ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	PROPOSED UPGRADE&CIVIL WORKS AT KANYAKINE						
	33/IIKV SUBSTATION [BILL OF QUANTITIES]						
	SECTION. 1						
	<u>Preliminaries</u>						
	Allow for temporary site office adequate for materials& store	1000 A A	1				
1.	Allow for clean water for the works	ITEM	1				
ь	Allow for clean water for the works	ITEM	1				
	Allow for <b>ALL</b> the necessary statutory approvals for the working						
c	drawings .	ITEM	1				
d	Allow for prompt communication and updates facilitation to client supervision team.	ITEM	1				
e	Allow for temporary sign post for the proposed works and permanent sign post as described.	ITEM	1				
f	Allow for security and insurance for the proposed works	ITEAA	1				1
г	Chow for security and insurance for the proposed works	ITEM	1				
g	Allow for a qualified personnel conversant with Kenya Power						
	safety regulations for the entire contract period.	ITEM	1				
i	Allow for National Construction Authority [NCA] Project	ITEM	1				
	registration fee for onward submission on behalf of clients.This						
	is 0.5% of the value of contract.						
	ACCESS ROAD AND SWITCHYARD						
1	Switch yard						
a	clear working area of all the site of KPLC material as follows by utilizing in road base	ITEM	1				
ь	hardcore-labour only	СМ	35				
ЬЬ	ballast-labour only-spread 150mm thick to yard-labour only	SM	1320				
c	scoop loose top soil by cutting average 400mm deep to recieve imported fill	СМ	528				
d	Average 300 mm thick selected well compacted imported	СМ	528				
	murram fill, compacted in layers of 150mm thick using a						
	plate compactor to achieve slope						
	Propose and apply Cradiates ATC as asset as I	C14	245		+		1
е	Prepare and apply Gradiator 4TC or equal and approved insecticide to surfaces of blinding as per	SM	345		+		+
	Manufacturer's written instructions						
	The state of the s				1		
f	Apply suitable weed killer, herbicide to surfaces of	SM	2300		1		†
	blinding as per the Manufacture's written instructions						
g	1000 gauge polythene or other equal and approved	SM	2300				1
	membrane laid on compacted and treated quarry dust						1
	with welted laps of 200mm wide.						1
h	Supply and enroad uniformly 150mm think ' :	CH	2200				
n	Supply and spread uniformly 150mm thick 'one inch' ballast in switch yard	SM	2300		1		1
	in switch yard				+		
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
2	Paving blocks & parking area [Access road]						
а	Excavate for 5m wide access road depth not exceeding	СМ	200				
	750mm and cart away the spoil						
ь	Average 300mm thick selected well compacted hardcore	СМ	104				
	fill, compacted in layers of 150mm thick using 10 tonne						
	vibrating roller to receive cabro/ballast						
c	50mm thick approved and well compacted quarry dust	SM	437				
	blinding on hardcore		107				
d	Heavy duty industrial concrete paving blocks size	SM	437				
	(210x105x80mm) minimum strength 49N/mm square						
	laid to slope on quarry dust and compacted						
e	Allow for (125x100x900mm) pcc channels jointed in	LM	190				
	12mm (1:3) mortar						
f	125x250mm straight kerbs on concrete foundation	LM	190				
	jointed in 12mm (1:3) mortar						
g	125x250mm curved kerbs on concrete foundation	LM	24				
h	Mass concrete (1:2:4) as kerbs foundations size	СМ	7				
	(400x100mm thick)						
i	Allow for testing of materials for the works, including concrete	ITEM	1				
	and submitting the result to client before payments.						
3 a	Cable ducts Supply and install 150mm diameter medium gauge pvc	LM	15				
	pipes as ducts.	241	13				
1.	Provide excavate and lay 100mm diameter medium gauge	LM	2.4				
- D	pvc ducts including 100mm thick mass concrete (1;2:4)	LM	34				
	surrounding and laying provided HATARI slabs on it.						
