

1200 GENERAL REQUIREMENTS AND PROVISIONS

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 1200</u></b>				
<b>12.00</b>	<b><u>GENERAL REQUIREMENTS AND PROVISIONS</u></b>				
12.01	Name boards				
	(a) Contract name board as per drwg	No	1.0		
B12.02	Relocating and/or protecting of existing services				
	(a) Payment for the relocation and/or protecting of existing	Prov Sum	1.0	R 25 000.00	R 25 000.00
	(b) Handling costs and profit in respect of B12.02 (a)	%	R 25 000.00		
B12.03	Community Liaison Office (CLO)				
	(a) Remuneration of the CLO	Prov Sum	1.0	R 27 500.00	R 27 500.00
B12.04	Project Steering Committee (PSC):				
	Payment of expenses/disbursements to members of the PSC	Prov Sum	1.0	R 9 000.00	R 9 000.00
	(b) Handling costs and profit in respect of B12.04	%	R 9 000.00		
B12.05	Provision of Training				
	(a) Appointment and training of One (1) Civil Engineering Students	Prov Sum	1.0	R 27 500.00	R 27 500.00
B12.06	<b>Provision of unaccredited training courses</b>	Prov Sum	1.0	R 25 000.00	R 25 000.00
	(a) Handling costs and profit in respect of B12.05	%	R 25 000.00		
B12.07	<b>CETA Accredited training courses for maintenance</b>	Prov Sum	1.0	R 75 000.00	R 75 000.00
	Handling costs and profit in respect of B12.06	%	R 75 000.00		
B12.08	Compliance with Environmental Management Plan	Sum	1.0		
B12.09	<b>Environmental Control Monitoring</b>				
	Payment for independent Environmental Control Officer (ECO)	Prov Sum	1.0	R 60 000.00	R 60 000.00
	Handling costs and profit in respect of B12.08	%	R 60 000.00		
B12.10	<b>Health and Safety Officer</b>				
	Provide Full-time Health and Safety officer	Month	5.0		
	Handling costs and profit in respect of B12.09	%	R -		
	<b><u>SECTION 1200</u></b>				
	<b><u>GENERAL REQUIREMENTS AND PROVISIONS</u></b>				
<b>Total Carried Forward To Summary</b>					

1300 CONTRACTOR'S ESTABLISHMENT

Section	Item Description	Unit	Quantity	Rate	Amount
Colto	<b><u>SECTION 1300</u></b>				
13.00	<b><u>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</u></b>				
13.01	Contractor's general obligations				
	(a) Fixed obligations	Sum	1.0		
	(b) Value-related obligations	Sum	1.0		
	(c) Time-related obligations	Month	5.0		
	<b><u>SECTION 1300</u></b>				
	<b><u>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</u></b>				
Total Carried Forward To Summary					

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto 1400</b>	<b><u>SECTION 1400</u></b> <b><u>HOUSING, OFFICES AND LABORATORIES FOR THE</u></b> <b><u>ENGINEER'S SITE PERSONNEL</u></b>				
14.01	Office and laboratory accommodation:				
	(a) Offices (interior floor space only)	m <sup>2</sup>	12.5		
	(b) Ablution units	m <sup>2</sup>	2.3		
14.02	Office and laboratory Furniture:				
	(a) Chairs	No	4.0		
	(b) Conferene Table	No	1.0		
14.03	Office and laboratory fittings, installations and equipment				
	(a) Items measured by number				
	(i) 220/250 volt power points	No	4.0		
	(ii) Double 80 watt flourescent light fittings complete with ballast and tubes	No	2.0		
	(iii) Fire extinguishers, 9.0kg, all purpose dry powder type, complete, mounted on wall with brackets	No	2.0		
	(iv) Steel filing cabinets with draws	No	1.0		
	(v) Bookcases	No	1.0		
14.04	Services				
	(a) Services at offices and laboratories				
	(i) Fixed Cost	L/sum	1.0		
	(ii) Running cost	Month	5		
14.05	Cellular telephones				
	(a) Prime cost items and items paid for in a lump sum				
	(i) The provision of mobile telephone service, including the cost of calls in connection with contract administration and telephone rental	Month	5	R 600.00	R 3 000.00
	(ii) Handeling cost and profit in respect of subitem 14.05 (a) (i) above	%	R 3 000.00		
14.06	(a) Combined photo copy and fax machine				
	(i) The provision of photo copy machines, 3G and laptop	PC. Sum	1	R 16 500.00	R 16 500.00
	(ii) Cost of internet connection and maintenance Contract for the duration of construction.	Prov Sum	1	R 3 750.00	R 3 750.00
<b>Total Carried Forward</b>					

