	Unit	Quantity	Rate	Amount

SECTION NO. 4
BILL NO. 3
TURNSTILE AND GATE MOTORS

SLIDING GATE MOTORS AND TURNSTILE

The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (1999 Edition)

SUPPLEMENTARY PREAMBLES

1. All prices for equipment shall be for supply and final fixing in place.

2. This bill must be priced in conjunction with the drawing and specifications documents.

3. Unless otherwise stated elsewhere, all rates shall be fixed for the duration of the contract.

4. Escalation : Refer to Main Contract

Tenderers are referred to the specifications, for the full descriptions of the following items which are to be read and priced in conjunction with the said specification and drawings

MOTORS, TURNSILES

Descriptions shall be deemed to include complete installation for full and sfae functionality

Preliminary and General

The tenderer shall include at least the following in their price for Preliminary and General in the main BOQ

1. Allowance for associated costs to comply with conditions of contract -Time based, varable value based and fixed amount)

2. Preparation of shop and as-built drawings

3. testing and commissioning

4. 12-month maintenance, service and guarantee after practical handover, and including retuning and final major service on 12th month of the service period.

5. Training of building management and service personnel, as specified

6. Compliance with OHASA 1993 and Construction Regulations 4(1) (a)

7. Provision of compliance certificates

8. Original and copies of operating and maintenance manuals as specified

9. Scaffolding and ladders

Carried to Collection R _____

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		Unit	Quantity	Rate	Amount
	SLIDING GATE MOTORS:				
1	Motor as specified compelete with rack - supply and installation	No	2		
2	Open/close control station located in central commanders office complete with wiring and termination	No	1		
3	25mm PVC conduit run underground to control station at central commanders office	m	150		
4	Remotes	No	5		
5	600 deep x 300mm wide trench for 25 conduit in natural earth and backfilled and compacted to 90% MOD AASHTO	m	70		
	TURNSTILE				
6	Supply of complete turnstile as specified	No	1		
7	Installation of turnsile including coordination with other services (commissioning and testing included in the preliminaries and general in the main BOQ)	Item			
8	25mm PVC conduit run underground to overide control station at central commanders office	m	150		
	Carried to Collection			R	

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SECTION NO. 4

BILL NO. 3

TURNSTILE AND GATE MOTORS

COLLECTION

	Page No	Amount
Brought Forward from Page	214	
	215	
Carried to Summary	R	

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SECTION NO. 4
SUMMARY

Bill No.		Page	Amount
1	AIRCONDITIONING AND VENTILATION INSTALLATION	210	
2	AUTOMATIC FIRE DETECTION AND ALARM	213	
3	TURNSTILE AND GATE MOTORS	216	
		Carried to FS1	R

SUMMARY

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		Unit	Quantity	Rate	Amount
	SECTION NO. 5 **BILL NO. 1** **EXTERNAL WORKS** **(CPAP WORK GROUP NO. 154 UNLESS OTHERWISE STATED)**				
	SITEWORKS				
	REMOVAL OF TREES ETC				
	Cutting down and removing, grubbing up roots and filling in holes				
1	Tree exceeding 500mm and not exceeding 1000mm girth	No	15		
2	Tree exceeding 1000mm and not exceeding 1500mm girth	No	20		
3	Tree exceeding 1500mm and not exceeding 2000mm girth	No	6		
4	Tree exceeding 2000mm and not exceeding 2500mm girth	No	4		
5	Tree exceeding 2500mm and not exceeding 3000mm girth	No	1		
6	Tree exceeding 3000mm and not exceeding 3500mm girth	No	1		
7	Tree exceeding 3500mm and not exceeding 4000mm girth	No	2		
8	Tree exceeding 4000mm and not exceeding 4500mm girth	No	1		
	SITE CLEARANCE, ETC				
9	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc. with an including carting away off site. (LI)	m²	13 699		
	BULK EXCAVATION, EXCAVATION, FILLING, ETC				
	Open face excavation in soft material over sloping site not exceeding 2m deep.				
10	In bulk excavation to reduce levels and cut and form platform, including setting aside for later re-use or removal. (LI)	m³	2 093		
	Extra over bulk excavation in soft material for excavation in				
11	Soft rock. (LI)	m³	209		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
12	Hard rock	m³	105		
	Extra over all excavation for carting away				
13	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m³	2 093		
	Risk of collapse of excavations				
14	Sides of bulk excavations not exceeding 1,5m deep. (LI)	m²	330		
	Keeping excavations free of water				
15	Keep bulk excavations free of water by pumping or bailing (allowance per m3 of excavation)	Item			
	Earth filling obtained from excavations and/or prescribed stock piles on site laid in layers not exceeding 150mm thick and compacted to 95% Mod AASHTO density, including the costs of testing				
16	Over site	m³	2 104		
	Imported Fill				
17	Filling of G7 engineered material supplied by the contractor, compacted to 93% Mod AASHTO density	m³	11		
	Excavation in earth not exceeding 2m deep				
18	Reduce Levels	m³	172		
	EXCAVATIONS ETC OTHER THAN BULK				
19	Trenches	m³	32		
20	Holes	m³	180		
	Extra over excavation in earth for excavation in:				
21	Soft rock. (LI)	m³	384		
22	Hard rock	m³	19		
	Extra over all excavations for carting away				
23	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	85		
	Risk of collapse of excavations				
24	Sides of excavations not exceeding 1,5m deep	m²	504		
	Keeping excavations free of water				
25	Keeping excavations free of water other than subterranean water	Item			
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	FILLING ETC OTHER THAN BULK				
	Earth filling obtained from the excavations and/or prescribed stock piles on site				
26	Backfilling. (LI)	m³	46		
	Filling of natural gravel material G5 supplied by the contractor, compacted to 93% Mod AASHTO density				
27	Backfilling to trenches, holes, etc	m³	144		
	Coarse river sand filling supplied by the contractor				
28	Under surface beds. (LI)	m³	34		
	Compaction of surfaces				
29	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to 95% Mod AASHTO density	m²	606		
	Prescribed density tests on filling				
30	Modified AASHTO Density test	No	9		
31	'Natural California Bearing' Ratio test	No	4		
32	'Road Indicator' test	No	4		
33	"Field Density" test including "Optimum Moisture Content" (four readings per test)	No	4		
	SOIL POISONING				
	An approved anti-termite soil poison applied by a Registered Pest Control Company and guaranteed against termite infestation for Five (5) years all in accordance with SANS 10400				
34	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming (LI)	m²	7 916		
35	To bottoms and sides of trenches. (LI)	m²	515		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa/19mm concrete				
36	Surface blinding under footings and bases	m³	21		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
37	Bases, plinths, etc.	m^3	71		
38	Surface Beds	m^3	7		
39	Strip footings	m^3	29		
40	Apron Slabs	m^3	46		
	REINFORCED CONCRETE CAST ON/IN FORMWORK				
	25MPa/19mm concrete				
41	Columns in foundations (Provisional)	m^3	7		
	30MPa/19mm concrete				
42	Slabs including beams and inverted beams	m^3	13		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a power float				
43	Surface beds, slabs, etc	m^2	461		
	Finishing top surfaces of concrete smooth with a wood float				
44	Surface beds, slabs, etc	m^2	244		
	TEST CUBES				
	Test cubes				
45	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	72		
	ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)				
	Rough formwork to sides				
46	Bases	m^2	18		
47	Columns in foundations	m^2	8		
	SMOOTH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)				
	Smooth formwork to sides				
48	Edges, risers, ends and reveals not exceeding 300mm high or wide. (LI)	m	382		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	Smooth formwork to soffits				
49	Slabs propped up not exceeding 3.5m high. (LI)	m²	19		
	MOVEMENT JOINTS ETC				
	Expansion joints with 10mm thick polystyrene joint filler between vertical concrete and brick surfaces				
50	Not exceeding 300mm high to edges of brick walls	m	500		
	Saw-cut joints				
51	3 x 45mm Saw-cut joints in top of concrete, reamed out to 8mm	m	141		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work				
52	10mm diameter bars	Tonnes	5.01		
	High tensile steel reinforcement to structural concrete work				
53	10mm diameter bars	Tonnes	0.65		
54	12mm diameter bars	Tonnes	1.49		
55	16mm diameter bars	Tonnes	3.00		
56	20mm diameter bars	Tonnes	0.06		
	Fabric reinforcement				
57	Type 193 fabric reinforcement in concrete surface beds etc	m²	395		
	BRICKWORK IN FOUNDATIONS				
	Brickwork of "Corobrik" or equally approved NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc.				
58	One brick walls, bagged and sealed. (LI)	m²	82		
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of "Corobrik" or equally approved NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc.				
59	One brick walls, bagged and sealed. (LI)	m²	36		
	BRICKWORK SUNDRIES				
	Bagging of 1:3 cement and sand mixture				
60	On concrete walls, columns, etc. including removing ridges, irregularities, etc. (LI)	m²	60		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	MOVEMENT JOINTS, ETC				
	Two layers "Malthoid" in slip joints between horizontal concrete and brick surfaces including cement mortar bed				
61	Not exceeding 300mm wide. (LI)	m	20		
	2,5mm Galvanised brick reinforcement				
62	150mm Wide reinforcement built in horizontally. (LI)	m	300		
	FACE BRICKWORK				
	"Corobrik Roan Satin FBX" or equally approved face bricks to be constructed in stack bond with recessed horizontal and vertical joints				
63	Extra over brickwork for face brickwork in foundations (Provisional) (LI)	m²	164		
	DAMPPROOFING OF WALLS AND FLOORS				
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape				
64	Under surface beds. (LI)	m²	742		
	SEALING STRIPS, JOINT SEALANTS, ETC				
	Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
65	8 x 13mm In saw cut joints in floors. (LI)	m	141		
66	8 x 13mm In vertical expansion joints including raking out expansion joint filler as necessary. (LI)	m	500		
	HOT-DIPPED GALVANISED STEEL COLUMNS AND BEAMS				
	Hot-dipped galvanised I-section beams				
67	203mm x 133mm x 25kg/m I-Section Beams	Tonnes	3.76		
	Hot-dipped galvanised parallel flanged channel				
68	180mm x 70mm Parallel flange channel stringer	Tonnes	4.81		
69	100mm x 50mm Parallel flange channel stringer	Tonnes	1.53		
70	200mm x 75mm Parallel flange channel beam	Tonnes	2.60		
	Hot-dipped galvanised square hollow section posts				
71	120mm x 120mm x 4mm Square hollow section post	Tonnes	2.95		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	Hot-dipped galvanised circular hollow section posts				
72	72mm x 3.2mm Circular hollow section post	Tonnes	0.09		
	Hot-dipped galvanised baseplates, Endplates, etc				
73	320 x 220 x 12mm Baseplate with and including four holes for bolts and welded to post	No	26.00		
74	350 x 400 x 16mm Baseplate with and including four holes for bolts and welded to post and 4No 140 x 350 x 6mm stiffener plates 1100mm high	No	2.00		
	BOLTS, FASTENERS, ETC				
	Bolts and fasteners				
75	M12 anchor bolts including washers	No	112		
76	M16 anchor bolts including washers	No	8		
	HOT-DIPPED GALVANISED FLAG POLES, ETC.				
	Flagpole				
77	7500mm high x 76mm diameter x3.2mm thick galvanised mild steel pivot fixed flag pole complete with end cap, stainless steel pulley for flag chord, stainless steel cleats, sleeve connection brackets, base plate, etc. Fixed to reinforced concrete base (base elsewhere measured) with and including M12 stainless steel bolts all as per drawing No. 2301-AR-552-A	No	2		
	The following in purpose made hot dipped galvanised frame roof cover				
78	Purpose made open courtyard pergola overall size 3380 x 1198mm wide formed of 60 x 60 x 6mm thick angle iron framing and filled in with and including 50 x 50 x 3mm thick angle iron at approximately 132mm centres, with and including all necessary bolts, plates, fixings, etc. all as per Engineers drawing No. D848-6000-018 Rev C	No	30		
	FIBREGLASS MESH PANELS				
	Fibreglass grating				
79	38 x 38mm Fibreglass grating including frames, fixing, etc.	m²	11		
	Carried to Collection			R	