с	Vibrated mass concrete class 20/25 (1:2:4) in pvc cable	СМ	5				
	ducts surrounding.			-			
				1			
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	SECTION 3						
1	PERIMETER WALLING						
	(Substructures)						
а	clear site of existing fence and store at designated location	ITEM	1	1			
	Excavate for foundation trench 1.0 m wide commencing at reduced						
Ъ	level and not exceeding 1.5m deep for wall &	СМ	720				
	retaining wall						
	ditto to column bases IM XIM	СМ	215				
с	utto to commit bases in Aim	CM	315				
d	Ditto exceeding 1.5m but n.e 3.0m	СМ	75				
e	Extra over for excavation in all classes of rock at any						
	depth.	СМ	12				
f	Load, cart away from site surplus excavated materials and	СМ	213				
	dispose at areas designated by local authority.						
	Fill in and ram selected imported materials around	СМ	173				
g	foundation and columns.	- CM	1/3				
h	Allow for keeping all excavations water free by pumping,	ITEM	1				
	bailing or otherwise.						
i	50mm thick (1:4:8) mass concrete blinding to retaining	SM	115				
	wall foundation base.						
	Vibrated reinforced concrete class		1				
	20/25 1:2:4/25 as described in;		1	+			
j	Foundation strip size (200X600)mm	СМ	28				
k	Column bases (1000x1000)mm	СМ	26				
1	retaining wall base 1000x250mm	СМ	36				
	and the second s		100				
m	retaining wall stub to 1m above ground	СМ	103	1			
	Sawn/Steel form work to  Vertical sides of foundation strip	614	60	1	1		
n	Total this page	SM	63				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
o	Vertical sides of column bases	SM	69				
р	Vertical retaining walls	SM	750				
	Steel reinforcement bars including tying bending						
	spacer blocks tying wires and fixing high tensile						
	<u>bars to BS 4461</u>						
q	Y12 in retaining wall base	KG	1794				
г	Y12 in column bases	KG	1725				
8	Y10 in retaining wall upstand	KG	3450				
t	Y8 binders	KG	800				
u	25mm thick cement/sand (1:4 ) rendering on walls surfaces	SM	299				
v	Allow for and create 100mm diameter weep holes at	No.	58				
	ground level every 2.0m centers on masonry/concrete wall						
	and prevent ingress using wire mesh grouted in cement						
	sand mortar.						
2	Superstructure-Walling						
а	200mm thick machine-cut or fair faced dressed natural	SM	541				
	stone walling in cement/sand (1:4) mortar including 20G		<u> </u>				
	hoop-iron in every alternate courses.Internally plastered and						
	external horizontal joints keyed in cement/sand mortar						
	(1:3)						
	Vibrated reinforced concrete class						
	20/25 1:2:4/25 as described in;						
ь	Columns (250x300)mm 40No.	СМ	12				
U	Columns (250x300)mm 40No.	СМ	12				
	Steel reinforcement bars including tying bending						
	spacer blocks tying wires and fixing high tensile						
	bars to BS 4461						
с	Y12 bars in columns	KG	690				
d	Y8 bars in columns	KG	404				
			104				
e	15mm thick cement/sand mortar render to walling and	SM	138				
	columns internally. And externaly						
	m - 1 -1 -						
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
f	350mm wide pre-cast concrete coping twice weathered	LM	150				
	and twice throated fixed to wall.						
g	(800x550)mm square concrete coping weathered and	No.	20				
	throated on all sides fixed to double columns.						
h	(550x450)mm square concrete coping weathered on all	No.	47				
	columns.						
3	Expansion Joint						
a	40mm thick construction joint in flex cell or equall and	SM	7				
	approved expansion joint and (25x25)mm expedite sealer						
4	Razor Wire						
а	Supply and fix Razor Wire at the top of boundary wall	LM	207				
	conforming to the following specifications.						
