

SECTION 1: PRELIMINARIES & GENERAL					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
PRELIMINARIES & GENERAL					
1	Fixed Charge Items	Item	1		R -
2	Time related items	Months	10		R -
3	H&S	Months	10		R -
4	Enviromental	Months	10		R -
5	Local Labour	Item	1		R -
	<u>Temporary Works</u>				
6	Moving of equipment materials, etc across the river	Item	1		R -
Total Bridge (Carried to Summary)					R -

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Clear and grub</u>				
1	Clear and grub	ha	0.2		R -
2	Remove all trees and tree stumps regardless of girth	No.	5		R -
3	Remove topsoil to nominal depth of 150 mm to stockpile and maintain for later use and rehabilitation	m³	400		R -
4	Taking down and repositioning and re-erect of existing fences	m	230		R -
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Bulk Excavation</u>				
	Excavate in all materials and use for embankment or backfill including processing, shaping and compaction to 90% MOD AASHTO within freehaul distance of 2km				
5	To reach suitable roadbed founding material to approach and access roads	m³	200		R -
6	To drainage ditch	m³	20		R -
	<u>Extra-over for:</u>				
7	Intermediate excavation (Provisional)	m³	15		R -
8	Boulder excavation Class A (Provisional)	m³	75		R -
9	Boulder excavation Class B (Provisional)	m³	75		R -
	Excavate in all materials and stockpile within freehaul distance of 2km				
10	To reach suitable roadbed founding material to approach and access roads	m³	300		R -
11	To drainage ditch	m³	20		R -
	<u>Extra-over for:</u>				
12	Intermediate excavation (Provisional)	m³	6		R -
13	Boulder excavation Class A (Provisional)	m³	150		R -
14	Boulder excavation Class B (Provisional)	m³	70		R -
	Excavate in all materials and dispose of as ordered within freehaul distance of 2km				
15	To reach suitable roadbed founding material to approach and access roads	m³	200		R -
16	To drainage ditch	m³	20		R -
	<u>Extra-over for:</u>				
17	Intermediate excavation (Provisional)	m³	6		R -
18	Boulder excavation Class A (Provisional)	m³	100		R -
19	Boulder excavation Class B (Provisional)	m³	50		R -
	Extra-over items 5 to 9 for importing of materials:				
20	Extra-over for importation of materials from: commercial sources including processing, shaping and compaction to 90% MOD AASHTO	m³	200		R -
21	Extra-over for importation of materials from borrow pits including processing, shaping and compaction to 90% MOD AASHTO	m³	50		R -
22	Opening up and closing down of designated borrow pit	Sum	1		R -
23	Dealing with overburden	m³	20		R -
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Stockpile to fill, use for embankment or backfill including processing, shaping and compaction to 90% MOD AASHTO within freehaul distance of 2km</u>				
24	Soft excavation	m³	200		R -
	<u>Dispose of stockpiled material as ordered within freehaul distance of 2km</u>				
25	Soft excavation	m³	100		R -

	<u>Rock fill (hard, durable, and inert material preferably shall consist of rock fill material varying in size between 150mm and the maximum size of 500mm including processing, shaping and compaction to the applicable specification from commercial sources</u>				
26	To underside of link mattresses at East Abutment	m ³	1800		R -
27	To underside of link mattresses at West Abutment	m ³	200		R -

	<u>Rock fill (hard, durable, and inert material preferably shall consist of rock fill material varying in size between 150mm and the maximum size of 500mm including processing, shaping and compaction to the applicable specification from designated borrow pits</u>				
28	To underside of link mattresses at East Abutment	m ³	35		R -
29	To underside of link mattresses at West Abutment	m ³	35		R -
30	Opening up and closing down of designated borrow pit	Sum	1		R -
31	Dealing with overburden	m ³	15		R -