311

		Unit	Quantity	Rate	Amount
	The following in Water Tanks				
	Support Tower for Steel Tank				
80	Design, manufacture and install 15m high standard prefabricated tank support tower with platform and safety railing to support a 4L x 3W x 3H panel pressed sectional steel tank, with and including all necessary piping, fittings, bolts, fixing etc all as per engineers drawing no. (D848-52-5250 REV No. 0)	No	1		
	Steel Tank				
81	Supply & install on support tower one sectional steel tank assembled from pressed sectional steel panels complete with 50mm inlet, 100mm outlet, 80mm overflow & 80mm drain, all flanged, and lockable access hatch, with and including all necessary bolts, fittings etc all as per engineers drawing no. (D848-52-5250 REV No. 0)	No	1		
	STORMWATER DRAINAGE				
	Storm water channels				
82	1000mm Wide x 150mm thick overall mesh reinforced concrete "Trapezoidal" shaped stormwater channels of 30MPa/19mm concrete construction, "Trapezoidal" shaped channel to be 250mm deep at centre, and with and including excavations to reach the required depth, soft rock and hard rock excavations, risk of collapse, cart away, ref 245 mesh reinforcement, 250 micron "Consol" Plastic Gunplas black or equally approved waterproof sheeting and including rough formwork (Degree of Accuracy III) not exceeding 300mm high to all vertical edges of channels. Channels to be cast in 1000mm long panels with and including 10mm bitumen impregnated fibreboard joints between adjacent panels and between channels and adjacent brick or concrete surfaces, with and including approved joint sealant to all joints, the whole to have a wood floated finish all as per drawing D848-52-4001(1/3) (LI)	m	211		
83	Extra over for angles, intersections, ends, dressing into sides of catchpits, etc. (LI)	No	2		
	uPVC Class 34 pipes				
84	200mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, backfilling, risk of collapse, soil poisoning, etc. (LI)	m	93		
	Carried to Collection			R	

