

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network**Contract No: Area "B"****C1.2 GENERAL REQUIREMENTS AND PROVISIONS**

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.2	GENERAL REQUIREMENTS AND PROVISIONS				
C1.2.1.1	Monitoring compliance with and reporting on the EMP	month	12.00		
C1.2.1.2	Dedicated environmental officer	month	12.00		
C1.2.4	Stakeholder liaison	month	12.00		
C1.2.5	Safety:				
C1.2.5.1	Health and safety plan	Lump sum	1.00		
C1.2.5.2	Implementation of health and safety plan	month	12.00		
C1.2.8	Dayworks:				
C1.2.8.1	Personnel:				
	(a) Unskilled labourer	h	50.00		
	(b) Semi-skilled labourer	h	50.00		
	(c) Skilled labourer	h	50.00		
	(d) Gang leader	h	50.00		
	(e) Foreman	h	50.00		
	(f) Skilled Artisan	h	50.00		
C1.2.8.2	Construction equipment (specify size and / or model number):				
	(a) Motor grader	h	50.00		
	(b) Vibratory roller	h	50.00		
	(c) Pneumatic roller	h	50.00		
	(d) Front end loader	h	50.00		
	(e) Tractor loader backhoe	h	50.00		
	(f) Excavator	h	50.00		
	(g) Compressor	h	50.00		
Total Carried Forward					

Contract No:

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
C1.3.1	The Contractor's general obligations:				
C1.3.1.1	Fixed obligations	Lump sum	1.00		-
C1.3.1.2	Value related obligations	Lump sum	1.00		-
C1.3.1.3	Time-related obligations	month	12.00		-
C1.3.2	Contract sign boards	m ²	36.00		-
C1.3.3	(a)OHS Consultant to be Appointed by Client	Prov. Sum	1.00	750 000.00	750 000.00
	(b) Contractors Handling cost and profit in respect of sub-item BC1.2.10(a)	%	750 000.00		
	(c)Provision for proper PPE's to Local Workers	No	120		
	(d)Provision for Compiling of Safety File	No	1		
	(e) Provision for proper PPE's for Visitors	No	20		
	(f)Provision for Medical Surveillance(entry and exit)	No	1		
	(g) Provision for Site Safety Signage	No	1		
	(h) Provision for Fire Fighting Equipment	No	10		
	(l) Provision for First Aid Kit(supply & maintenance)	No	2		
	(j) Provision for HCS Spill Kits(supply & maintain)	No	1		
	(k) Provision for Safety Barricades	No	15		
	(l) Provision for H&S Personnel(e.g CHSO.FA etc.)	No	12		
Total Carried Forward To Summary					

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C1.4 FACILITIES FOR THE ENGINEER					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
C1.4.3.17	Double 55 watt fluorescent light fittings complete with ballast and tubes	No.	5.00		
C1.4.3.16	Single incandescent light fittings complete with 100 watt globes	No.	1.00		
C1.4.3.19	Wash-hand basins coplte with taps and drains	No.	2.00		
C1.4.3.20	Laboratory basins complete with swan-neck taps and drain	No.	1.00		Rate Only
C1.4.3.22	Fume cupboards complete according to the drawings	No.	1.00		
C1.4.3.24	Air-conditioning units with, 2,2 kW minimum capacity, mounted and with own power connection	No.	3.00		
C1.4.3.26	Curing chamber for UCS specimens, complete with water connection, including the provision of brick partitions, plaster, paint and shelving, all complete according to the drawings	No.	1.00		Rate Only
C1.4.3.30	A4 colour printer, copier, scanner	No.	1.00		
	Refrigerators	No.	1.00		
	Uninterruptable power supply units	No.	3.00		
	Floodlights complete with poles and 500 Watt minimum globes	No.	3.00		
C1.4.3.31	Rain gauge	No.	2.00		
C1.4.3.32	Minimum/maximum atmospheric temperature gauge	No.	2.00		
C1.4.3.38	Standpipe complete with 30 m of 19 mm dia. heavy duty hose pipe	No.	4.00		
C1.4.5	Services				
C1.4.5.1	fixed cost	Lump sum	1.00		Rate Only
C1.4.5.2	Running costs	month	12.00		Rate Only
	Services for rented houses	month	12.00		
	Provision of photostat facilities	month	12.00		
Total Carried Forward To Summary					

