	PROPOSED CIVIL WORKS AT ISIOLO 33/11KV SUBSTATION			
Item	Description	Unit	Qty	Rate
	ELEMENT No.1			
	PRELIMINARIES AND ENABLING WORKS			
A	Allow for all necessary statutory approvals for the works by relevant county authorities; Replication of drawings to required formats by county government; Endorsement by relevant proffesional persons; and submit a set of approved drawings before commencement to client on completion, including site registration fees.	ITEM	1	
В	Allow for a qualified person conversant with Kenya Power safety regulations and can received safety electrical permits for the entire constract period.	ITEM	1	
С	Allow for prompt communication and updates facilitation to client supervision team.	ITEM	1	
D	Allow for security and insurance for the proposed works	ITEM	1	
E	Allow for temporary sign post for the proposed works.	ITEM	1	
F	Allow for temporary metered electricity supply/generator for the works (Lv suppy within site)	ITEM	1	
G	Allow for clean water on site for the construction works.	ITEM	1	
Н	Allow for temporary site office to accommodate atleast seven people/store for materials storage etc.	ITEM	1	
J	Allow for shutdowns executions delays and monthly site meetings.	ITEM	1	
K	Allow for suply for substation with water including all local authorities charges, submain pipes and all connections, testing and commissioning of all the plumbing works about 20m away.	ITEM	1	
L	Allow for registratioN of site/project and staff(foreman,Mason,Capenters,etc)with the National contruction Authority (NCA).	ITEM	1	
М	Rehabilitate by making good all other disturbed areas in the substation, Painting of the existing pit latrine and guardhouse.	ITEM	1	
N	Allow for a permanent signboard for the works as per KPLC specifications after completion of the works.	ITEM	1	
	ELEMENT No.2			
	TRANSFORMER PLINTH 1 No.			
1	Excavations.			
A	Excavate for 1No. transformer plinth pit size (9400x6900)mm, depths n.e. 1.5m from original ground level.	CM	98	
B C	Ditto exceeding 1.5m but n. e. 3m Extra over excavation in rock.	CM	20	
D	Allow for keeping excavated pits water free by pumping, bailling or otherwise.	- CM ITEM	1	
Е	Allow for planking and strutting to uphold the foundations.	ITEM	1	
F	Return, fill and ram selected excavated materials around transformer plinth.	СМ	43	
G	Removing excess excavated materials from Site and disposing off.	СМ	55	
Н	Compacting bases of the transformer plinth foundation base and blinding with concrete mix (1:4:8 - 50 mm thick)	SM	37	
	Total this page and carried to summery page.			

Item	Description	Unit	Qty	Rate
2	High yieled steel reinforcement bars including cutting, bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.			
A	Reinforcement bars Y8, Y10 and Y12 to bases, upstand beams and top slabs for Tx. plinth all spaced @ 200 c/c.	KG	1800	
3	Formwork			
A	Steel/ wooden formwork to sides of plinth upstand beams and the plinths sides to produce a fairly smooth concrete surface finish (plastering concrete surfaces will not be allowed))	SM	650	
4	Concrete			
A	Class 25(20) concrete in the transformer foundation base 300mm thick.	СМ	15	
В	Class 25(20) concrete in the plinth upstand beams.	CM	15	
С	Class 25(20) concrete in the plinths top slabs sizes (5000x2500)	СМ	6	
5	Hardcore fill			
Α	Well compacted hardcore fill in the plinth	CM	15	
В	50mm thick murram blinding and DPM on the hardcore	SM	10	
6	Finishes			
A	Surfaces finish smooth trowelled in (1:3) cement/ Sand mortar including 50mm chamfer all round top edges of plinth.	SM	40	
7	Transformer Ground Anchor			
A	Excavate for 1No. Ground anchors size (1500x1500)mm depth n.e. 1.5m from stripped level and dispose off the spoil	СМ	1	
8	Vibrated reinforced concrete class 20/25 1:2:4 as described in;			
A	Ground anchors	СМ	5	
В	Allow for fixing ground anchors in place before concreting, client to provide the steel anchors.	ITEM	1	
С	Supply and fix fabicated heavy duty gratting of deformed R16 @ 10mm c/c fastened on 50x50x4mm angle iron fastened to contrete with 10mm plate with full welds; painted with zinc red oxide primer base coat and final alluminium leafing paint to cover the transformer oil spillage sump.	ITEM	1	
	ELEMENT No. 3			
	CABLE TRENCHES AND DUCTS			
1				
A	Excavate for cable trench 1.2m wide from reduced level not exceeding 0.7 metres deep.	СМ	66	
В	Load, cart away excavated materials and dispose at areas designated by local authority.	CM	52	
С	Backfill and ram selected excavated materials around trench walls.	CM	20	
D 2	50mm plain concrete(1:4:8) blinding on cable trench base Vibrated reinforced concrete class 20/25 1:2:4 as described in;	SM	55	
A	In 150mm thick trench base.	СМ	10	
	Total this page and carried to summery page.			