312

		Unit	Quantity	Rate	Amount
85	200mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep including excavations, extra over for soft, intermediate, hard rock, backfilling, risk of collapse, soil poisoning, etc. (LI)	m	298		
86	315mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, backfilling, risk of collapse, soil poisoning, etc. (LI)	m	8		
87	315mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep including excavations, extra over for soft, intermediate, hard rock, backfilling, risk of collapse, soil poisoning, etc. (LI)	m	155		
88	450mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep including excavations, extra over for soft, intermediate, hard rock, backfilling, risk of collapse, soil poisoning, etc. (LI)	m	20		
	Precast Concrete Pipe				
89	450mm Concrete pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, backfilling, risk of collapse, soil poisoning, etc. (LI)	m	111		
	Sundries				
90	Extra only over backfill for selected earth filling from the excavations in back filling with an approved imported fine granular filling to 300mm below top of trench and 500mm bedding of compacted selected non cohesive granular material. (LI)	m^3	1 017		
	Testing				
91	Allow for testing all the stormwater drains as directed by the Engineer and re-testing after replacing any defective work to his satisfaction. The Contractor is to provide all testing apparatus and labour and is to follow the instruction of the Engineer implicitly	Item			
	The following in precast catchpits, manholes, etc of 150mm thick 30 MPa/ 19mm concrete base, precast concrete cover, one brick walls in NFX hardburnt clay bricks rendered internally, and including 3:1 cement benching, excavations, backfilling, risk of collapse, compaction, extra over for soft, intermediate and hard rock and carting away, etc				
92	Catchpit overall size 1020 x 1020mm and not exceeding 1000mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured) (LI)	No	7		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
93	Catchpit overall size 1020 x 1020mm and exceeding 1000mm and not exceeding 1250mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured) (LI)	No	10		
94	Catchpit overall size 1020 x 1020mm and exceeding 1250mm and not exceeding 1500mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured). (LI)	No	9		
95	Catchpit overall size 1020 x 1020mm and exceeding 1500mm and not exceeding 1750mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured). (LI)	No	4		
96	Catchpit overall size 1020 x 1020mm and exceeding 1750mm and not exceeding 2000mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured). (LI)	No	3		
97	Storm water grid inlet size approximately 6000mm Long x 800mm wide x 875mm high, of 200mm thick 30MPa / 19mm concrete base, 200mm concrete walls reinforced with Mesh 245, including 25mm screed to falls with and including 50 x 4,5mm standard galvanised mild steel mentis grating on and including 60 x 60 x 6mm L-shape hot dipped galvanised fish tail lug cast into top of concrete walls. (LI)	No	1		
	Gratings, covers, etc				
98	600 x 600mm "Saint Gobain" or equally approved heavy duty cast iron cover and frame. (LI)	No	33		
	SOIL DRAINAGE				
	uPVC Class 34 pipes				
99	110mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	258		
100	110mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	138		
	Extra over uPVC Class 34 pipes for fittings				
101	110mm Junction. (LI)	No	2		
102	110mm Rodding eye. (LI)	No	10		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	Pipe excavation sundries				
103	Extra only over selected for earth filling from the excavations in back filling with an approved imported fine granular filling to 300mm below top of trench	m^3	141		
	GULLIES				
104	"Type 8" or equally approved rectangular polymer curve gulley complete with and including cover, 380 x 380 x 170mm precast concrete gulley surround on 75mm Class C concrete base and fitted with 187mm diameter uPVC grating. (LI)	No	4		
	SOIL DRAIN INSPECTION CHAMBERS, MANHOLES, ETC				
	Precast concrete circular manholes (covers elsewhere measured) including excavations in soft material, intermediate material, hard rock, risk of collapse, backfilling, cart away etc				
105	Manhole 1000mm diameter and not exceeding 750mm deep internally. (LI)	No	8		
106	Manhole 1000mm diameter and exceeding 1000mm and not exceeding 1250mm deep internally. (LI)	No	3		
107	Manhole 1000mm diameter and exceeding 1250mm and not exceeding 1500mm deep internally.(LI)	No	2		
108	Manhole 1000mm diameter and exceeding 1500mm and not exceeding 1750mm deep internally. (LI)	No	2		
109	Manhole 1000mm diameter and exceeding 1750mm and not exceeding 2000mm deep internally. (LI)	No	1		
	Gratings, covers, etc				
110	1130mm diameter cast iron heavy duty cast iron manhole cover and frame. (LI)	No	16		
	Grease Traps				
111	3000 Litre "Calcamite" or equally approved prefabricated grease trap installed as per manufacture's instructions with and including excavations, risk of collapse, soil poisoning, blinding, imported filling material, reinforced concrete base, waterproofing, connecting pipes, etc.	No	3		
112	7500 Litre "Calcamite" or equally approved prefabricated grease trap installed as per manufacture's instructions with and including excavations, risk of collapse, soil poisoning, blinding, imported filling material, reinforced concrete base, waterproofing, connecting pipes, etc.	No	1		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	SEWER CONNECTION				
	Sundries				
113	"Calcamite" or equally approved cast iron step iron embedded in side of inspection chamber	No	84		
114	Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Engineer. (All defective work to be replaced at the Contractor's expense)	Item			
	WATER SUPPLY				
	Taps, Valves, etc - Polished Brass				
115	28mm Ballostop stopcock (LI)	No	20		
	uPVC HDPE Class 12 pipes				
	Polylink Class 12 high density polypropylene pipes to SANS 1315				
116	20mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	40		
117	32mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	37		
118	40mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	94		
119	50mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	40		
120	110mm Pipes laid in and including trenches not exceeding 1m deep including excavations, extra over for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	197		
121	28mm Pipes suspended from undersides of roofs including all fixings	m	192		
	Class 2 copper pipes				
122	15mm pipes (LI)	m	202		
123	22mm pipes (LI)	m	189		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
124	32mm pipes insulated (LI)	m	64		
125	15mm Pipes chased into brickwork including brown paper lagging. (LI)	m	32		
126	22mm Pipes chased into brickwork including brown paper lagging. (LI)	m	25		
	Extra over Polycop uPVC polypropylene pipes for brass compression fittings				
127	20mm Reducing coupling (LI)	No	5		
128	28mm Reducing coupling (LI)	No	3		
129	32mm Reducing coupling (LI)	No	6		
130	40mm Reducing coupling (LI)	No	3		
131	50mm Reducing coupling (LI)	No	3		
132	110mm Reducing coupling (LI)	No	5		
133	20mm Tee (LI)	No	4		
134	28mm Tee (LI)	No	3		
135	32mm Tee (LI)	No	1		
136	40mm Tee (LI)	No	3		
137	50mm Tee (LI)	No	2		
138	110mm Tee (LI)	No	2		
	Extra over HDPE PE 100 PN 12,5 pipes for brass compression fittings				
139	40mm Reducing coupling (LI)	No	6		
140	75mm Reducing coupling (LI)	No	3		
141	40mm Tee (LI)	No	4		
142	75mm Tee (LI)	No	3		
143	40mm Reducing tee (LI)	No	4		
144	75mm Reducing tee (LI)	No	2		
	Extra over Class 2 copper pipes for brass compression fittings				
145	15mm Fittings.	No	30		
146	22mm Fittings.	No	25		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
147	75mm Reducing coupling (LI)	No	3		
148	100mm Reducing coupling (LI)	No	2		
149	35mm Tee (LI)	No	2		
150	54mm Tee (LI)	No	2		
151	75mm Tee (LI)	No	2		
152	100mm Tee (LI)	No	2		
153	35mm Elbow (LI)	No	6		
154	54mm Elbow (LI)	No	4		
155	75mm Elbow (LI)	No	4		
156	100mm Elbow (LI)	No	4		
157	35mm Reducing tee (LI)	No	4		
158	54mm Reducing tee (LI)	No	2		
159	75mm Reducing tee (LI)	No	2		
160	100mm Reducing tee (LI)	No	1		
	Extra over Class 2 copper pipes for capillary fittings				
161	15mm Fittings.	No	32		
162	22mm Fittings.	No	30		
163	75mm Reducing coupling (LI)	No	3		
164	100mm Reducing coupling (LI)	No	2		
165	35mm Tee (LI)	No	2		
166	54mm Tee (LI)	No	2		
167	75mm Tee (LI)	No	2		
168	100mm Tee (LI)	No	1		
169	35mm Elbow (LI)	No	6		
170	54mm Elbow (LI)	No	4		
171	75mm Elbow (LI)	No	3		
172	100mm Elbow (LI)	No	2		
173	32mm Reducing tee (LI)	No	4		
174	54mm Reducing tee (LI)	No	3		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
175	75mm Reducing tee (LI)	No	2		
176	100mm Reducing tee (LI)	No	2		
	Testing				
177	Testing the water supply system	Item			
	ROADWORKS AND PAVING AREAS				
	Excavation in earth not exceeding 2m deep				
178	Reduced levels. (LI)	m³	1 401		
	Extra over trench and hole excavations in earth for excavation in				
179	Soft rock. (LI)	m³	140		
180	Hard rock	m³	70		
	Extra over all excavations for carting away				
181	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	1 401		
	Keeping excavations free of water				
182	Keeping excavations free of all water	Item			
	Base course constructed of filling supplied by Contractor				
183	Selected filling (C3), carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 98% Mod AASHTO density (Min. Commercial G5 stabilised with 3% Cement), all in accordance with SANS 10400	m³	418		
184	Selected filling (G5), carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density, all in accordance with SANS 10400	m³	418		
185	Gravel wearing course carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density, all in accordance with SANS 10400	m³	36		
	Compaction of surfaces				
186	Compact ground surfaces under pavings, roads, etc including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to a minimum CBR of 95% Mod AASHTO	m²	2 963		
	Carried to Collection			R	

hay 319
RJ R.M.