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Bridge approach				
32	Cart to spoil	m ³	110		R -
33	Road bed preparation and compaction of material to 93% Mod AASHTO Density	m ³	110		R -
34	150mm Sabunga wearing course from from (on-site) designated borrow area compacted to 95% Mod AASHTO density	m ³	110		R -

	<u>Construct the subbase course / shoulders / gravel wearing course with material from commercial sources or designated borrow areas</u>				
35	150mm Subbase G5 material compacted to 95% Mod AASHTO Density	m ³	60		R -
	Testing (Additional tests as required by the Engineer)				R -
36	Modified AASHTO Density tests by registered laboratory	No.	10		R -

	SANS 1350 hot dipped Galvanized Guardrails on Standard timber posts 1800mm long x 150-175mm diameter.				
37	to Eastern approach road	m	110		R -
38	to Western approach road	m	40		R -

	End Units				
39	Fishtail Terminal end wings	No	8		R -

	Keeping works free of water				
40	Allow for the bailing, pumping or otherwise keeping the works free from all water or mud	Item	1		R -

	De-watering				
	Allow for supplying a 50mm diameter submersible pump delivering 500 litres per minute with and including a minimum 50m length of discharge hose for pumping away of any subterranean water which may surface in foundation trench, base, etc	Hrs	640		R -

	Total Earthworks (Carried to Summary)				R -
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SECTION 3 - CONCRETE ABUTMENTS					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SABS 1200D: EARTHWORKS					
	Restricted excavation in earth and deposit excavated material on site for use as filling or backfilling (elsewhere measured)				
1	To underside of pile caps including working around piles	m³	328		R -
	Extra over restricted excavation for				
2	Soft excavation	m³	120		R -
3	Hard excavation	m³	25		R -
4	Boulder excavation Class B	m³	60		R -
	Working space excavation for a width as necessary and backfill on completion with in-situ material from stockpiles on site				
5	Working space to sides of pile caps (Excavation not exceeding 3m deep)	m²	135		R -
	Risk of collapse of excavations				
6	Sides of pile cap excavations exceeding 1,5m deep	m²	265		R -
7	Additional Lateral Support around pile cap excavations exceeding 1,5m and not exceeding 3,0m deep as directed by the Engineer (provisional)	Item	265		R -
	Filling				
8	Granular earth filling arising from the excavations compacted in multiple layers not exceeding 150mm thick to 93% Mod AASHTO density in backfilling to foundation excavations	m³	197		R -
	Carting away				
9	Cart to spoil surplus excavated material	m³	251		R -
SABS 1200G: CONCRETE (STRUCTURAL)					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FORMWORK				
	Rough				
10	To sides of blinding	m²	10		R -
11	To sides of pile caps	m²	75		R -
	Smooth				
12	To sides of bridge abutments not exceeding 8m high	m²	103		R -
13	To edge of abutment support	m²	5		R -
14	To 45° underside of corbel to abutment not exceeding 300mm wide	m	7		R -
15	To Semi circular end of concrete abutment 750mm diameter x 7840mm high (rectangular sides elsewhere measured)	No	4		R -
	Boxing in to smooth formwork				
16	To form horizontal rebate size 100mm wide x 150mm deep at top edge of abutment support	m	7		R -
	REINFORCEMENT				
	Steel Bars				
17	Mild steel bars of varying diameter	t	2		R -
18	High tensile bars of varying diameter	t	30		R -
19	R24 x 750mm long L-shaped dowel cast into abutment with one end projecting 200mm	No	22		R -
	CONCRETE				
	Blinding				
20	10MPa/19mm concrete Blinding layer under pile caps	m³	15		R -
	Strength concrete 35/19				
21	Pile caps	m³	108		R -
22	Bridge abutments	m³	107		R -
	Unformed surface finishes				
23	Broom finish to top of abutment	m²	3		R -
	JOINTS				
24	10mm Bitumen impregnated softboard not exceeding 300m wide between concrete surfaces	m	6		R -
	SUNDRIES				
25	Set of three concrete strength cubes each size 150 x 150 x 150mm, send to an independent laboratory for test crushing including all charges	No	20		R -
26	Take delivery and cast in exact position set of eight anchor bolts in to of abutment support	No	4		R -
27	20mm Thick Non-shrink grout between concrete and steel baseplate	m²	1		R -
	METALWORK				
28	80x80x8 angles hot dipped galvanized cast into edges of concrete abutments with 200 long x 30mm wide x 5mm thick fishtale lugs at 300mm c/c	m	21		R -
29	Extra on last for mitred and welded corner	No	8		R -
Total Concrete Abutments (Carried to Summary)				R	-