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C1.5 ACCOMMODATION OF TRAFFIC

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.5	ACCOMMODATION OF TRAFFIC				
C1.5.2	Accommodation of vehicular traffic	month	7.20		
C1.5.5.9	Grading of temporary deviations and existing roads used as detours	km	1.20		
C1.5.5.10	Watering of temporary deviations and existing roads used as detours	kℓ	650.00		
C1.5.5.11	Other road maintenance work ordered by the Engineer	prov sum	1.00	R 100 000.00	100 000.00
C1.5.5.12	Handling cost, profit and all other charges in respect of item C1.5.6.11	%	150 000.00		
C1.5.6	Removal of temporary deviations	km	6.00		
BC1.5.7	Temporary traffic control facilities:				
L	(a) Flagmen	Person	40.00		
	(b) Portable STOP and GO-RY signs	No	8.00		Rate Only
	(d) Amber flashing lights	No	20.00		Rate Only
	(e) Road signs, R- and TR-series				
	(ii) 1200mm diameter	No	25.00		
	(f) Road signs, TW-series with distance board				
	(iii) 1500mm sides	No	20.00		
	(g) Road signs, STW-, DTG-, TGS- AND TG-series (excluding delineators and barricades)	m²	100.00		
	(h) Delineators: (TW 401 and TW 402)				
	(i) Single (1200mm x 300mm)	No	50.00		
	(ii) Double sided blade (800mm x 200mm)	No	80.00		
	(i) Moveable barricade/road sign combination (Chevron and ROAD CLOSED types)	No	6.00		
	(m) Two-way communication devices	No	6.00		
	(i) 1200mm x 400mm	No	30.00		
Total Carried Forward					

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

C1.5 ACCOMMODATION OF TRAFFIC

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C1.6 CLEARING AND GRUBBING

[illegible]

Contract No: Area "B"

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C3.2 CULVERTS					
Item	Description	Unit	Quantity	Rate	Amount (R)
C3.2	CULVERTS				
C3.2.1.1	Excavating in all material situated within the following depth ranges below the surface level:				
(a)	0 m to 1,5 m	m³	2 850.00		
(b)	Exceeding 1,5 m and up to 3,0 m	m³	7500.00		
(c)	Exceeding 3,0m up to 4,0 m	m³	850.00		
C3.2.1.4	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	m³	5000.00		
C3.2.2	Backfilling:				
C3.2.2.1	Using the excavated material	m³	16200.00		
C3.2.3	Concrete pipe culverts:				
C3.2.3.2	On Class B bedding:				
(a)	600mmØ 75D	m	1200.00		
(b)	600mmØ 100D	m	2850.00		
(c)	675mmØ 75D	m	325.00		
(d)	675mmØ 100D	m	330.00		
(e)	750mmØ 75D	m	135.00		
(f)	750mmØ 100D	m	105.00		
(g)	825mmØ 75D	m	155.00		Rate Only
(h)	825mmØ 100D	m	210.00		Rate Only
(i)	900mmØ 75D	m	110.00		Rate Only
(j)	900mmØ 100D	m	155.00		Rate Only
(k)	1050mmØ 75D	m	145.00		
(l)	1050mmØ 100D	m	110.00		
(m)	1200mmØ 75D	m	210.00		
(n)	1200mmØ 100D	m	85.00		
(o)	1350mmØ 75D	m	1 100.00		Rate Only
(p)	1350mmØ 100D	m	355.00		Rate Only
C3.2.3.5	Provision of skew ends of pipe culvert				
	(600-1350mmØ	No	15.00		
C3.2.7	Cast in situ concrete and formwork:				
C3.2.7.1	In Class A bedding, screeds, concrete backfill and the encasing for pipes, including formwork, (25MPa)	m³	85		
C3.2.7.2	In complete in situ floor slabs for rectangular culverts, manholes and catchpits including formwork, joints and Class U2 surface finish (25MPa) (installed at a standard depth of 1,0 m)	m³	150		
C3.2.7.3	In walls, excluding formwork but including Class U2 surface finish (25MPa)	m³	85		
C3.2.7.5	In inlet and outlet structures including kerbs, chutes and downpipes, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including Class U2 surfacing finish (25MPa)	m³	50		
Total Carried Forward					