		Unit	Quantity	Rate	Amount
	SOIL POISONING				
	Apply "Bromosil" or equally approved herbicide to river-sand bedding under paving in strict accordance with the manufacturers instructions.				
187	Under paving etc. (LI)	m²	2 785		
	An approved anti-termite soil poison applied by a Registered Pest Control Company and guaranteed against termite infestation for Five (5) years all in accordance with SANS 10400				
188	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming (LI).	m²	2 963		
	Prescribed density tests on filling				
189	Mod. AASHTO Density test	No	24		
190	California Bearing Ratio test	No	12		
191	Field density test including Optimum Moisture Content (four reading per test)	No	24		
192	Atterberg limits tests, carried out at an approved laboratory, of representative samples of fill material as indicated on site by the Engineer (minimum set of three)	No	12		
	Signwriting				
	Prepare and apply one coat reflective road marking paint on bituminous road surfacing, precast concrete, paving blocks, etc.				
193	100mm Wide white lines (unbroken) with an approved road marking paint. (LI)	m	545		
194	150mm Wide white lines (unbroken) with an approved road marking paint. (LI)	m	80		
195	500mm Wide white lines (unbroken) with an approved road marking paint. (LI)	m	40		
196	100mm Wide white lines (broken) with an approved road marking paint. (LI)	m	30		
197	100mm Wide yellow lines (un-broken) with an approved road marking paint. (LI)	m	356		
198	4000mm High yellow directional arrow with an approved road marking paint. (LI)	No	8		
199	5500mm Wide white "STOP' word marking with an approved road marking paint. (LI)	No	4		
	Carried to Collection			R	

Lay 320
RT R.N.

		Unit	Quantity	Rate	Amount
	ROAD SIGNS				
200	900mm Diameter regulation stop sign in accordance with SABS 1519 fitted and fixed on creosoted pole, 4500mm high bedded in 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, risk of collapse, backfilling, soil poisoning, compaction, etc. (LI)	No	4		
201	2700mm x 450mm high regulation dead end chevron road sign (W410) sign in accordance with SABS 1519 fitted and fixed on 2No. creosoted pole, 1500mm high bedded in 2 No. 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, risk of collapse, backfilling, soil poisoning, compaction, etc. (LI)	No	1		
202	"Ntshongwe Police Station" regulation guidance road sign (GD4) sign in accordance with SABS 1519 fitted and fixed on 2No. creosoted pole, 3500mm high bedded in 2 No. 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, risk of collapse, backfilling, soil poisoning, compaction, etc. (LI)	No	2		
203	Standard regulation "20Km/hour" speel limit sign in accordance with SABS 1519 fitted and fixed on creosoted pole, 4500mm high bedded in 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, risk of collapse, backfilling, soil poisoning, compaction, etc. (LI)	No	5		
204	Concealed driveway sign (W216) in accordance with SABS 1519 fitted and fixed on creosoted pole, 4500mm high bedded in 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, risk of collapse, backfilling, soil poisoning, compaction, etc. (LI)	No	1		
205	Concealed driveway sign (W217) in accordance with SABS 1519 fitted and fixed on creosoted pole, 4500mm high bedded in 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, risk of collapse, backfilling, soil poisoning, compaction, etc. (LI)	No	1		
	80mm Heavy duty concrete block pavers on and including 20mm thick layer of river sand.				
206	80mm Paving to parking areas, etc to falls. (LI)	m²	2 785		
207	Extra over for straight edge blocks. (LI)	m	630		
	Carried to Collection			R	

321

		Unit	Quantity	Rate	Amount
	Precast concrete finishes smooth on exposed surfaces including bedding, cutting and pointing				
208	Kerb (SABS 927 fig 6) with 450 x 125mm unreinforced concrete footing, 250 x 250mm Class C triangular concrete haunching at back of each joint and 300 x 150mm Class C concrete infill in front with cement grouted joints, including excavation, backfill, etc. (LI)	m	606		
209	Kerb (SABS 927 fig 6) but circular on plan not exceeding 4m radius formed with short lengths of straight kerb. (LI)	m	24		
	VEHICULAR AND PEDESTRIAN SCOOP				
	Excavation in earth not exceeding 2m deep				
210	Reduced levels under floors. (LI)	m^3	21		
	Extra over trench and hole excavations in earth for excavation in				
211	Soft rock. (LI)	m^3	2		
212	Hard rock	m^3	1		
	Extra over all excavations for carting away				
213	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m^3	21		
	Risk of collapse of excavations				
214	Sides of trench and hole excavations not exceeding 1,5m deep. (LI)	m^2	35		
	Keeping excavations free of water				
215	Keeping excavations free of all water	Item			
	Base course constructed of filling supplied by Contractor				
216	Selected filling (G2), carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 102% Mod AASHTO density, all in accordance with SANS 10400	m^3	11		
	Compaction of surfaces				
217	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to 95% Mod AASHTO density	m^2	75		
	Prescribed density tests on filling				
218	Modified AASHTO Density test	No	12		
	Carried to Collection			R	

322

		Unit	Quantity	Rate	Amount
219	Natural California Bearing Ratio test	No	12		
	Approved brand of anti-termite soil poison applied by a Registered Pest Control Company and guaranteed against termite infestation for Five (5) years in accordance with SANS 10400				
220	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming. (LI)	m²	75		
	15MPa/19mm concrete				
221	Blinding	m³	4		
	30MPa/19mm concrete				
222	Surface beds cast in panels on waterproofing	m³	27		
	Test cubes				
223	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	9		
	Finishing top surfaces of concrete smooth with a wood float				
224	Pavings to falls and currents. (LI)	m²	75		
	Rough formwork to sides				
225	Edges, risers, ends and reveals not exceeding 300mm high or wide. (LI)	m	35		
	Expansion joints with 10mm thick polystyrene joint filler between vertical concrete surfaces, including necessary formwork				
226	Not exceeding 300mm wide	m	75		
	Fabric reinforcement				
227	Type 395 fabric reinforcement in concrete surface beds etc.	m²	75		
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape				
228	Under surface beds. (LI)	m²	75		
	Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
229	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary. (LI)	m	75		
	Carried to Collection			R	

323

		Unit	Quantity	Rate	Amount
	COVERED WALKWAY				
	Excavation in earth not exceeding 2m deep				
230	Reduce levels. (LI)	m³	47		
	Extra over trench and hole excavations in earth for excavation in				
231	Soft rock. (LI)	m³	5		
232	Hard rock	m³	2		
	Extra over all excavations for carting away				
233	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	47		
	Keeping excavations free of water				
234	Keeping excavations free of all water	Item			
	Imported filling of G5 material, filled and compacted to 93% Mod AASHTO density, in layers not exceeding 150mm thick, all in accordance with the relevant sections of SANS				
235	Under floors, steps, pavings, etc.	m³	16		
	Compaction of surfaces				
236	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding G7 material where necessary and compacting to a minimum CBR of 95% Mod AASHTO density	m²	105		
	An approved anti-termite soil poison applied by a Registered Pest Control Company and guaranteed against termite infestation for Five (5) years all in accordance with SANS 10400				
237	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming. (LI)	m²	105		
238	To bottoms and sides of trenches etc. (LI)	m²	166		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa/19mm concrete				
239	Surface blinding under footings and bases. (LI)	m³	5		
	Carried to Collection			R	