SECTION 4: GABIONS					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SABS 1200D: EARTHWORKS					
	<u>Restricted Excavation</u>				
	Restricted excavation in all materials and use for backfilling or fill, as specified and carting away and spoiling excess unsuitable materials to an approved Municipal Lanfill site irrespective of any freehaul distance				
1	To underside of Gabions and Link Mattressess	m ³	330		R -
	<u>Extra Excavation in all Materials to Provide Working Space around Structure</u>				
2	Working space around excavations	m ²	310		R -
	<u>Extra-over for Backfill or for Fill Material against Structures</u>				
3	Against Gabions	m ³	540		R -
SABS 1200DM: EARTHWORKS ROADS					
	<u>Treatment of road-bed</u>				
	Road-bed preparation and compaction of material to				
4	minimum of 93% of modified AASHTO maximum density for Gabions/Reno Matrasses(where required by Engineer)	m ³	200		R -
SABS 1200DK GABIONS AND PITCHING					
	<u>Gabions Eastern Embankment and Mesh "Gabion Baskets"</u>				
	<u>Mesh Type 60 double twisted hexagonal galvanized mesh</u>				
5	Gabions 1x1x2m to sides of concrete abutment	m ³	200		R -
6	Gabions 1x1x2m to sides of concrete access road	m ³	1500		R -
	<u>Mesh Mattressess with mesh Type 60 double twisted hexagonal galvanized mesh</u>				
7	Bed mattress 2x1x0.3m	m ³	100		R -
	<u>Geotextile (or geomembrane)</u>				
8	Filter fabric Bidim A6 or similar approved: Supply geotextile, cutting, waste, placing, joining, overlapping and fastening geotextile in position to external face of baskets	m ²	1200		R -
9	Filter fabric Bidim A4 or similar approved: Supply geotextile, cutting, waste, placing, joining, overlapping and fastening geotextile in position to underside of mattressess	m ²	1700		R -
	<u>Gabions Eastern Embankment and Mesh "Gabion Baskets"</u>				
	<u>Mesh Type 60 double twisted hexagonal galvanized mesh</u>				
10	Gabions 1x1x2m to sides of concrete abutment	m ³	200		R -
11	Gabions 1x1x2m to sides of concrete access road	m ³	600		R -
	<u>Mesh Mattressess with mesh Type 60 double twisted hexagonal galvanized mesh</u>				
12	Bed mattress 2x1x0.3m	m ³	50		R -
	<u>Geotextile (or geomembrane)</u>				
13	Filter fabric Bidim A6 or similar approved: Supply geotextile, cutting, waste, placing, joining, overlapping and fastening geotextile in position to external face of baskets	m ²	400		R -
14	Filter fabric Bidim A4 or similar approved: Supply geotextile, cutting, waste, placing, joining, overlapping and fastening geotextile in position to underside of mattressess	m ²	1350		R -
	<u>Approach Road</u>				
	<u>Mesh Mattressess with mesh Type 60 double twisted hexagonal galvanized mesh</u>				
15	Bed mattress 2x1x0.3m	m ³	140		R -
Total Gabions (Carried to Summary)				R	-