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C3.3 CONCRETE KERBING AND CHANNELLING

[illegible]

Contract No: Area "B"

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C3.1 DRAINS

Item	Description	Unit	Quantity	Rate	Amount (R)
C3.1	DRAINS				
C3.1.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods				
	(a) 0 m up to 1,5 m	m³	500.00		
	(b) Exceeding 1,5 m and up to 3,0 m	m³	1000.00		
	(c) Etc, in increments of 1,5 m	m³			Rate Only
C3.1.1.2	Extra over sub-item C3.1.1.1 for excavation in hard and boulder material, irrespective of depth	m³	650.00		
C3.1.3	Clearing, shaping and disposal of accumulated sediment in existing lined open drains and systems				
C3.1.3.1	Using conventional methods (up to 1,5 m):				
	(a) Manholes and inlet and outlet structures	m³	500.00		
	(b) Culvert barrels	m³	200.00		Rate Only
	(c) Concrete or other lined side drains	m³	20.00		
C3.1.4	Excavation for subsoil drainage systems:				
C3.1.4.1	Excavating in all material situated within the following depth ranges below surface level				
	(a) 0 m up to 1,5 m	m³	1 000.00		
	(b) Exceeding 1,5 m and up to 3,0 m	m³	300.00		
C3.1.4.4	Extra over sub-item C3.1.4.1 for excavation in hard and boulder material, irrespective of depth	m³	500.00		
C3.1.5	Impermeable backfilling to subsoil drainage systems				
C3.1.5.1	Un-stabilised natural gravel obtained from approved sources on the site	m³	1 000.00		
C3.1.5.3	Extra over items C3.1.5.1	m³			
C3.1.8	Natural permeable material in subsoil drainage systems (sand)				
C3.1.8.1	Natural sand obtained from approved sources	m³	400.00		
C3.1.8.2	Natural sand from commercial sources	m³	150.00		
C3.1.9	Pipes in subsoil drainage systems:				
C3.1.9.1	HDPE (i) 110 mm internal dia., slotted	m	1200		
Total Carried Forward					

New Mashifani Park: Installation of Civil Engineering Services: Roads & Stormwater Network

Contract No: Area "B"

[illegible]

CARRIED TO SUMMARY					

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C4.2 CUT MATERIALS					
Item	Description	Unit	Quantity	Rate	Amount (R)
C4.2	CUT MATERIALS				
C4.2.2	Additional material investigations during the supplementary exploration				
C4.2.2.1	Cost of additional trial pits and/or drilling and laboratory testing	Prov Sum	1.00	R 150 000.00	R 150 000.00
C4.2.2.2	Handling costs and profit in respect of item C4.2.2.1	%	150 000.00		
C4.2.3	Excavating of materials in cuttings, material obtained from				
C4.2.3.1	Soft excavation	m³	12 000.00		
C4.2.3.2	Boulder excavation class A	m³			Rate Only
C4.2.3.3	Boulder excavation class B	m³			Rate Only
C4.2.3.4	Hard excavation (other than by blasting)	m³	7 600.00		
C4.2.3.5	Hard excavation (by blasting)	m³			Rate Only
C4.2.4	Excavating of materials in box cuts, material obtained from				
C4.2.4.1	Soft excavation	m³	62 800.00		
C4.2.4.2	Boulder excavation class A	m³			Rate Only
C4.2.4.3	Boulder excavation class B	m³			Rate Only
C4.2.4.4	Hard excavation (other than by blasting)	m³	6 600.00		
C4.2.4.5	Hard excavation (by blasting)	m³	2 500.00		
C4.2.8	Excavate material to spoil in sites designated by the Contractor, material obtained from				
C4.2.8.1	Soft excavation, overburden and unsuitable material	m³	5 500.00		
C4.2.8.2	Boulder excavation class A	m³			Rate Only
C4.2.8.3	Boulder excavation class B	m³			Rate Only
C4.2.8.4	Hard excavation (other than by blasting)	m³	2 200.00		
Total Carried Forward To Summary					