324

		Unit	Quantity	Rate	Amount
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	30MPa/19mm concrete				
240	Surface beds	m^3	68		
241	Ramps	m^3	8		
	Test cubes				
242	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	36		
	Finishing top surfaces of concrete smooth with a steel trowel				
243	Surface beds, slabs, etc. to falls. (LI)	m^2	105		
	ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP WORK GROUP NO. 111)				
	Rough formwork to sides				
244	Edges, risers, ends and reveals not exceeding 300mm high or wide. (LI)	m	368		
	Expansion joints with 10mm thick polystyrene joint filler between vertical concrete surfaces, including necessary formwork				
245	Not exceeding 300mm high through slabs	m	65		
	Saw-cut joints				
246	3 x 25mm Saw-cut joints in top of concrete	m	80		
	Mild steel reinforcement to structural concrete work				
247	8mm diameter bars	Tonnes	3.00		
	High tensile steel reinforcement to structural concrete work in slides				
248	10mm diameter bars	Tonnes	1.00		
249	12mm diameter bars	Tonnes	1.00		
250	16mm diameter bars	Tonnes	1.00		
	Fabric reinforcement				
251	Type 193 fabric reinforcement in concrete surface beds etc.	m^2	105		
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape				
252	Under surface beds. (LI)	m^2	105		
	Carried to Collection			R	

325

		Unit	Quantity	Rate	Amount
	Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
253	8 x 13mm In expansion joints in floors including raking out expansion joint filler as necessary. (LI)	m	80		
254	8 x 13mm In saw cut joints in floors. (LI)	m	65		
	"Safintra 0.8mm thick Saflok 700 G4 Colortech" or equally approved aluminium interlocking roof sheeting fixed to steel internal purlins at 1900mm centres and ridge/eave purlins at 1700mm centres using "Saflok 700" or equally approved clips fastened to steel purlins with Fixtite™ or equally approved wafer head self-tapping fasteners, all in strict accordance with manufacturer's specifications by a manufacturer approved contractor:				
255	Roof covering with pitches not exceeding 25 degrees with side laps sealed with and including 6 x 20mm closed cell impregnated polyurethane strips. (LI)	m²	106		
256	Side wall flashings 462mm girth	m	82		
	STRUCTURAL TIMBERWORK ETC				
	SA Pine Deep class 7				
257	50 x 288mm Beam bolted	m	216		
	Hot-dipped galvanised square hollow section posts				
258	76 x 2.5 Square hollow section post	Tonnes	0.42		
	Hot-dipped galvanised baseplates, Endplates, etc				
259	200 x 200 x 8mm 2 No Endplate and 100 x 100 x 8mm baseplate with and including two holes for bolts welded to post	No	60		
260	530 x 140 x 8mm Baseplate with and including two holes for bolts welded to post and bolted to brick wall	No	36		
261	200 x 200 x 12mm Baseplate with and including four holes for bolts and welded to post	No	60		
	Bolts and fasteners				
262	M12 anchor bolts including washers	No	432		
	Stainless steel handrail side mounted onto brickwork or concrete				
263	Purpose made 50mm external diameter x 3mm thick hollow section continuous handrails on and including approved specialist patch type fixing brackets at 500mm centres suitable for fixing to brickwork or concrete. (LI)	m	40		
	Carried to Collection			R	

326

		Unit	Quantity	Rate	Amount
264	Extra over for flat closed end. (LI)	No	4		
265	Extra over for ramp or knee. (LI)	No	2		
	125 Seamless aluminium gutter. G4 colortech finish				
266	Lingspac or equal, 125mm O.G . G4 colourtech finish Aluminium seamless gutter, incl end caps and apertures for affixing rwdp's Gutters fixed to roof sheeting with proprietary internal hangers and rafter fixing brackets. Colour provisionally Marble White	m	108		
	PVC-U gutters and rainwater pipes				
267	82mm ø uPVC Rain Water Down Pipe per SANS 11, fitted with and including aluminium alloy brackets to brickwork walls, unless otherwise specified. Pipes fitted with solvent weld joints. Holderbats at 900mm centres, complete with all necessary swan necks, shoes and brackets, all sealed with mastic jointing compound and bolted together with M6 x 40 verandah bolts with flat and malthoid washers, discharging in positions indicated	m	70		
268	Extra over gutter for stopped end. (LI)	No	4		
269	Extra over gutter for outlet for 82 x 82mm pipe. (LI)	No	16		
270	Extra over rainwater pipe for bend. (LI)	No	16		
271	Extra over rainwater pipe for shoe. (LI)	No	16		
	FENCING AND GATES				
	Excavation in earth not exceeding 2m deep				
272	Trenches	m^3	465		
273	Bases	m^3	121		
274	Ground beams	m^3	14		
	Extra excavation in earth for excavation in:				
275	Soft rock. (LI)	m^3	60		
276	Hard rock	m^3	30		
	Extra over all excavations for carting away				
277	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m^3	351		
	Risk of collapse of excavations				
278	Sides of excavations not exceeding 1,5m deep	m^2	2 189		

Carried to Collection R

327

		Unit	Quantity	Rate	Amount
	Keeping excavations free of water				
279	Keeping excavations free of water other than subterranean water	Item			
	Earth filling obtained from the excavations and/or prescribed stock piles on site				
280	Backfilling, compacted to 93% Mod AASHTO density (LI)	m³	335		
	Filling of natural gravel material G5 supplied by the contractor, compacted to 93% Mod AASHTO density				
281	Backfilling to trenches, holes, etc	m³	158		
	Coarse river sand filling supplied by the contractor				
282	Under surface beds. (LI)	m³	26		
	Compaction of surfaces				
283	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to 95% Mod AASHTO density	m²	526		
	Prescribed density tests on filling				
284	Modified AASHTO Density test	No	12		
	An approved anti-termite soil poison applied by a Registered Pest Control Company and guaranteed against termite infestation for Five (5) years all in accordance with SANS 10400				
285	To bottoms and sides of trenches. (LI)	m²	2 050		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa/19mm concrete				
286	Surface blinding under footings and bases	m³	21		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
287	Strip footings	m³	103		
	30Mpa/19mm concrete				
288	Bases	m³	50		
289	Ground beams	m³	5		
	Carried to Collection			R	

328

		Unit	Quantity	Rate	Amount
	Finishing top surfaces of concrete smooth with a wood float				
290	Surface beds, slabs, ground beams, etc	m²	443		
	Test cubes				
291	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	18		
	Mild steel reinforcement to structural concrete work				
292	10mm diameter bars	Tonnes	3.27		
	High tensile steel reinforcement to structural concrete work				
293	12mm diameter bars	Tonnes	2.61		
	BRICKWORK IN FOUNDATIONS				
	Brickwork of "Corobrik" or equally approved NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc.				
294	One brick walls, bagged and sealed. (LI)	m²	389		
	Two layers "Malthoid" in slip joints between horizontal concrete and brick surfaces including cement mortar bed				
295	Not exceeding 300mm wide. (LI)	m	458		
	2,5mm Galvanised brick reinforcement				
296	150mm Wide reinforcement built in horizontally. (LI)	m	5 496		
	Galvanised hoop iron cramps, ties, etc.				
297	30 x 1,6mm Wall tie 800mm long with one end shot pinned to concrete and other end built into brickwork. (LI)	No	693		
	"Corobrik Roan Satin FBX" or equally approved face bricks to be constructed in stack bond with recessed horizontal and vertical joints				
298	Extra over brickwork for face brickwork in foundations (Provisional) (LI)	m²	321		
	Carried to Collection			R	