SECTION 5: PILING					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SABS 1200D: BULK EARTWORKS					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Bulk Excavation cut to fill</u>				
	Excavate in all materials and use for embankment or backfill or dispose, as ordered				
1	To form platform for piling equipment on Western bank	m³	120		R -
SABS 1200F: PILING					
	DESIGN, SUPPLY AND INSTALLATION OF ODEX PILES				
	Setting up equipment at each position for installing piles on Western Bank (Price to include for moving the equipment across the river and back on completion by a means determined by the piling contractor. The piling contractor must visit the site beforehand to acquaint himself with the conditions and restriction on site as no claims due to want of knowledge will be entertained)				
	GUARANTEE AND INSURANCE				
	Provision of the specified piling guarantee and insurance	Item	1		R -
	ESTABLISHMENT				
	Transporting and establishment on site of necessary plant for the execution of the work and removal thereof on completion	Item	1		R -
	Setting up plant at pile position	No	42		R -
	Surveyor establishment	Item	1		R -
	Setting out of piles	No	42		R -
	As built survey after pile installation	No	42		R -
	PILES DESIGNED BY THE CONTRACTOR				
	Design, Supply and Installation of Piles suitable for the following working loads, etc including concrete reinforcement, couplings, drilling, driving or boring etc., complete and disposal of surplus excavation material to a dumping site to be located by the contractor				
	490mm Diameter piles with a load capacity of 800kN	No	42		R -
	TESTING				
	Load Testing:				

	The load test is to be completed within 28 days of installing the first pile. The test procedure shall be the British procedure. Piles shall be deemed to satisfy the test requirements if the minimum settlement measured at the pile cap does not exceed 10mm under the normal load, 18mm under the maximum load and 12mm for the residual settlement after removal of all load. It is required that the working pile will have to be tested to 1,5 times the working load. The piles to be tested will be selected on site by the Consulting Structural Engineer. The test will require deflection measurements at two independent localities on the pile accurate to 0,1mm. The set up reading of these deflections is to be approved by the Consulting Structural Engineer.				
	Transporting and establishment on site of necessary testing plant for the execution of the work and removal thereof on completion.	Item	2		R -
	Piles to be load tested for loads up to 1,5 times the working load including down drag forces. Exact positions to be agreed in due course.	No	3		R -
	Integrity Testing:				
	The contractor is to note that all piles to be integrity tested.				
	Establishment for Sonic Integrity Testing	No	42		R -
	Allow for sonic integrity testing of all installed piles	No	42		R -
	TEST BLOCKS				
	Grout cube testing (set of six cubes per day)	Item	1		R -
6	Setting up equipment at each position for installing piles on Eastern Bank	No	21		R -
4	Setting up equipment at each position for installing piles on Western Bank (Price to include by moving the equipment across the river and back on completion by a means determined by the piling contractor. The piling contractor must visit the site beforehand to acquaint himself with the conditions and restriction on site as no claims due to want of knowledge will be entertained)	No	21		R -
	<u>Form shaft for min 500mm diameter concrete permanently case cast in-situ percussion drilled piles (rate to include permanent casings and any attachments that may be required for casing or end percussion hammer/fittings)</u>				
5	a) Soft Material..... 0m - 7,5m	m	315		R -
6	b) Hard Material...7,5 - 10m	m	105		R -
7	High tensile steel reinforcement	t	1.2		R -
8	Mild steel reinforcement	t	7.8		R -
9	Form a minimum 1.5 meter socket into 'hard' rock formation, (In No 42 piles)	m	63		R -
10	Concrete grade 30/13 or as per manufacturers specification in cast in-situ piles	m³	82		R -
11	Strip head of min 500 mm diameter cast in-situ pile	No	42		R -
12	Allow for pile echo tests on selected piles	No	42		R -
Total Piling (Carried to Summary)					R -

SECTION 5: PREFABRICATED BRIDGE (BUDGETORY ALLOWANCE)					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
PREFABRICATED STRUCTURAL STEEL BUDGETORY ALLOWANCE					
1	Supply and deliver to site Mabey Compact 200 Panel Bridge 25m clear span	Item	1	R 7,650,000.00	R 7,650,000.00
2	Install Mabey Compact 200 Panel Bridge	Item	1	R 1,250,000.00	R 1,250,000.00
Total Bridge (Carried to Summary)					R 8,900,000.00