	Coil size-450mm diameter, Blade profile-ripper razor wire,						
	Stretch factor-maximum of 10m per coil and secured to						
	wall with galvanised steel plates at 1m centers.						
ь	Fabricate and fix a primary sustation gate as per the	No.	2				
	per the provided drawing SK. No. 07044/B						
	SECTION 4					+	
	CONTROL BUILDING						
1	ELEMENT 1-SUBSTRUCTURES						
а	Excavate oversite vegetable soil average depth 150mm	SM	258				
	and cart awawy						
ь	Excavate for foundation trench Im wide commencing	СМ	173			+	
	at reduced level and not exceeding 1.5m deep.		,,,				
с	Ditto exceeding 1.5m but n.e 3m.	СМ	81				
d	Excavations for column base size (1.5x1.5)m	СМ	44				
e	Ditto exceeding 1.5m but n.e 3m.	СМ	10				
	z man z man na m						
f	Extra over excavation for excavating in hard rock.	СМ	3				
h	Allow for keeping all excavations water free by pumping,	ITEM	1				
	bailing or otherwise.	11 5171					
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
i	Fill in and ram selected imported materials around	СМ	150				
	foudations and column bases.		.50				
j	Load, cart away from site surplus excavated materials and	СМ	81				
	dispose at areas designated by local authority.						
k	1200mm thick bed of selected hard-core well-compacted	СМ	104				
	in layers n.e. 150mm thick blinded with fine material						
	50mm thick to receive damp proof membrane (m.s)						
1	50mm thick approved murram blinding well compacted,	SM	258				
	watered and rolled to satisfaction						
m	Gradiator 4TC or equal and approved insecticide	SM	288				
	treatment to hardcore blinded surface and around entire						
	building						
n	1000 gauge polythene or other equal and approved	SM	258				
	mebrane as damp proof laid on blinded hardcore.(m.s)						
	with welted laps of 200mm wide.						
0	50mm thick plain concrete(1:4:8) blinding under strip	SM	138				
	and columns foundations.						
	Vibrated reinforced concrete class						
	20/25 1:2:4/25 as described in;						
p	Strip foundation (700x250)mm	СМ	17				
q	Column bases size (1000x1000x250)mm	СМ	9				
r	Columns size (250X250)mm	СМ	3				
•	Coldinia 322 (230/230)iiiii	- Cili	- 3				
S	150mm thick concrete slab on damp proof membrane (m.s)	СМ	39				
	Steel reinforcement bars including tying bending						
	spacer blocks tying wires and fixing high tensile bars to BS 4461 to strips,columns and bases						
t	Y12mm	KG	541				
u	Yı6mm	KG	915				
ч 		NO	5.0				
v	Y8 mm	KG	207				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
w	Steel wire fabric mesh reinforcement to B.S.4483 Ref	SM	246				
w	BRC No.A142 in concrete bed (M.S) including 200mm	SM	240				
	laps, all necessary tying wire and supporting as		1				
	required.						
	i equitedi						
	Sawn formworks to						
aa	Sides of column size 250 x 250 mm	SM	86				
ЬЬ	Sides of floor slab 150-200mm girth.	LM	71				
	Foundation walling						
cc	225mm thick approved natural stone walling bedded	SM	207				
	and jointed in mortar (1:3)						
dd	Prepare and apply 3 coats of bituminous paint on	SM	150				
	rendered surfaces.						
	CABLE TRENCH						
-	Trench (900x900mm deep) length approx. 130		+				
1	metres						
a	Excavate for trench 1.8m wide from reduced level not	СМ	153				
	exceeding 1.5m						
ь	Load, cart away from site excavated materials and	СМ	153				
	dispose at areas designated by local authority.						
с	Fill in and ram selected imported materials around	СМ	69				
	trench.						
