ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROVISION OF CIVIL WORKS AT MOMBASA ROAD 66/11 KV SUBSTATION				
	SECTION. 1				
1	**Preliminaries**				
A	Allow for a temporary site office adequate to accomondate six persons,notice board, shelves and , store for materials and tools storage.	ITEM	1		
B	Allow for clean water for the works	ITEM	1		
C	Allow for all the necessary statutory approvals for the works, drawings, any other County Government requirements and submit as built drawings to client on completion	ITEM	1		
D	Allow for temporary sign post for the proposed works and permanent sign post as described.	ITEM	1		
E	Recover existing fence and hand over to client and secure as per KPLC desiganated location/area.	ITEM	1		
F	Allow for security and insurance for the proposed works	ITEM	1		
G	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.	ITEM	1		
H	Allow for supply of power connection for use for the works.	ITEM	1		
I	Allow for a qualified personel conservant with Kenya Power safety regulations for the entire constract period	ITEM	1		
J	Allow for prompt communication and updates facilitation to client supervision team	ITEM	1		
K	Secure from any damage or mishandling the existing energized (live)11000kV cables and control cables during the entire construction period	ITEM	1		
L	Rehabish existing cable trenches by repairing all worn out areas, raising the trench walls to match the new, replace all broken/damaged cable trench covers.	ITEM	1		
M	Reroute the existing open drainage system to create space for the proposed control room, cable trenches etc.	ITEM	1		
N	Repair damage/worn ot concrete pavements, transformer sump wallings.	ITEM	1		
O	Allow for temporary toilets for use by contractor's staff on site and make good after completion of the works. (location to be identified by client)	ITEM	1		
P	Allow for hacking and repairing of the existing foundation plinths with mass concrete (1:2:4) mix and plastering to match the newly constructed ones.	ITEM	1		
Q	Prepare and apply one under coat and two coats of 1st grade paint on the existing control room and guard house and all metal surfaces.	ITEM	1		
R	Fabicate and fix approved externally fixed M.S. window burglary grill to all louvered windows on the exsting control room and guard room.	ITEM	1		
S	Repair/replace and make good any broken or missing item on the existing control room toiletes, controller room and panel room.	ITEM	1		
T	Rehabish existing septic tank, by repairing all worn out surface, provide well secured 4No. Mdidum gauge Manhole covers size 450x600mm, make good the inlet and	ITEM	1		
	Chekered plate cover for Control room internal trenches.				
U	950x600x6mm thick steel checkered plate trench covers primed and apply 3 coats of first quality gloss paint.	NO	64		
V	Ditto but 700x600x6mm	NO	24		
W	Ditto but 400x600	NO	25		
	SECTION 2				
1	**Switch yard**				
X	Clear all grass, shrubs, debris and the burn the arising.	ITEM	1		
Y	Excavate oversite vegetable soil average depth 200mm and cart way to Municipal Council designated damping site	SM	1480		
Z	Average 300mm thick selected well compacted importedand approved murram fill, compacted in layers of 150mm thick using a plate compactor to receive ballast.	CM	444		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Ditto but 450x600mm deep earthing trenches and cart away.	LM	180		
B	Supply red soil and backfill earthing trenches to client satisfactory.	CM	50		
C	Provide well compacted imported murram fill, compacted in layers of 150mm thick using a plate compactor to achieve slope	SM	1480		
D	Prepare and apply Gradiator 4TC or equal and approved insecticide to surfaces of blinding as per Manufacturer's written instructions	SM	1480		
E	Apply suitable weed killer, herbicide to surfaces of blinding as per the Manufacture's written instructions	SM	1480		
F	1000 gauge polythene or other equal and approved membrane laid on compacted and treated quarry dust with welted laps of 200mm wide.	SM	1480		
G	Supply and spread uniformly 150mm thick 'one inch' (1") ballast in switch yard	SM	1480		
H	**Switchyard plinthes**				
I	**Switchgear Foundation plinthes as per the General arrangement drawing(GA) and all to structural engineers details.**				