Item	Description	Unit	Qty	Rate
В	In 150mm thick trench walls with fairly smooth face finish.	CM	15	
С	Provide and put in place (1000x300x75mm) thick precast concrete trench covers reinfoced with Y8 bars spaced at 100mm both ways with fair face finish on both side; with all edges protected with 25x25x 3mm angle iron.	No.	220	
3	High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.			
A	Y 8 in cable trench @ 200 c/c both ways	KG	1330	
4	Form work to			
A	To sides of trench walls.	SM	218	
5	Cable Ducts			
A	Provide and put in place 150mm diameter heavy duty pvc cable ducts at various points surrounded 150mm mass concrete (1:2:4)	LM	100	
В	Provide 150mm diameter PVC bends	No.	20	
С	50x50x4mm angle line embedded in concrete cable trench edges	LM	60	
6	Cable trays			
A	Provide in the cable trench a layer of a steel cable tray 600mm wide suspended 200mm above trench base by supports at 1200 c/c, fabricated out of (50x50x4mm thick) angle irons and (50x25x4mm thick) RHS spaced at 400mm c/c. Painted with 2 coats of red oxide primer ans 2 coats of Zinc Alluminium paint (gloss)	LM	60	
	ELEMENT No.4			
	CONTROL ROOM 10M X5M			
	Substructure			
1	Excavations			
A	Excavate oversite vegetable soil average depth 150mm and cart away.	SM	92	
В	Excavate for foundation strip 700mm wide commencing from stripped level depth not exceeding 1.5m.	СМ	37	
С	Ditto but for widening for column bases size (1000x1000)mm	CM	3	
D	Ditto but for cable trenches (600x600)mm, approx. 15m long	CM	12	
Е	Extra over for excavations in all classes of rock at any depth	CM	4	
F	Allow for all necessary planking and strutting to uphold foundations.	ITEM	1	
G	Allow for keeping excavation free from general water by pumping, bailling or otherwise.	ITEM	1	
2	Blinding			
	Mass Concrete Class P as described.			
A	Plain concrete (1:4:8-20mm aggregates) in 50mm thick blinding to strip foundation, column bases and control room cable trench.	SM	44	
3	Sawn formwork to: -			
A	Sides of strip footing 100-150mm high	LM	74	
В	Sides of ground floor slab 100-150mm high	LM	30	
	Total this page and carried to summery page.			



Item	Description	Unit	Qty	Rate
С	Ditto but in cable trenches	SM	45	
D	Ditto but to column bases footings.	SM	4	
4	Concrete.			
	Vibrated reinforced concrete class 25 (1:2:4/25) as described in			
A	Strip foundation (700x250mm thick)	CM	7	
В	Cable trenches 150mm thick	CM	5	
С	Column bases (1000x1000x250mm thick)	CM	2	
D	Substructure columns stubs size (200x200)mm	CM	1	
Е	Concrete door ramp	CM	5	
5	Reinforcement			
	High yield mild steel reinforcement from 8mm to 12mm including cutting, bending, spacers, tying wire and fixing to BS 4449 in, strip foundation, column bases, footing and cable trenches.			