SECTION 7: ROADWORKS (PROVISIONAL)					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SABS 1200D: EARTHWORKS					
	<u>Restricted Excavation</u>				
	Site clearance				
1	Allow for clearing the site of all rubbish, vegetation matter, grass, shrubs, bushes, small trees etc. not exceeding 200mm girth, remove from site to a dumping ground to be located by the Contractor.	m ²	3270		R -
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m ²	3270		R -
	BULK EXCAVATION, FILLING, ETC.				
2					
	Open face excavation in earth over sloping site				
3					
	Open face excavation to form platforms for roads, parking areas, etc.	m ³	1,200		R -
4	Excavation in earth not exceeding 2m deep				
	To form platform	m ³	3,270		R -
5					
6	Extra over bulk excavation in earth for excavation in				
	Hard rock	m ³	39		R -
7					
	Extra over all excavations for carting away				
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m ³	3,270		R -
9					
	Keeping excavations free of water				
	Keeping excavations free of all water other than subterranean water	Item	1		R -
10					
11	EARTH FILLING, ETC				
	Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to 98% Mod. AASHTO density				
12					
	Over site to form platforms for roads, parking areas, etc.	m ³	600		R -
13	Selected G7 filling material supplied by the contractor and carted onto site, consolidated in 150mm thick layers and compacted to 95% Mod. AASHTO maximum density				
14					
	Over site to form platforms for roads, parking areas, etc	m ³	3,270		R -
	PRECAST CONCRETE PAVING BLOCKS				
	Paving is to be laid in accordance with SABS 1200MJ, SABS 1058 and the Concrete Masonry Association's Specification				
	Corobrik" or equal and approved clay paver size 220 x 108.5 x 50mm chamfered and nibbed in colour "Burgundy" or equal and approved interlocking roadstone paving on and including 20mm thick layer of river sand				

	50mm Paving to parking areas etc to falls (LI)	m ²	435	R	-
				R	-
	Corobrik" or equal and approved clay paver size 220 x 108.5 x 50mm chamfered and nibbed in colour "Nutmeg" or approved interlocking roadstone paving on and including 20mm thick layer of river sand			R	-
				R	-
	50mm Paving to parking areas etc to falls (LI)	m ²	22	R	-
				R	-
	Corobrik" or equal and approved clay paver size 220 x 108.5 x 50mm chamfered and nibbed in colour "Tuscan Blend" or approved interlocking roadstone paving on and including 20mm thick layer of river sand			R	-
				R	-
	50mm Paving to parking areas etc to falls (LI)	m ²	1,775	R	-
				R	-
	Corobrik" or equal and approved clay cobble size 108.5 x 108.5 x 50mm chamfered and nibbed in colour "ONYX" or approved interlocking roadstone paving on and including 20mm thick layer of river sand			R	-
				R	-
	50mm Paving to parking areas etc to falls (LI)	m ²	315	R	-
	Corobrik" or equal and approved clay cobble size 108.5 x 108.5 x 50mm chamfered and nibbed in colour "Cederberg" or approved interlocking roadstone paving on and including 20mm thick layer of river sand				
	50mm Paving to parking areas etc to falls (LI)	m ²	3	R	-
				R	-
	Corobrik" or equal and approved clay paver size 220 x 108.5 x 50mm chamfered and nibbed in colour "Graphite" or approved interlocking roadstone paving on and including 20mm thick layer of river sand				
	50mm boarder paving tile to parking areas etc to falls (LI)	m ²	289	R	-
	ROAD MARKING				
	Two coats reflective road marking paint on tarmacadam				
	100mm Wide white lines (unbroken) with an approved road marking paint	m	205	R	-
	100mm Wide white lines (broken) with an approved road marking paint	m	230	R	-
	100mm Wide yellow lines (unbroken) with an approved road marking paint	m	230	R	-
	'Pedestrian Crossing' 7000mm wide.	m	14	R	-
	Paraplegic symbol exceeding 2m2 and not exceeding 4m2	No	2	R	-
	Numeral or letter not exceeding 2m2	No	17	R	-
	Traffic arrow exceeding 2m2 not exceeding 4m2	No	24	R	-