J	Excavate foundation pits commencing from reduced level but not exceeding 1.5 m deep	CM	97		
K	Ditto but not exceeding 3.0metres	CM	19		
L	Backfill and ram selected excavated material around foundations	CM	61		
M	Cart away surplus excavated materials from Site to municipal council desiganated damping site.	CM	55		
N	Disposal of water and Strutting	ITEM	1		
O	Blinding mix (1:4:8 - 50 mm thick)	SM	65		
P	Class 25(20) in stub column and bases with fair face finish	CM	52		
Q	steel 10 to12mm to bases and column	KG	2813		
R	Shuttering to columns stubs	SM	254		
S	grouting bolts /inserts and the like by holding in position when pouring concrete not exceeding 600mm long-bolts supplied by client	NO	160		
T	13mm thick plaster (1:3mix) to top surface of foundations with Smooth finish trowelled	SM	22		
U	Attendance for KPLC staff to do earthing before all blinding including security for all copper earthing wire.	ITEM	1		
V	Supply and install 32mm heavy duty PVC flexible conduit fastened on 45 No. switchgear plinth reinforcement to lengths not exceeding 5.0metres in every plinth and to flush with finished plith level for earthing conductor.	ITEM	1		
	CABLE TRENCH				
	Trench (600x600mm deep) length approx.90metres at various locations				
W	Excavate for trench from reduced level not exceeding 1.5 metres deep and cart away	CM	72		
X	Ditto but 300mm wide and 300mm deep for PVC cable ducts	CM	18		
Y	Load, cart away from site excavated materials and dispose at areas designated by local authority.	CM	37		
Z	Fill in and ram selected excavated materials around trench walls	CM	53		
	Trench bed				
A1	50mm plain concrete(1:4:8) blinding on cable trench	SM	90		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Vibrated reinforced concrete class 20/20 1:2:4 as described in;				
A	150mm thick trench base and walls with fair face finish	CM	29		
B	150mm thick plain concrete haunching on laid 150mm diameter PVC cable ducts	CM	8		
C	Supply and lay 150mm diameter heavy gauge PVC ducts	LM	36		
	Smooth formwork to				
D	Sides of trench wall	SM	244		
	Steel reinforcement bars including tying bending				
	spacer blocks tying wires and fixing high tensile				
	bars to BS 4461				
E	Y 8mm at 150 centres in cable trench	KG	949		
	Precast concrete trench covers				
F	Provide and put in place (900x300x75mm) 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 75x75x3mm angle iron.	NO	340		
	Cable trays				
G	Supply and fix heavy duty galvanished steel perforated cable trays,600mm wide, firmly fixed from below and raised 200mm above trench bed.	LM	90		
	Trench (900x900mm deep) length approx.60 metres at various locations				
H	Excavate for trench from reduced level not exceeding 1.5 metres deep and cart away	CM	76		
I	Load, cart away from site excavated materials and dispose at areas designated by local authority.	CM	27		
J	Fill in and ram selected excavated materials around trench walls	CM	8		
	Trench bed				
K	50mm plain concrete(1:4:8) blinding on cable trench	SM	72		
	Vibrated reinforced concrete class 20/20 1:2:4 as described in:				
L	150mm thick trench base	CM	11		
M	150mm thick trench walls with fair face finish	CM	16		
	SMooth formwork to				
N	Sides of trench wall	SM	234		
	Steel reinforcement bars including tying bending				
	spacer blocks tying wires and fixing high tensile				
	bars to BS 4461				
O	Y 8mm at 150 centres in cable trench	KG	1320		
	Precast concrete trench covers				
P	Provide and put in place (1200x300x75mm) 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 with75x75x 3mm angle iron.	NO	215		
	Cable trays				
Q	Supply and fix heavy duty galvanished steel perforated cable trays,900mm wide, firmly fixed from below and raised 200mm above trench bed.	LM	60		
	1x23MVA TRANSFORMER PLINTH				
R	Excavate pit foundations not exceeding1.5 metres deep from reduced levels	53	CM		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Cart away from site surplus excavated materials	53	CM		
	Mass insitu concrete (1:4:8) in:-				
B	50mm thick blinding in bases	35	SM		
	Vibrated Reinforced Concrete Class 25/20 mm Aggregate in:-				
C	Footing-300MM RAFT	11	CM		
D	PEDESTALS	3	CM		
E	COVER SLAB-300mm thick	5	CM		
	High Tensile Steel Reinforcement Bars;				
	Cold Worked to BS 4461 (Provisional)				
F	8 mm diameter	200	KG		