329

		Unit	Quantity	Rate	Amount
	"Wireforce wirewall code 35F" 220g/sqm Aluzinc coated security fence with 400 micron coloured thermoplastic finish (Colour to be Black, provisional) including all posts, stays, caps, etc. Mesh comprising 75 x 12.5 mm apertures, 4mm vertical and horizontal wires including all necessary stainless-steel grade 304 fixings, etc.				
299	Security fence 2.4m high formed of 3000mm wide x 2400mm high panels with 4 No. V-profiles per panel, 80 x 80 x 3000mm high fence posts in same colour finish at 3000mm centres with and including secured razor wire flat-wrap on GMS straining wire on top of fence panels. All installed on strict accordance with the manufacturers specifications and fixed against face brick plinth walls (Plinth walls elsewhere measured) (Drawing No 2301-AR-T-551.A)	m	458		
300	Security fence 2.4m high formed of 3000mm wide x 2400mm high panels with 4 No. V-profiles per panel, 80 x 80 x 3000mm high fence posts in same colour finish at 3000mm centres with and including Aluzinc coated spike rails on top of fence panels. All installed on strict accordance with the manufacturers specifications and cast in concrete plinths 100mm below ground finish level (concrete plinths elsewhere measured) (Drawing No 2301-AR-T-551.A)	m	170		
	Framed fixed fencing panels				
	"Wireforce wirewall code 35F" 220g/sqm Aluzinc coated security fence with 400 micron coloured thermoplastic finish (Colour to be Black, provisional) including all posts, stays, caps, etc. Mesh comprising 75 x 12.5 mm apertures, 4mm vertical and horizontal wires including all necessary stainless-steel grade 304 fixings, etc.				
301	5760 x 2400mm high framed fixed fencing panels formed of 2No. 2810 x 2400mm panels of 50 x 50 x 3mm square tube outer frame with "Wirewall 358 type" coated weldmesh infill panels and fixed to brick walls, concrete floor slab and structural beam above. All as per manufacturers specifications. (Drawing No 2301-AR-T-551.A)	No	2		
302	3220 x 1900mm high framed fixed fencing panel formed of 50 x 50 x 3mm square tube outer frame with "Wirewall 358 type" coated weldmesh infill panels and fixed to brick walls, concrete floor slab and structural beam above. All as per manufacturers specifications. (Drawing No 2301-AR-T-551.A)	No	2		
	Carried to Collection			R	

330

		Unit	Quantity	Rate	Amount
303	1500 x 2400mm high framed fixed fencing panel formed of 50 x 50 x 3mm square tube outer frame "Wirewall 358 type" coated weldmesh infill panels and fixed to brick walls, concrete floor slab and structural beam above. All as per manufacturers specifications. (Drawing No 2301-AR-T-551.A)	No	2		
304	1500 x 2400mm high framed single door leaf formed of 50 x 50 x 3mm square tube outer frame with "Wirewall 358 type" coated weldmesh infill panels including same frame aperture for side hung single door leaf. All as per manufacturers specifications. (Drawing No 2301-AR-T-551.A)	No	1		
305	1500 x 2400mm high framed single door leaf formed of 60 x 60 x 3mm square tube outer frame with "Wirewall 358 type" coated weldmesh infill panels including same frame aperture for side hung single door leaf. All as per manufacturers specifications. (Drawing No 2301-AR-T-551.A)	No	2		
	Hot dipped galvanised gates				
	The following in motorised vehicular gates				
306	Sliding vehicular gate 3500 x 2400mm high formed of 76 x 76 x 3mm square tube outer frame and guide portals, filled with "Wireforce wirewall code 358" mesh fencing with galvanised spike rail secured to top of gate frame with self-tapping screws at 300mm centres with and including lock box padlock cover and 16mm diameter galvanised round bar welded to 100 x 50mm channel with fish tail for casting into concrete ground beam (ground beam elsewhere measured) and galvanised 100mm diameter heavy duty wheels on shaped lugs with nylon roller guides on M10 threaded bar secured to portal frame with 2 pairs of 40 x 40 x 5mm lugs all as per architects specifications. (Drawing No. 2301-AR-7-563) (G12)	No	6		
	Carried to Collection			R	

331

		Unit	Quantity	Rate	Amount
307	Sliding vehicular gate 6500 x 2400mm high formed of 76 x 76 x 3mm square tube outer frame and guide portals, filled with "Wireforce wirewall code 358" mesh fencing with galvanised spike rail secured to top of gate frame with self-tapping screws at 300mm centres with and including lock box padlock cover and 16mm diameter galvanised round bar welded to 100 x 50mm channel with fish tail for casting into concrete ground beam (ground beam elsewhere measured) and galvanised 100mm diameter heavy duty wheels on shaped lugs with nylon roller guides on M10 threaded bar secured to portal frame with 2 pairs of 40 x 40 x 5mm lugs all as per architects specifications. (Drawing No. 2301-AR-7-563) (G01+G02)	No	2		
	Sundries				
308	Allow for all necessary clearing of fence line including grubbing up and removal of scrub, bush and trees not exceeding 200mm girth. (LI)	m	170		
	SEPTIC TANKS AND SOAK AWAYS				
	The following in Septic Tanks				
	Excavations in earth not exceeding 2m deep				
309	Holes	m^3	37		
	Excavations in earth exceeding 2m and not exceeding 4m deep				
310	Holes	m^3	32		
	Extra over bulk excavation in soft material for excavation in :				
311	Soft rock	m^3	7		
312	Hard rock	m^3	3		
	Extra over all excavation for carting away				
313	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m^3	68		
	Risk of collapse of excavations				
314	Sides of bulk excavations not exceeding 1,5m deep.	m^2	29		
315	Sides of bulk excavations exceeding 1,5m deep	m^2	43		
	Keeping excavation free of water				
316	Keeping excavations free of all water other than subterranean water	Item			
	Carried to Collection			R	

332
R. N.

		Unit	Quantity	Rate	Amount
	Compaction of surfaces				
317	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable G8 material where necessary and compacting to 93% Mod AASHTO d	m²	16		
	Filling of natural gravel material G5 supplied by the contractor, compacted to 93% Mod AASHTO density				
318	Backfilling to trenches, holes, etc	m³	6		
	Soil insecticide in accordance with SANS 5859				
319	To bottoms and sides of trenches etc	m²	16		
	Prescribed tests to determine degree of compaction or other properties of ground or filling				
320	Modified AASHTO Density test	No	6		
	THE FOLLOWING IN SOAKAWAY				
	Excavations in earth not exceeding 2m deep				
321	Holes	m³	568		
	Extra over bulk excavation in soft material for excavation in				
322	Soft rock	m³	57		
323	Hard rock	m³	28		
	Extra over all excavation for carting away				
324	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m³	568		
	Risk of collapse of excavations				
325	Sides of bulk excavations not exceeding 1,5m deep.	m²	160		
	Keeping excavation free of water				
326	Keeping excavations free of all water other than subterranean water	Item			
	Earth filling obtained from the excavations (not compacted)				
327	To top of soakaway	m³	84		
328	Coarse river sand supplied by the contractor to top of soakaway	m³	56		
	Carried to Collection			R	

333

		Unit	Quantity	Rate	Amount
	Filling of graded 19mm crushed stone, consolidated in double twisted hexagonal wire mesh reno mattress of 60x80mm mesh, with 2.7mm O/D frame wire and 2.2mm mesh centre, complete with partitions at 1m centres				
329	In subsoil reno mattress	m³	5		
	Compaction of surfaces				
330	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable G8 material where necessary and compacting to 93% Mod AASHTO density	m²	563		
	"Kaytech" or equally approved geofabric filter mate				
331	A2 Bidum geofabric material	m²	595		
	Prescribed tests to determine degree of compaction or other properties of ground or filling				
332	Modified AASHTO Density test	No	9		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
333	Surface blinding under footings and bases	m³	2		
	REINFORCED CONCRETE CAST ON/IN FORMWORK				
	25MPa/19mm concrete				
334	Slabs including beams and inverted beams	m³	4		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
335	Bases	m³	6		
	Test Cubes				
336	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	6		
	Finishing top surfaces of concrete smooth with a wood float				
337	Surface beds, slabs, etc	m²	31		
	Rough formwork to soffits				
338	Slabs propped up exceeding 1.5m and not exceeding 3.5m high	m²	18		
	Carried to Collection			R	