Section	Item Description	Unit	Quantity	Rate	Amount
Brought Forward					
14.07	(iii) Handling costs and profit in respect of subsubitem B14.06(a)(i) and (ii) above	%	R 20 250.00		
	Engineer's Staff:				
	(a) Management and supervision of the works by Resident Engineer and Clerk of Works	Prov Sum	1	R 80 000.00	Rate Only
	(b) Handling costs and profit in respect of 14.07 (a)	%	R 80 000.00		Rate Only
14.08	a) Miscellaneous Expenses	Prov Sum	1	R 300 000.00	R 300 000.00
	(b) Handling costs and profit in respect of 14.07 (a)	%	R 300 000.00		
<p><b><u>SECTION 1400</u></b>  <b><u>HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL</u></b></p>					
Total Carried Forward To Summary					

1500 ACCOMMODATION OF TRAFFIC

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 1500</u></b>				
<b>15.00</b>	<b><u>ACCOMMODATION OF TRAFFIC</u></b>				
15.01	Accommodating traffic and maintaining temporary deviations	km	0.5		
15.02	Earthworks for temporary deviations:				
	(a) Shaping of temporary deviations	km	0.5		
	(b) Cut and borrow to fill	m <sup>3</sup>	75.0		
	(c) Cut to spoil	m <sup>3</sup>	11.3		
15.03	Temporary traffic-control facilities:				
	(a) Flagmen	man-day	210.0		
	(b) Portable STOP and GO-RY signs	No	6.00		
	(c) Delineators(DTG50J) (800mm x 200mm)				
	(i) Single sided blade (200mm x 800mm)	No	50.00		
	(ii) Mountable back to back	No	10.00		
	(d) Traffic cones	No	5.00		
15.04	Watering of temporary deviations	Kl	500.00		
15.05	Blading				
	(a) Existing roads used as temporary deviations	km.pass	0.50		
B15.06	Provision of safety equipment for the Engineer				
	(a) Amber rotating flash light as specified	No	1.00		
	(b) Magnetic stickers for vehicles as specified	No	1.00		
	(c) Safety Jackets	No	1.00		
	(d) Safety Boots	Prov Sum	1.00	R 4 100.00	R 4 100.00
	<b><u>SECTION 1500</u></b>				
	<b><u>ACCOMMODATION OF TRAFFIC</u></b>				
<b>Total Carried Forward To Summary</b>					

1600 OVERHAUL					
Section	Item Description	Unit	Quantity	Rate	Amount
Colto 16.00	<u>SECTION 1600</u> <u>OVERHAUL</u>				
16.01	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m <sup>3</sup> -km	12 109.50		
	<u>SECTION 1600</u> <u>OVERHAUL</u>				
Total Carried Forward To Summary					

1700 CLEARING AND GRUBBING

Section	Item Description	Unit	Quantity	Rate	Amount R
<b>Colto</b> <b>17.00</b>	<b><u>SECTION 1700</u></b> <b><u>CLEARING AND GRUBBING</u></b>				
17.01	Clearing and grubbing	ha	0.805		
17.02	Reclearing of surfaces (on the written instructions of the Engineer only)	ha	0.25		
17.03	Clearing and grubbing at inlets and outlets of hydraulic structures	m <sup>2</sup>	50		
17.04	Cleaning out of hydraulic structures:				
	(a) Pipes with an internal diameter up to and including 750 mm	m	5.0		
	<b><u>SECTION 1700</u></b> <b><u>CLEARING AND GRUBBING</u></b>				
<b>Total Carried Forward To Summary</b>					