G	12 mm diameter	1,154	KG		
	Fairface Formwork to:-				
H	Sides of base 225-300mm wide	24	LM		
I	Ditto slab	16	LM		
J	Vertical sides of footing	32	SM		
	Hardcore filling				
K	Approved 200mm thick hardcore filling compacted to Engineer's approval	12	CM		
L	Blind surface of hardcore with fine material	12	SM		
M	Treat surface of hardcore with approved anti-termite	12	SM		
N	1000 gauge polythene sheet laid over hardcore	12	SM		
	SUMP RCC WALLING				
	Vibrated Reinforced Concrete Class 25/20 mm Aggregate in:-				
	Walling	4	CM		
O	Walling finished fair face				
	Fair face Formwork	SM	58		
P	Vertical sides of walling	LM	56		
	High Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 (Provisional)				
Q	8 mm diameter	KG	150		
R	10 mm diameter	KG	265		
S	Supply and place 50mm thick 40mm porous ballast around the plinth to Engineer's approval	SM	20		
T	Supply and fix fabicated heavy duty grating with 25x4mm thick flats at 20mm centres,vertically welded on 50x50x4mm angle lines anchored to contrete with 10mm inserts; well primered base coat and final zinc- chromate paint to cover the transformer oil spillage sump 22 square metres.	ITEM	1		
U	OIL sump chamber 3.6m x 1.9m x 1.5m deep; perimeter 200mm thick block walling; internal plaster complete with niru finish; with ring beamsize 250x200mm with 4 nos.12mm bars and 8mm shear links at 200mm spacing; 150mm thick cover slab reinforced with 8mm bars bothways at 150mm spacing; medium gauge manhole opening 450x600mm, including pvc pipe 4"connecting with transformer sump not exceeding 20m away.-in two compartments	ITEM	1		
V	150 x 100mm U-Channels or any othe approved size welded to triangular shape (1.8x1.2x.2.2mm) placed in Y12 reinforced cage of size 2x1.5x1.0mm concrete stub; icluding excavation, backfilling, carting away, formwork and finishes.	1	NO		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION 3				
	ACCESS ROAD				
2	***Paving blocks (Access road)***				
A	Excavate for 6m wide access road depth not exceeding 750mm and cart away the spoil	CM	1690		
B	Supply and hand pack hardcore in layers of 150mm thick and compact using 10 tonne vibrating roller to receive paving blocks	CM	2025		
C	150mm thick approved murram fill and well compacted	SM	2250		
D	50mm thick approved and well compacted quarry dust blinding on hardcore	SM	2250		
E	Heavy duty industrial concrete paving blocks size (210x105x80mm) minimum strength 49N/mm square laid to slope on quarry dust and compacted	SM	2250		
F	125 x 250mm splayed kerb to BS 340 including 125 x 100mm channel : on and including concrete Class "E" foundation and 100mm haunching to back of kerb including all necessary excavation, formwork and disposal	LM	750		
G	Ditto but curved	LM	75		
H	125mm x 100mm channel jointed in cement mortar and benched in mass concrete	LM	750		
I	Ditto but curved	LM	75		
	Painting				
J	Prepare and apply approved gloss paint to kerbline; 125mm girth; colour to engineer's approval	SM	300		
3	**Cable ducts**				
K	Supply and install 200mm diameter heavy gauge PVC pipes as ducts. with and including 150mm thick concrete class 20 surround and murrum compaction underlying pipe bases as per as per engineer's detailed drawing	LM	120		
L	200mm thick Vibrated Reinforced Concrete Class 25/20 mm Aggregate in areas with existing cable trenches to make smooth road curve for ease of accesilibility.	SM	24		
M	Double layers of High Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 - Y8	KG	182		
	STORM WATER DRAINAGE				
N	Excavate drain trench not exceeding 1.5m deep including plucking and struting, disposal of soil to receive drainage channels and forming sloping sides in well compacted murram bed.	CM	765		
O	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tounged joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed	LM	400		
P	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete side slabs jointed in 1:3 cement sand mortar	SM	400		
Q	Supply 12x240 watt AC (LIGHT DEPENDENT TYPE) bucky head floodlight with energy saver 100 watts sodium metal halide lamps to be hoisted on 6No. 6.0metres 125mm diameter or square galvanized mast including all connections and approved wires.	ITEM	1		
R	Ditto but at the gate pillars	NO	2		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION 3				