A	Y 12 in columns @ 200 c/c	KG	239	
В	Y 10 in foundation strip @ 200 c/c	KG	169	
С	Y8 in rings and control room cable trench @ 200 c/c	KG	175	
6	Substructure walling			
	Substructure natural stone walling in cement sand mortar (1:3) including reinforcing with 20 SWG Hoop iron at every alternate course			
A	200mm thick wall.	SM	126	
7	Hardcore Fill			
A	Excavations in control room to reduce levels and cart away the spoil	CM	15	
В	Average 150mm thick layers of selected and well compacted imported murram fill, compact using approx. 2 ton vibrating roller to receive hardcore filling.	СМ	88	
С	Selected imported hardcore fill, compacted in layers of 150mm thick to make up levels to satisfaction of client	СМ	30	
D	Return, fill and ram selected excavated materials around foundations and trenches.	СМ	10	
Е	Load cart away surplus excavated materials and dispose in areas designated by local authority.	СМ	37	
F	50mm thick approved murram blinding on hardcore fill.	SM	70	
8	Insecticide.			
A	Prepare and apply "Premise 200 SC " or equal and approved insectcide to surfaces of blinding as per manufacturer"s written instructions.	SM	50	
9	Damp Proofing.			
A	1000 gauge polythene DPM laid on top of blinding including 200mm side and end laps.	SM	70	
	Total this page and carried to summery page.			



ltem	Description	Unit	Qty	Rate
10	BRC Mesh A142			
A	BRC mesh reference No. A142 weighing 2.22kg per square meter including			
11	150mm minimum end and side laps, bends, tying wires and spacer blocks.	SM	70	
11	Concrete			ii
	Vibrated reinforced concrete class 25 (1:2:4/25) as described in			
A	150mm thick ground floor slab.	SM	50	
	Superstructures			
12	Damp Proof Course.			
A	200mm wide dump proof cource (DPC) laid with 1:3 mix cement sand mortar.	LM	35	
13	Walling			
	Walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternate courses.			
A	200mm thick medium dressed natural stone wall/approved concrete blocks/Machine cut stones as control room walling.	SM	160	
13	Sawn formwork to;			
A	Vertical sides of floor slab beams and roof slab	SM	42	
В	Ditto but soffit	SM	2	
С	Ditto but soffit of roof slab	SM	45	
D	Sides of columns	SM	15	
14	Concrete			
	Vibrated reinforced concrete class			
	25 (1:2:4/25) as described in:			
A	Columns size (200x200)mm	СМ	2	
В	Ring beam	СМ	5	
С	150mm thick roof slab	SM	50	
	Reinforcement Bars			
15	Steel reinforcement bars including cutting, bending, spacer blocks, tying wires and fixing. High tensile bars to BS 4461: 8mm to 12mm bars to:			
A	Y 8 in rings @ 200 c/c	KG	149	
В	Y 10 in slab	KG	550	
С	Y 12 in clumn and beams	KG	240	
16	Roofing			
	Supply and fix 5No.fabricated steel trusses spanning 5000mm and hoisted to a height not exceeding 4.50m high including fixing to roof slab as described;			
i	Total this page and carried to summery page.			



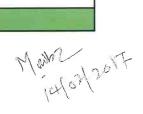
em	Description	Unit	Qty	Rate
A	Trusses consisting of 50x50x4mm tie beam,rafters 50x50x3mm,struts and ties 50x50x3mm; all with 10 cleats 100x50x4mm for purlin anchor,to heights not exceeding 4.5m spanning 5m with weight not exceeding 200kg including securing them to roof slab.		5	
В	Zed purlins ZS6 100mm deep	LM	90	
С	Prepare and apply 2 coats of metal primer paint on roof metal framework.	ITEM	1	
D	Supply and fix BP760 box profile factory pre-painted gauge 26 roofing sheets to an approved colour laid with 94mm side laps and 150mm end laps fixed to steel 'Z' purlin (m/s) including 'J' bolts washers, nuts and rubber caps at 600mm centers	SM	110	
Е	Ditto but 28Gx480mm with stiffeners ridge caps	LM	11	
17	Rainwater Goods			
A	Allow for all the necessary rain water goods including down pipes, swan necks and bends.	ITEM	1	
В	14 Gauge mild steel gutter sheet welded and bolted to gutter stool	LM	22	
С	Fabricate SHS 50x50x3mm thick steel facsia cladding framework structure 1000mm height, 50x50x3mm SHS struts, including fixing into the wall with adequate wall passes as described to client satisfaction.	LM	40	
D	Supply and fix BP760 box profile factory pre-painted gauge 26 cladding sheets to an approved colour laid with 94mm side laps fixed to 1000mm high steel fascia cladding frame including 'J' bolts washers, nuts and rubber caps, including underside of cladding 500mm wide	SM	45	
Е	Purpose made 14 gauge box gutter 900mm girth, srewed/welded to gutter stool on 50x25x3mm thick M.S fixed to rafters at 600mm centres; internally painted with two coats of black bituminous paint, externally with one coats of red oxide primer and two coats of finishing silver alluminium paint	LM	27	