2	walls						
a	50mm plain concrete(1:4:8) blinding on cable trench	SM	92				
	foundation 1.5m wide						
	Vibrated reinforced concrete class						
	20/25 1:2:4/25 as described in:						
ь	In 150mm thick trench base	СМ	14				
с	In 150mm thick retaining walls	СМ	20				
	Steel form work to						
d	Sides of trench wall	SM	259				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Steel reinforcement bars including tying bending						
	spacer blocks tying wires and fixing high tensile						
	bars to BS 4461						
e	Y 8mm in cable trench	KG	1944				
	Trench (600x600mm deep) length approx. 93lm						
f	Excavate from reduced level not exceeding 1.5x0.8m wide	СМ	138				
g	Load, cart away from site surplus excavated materials and	СМ	121				
	dispose at areas designated by local authority.						
h	Fill in and ram selected imported materials around trench.	СМ	17				
	walls					1	
i	50mm plain concrete(1:4:8)blinding under cable trenches	SM	128				
	John pain concrete(1.4.0) binding ander cable trenenes	Sim	120				
	Vibrated reinforced concrete class						
	20/25 1:2:4/25 as described in:						
j	In 150mm thick trench base	СМ	20				
k	In 150mm thick retaining walls	СМ	20				
	Sawn form work to						
1	Sides of retaining wall	SM	259				
	Steel reinforcement bars including tying bending						
	spacer blocks tying wires and fixing high tensile						
	<u>bars to BS 4461</u>						
	Total this page						
m	Y8mm in cable trench	KG	2161				
	2						
n	Prepare and apply 3 coats of bituminous paint to	SM	460				
	external surfaces of all retaining walls.						
	50×50×4mm angle line embedded in concrete	LM	245				
0	50x50x4mm angle line embedded in concrete	Livi	345				
	Chequered plate cover						
р	900x600mmx4mm thick chequered plate trench covers	NO	28		1		
•	reinforced with 40x40mmx3mm thick SHS all round			1	1		1
	primed and apply 3 coats of first quality gloss paint.						
q	Ditto 600x600x4mm covers	NO	85				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	-						
	Precast concrete trench covers						
r	Provide and put in place (1200x300x75mm) thick	NO	450				
	precast concrete trench covers reinfoced Y8 bars						
	spaced at 100mm both ways with fairface finish on both sides						
	with all edges protected with 25x25x3mm angle iron						
	Cable trays						
s	Supply and fix steel fabricated cable trays 50x50x4mm thick	LM	100				
	angle iron and weld together200mm long vertical angle stand						
	spaced at 400mm C/C to horizontal; 50x50x4mm thick						
	galvanised angle iron cut to 600mm long pcs and place on top						
	of angle iron spaced at 400 C/C to form cable tray.						
	ELEMENT 2-SUPERSTRUCTURE						
1	Walling						
а	Pluvex No.1 or other equal and approved bituminous	LM	138				
	damp proof course to B.S.743. 225mm wide under						
	walling (m.s) including for 200mm long laps						
	(measured net no allowance included for the laps)						
Ъ	225mm thick approved smooth hand dressed natural	SM	518				
	stone walling in cement mortar (1:4) including for	- ON	310				
	hoop iron in every alternate course.						