	PERIMETER WALLING -160LM				
	(Substructures)				
A	Excavate for foundation trench 600mm wide commencing from at reduced level and not exceeding 1.5m deep.	CM	216		
B	Extra excavations for widening column bases size (1.0x1.0)m	CM	44		
C	Ditto exceeding 1.5m but n.e 3.0m	CM	7		
D	Extra over for excavation in all classes of rock at any depth	CM	5		
E	Load, cart away from site surplus excavated materials and dispose at areas designated by local authority.	CM	97		
F	Fill in and ram selected imported materials around foundation and columns.	CM	175		
G	Provide all the necessary planking and strutting to uphold sides of trenches.	ITEM	1		
H	Allow for keeping all excavations water free by pumping, bailing or otherwise.	ITEM	1		
I	50mm thick (1:4:8) mass concrete blinding to walling and column bases	SM	96		
	Vibrated reinforced concrete class 20/25 1:2:4/25 with fair face finish as				
J	Foundation strip size (200x600)mm	CM	24		
K	Column bases (1000x1000x300)mm	CM	17		
L	Columns (200x300)mm	CM	15		
M	Ground beam	CM	10		
	Sawn/Steel form work to				
N	Vertical sides of columns	SM	240		
0	Vertical sides of cloumn bases	SM	17		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Vertical sides of ground beam	SM	96		
B	Vertical sides of strip foundation	SM	80		
	Steel reinforcement bars including tying bending spacer blocks tying wires and fixing high tensile bars to BS 4461				
C	Y 8 - column stirrups	KG	414		
	Y12 - Columns	KG	1115		
D	Y 10 -strip foundation	KG	650		
E	Y 16 -gate columns	KG	195		
F	Y8 &Y12 in ground beam	KG	878		
	225mm thick natural stone substructure walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternating course.				
G	225mm thick natural stone wall	SM	288		
H	25mm thick cement/sand (1:4) rendering on plinth area finished smooth to receive bituminous paint-400mm high.	SM	64		
I	Allow for and create 2No. 100mm diameter weep holes at ground level every 3.0m centers on masonry/concrete wall and prevent ingress using wire mesh grouted in cement sand mortar.	No.	108		
	Superstructure-Walling				
J	200mm thick machine-cut or fair faced dressed natural or approved concrete blocks stone walling in cement/sand (1:4) mortar including 20G hoop-iron in every alternate courses.	SM	390		
K	Internally plaster in 1:3mix cement/sand mortar	SM	390		
L	350mm wide pre-cast concrete coping twice weathered and twice throated fixed to wall.	LM	138		
M	(800x550)mm square concrete coping weathered and throated on all sides fixed to double columns.	No.	5		
N	(550x450)mm square concrete coping weathered on all columns	No.	54		
O	extra over for key pointing externally	SM	390		
	Expansion Joint				
P	40mm thick construction joint in flex cell or equall and approved expansion joint and (25x25)mm expedite sealer	SM	8		
	Razor Wire				
	Supply and fix Razor Wire at the top of boundary wall				
	conforming to the following specifications.				
Q	Coil size-450mm diameter, Blade profile-ripper razor wire, Stretch factor-maximum of 10m per coil and secured to wall with galvanised steel 25x25x4mm square tube bar 600mm long anchored on thewall at 1m centers.	LM	160		
R	Fabricate and fix standard primary substation gate with 16 gauge black sheet panels welded on 50x50x4mm square tubes and 75x75x4mm frame with 50mm diameter 6No. bushess as per the drawing SK. No.07044/B including excavation for the gate columns, concrete works,erection and 3 coats of 1st grade gloss paint	NO	2		
S	Ditto but pedestrian gate	NO	2		
T	2.4m high x12.5A gauge chainlink fence, complete with 4mm diameter5 strands of galvanized plain wire pass through 3.0m high 50x50X3mm cranked SHS posts placed at 3.0m centers, 12 gauge barbed wire on 450mm cranks, including, excavation and erection works, 1:3:6 mix mass concrete surround at 600mm deep.	LM	20		
	Total this page and Carried to Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SUMMARY PAGE				
	Total from page1				
	Total from page2				
	Total from page3				
	Total from page4				
	Total from page5				
	Total from page6				
	Total from page7				
	SUBTOTAL				
	ADD VAT 16%				
	TOTAL CARRIED TO FORM OF TENDER				
	Amount in words:				
	.....				
	Signed:				
	Witness Name:				
	Address:				
	Company Stamp.				
	CONSTRUCTION PERIOD: .....WEEKS				