F	Extra over for stopped ends.	No.	2	
G	Ditto for 100mm diameter holes in gutter.	No.	2	
Н	Extra over down pipe for swan neck (pvc pipes 100mm dia. And bends)	No.	4	
18	Painting generally.			
A	Prepare and apply 2 coats of red oxide primer and apply 2 coats of silver alluminium finish on rainwater goods	ITEM	1	
19	Aluminium Windows			
A	Install aluminium casement sliding windows size (1200x1500mm high) complete with 6mm thick glazing. Also fabricate a mild steel grill made out of round bars R16 9 pattern to decided by client) and fixed at each window and painted.	No.	4	
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B Prepare and apply 2 coats of red oxide primer and apply 2 coats of matt finish paint on windows frame of 63mm girth C 250x50mm thick precast concrete weathered and throated window sill reinforced, finished fair face on all exposed surfaces, bedded and jointed in cement sand mortar (1:4) 20 Doors A Double leaf steel doors overal size (1650x3075mm) openable 1500x3000mm high in two panels 750mm wide consisting of 1.6mm thick plate welded into 50x25x3mm framework; 75x50x6mm main frame with wall anchors; client approved steel louvers size (400x300)mm fixed at top bottom of all shutters as per the clients requirement. B Ditto but single leaf steel internal door 1200mm wide C Prepare and apply 2 coats of red oxide primer and 3 coats of gloss paint on all steel doors internal and externally. 21 Finishes A I3mm thick cement sand plaster (1:4) to walling and soffits of floor slab mixed with line smooth finish to receive paint with size of floor slab with size of slab with slab slab with slab slab with slab slab slab slab slab slab slab slab	Rate	Qty	Unit	Description	tem
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grade silk vinyl emmulsion paint on all plastered surfaces internally and externally. (Colour scheme to be provided by client) 22 Flooring A 20mm thick cement sand (1:3) screed for floor to receive terazzo SM 55 B 30mm thick well polished terrazzo floor finish C 32 x 2mm thick Plastic dividing strips. LM 108 23 Plinth Area. A 12mm thick cement sand mortar(1:4) render to plinth. B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. SM 21 24 Cable trench covers A Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		138	SM	with steel foat finish.	В
A 20mm thick cement sand (1:3) screed for floor to receive terazzo B 30mm thick well polished terrazzo floor finish C 32 x 2mm thick Plastic dividing strips. LM 108 23 Plinth Area. A 12mm thick cement sand mortar(1:4) render to plinth. B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. SM 21 24 Cable trench covers A Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		320	SM	grade silk vinyl emmulsion paint on all plastered surfaces internally and	С
B 30mm thick well polished terrazzo floor finish C 32 x 2mm thick Plastic dividing strips. LM 108 23 Plinth Area. A 12mm thick cement sand mortar(1:4) render to plinth. B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. SM 21 B Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) NO 24 Vibrated reinforced concrete class 20/20 (1:2:4/20) in;				Flooring	22
C 32 x 2mm thick Plastic dividing strips. LM 108 23 Plinth Area. A 12mm thick cement sand mortar(1:4) render to plinth. B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. SM 21 24 Cable trench covers A Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		55	SM	20mm thick cement sand (1:3) screed for floor to receive terazzo	A
23 Plinth Area. A 12mm thick cement sand mortar(1:4) render to plinth. B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. 24 Cable trench covers A Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) NO 24 Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		55	SM	30mm thick well polished terrazzo floor finish	В