Bill No. 1
External Works

334

		Unit	Quantity	Rate	Amount
	Mild steel reinforcement to structural concrete work				
339	8mm Diameter bars	Tonnes	0.50		
	High tensile steel reinforcement to structural concrete work				
340	10mm Diameter bars	Tonnes	0.02		
341	12mm Diameter bars	Tonnes	0.79		
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc				
342	One brick walls	m²	6		
343	One and half brick walls	m²	53		
	2,5mm Brickwork reinforcement				
344	150mm Wide reinforcement built in horizontally	m	520		
	"ABE Duraflex SF 356" or equally approved waterproofing system.				
345	On floors and walls	m²	201		
	"Ecofelt" of other approved waterproofing membrane				
346	To corners of septic tanks	m²	13		
	WATERPROOF PLASTER				
	Cement plaster wood floated, on brickwork				
347	On walls	m²	116		
	uPVC Class 34 pipes				
348	160mm pipes laid in and including trenches not exceeding 1m deep including excavations, EO for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	56		
349	160mm open jointed perforated pipes laid in and including trenches not exceeding 1m deep including excavations, EO for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	202		
	Extra over uPVC Class 34 pipes for fittings				
350	160mm Junction. (LI)	No	6		
351	160mm Bends. (LI)	No	6		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	Precast concrete circular manhole cover and frame				
352	800 diameter, type 4A manhole cover and frame with lifting lugs	No	2		
	ATTENUATION TANK				
	Excavation in earth for basement				
353	Not exceeding 2m deep	m³	90		
354	Exceeding 2m and not exceeding 4m deep	m³	27		
	Extra over all excavations for carting away				
355	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	117		
	Risk of collapse of excavations				
356	Sides of bulk excavations not exceeding 1,5m deep	m²	42		
357	Sides of bulk excavations exceeding 1,5m deep	m²	31		
	Keeping excavations free of water				
358	Keeping excavations free of water other than subterranean water	Item			
	Filling of gravel-soil material G7 supplied by the contractor, compacted to 95% Mod AASHTO density				
359	To top of attenuation tank	m³	7		
	Filling of natural gravel material G5 supplied by the contractor, compacted to 98% Mod AASHTO density				
360	To top of attenuation tank	m³	7		
	Compaction of ground surfaces				
361	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m²	45		
	Soil insecticide in accordance with SANS 5859				
362	To bottoms and sides of trenches etc	m²	118		
	Prescribed tests to determine degree of compaction or other properties of ground or filling				
363	Modified AASHTO Density test	No	3		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
364	Surface blinding under footings and bases	m^3	3		
	REINFORCED CONCRETE CAST ON/IN FORMWORK				
	25MPa/19mm concrete				
365	Slabs and inverted beams	m^3	11		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
366	Bases	m^3	12		
	Test Cubes				
367	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	12		
	Finishing top surfaces of concrete smooth with a steel trowel				
368	Surface beds, slabs, etc to falls	m^2	90		
	Grooves, channels, mortices, sinkings, etc in concrete				
369	30 x 30mm Chamfers	m	32		
	Rough formwork to sides				
370	Edges, risers, ends and reveals exceeding 300mm high or wide	m^2	8		
	Rough formwork to soffits				
371	Slabs propped up exceeding 1.5m and not exceeding 3.5m high	m^2	45		
	Mild steel reinforcement to structural concrete work				
372	8mm diameter bars	Tonnes	0.01		
	High tensile steel reinforcement to structural concrete work				
373	10mm diameter bars	Tonnes	0.01		
374	12mm diameter bars	Tonnes	1.76		
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc				
375	One brick walls	m²	7		
376	One and half brick walls	m²	48		
	2,5mm Brickwork reinforcemen				
377	150mm Wide reinforcement built in horizontally	m²	418		
	GALVANISED MILD STEEL				
	Step iron, etc				
378	300mm Long Step iron @ 300 Centres	No	14		
	Screeds steel trowelled, on concrete				
379	Average 40mm thick on floors with upper surface to falls	m²	21		
380	Average 50mm thick on floors with upper surface to falls	m²	21		
	uPVC Class 16 pipes				
381	450mm pipes laid in and including trenches exceeding 2m not exceeding 3m deep including excavations, EO for soft, intermediate, hard rock, risk of collapse, soil poisoning, etc. (LI)	m	20		
	Extra over uPVC Class 16 pipes for fittings				
382	450mm Junction. (LI)	No	2		
	Cast iron cover and frame				
383	"Saint Gobain" or equally approved 600 x 600mm Type 8B double seal manhole cover and frame	No	2		
	Galvanised Mild Steel Cage				
384	"Mentis Rectagrid RS40" or equally approved 600 x 600 x 600mm high cage with and including 30 x 3mm thick bearers, complete	No	1		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	RAINWATER HARVESTING TANKS				
	Polyethylene water storage tanks				
385	5250 Litres JoJo rainwater tank or similar approved 2200mm diameter x 1720mm high, with 75mm Diameter opening for downpipe from gutter including 50mm Diameter overflow opening with 4mm Diameter galvanised wire looped through top of tank isolated with 15mm diameter hose to top of tank and anchored to top of slab with 'Hilti' hooks drilled into slab at all four corners and 15mm hose bib tap and access lid, mesh filter, leaf catcher, first flush separator and 12mm "Cobra" or equally approved brass standpipe cast into plinth including all require copper piping and fittings.	No	8		
	Tank stand				
	Excavation in earth not exceeding 2m deep				
386	Reduced levels	m^3	8		
387	Trenches	m^3	34		
	Risk of collapse of excavations				
388	Risk of collapse of sides of trench and hole excavations not exceeding 1,5m deep	m^2	98		
	Extra over all excavations for carting away				
389	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk) off site to be located by the contractor	m^3	30		
	Keeping excavations free of water				
390	Keeping excavations free of all water other than subterranean water	Item			
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density				
391	Backfilling to trenches, holes, etc.,	m^3	12		
	Imported filling of G5 material, filled and compacted to 93% Mod AASHTO density, in layers not exceeding 150mm thick, all in accordance with the relevant sections of SANS				
392	Under floors, steps, pavings, etc.	m^3	33		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	Compaction of ground surfaces				
393	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to 93% Mod AASHTO density	m²	52		
	SOIL POISONING				
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for Five (5) years in accordance with SANS 10400				
394	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	52		
395	To bottoms and sides of trenches etc	m²	154		
	CONCRETE FORMWORK AND REINFORCEMENT				
	Unreinforced concrete cast on excavated surfaces				
396	Unreinforced concrete Class 15/19 in blinding	m³	3		
	Reinforced concrete cast on excavated surfaces				
397	Reinforced concrete Class 25/19 in surface beds	m³	6		
398	Reinforced concrete Class 25/19 in strip footings	m³	14		
	Concrete Sundries				
399	Finishing top surfaces of concrete smooth with a power float to surface beds, slabs, etc to falls	m²	52		
	REINFORCEMENT				
	Fabric reinforcement				
400	Type 193 fabric reinforcement	m²	52		
401	Type 500 fabric reinforcement	m²	57		
	MASONRY				
	Brickwork in foundations				
402	One Brickwork of NFX face bricks (14 MPa nominal compressive strength) in Class I mortar	m²	98		
	Galvanised brick reinforcement				
403	150mm Galvanised brick reinforcement	m	975		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
	PLUMBING AND DRAINAGE				
	Sanitary fittings				
404	20mm COBRA 541 or equally approved tank locking tap fitted to a 22mm extension pipe with barrel nipple & galvanised socket	No	8		
	LANDSCAPING				
	Tree removal				
405	Fence & protect trees to be retained - 2m high bonnox & orange mesh	No	15		
406	Brush and overgrowth	m²	12 600		
407	Carefully remove and prepare Aloe trees for storage and re-planting	No	2		
	Soil preparation				
408	Clear 150mm top soil and stockpile in rows, max 1m height	m²	3 500		
409	Rip and prepare areas to receive planting, lawn & seeding	m²	8 000		
410	Tilling / trimming of areas to receive planting & lawn (200mm deep)	m²	8 000		
411	Import topsoil for planting, lawn & seeding areas (120mm deep)	m³	420		
412	Final cultivation of areas to be seeded	m²	6 400		
413	Compost to planting areas (30mm)	m³	240		
414	Import, mix & topdress ext. lawn, ratio 1:1 topsoil to compost (10mm deep)	m³	80		
415	Import, mix & backfill tree holes in ratio 4:1 topsoil to compost (0,2m³ / tree)	m³	5		
416	Superphosphate to planting beds (25g/m²)	Kg	14		
417	Fertilizer to planting beds (3:1:5) 25g/m²	Kg	14		
418	Superphosphate to lawn areas (25g/m²)	Kg	14		
419	Agricultural lime to lawn areas (25g/m²)	Kg	14		
420	Fertilizer to lawn areas (2:3:2 + Zn) 25g/m²	Kg	14		
421	Superphosphate to trees (50g/tree)	Kg	1		
422	Slow release fertilizer tablets to trees (3/tree)	Tree	72		
	Carried to Collection			R	