Contract No: Area "B"

[illegible]

Contract No: Area "B"

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C5.2 FILL LAYERS

[illegible]

Contract No: Area "B"

Item	Description	Unit	Quantity	Rate	Amount (R)
	ROAD PAVEMENT LAYERS				
C5.3.2	Construction of pavement layers:				
C5.3.2.1	Construction of layers using conventional construction methods:				
	(a) Selected layer - G5 - (150mm thick) compacted to 95 % MOD AASHTO Density - Sub Base	m³	12 800.00		
	(b) Selected layer - G5- (150mm thick) Stabilised to C4 Lower Sub-Base	m³	6 580.00		
	(c) Selected layer - G5- (150mm thick) Stabilised to C4 upper Sub-Base	m³	6 580.00		
	(d) Selected layer G5 (Stabilized) (150mm thick) To C3 Base Layer	m³	12 800.00		
C5.3.2.2	Construction of layers using labour enhancement: (e) Gravel wearing course layer (layer thickness indicated) compacted to 95 % of MDD	m³	2 500.00		
C5.3.9	Construction of a trial section:				
C5.3.9.1	Construction of a trial section using conventional methods of construction:				
	(a) Stabilised gravel layer (150mm thick) trial section	m³	342.00		
	(c) Crushed stone base layer (150mm thick) trial section	m³	342.00		
C5.3.12	Surface regularity payment adjustments	prov sum	1.00		
Total Carried Forward To Summary					

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "B"

C5.4 STABILISATION

[illegible]

Contract No: Area "B"

[illegible]

Contract No: Area "B"

[illegible]

Contract No: Area "B"

[illegible]

Contract No: Area "B"

[illegible]

New Mashifane Park: Installation of Civil Engineering Services: Roads and Stormwater Network

Contract No: Area "A"

G1000 GUIDELINES FOR SUBCONTRACTING AND LABOUR ENHANCEMENT

Item	Description	Unit	Quantity	Rate	Amount (R)
G1000	GUIDELINES FOR SUBCONTRACTING AND LABOUR ENHANCEMENT				
G10.01	Project Liaison Committee costs	Prov sum	1.00	R 100 000.00	R 100 000.00
	(a) Handling cost and profit in respect of Item G10.01 above	%	100 000.00		R -
G10.02	Community Liaison Officer salary	month	12.00		R -
	(a) Handling cost and profit in respect of Item G10.02 above	%	-		R -
G10.03	Training:				
	(a) General training of potential ABE™s	Prov sum	1.00	R 150 000.00	R 150 000.00
	(b) Training of the temporary workforce:				
	(i) Technical training	Prov sum	1.00	R 450 000.00	R 450 000.00
	(ii) HIV/ AIDS training	Prov sum	1.00	R 50 000.00	R 50 000.00
	(iii) OHS Training	Prov sum	1.00	R 50 000.00	R 50 000.00
	(c) Handling cost and profit in respect of Items G10.03 (a) (b) (i) (ii) (iii)	%	700 000.00		
G10.05	Provision and maintenance of the ABE support office	month	12.00	R 15 000.00	R 180 000.00
G10.06	Penalties				
	(Refer to Part C3.7 : Guidelines for subcontracting and labour enhancement for the calculation of penalties)				
	(a) Contract participation goals for subcontracting to Affirmable Business Enterprise (ABE) / Targeted Enterprise (CIDB 1CE PE - CIDB 5CE PE) 15%	%	-	R -	
	(b) Targeted Labour (8%)	%	-	R -	
Total Carried Forward To Summary					