A 12mm thick cement sand mortar(1:4) render to plinth. B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. 24 Cable trench covers A Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) NO 24 Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		108	LM	32 x 2mm thick Plastic dividing strips.	С
B Prepare and apply undercoat and three coats of bituminous gloss paint to plinth. 24 Cable trench covers A Provide 50x50x3mm angle iron embedded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) NO 24 Vibrated reinforced concrete class 20/20 (1:2:4/20) in;				Plinth Area.	23
plinth. 24 Cable trench covers A Provide 50x50x3mm angle iron embedded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		21	SM	12mm thick cement sand mortar(1:4) render to plinth.	A
A Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers Chequered plate B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) NO 24 Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		21	SM		В
B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;				Cable trench covers	24
B Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		34	LM	· -	A
(1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss) 25 Door ramp Vibrated reinforced concrete class 20/20 (1:2:4/20) in;				Chequered plate	
Vibrated reinforced concrete class 20/20 (1:2:4/20) in;		24	NO	(1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with	В
				Door ramp	25
A concrete ramps at the doors SM 5				Vibrated reinforced concrete class 20/20 (1:2:4/20) in;	
		5	SM	concrete ramps at the doors	A

Mount

Item	Description	Unit	Qty	Rate
В	Mild steel bar to BS 4449; BRC mesh reference No. A142 weighing 2.22kg per square metre including 150mm minimum end and side lap,bends, tying wires and spacer blocks	SM	5	
С	600x600x50mm thick precast paving blocks embeded on well compacted 50mm murram, jointed with cement/sand mortar (1:4)	SM	46	
	ELEMENT No. 5			
26	ELECTRICAL INSTALLATION WORKS			
A	Electrical builders work to power supply points for 1No-12way-3phase distribution board, 1No. single phase 4-way consumer unit, 4No. double socket outlets, 8No. lighting points and all the necessary fittings, earthing the control room incuding chasing and making good all works as described		1	
27	Substation Lighting			
A	Supply 240 watts AC (LIGHT DEPENDENT TYPE) bulky head floodlights with energy saver 100 watts sodium metal halide lamps (for kplc to install on the bus bars)	NO	12	
В	Supply and fix emergency chargeable lights in the control room to client approval.	NO	2	
4	Allow for Electrical installation to be carried out by a nominated sub-contractor as per Electrical drawing-lump sum and to comprise of the following, (1) 1No12way 3-phase, 415v distribuition board rated 100Amps, complete with 3-phase MCBS, 32Amps, 3-sets, 20Amps, 3-sets, 16Amps, 2-sets, (2) 1No. single phase consumer unit rated 100A with four single phase MCBS rated 10A, 16A, 30A & 20A, (3) 4No. approved double socket outlets, (4) 4no. approved complete flourescent lights 30watts, 1200mm long & 4No. security lights, (5) 3No. approved switches. (6) Approved standard wiring cables and any other necessary fittings.	ITEM	1	
	ELEMENT No. 6			
A	SMOKE DETECTORS INSTALLATIONS			
1	Allow for Hardwired Smoke detectors installations; including a battery back up; to be carried out by a nominated sub-contractor	ITEM	1	
2	Allow for general attendance on specialist contractor	ITEM	1	
3	Builder's work in connection with Smoke detector installations; cut away for and attend in all trades on the sub-contractor installing the following points in a mainly concealed system; including chases, holes and recess notching in timber etc; and making good all finishes for cut in boxes, electrical wiring, mounting brackets, smoke detector feeds, fire alarm points etc	ITEM	1	
	Total this page and carried to summery page.			