C2.7.8



2200 PREFABRICATED CULVERTS

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 2200</u></b>				
<b>22.00</b>	<b><u>PREFABRICATED CULVERTS</u></b>				
<b>22.01</b>	<b>Excavation:</b>				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0m up to 1.5m	m³	268.8		
	(ii) Exceeding 1.5m and up to 3.0m	m³	134.4		
	(b) Extra over subitem 22.01 (a) excavation in hard material,irrespective of depth.	m³	29.9		
<b>22.02</b>	<b>Backfilling:</b>				
	(a) Using the excavated material	m³	4 728.0		
	(b) Using imported selected material	m³	80.0		
	(c) Extra over subitems 22.02 (a) and (b) for soil cement backfilling				
	(i) with 4% cement	m³	1.0		Rate Only
<b>22.03</b>	<b>Concrete pipe culverts:</b>				
	(a) On class C bedding:				
	(i) 450mm diameter Class 100D	m	1.0		Rate Only
	(ii) 600mm diameter Class 100D	m	7.3		
	(iii) 900mm diameter Class 100D	m	7.3		
	(iv) 1200mm x 1200mm Rectangular Box Culverts 100D	No.	1.0		Rate Only
	(iv) 3000mm x 3000mm Rectangular Box Culverts 75S	No.	20.0		
<b>22.04</b>	<b>Concrete backfill for culverts</b>				
	(a) Class 15/19 mass concrete blinding layer to underside of culvert foundations. Engineer to inspect all in-situ rock profiles prior to the placing of the concrete.	m³	13		
<b>22.05</b>	<b><u>Reinforcement</u></b>				
	(i) Mesh ref 888	m²	505		
	(ii) Mesh ref 617	m²	87		
	(iii) High-tensile steel bars	t	1.0		
	Y20 Dowels				
	Drilling of 30mm diameter holes, 1m deep, into rock for the installation of Y20 dowel bars. The contractors price should include the supply of Sikadur 32 or similar approved bonding agent to lock dowels into the rock.	No.	169.4		
<b>Total Carried Forward</b>					

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Brought Forward</b>					
<b>22.07</b>	<b>Cast in-situ concrete and formwork</b>  (a) Concrete class 30/19 to foundation, apron, top slabs, abutments, wingwalls and approach slabs of box culverts. Contractors price should include steel floated finish.  (c) Formwork for concrete under item 22.07 (a) Vertical Formwork for F1 surface finish	m <sup>3</sup>	62		
<b>22.17</b>	<b>Manholes, Catchpits, precast inlet and outlet structures complete:</b>  (a) Headwalls and Inlet Structures as per drwg  (i) Construction of headwalls and Inlet Structures complete.	m <sup>2</sup>	65		
<b>22.25</b>	Overhaul on excavated material catered to spoil, existing structures demolished and removed to spoil and removing and stacking existing prefabricated culverts, for haul in excess of 1Km free haul	No	12.0		
<b>22.26</b>	<b>Structural Steel</b> Supply and install heavy duty galvanised steel hand rails with ball type stanchions every 1,5m	m <sup>3</sup> -km	1.0		Rate Only
		m	30.0		
	<b>SECTION 2200</b> <b>PREFABRICATED CULVERTS</b>				
<b>Total Carried Forward To Summary</b>					

## 3100 EARTHWORKS AND PAVEMENT LAYERS OF GRAVEL

Section	Item Description	Unit	Quantity	Rate	Amount
Colto 31.00	<b><u>SECTION 3100</u></b> <b><u>BORROW MATERIALS</u></b>				
31.01	Excess overburden in borrow pits for obtaining gravel for pavement layers				
	(a) Overburden in soft excavation	m³	1642.8		
	(b) Overburden in intermediate excavation	m³	328.6		
	(c) Overburden in hard excavation	m³	164.3		
31.02	Finishing - off borrow areas in:				
	(a) Hard Material	ha	0.5		
31.03	Rehabilitation of existing borrow pits as per EMPr	Prov-sum	1.0	R 30 000.00	R 30 000.00
	<b><u>SECTION 3100</u></b> <b><u>BORROW MATERIALS</u></b>				
Total Carried Forward To Summary					

3300 MASS EARTHWORKS

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 3300</u></b>				
<b>33.00</b>	<b><u>MASS EARTHWORKS</u></b>				
33.01	Cut and borrow to fill, including free-haul up to 1,0km				
	(a) Gravel material in compacted layer thickness of 150 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m³	1 138.5		
	(c) Rockfill material	m³	334.9		
33.02	Cut to spoil, including free-haul up to 1,0 km. Material obtained from:				
	(a) Soft excavation	m³	621.0		
	(b) Intermediate excavation	m³	310.5		
	(c) Hard excavation	m³	103.5		
	(d) Boulder excavation class A	m³	51.8		
	(e) Boulder excavation class B	m³	51.8		
33.03	Removal of unsuitable material (including free-haul of 1.0 km):				
	(a) In layer thicknesses of 200 mm and less:				
	(i) Stable material	m³	828.0		
	(ii) Unstable material	m³	552.0		
33.04	Roadbed preparation and the compaction of material:				
	(a) Compaction to 93% of modified AASHTO density	m³	1 035.0		
	<b><u>SECTION 3300</u></b>				
	<b><u>MASS EARTHWORKS</u></b>				
<b>Total Carried Forward To Summary</b>					