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		Unit	Quantity	Rate	Amount
423	Wood chip mulch to planting beds (50mm)	m³	24		
	Planting				
424	Tree stakes & tie (2 stakes and 2 ties / tree)	Tree	24		
	Trees				
425	Erythrina Lysistemon (100L)	No	4		
426	Acacia xanthophloea (100L)	No	4		
427	Aloidendron barberae (100L)	No	8		
428	Mimusops Caffra (100L)	No	4		
429	Diospyros rotundifolia (100L)	No	4		
	Shrubs				
430	Portulacaria afra (2L) 7/m²	m²	240		
431	Strelitzia reginae (2L) 7/m2	m²	240		
	Hydro-seeding mix				
432	Hydro-seeding mix (20kg/ha) comprising of Eragrostis curvula (Weeping Love grass (2,5kg/ha)), Cynodon dactylon (Bermuda Grass (5kg/ha)), Digitaria eriantha (Common Finger Grass (5kg/ha)), Chloris gayana (Rhodes Grass (2,5kg/ha)) and Melinis repens (Natal Red Top (5kg/ha))	m²	7 040		
	Turfing				
433	Dactyloctenium australe sods	m²	480		
	Carried to Collection			R	

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SECTION NO. 5
BILL NO. 1

EXTERNAL WORKS

COLLECTION

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SECTION NO. 6
BILL NO. 1
PROVISIONAL SUMS

Bidders are reminded that all general and supplementary preambles, as well as general and specific notes and descriptions related to trades in the preceding "Building Works" section, will apply in their entirety to the corresponding trades in this "External Works" section.

SUPPLEMENTARY PREAMBLES

Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

Labour Intensive

Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.

General

Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowances

Prime cost amounts and provisional sums are net. Prime cost amounts include for delivery to site of all articles concerned. Provisional sums are for material and equipment supplied and installed complete by firms of specialists

Profit

Where stated, the contractor may allow for profit if required

General attendance on nominated/selected subcontractors

The item 'Attendance' which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following:

Carried to Collection R

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			Amount
	1 The services as set out in clause B9.1 of the Preliminaries 2 Making good in all trades and cleaning down and removal of rubbish on completion **Special attendance on nominated/selected subcontractors** Where stated special attendance will be described in detail in the Schedule for Variables in the Preliminaries for the services as set out in clause B9.2		
	PROVISIONAL SUMS		
	BOREHOLE		
1	Provide the sum of R 500,000.00 (Five Hundred Thousand Rand) for geohydrological investigation, testing, drilling, supply and installation of a borehole water supply system complete.	Prov Sum	500 000 00
2	Profit	%	
3	Attendance	%	
	MUNICIPAL CONNECTION		
4	Provide the sum of R 110,000.00 (One Hundred and Ten Thousand Rand) for connection to existing municipal water supply complete.	Prov Sum	110 000 00
5	Profit	%	
6	Attendance	%	
	ESKOM CONNECTION		
7	Provide the sum of R 275,000.00 (Two Hundred and Seventy Five Thousand Rand) for Eskom connection fee complete.	Prov Sum	275 000 00
8	Profit	%	
9	Attendance	%	
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SECTION NO. 6
BILL NO. 1

PROVISIONAL SUMS

COLLECTION

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		Unit	Quantity	Rate	Amount
	SECTION NO. 7 **BILL NO. 1** **PROJECT ASSESSMENT SCHEME (PROVISIONAL)**				
	SUPPLEMENTARY PREAMBLES				
	Tenderer is advised to carefully price this section of the bills of quantities in conjunction with C1.2: Contract Data, C2.1: Pricing Assumptions and C3: Scope of Work incorporated in the tender documents for this tender				
	The profit and attendance priced herein under is inclusive of associated costs to the contractor for implementation. The profit and attendance % is to remain unchanged for the duration of contract - refer to C2.1: Pricing Assumptions				
	TARGET ENTERPRISE DEVELOPMENT CPG				
	Enterprise Development of Targeted Enterprise or JV Partners				
1	Needs Analysis and Enterprise Development Plan per Targeted Enterprise	No	3	5 000.00	15 000 00
2	Monitoring and Interim reporting per Targeted Enterprise (Enterprise Development Co-ordinator and mentor)	PerQuarter	6	60 000.00	360 000 00
3	Project Completion report per Targeted Enterprise	No	3	5 000.00	15 000 00
4	Profit	%			
5	Attendance	%			
	CONTRACT SKILLS DEVELOPMENT GOALS - CSDG				
	The following allowance will be subject to adjustment based on the notional cost (see table 3) as per Government Gazette No.48491 of 28 April 2023 as amended in line with the training opportunity agreed with the employer.				
6	Minimum Contract Skills Development Goal (CSDG) (0.5% x "Sub total A" on the Final Summary)	Item			
7	Profit	%			
8	Attendance	%			
	Carried to Final Summary			R	

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South African Police Service
Ntshongwe Police Station

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1	PRELIMINARIES	32	
2	BUILDING WORKS	174	
3	ELECTRICAL INSTALLATION	200	
4	MECHANICAL INSTALLATION	217	
5	EXTERNAL WORKS	257	
	Sub Total (A)		
6	PROVISIONAL SUMS AND BUDGETARY ALLOWANCES	260	
7	PROJECT ASSESSMENT SCHEME (PROVISIONAL)	261	
	Sub Total (B)		
	ADD: PROVISION FOR ESCALATION (PROVISIONAL)	Item	**1 927 891 44**
	Sub Total (C)		
	ADD VAT @ 15%		
	Carried to Form of Offer and Acceptance		**R**

FINAL SUMMARY CARRIED TO FORM OF OFFER AND ACCEPTANCE

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CONSTRUCTION OF NTSHONGWE NEW POLICE STATION :KWAZULU NATAL PROVINCE

BID: 19/1/9/1/20TB(25)

PART C:

CONTRACT

Part C3

Scope of Work