Item	Description	Unit	Qty	Rate
	ELEMENT No. 7			
	FIRE EXTINGUISHERS			
1	Supply and fix controlled discharge 9 litre water carbon dioxide gas fire extinguisher manufactured to BS EN 3-9:2006, Bs 7863:2009, BS 5306-4:2001 and the cylinder manufactured to BS 5045 complete with the following:			
A	Charge and fixing bracket, Pictorial instructions, Colour code, Servicable on site, discharge horn and hose, Brass hot stamping, Operating valve, Local Fire Brigade approval	NO	4	
В	Ditto but powder fire extinguishers	No	2	
С	Ditto fire blanket 6' x 4' container	No	2	
	ELEMENT No.8			
1	OIL INTERCEPTOR			
A	Excavate starting from ground level a pit size (5mx3mx2m depth)	СМ	32	
В	Return, fill and ram selected excavated materials around the intercepter walls	CM	22	
С	Removing excess excavated materials from Site and disposing off.	СМ	10	
D	Compacting bases of pit and blinding with concrete mix (1:4:8 - 50 mm thick)	SM	7	
Е	Concrete (1:2:4/25) reinforced with BRC A142 including 200mm laps, and all necessary tying wires and supports in slab 200mm thick.	SM	7	
F	Concrete block walling 225mm thick in cement/sand mortar (1:3) reinforced with 20SWG hoop iron in every two alternating courses.	SM	27	
G	25mm thick cement/sand water proof (1:4) rendering on wall surfaces and floor slab finished smooth and waterproofed.	SM	45	
2	Sawn Formwork			
A	Vertical sides of slabs and beams girth 150-300 high	LM	40	
В	Soffits of slab	SM	6	
3	High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.			
1	In slab and ring beams Y8 and Y10 @ 200 c/c	KG	450	
D	Vibrated reinforced concrete class 20/25 1:2:4 as described in;			
A	Slab and beams	CM	6	
В	Provide and fix heavy duty galvanized (600x450x50mm) composite polymer resin manhole covers and frames	No.	4	
С	Soakpit 1.8m dia n.e 25ft deep to seepage level including filling with boulders and loose sand at top 1m layer with provision for inlet point for pvc pipes with cover slab 150mm with BRC layer overlying 3 masonary courses	ITEM	1	
D	Provide and lay 100mm medium gauge PVC pipes with 100mm concrete surrounded, connecting the plinth sumps to the oil interceptor.	LM	60	
	Total this page and carried to summery page.			



Item	Description	Linia	Ota	Rate
		Unit	Qty	
Е	Construct on site manholes to M.O.P.W. specifications including heavy duty galvanized (600x450x50mm) composite polymer resin manhole covers.	No.	4	
	ELEMENT No.9			
1	ACCESS ROAD (PAVING BLOCKS)			
A	Excavate for access road depth not exceeding 500mm and cart away the spoil.	СМ	295	
В	Backfill with selected well compacted hardcore fill, Average depth of 450mm and well compacted in layers of 150mm thick using 10 tonne vibrating roller to receive paving blocks.	SM	364	
С	50mm thick approved and well compacted quarry dust blinding on hardcore surfaces	SM	364	
D	Heavy duty industrial concrete paving blocks size (210x105x80mm) minimum strength 49N/mm square laid to slope on quarry dust and compacted.	SM	364	
Е	125 x 250 mm Splayed kerb to BS 340 including 125 x 100 mm channel on and including concrete Class 'E' foundation and 100 mm haunching to back of a kerb including all necessary excavation, formwork and disposal.	LM	140	
F	Ditto curved to plan.	LM	16	
G	Extra over for junction between straight and curved kerbs.	NO	8	
	ROAD MARKING			
	Prepare surfaces and apply three coats of approved road marking paint: to			
Н	Kerb stones and parking 75 to 150mm girth with Kenya Power branded colours.	LM	140	
	Cable ducts			
J	Supply and install 150mm diameter medium gauge PVC pipes as ducts for cables crossing the access road and control room cable trench entrance location.	LM	24	
K	Vibrated mass concrete class 20/25 (1:2:4) in pvc cable ducts surrounding.	CM	3	
L	Allow for stabilization, compaction, levelling to drain slope including all reinstatements and making good works as neccesary	ITEM	1	1
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SUBTOTAL		
ADD NCA FEES 0.5% OF THE CONTRACT SUM.		
ALLOW 16% VAT		
TOTAL CARRIED TO FORM OF TENDER		
Amount in words:		72
	COMPAN	Y
Signed:		
Name:		
Name:		
Name:		