3400 PAVEMENT LAYERS OF GRAVEL MATERIAL

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 3400</u></b>				
<b>34.00</b>	<b>PAVEMENT LAYERS OF GRAVEL MATERIAL</b>				
<b>34.01</b>	<b>Pavement layers constructed from gravel obtained from borrow pits within a free haul distance of 1km:</b>				
	(a) Gravel Subbase layer compacted to:				
	(i) 93% modified AASHTO density (150mm)	m³	862.5		
	(b) Gravel base / wearing coarse layer compacted to:				
	(i) 95% modified AASHTO density (150mm)	m³	862.5		
	(c) Treatment of existing wearing course layer				
<b>34.03</b>	Gravel layers constructed from gravel obtained from existing pavement layers				
	(h) Gravel base layer (unstabilized) compacted to:				
	(i) 98% modified AASHTO density (150mm)	m³	1.0		
	<b>Heavy maintenance</b>				
	(a) 7m road width (riding surface)	km	1		
	<b><u>SECTION 3400</u></b>				
	<b><u>PAVEMENT LAYERS OF GRAVEL MATERIAL</u></b>				
<b>Total Carried Forward To Summary</b>					

5100 PITCHING, STONework AND PROTECTION AGAINST EROSION

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 5100</u></b>				
<b>51.00</b>	<b>PITCHING, STONework AND PROTECTION AGAINST EROSION</b>				
51.01	Stone pitching:				
	(a) Plain pitching				
	(i) Method 1	m <sup>2</sup>	1.0	R 135.00	
	(c) Grouted stone pitching on a concretebed	m <sup>2</sup>	480.0	R 130.00	
<b>Total Carried Forward To Summary</b>					

5200 GABIONS

Section	Item Description	Unit	Quantity	Rate	Amount
Colto 52.00	<b><u>SECTION 5200</u></b> <b><u>GABIONS</u></b>				
52.01	Foundation trench excavation and backfilling: (a) In all other classes of material	m³	780.0		
52.02	Surface preparation for bedding of gabions	m²	293.3		
52.03	Gabions (a) Galvanized Gabion Boxes (i) 1m X 1m X 1m (c) Galvanised Reno-mattress with size: 60 X 80 mesh (i) 6m X 1m X 0.5m (i) 6m X 1m X 0.3m	m³     	112.0     		
52.04	Filter fabric - Grade 3 (Kaymat U24 or similar)	m²	422.4		
B52.03	Extra over item 52.03 (c) for cutting mattresses to suit	m	43.3		
	<b><u>SECTION 5200</u></b> <b><u>GABIONS</u></b>				
<b>Total Carried Forward To Summary</b>					R

## 5400 GUARDRAILS

[illegible]



5600 ROAD SIGNS

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b>	<b><u>SECTION 5600</u></b>				
<b>56.00</b>	<b><u>ROAD SIGNS</u></b>				
56.01	Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or Class I retro-reflective material, where the sign board is constructed from:  (a) Prepainted galvanized steel plate (chromadek or approved equivalent)  (i) Area not exceeding 2m <sup>2</sup>	m <sup>2</sup>	20.0		
56.02	Road sign supports (overhead road sign structures excluded):  (a) Timber 100-125 dia, type CCA treated timber.	m	81.6		
56.03	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m <sup>3</sup>	3.5		
56.04	Extra over item 56.03 for cement-treated soil backfill	m <sup>3</sup>	3.5		
56.05	Extra over item 56.03 for rock excavation	m <sup>3</sup>	3.5		
56.06	Provision and erection of dangerplates at culverts/structures	No	12.0		
56.07	In situ concrete to footings class 20/19 to footings for signs	m <sup>3</sup>	2.0		
	<b><u>SECTION 5600</u></b> <b><u>ROAD SIGNS</u></b>				
<b>Total Carried Forward To Summary</b>					

