					Chapter Total:		R	250,000.00
7	1109	1	C11.9.1.1	m	Finishing the road and road reserve: Single carriageway road	50		R	-	
7	1109	2	C11.9.1.1	m	Finishing the road and road reserve: Dual carriageway road	50		R	-	
7	1109	3		PC Sum	Traffic Signals	200,000	1	R	200,000.00	
7	1109	4		%	Handling costs and profit in respect of item 3	200,000		R	-	
7	1109	5	PS.6	PC Sum	Street lighting	50,000	1	R	50,000.00	
7	1109	6	PS.6	%	Handling costs and profit in respect of item 5	50,000		R	-	
7	1109	7		no	Supply and lay precast concrete steps (1m wide, 40Mpa)	50		R	-	
7	1109	8		no	Supply and lay polymer concrete stanchions (at least 1m high)	600		R	-	
7	1109	9		m	Supply and lay polymer concrete handrails (to fit on polymer concrete posts)	50		R	-	

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Section	Chapter	Item#	Clause	Unit	Description	Est. Qty.	Rate	Value	
7	1206	C12.6 MECH STABILISED FILL AND GABIONS					Chapter Total:	R	-
Gabions									
7	1206	1	C12.6.14.1(a)	m3	Foundation trench excavation: Excavating all material situated within the following depth ranges below the surface level (a) 0 m to 1,5 m	15		R	-
7	1206	2	C12.6.15	m2	Surface preparation for bedding the gabions	50		R	-
7	1206	3	C12.6.3	m3	Concrete for wall base foundation (Grade 20/26)	15		R	-
7	1206	4	C12.6.4.1	t	Reinforcing steel in wall base foundation: Mild steel	3		R	-
7	1206	5	C12.6.16.1	m3	Gabions and mattresses: Galvanized gabion boxes (0.3m x 1m)	5		R	-
7	1206	6	C12.6.16.1	m3	Gabions and mattresses: Galvanized gabion boxes (1m x 1m)	100		R	-
7	1206	7	C12.6.17	m2	Geotextile (filtration and separation grade)	300		R	-
7	1206	8	C12.6.11	m3	Backfill (using material from excavation)	100		R	-
Dry Stacking Wall									
7	1206	9	C12.6.14.1(a)	m3	Foundation trench excavation: Excavating all material situated within the following depth ranges below the surface level (a) 0 m to 1,5 m	25		R	-
7	1206	10	C12.6.3	m3	Concrete for wall base foundation (Grade 20/26)	25		R	-
7	1206	11	C12.6.4.1	m2	Reinforcing steel in wall base foundation: Mesh ref 245	45		R	-
7	1206	12	C12.6.11	m2	Supply and lay L500 or similar approved	50		R	-
7	1206	13	C12.6.11	m3	Backfill (using material from excavation) to 95% MOD AASHTO	25		R	-
7	1206	14	C12.6.11	m3	Stabilised backfill (12:1 Clean Coarse Sand and Cement)	10		R	-
7	1206	15	C12.6.3	m3	Mass concrete for top row of blocks	10		R	-
7	1206	16		m	Weepholes 50mm dia at 5m c/c	10		R	-