	Yield Sign" exceeding 2m2 not exceeding 4m2	No	4		R	-
	Loading Sign" exceeding 2m2 not exceeding 4m2	No	2		R	-
	Speed Hump" size (5300 x 3500mm wide)	No	18		R	-
	Road signs					
	Standard "RMT1 STOP" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	1		R	-
	Standard "EXIT" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	1		R	-
	PRECAST KERBS					
	Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing					
	Kerb (SABS 927 figure 7) with 45 x 125mm unreinforced concrete footing, 250 x 250mm triangular concrete haunching at back of each joint and 300 x 150mm concrete infill in front with cement grouted joints, including excavations, backfilling, etc (LI)	m	7,848		R	-
					R	-
	Kerb (SABS 927 figure 7) but circular on plan not exceeding 4m radius formed with short lengths of straight kerb (LI)	m	390		R	-
					R	-
	Edge restraint beam				R	-
					R	-
	Reinforced concrete (25MPa/19mm) edge restraint beam 300 x 300mm high including excavation, backfilling, concrete, formwork, reinforcement (100kg/m3), steel floating, etc. (LI)	m	96		R	-
					R	-
	Wood float finish to falls to top of concrete to top of beams (LI)	m²	31		R	-
					R	-
	Total Roadworks (Carried to Summary)				R	-

SECTION 8: CONTRACT PARTICIPATION GOALS

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Note to tenderers: As CPGs may not provide any bidder a competitive advantage. Provisional amounts and fixed percentages for profit and attendance have been provided. Only the provisional amount will be adjusted once the awarded tender amount and/or the beneficiaries have been appointed, and the final values have been ascertained.				
1	<u>MINIMUM TARGETED ENTERPRISE DEVELOPMENT</u>				
1.1	A provisional amount has been allowed for in the execution of this project as described in C3.1 Project Specifications. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises including monitoring and monthly reporting.	PS	1		R 785,000.00
1.2	Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	1	5%	
1.3	Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	1	5%	
2	<u>MINIMUM TARGETED SKILLS DEVELOPMENT GOALS</u>				
2.1	A provisional amount has been allowed for the Minimum Targeted Development CPG in the execution of this project as described in C3.1 Project Specifications				
	<ul style="list-style-type: none"> • stipends payable to the beneficiaries • appointment of training coordinator • appointment of mentor (where applicable) • appointment of training service providers • other additional costs as per table 3 of the Standard <ul style="list-style-type: none"> • monitoring and monthly reporting 	PS	1		R 812,000.00
2.2	Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	1	5%	
2.3	Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	1	5%	
Total Roadworks (Carried to Summary)					

FINAL SUMMARY			
SECTION	DESCRIPTION		AMOUNT
1	PRELIMINARY AND GENERAL		
2	EARTHWORKS		
3	CONCRETE ABUTMENTS		
4	GABIONS		
5	PILING		
6	PREFABRICATED BRIDGE (BUDGETORY ALLOWANCE)		R 8,900,000.00
7	ROADWORKS (PROVISIONAL)		
8	CONTRACT PARTICIPATION GOALS		
		SUB TOTAL A	
	Allow 5% Contingency Amount for the unforeseen and the sum provided is under the sole control of the client and upon approval by the Client Representative and deducted in whole or in part.		
		SUB TOTAL B	
	Allow 15% Value Added Tax (VAT)		
TOTAL (INCL. VAT) (SUBTOTAL B PLUS VAT)			