5900 ANCILLARY ROADWORKS

Section	Item Description	Unit	Quantity	Rate	Amount
<b>Colto</b> <b>59.00</b>	<b><u>SECTION 5900</u></b> <b><u>FINISHING THE ROAD AND ROAD RESERVE AND</u></b> <b><u>TREATING OLD ROADS</u></b>				
59.01	Finishing the road and road reserve :  (a) Single carriageway road	km	1.2		
	<b><u>SECTION 5900</u></b> <b><u>FINISHING THE ROAD AND ROAD RESERVE AND</u></b> <b><u>TREATING OLD ROADS</u></b>				
Total Carried Forward To Summary					R -

8100 TESTING WORKMANSHIP AND MATERIALS

Section	Item Description	Unit	Qty	Rate	Amount
<b>Colto</b> <b>81.00</b>	<b><u>SECTION 8100</u></b> <b><u>TESTING WORKMANSHIP AND MATERIALS</u></b>				
81.02	Other special test required by the Engineer	Prov Sum	1.0	R 20 000.00	R 20 000.00
	<b><u>SECTION 8100</u></b> <b><u>TESTING WORKMANSHIP AND MATERIALS</u></b>				
<b>Total Carried Forward To Summary</b>					<b>R 20 000.00</b>

9400 OCCUPATIONAL HEALTH AND SAFETY

Section	Item Description	Unit	Qty	Rate	Amount
Colto 9400	<b><u>SECTION 8100</u></b> <b><u>OCCUPATIONAL HEALTH AND SAFETY</u></b>				
94.01	Preparation of Contractor's site specific Health and Safety Plan	Lump sum	1		
94.02	Principal Contractor's initial obligations in respect of the OHS Act and Construction Regulations	Lump sum	1		
94.04	Review of OHS Plan for each assignment. Rate to include for risk assessment specific to the Covid-19 Epidemic and other adjustments to ensure compliance for the assessment	Sum	1		
94.05	Provision of Personal Protective Equipment & Protective Clothing				
	(a) Reflective vests	No	10		
	(b) Hard hats	No.	10		
	( c) Protective foot wear	No	10		
	(d) Earplugs	No	10		
	(e ) Dust masks	No	20		
	(f) Gloves	No	20		
	(g) High visibility overalls to SARTSM Chapter 13 Level 3	No	10		
	(h) Ear defenders SABS approved	No	10		
	(i) Face masks for Covid-19 (respiratory protection, as required)	No	10		
	(j) Surgical gloves (for security and cleaning team)	No	25		
	(k) Safety goggles for screening person	No.	5		
	(l) Hand sanitiser	Litres	5		
	(m) Cleaning detergents	Litres	10		
94.06	Provision of full time Construction Health & Safety Officer	Month	5		
94.07	Costs of medical certificates and Medical Surveillance				
	(a) Initial (baseline) medical examinations	No	10		
	(b) Periodic and exit examinations	No	10		
	(c) Screening for Employees with covid-19 symptoms	No.	10		
	( e) None contact thermometers	No.	1		
94.08	Induction Training	No	10		
94.10	Provision of First Aid Boxes	No	1		
94.11	Submission of the Health and Safety File	Lump sum	1		
94.13	Waste management with adequate waste bins	Sum	1		
94.14	Maintenance of a registers for workers contacts	Sum	1		
<b>CARRIED FORWARD TO SUMMARY:</b>					

SUMMARY OF SECTIONS		
SECTIONS	DESCRIPTIONS	AMOUNTS
1200	GENERAL REQUIREMENTS AND PROVISIONS	
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL	
1500	ACCOMMODATION OF TRAFFIC	
1600	OVERHAUL	
1700	CLEARING AND GRUBBING	
2100	DRAINS	
2200	PREFABRICATED CULVERTS	
3100	BORROW MATERIALS	
3300	MASS EARTHWORKS	
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
5100	PITCHING, STONWORK AND PROTECTION AGAINST EROSION	
5200	GABIONS	
5400	GUARDRAILS	
5600	ROAD SIGNS	
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	
8100	TESTING WORKMANSHIP AND MATERIALS	
9400	OCCUPATIONAL HEALTH AND SAFETY	
	<b>SUB-TOTAL A</b>	
	PROVISIONAL SUM FOR CONTINGENCIES (5% OF SUB-TOTAL A)	
	<b>SUB-TOTAL B</b>	
	VALUE ADDED TAX (15% OF SUB-TOTAL B)	
	<b>TOTAL CARRIED FORWARD TO FORM OF OFFER AND ACCEPTANCE</b>	