	Vibrated reinforced concrete class		1				
	20/25 1:2:4/25 as described in:						
С	In columns size 250x250mm	СМ	8				
d	In ring beam and upstand size 450-600x200mm	СМ	21				
е	n 150mm thick suspended slab	СМ	39				
			-				-
f	In 100mm thick canopies over all openings and hood	СМ	10				
g	In lintols 300x200mm	СМ	1	1			1
	Conductoformula land 1 to 2 to 2		+	+			-
	Steel reinforcement bars including tying bending		1	1			-
	spacer blocks tying wires and fixing high tensile bars to BS 4461 in upstands,ringbeam and slab,canopies						
	bars to bo 4401 in upstands, imgocam and slab, canopics						
h	Y 8mm	KG	159	+			
		- 100	1.09	+			
i	YI0 mm	KG	819				
•			3.5				
j	Y12mm	KG	3156				
k	Y16mm	KG	288				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Sawn form work to						
1	Sides and soffits of ring beam	SM	288				
m	Sides of columns	SM	132				
n	Soffits of suspended slab	SM	258				
o	canopies and the like	SM	207				
	ELEMENT-3 ROOF CONSTRUCTION AND COVERING						
	The following in 7 no trusses spanning 11.00m and						
1	hoisted 4m high above finished floor level						
a	100x50x6mm rolled steel RHS in rafters	LM	207				
ь	Ditto 50x50mm in struts	LM	196				
	Dicto Jox, John III strats	Livi	190				
с	Supply and fix in concrete ring beam 28no.	ITEM	1				
	16mm bolts						
d	(200x200x6mm thick M.S plate cleats with 2no. holes	NO	16				
	welded to truss.		10				
е	Supply and erect MS purlin cleats welded to truss at 1800 cc	NO	92				
	1000 CC						
f	Supply and erect 150x51x2mm Z purlins bolted to	LM	288				
	rafters primed with one coat of red oxide						
g	Gauge 26 pre-painted 1T 5 roof covering sheet including	SM	403				
	for 2no. side corrugations and 300mm long end laps						
h	Pine for the delline	114	60				
n	Ditto for side cladding	LM	69				
i	26 gauge matching ridge cap.	LM	35				
j	50x50x6mm RHS fascia support	LM	23			+	
k	50x50x6mm angle iron fascia support	LM	138				
1	Complement Constant and the Constant	No.	22				
l m	Supply and fix cleats welded to fascia support  26 gauge 100x100mm corner edging	NO LM	32 138				
n	14 gauge galvanised M.s in gutters	LM	69				
0	Extra over for stopped ends	NO	7				-
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
р	Ditto for 100mm outlet	NO	9				
q	50x50mm thick timber bearers	LM	81				
r	100x50mm thick timber cornice	LM	81				
	D						
	Down pipes						
S	100mm down pipes 24 gauge secured to wall with	LM	35		_		
	brackets at 900mm c/c						
t	E.O for swan neck	NO	9				
u	Prepare surfaces , prime and apply two coats of first	ITEM	1				
	quality aluminium panit to all rainwater goods						
1	Windows						
	Composite purpose made fixed glass steel casement						
	window frame made out of (50x25x3mm thick) RHS						
	,Z-sections and flats complete with fixed glass in						
	approved putty, stays and fasteners all						
	to client's approval.						
а	Fixed glass Window size (1200 x 1000mm) high	NO	10				
	overall						
Ь	Ditto size size (1200 x 1200mm)	NO	3				
c	Window size (450 x 600mm) high	NO	2				
	overall						
d	Ditto size size (600 x 1000mm)	NO	2				
	r: 1.1 w: 1 : (eee yeee )1:1		_				
е	Fixed glass Window size (900 x 1000mm) high	NO	1				
	overall						
f	Fixed glass window size (1200x1200mm)	NO	1				
	6mm thick clear glass in steel putty	CM	25				
g		SM	35	1	+		-
	Doors						
	Purpose made steel casement double leaf door divided into equal leafs made out of 75x50mm frame with four			1			-
				1	-		
	permanent louvred ventillation made from (25x3mm)			1	+		
	flat bars whole door hinged to and including			1			
	(100x100x6mm) angle line built to wall			-			-
	with bracketsin sizes			1			
	NOTE: All external doors to be as per provided			1			
	drawing SK No. 06249 Sheet 1						
h	Door size (1800x2500mm) double leaf	NO	2	<u> </u>			
				1			
i	Door size (1000x2500mm) single leaf leaf	NO	7				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
j	Door size (1200x2500mm) double leaf	NO	2				
,	cool size (1200/2000) ascer ear		_				
k	(600x400mm) permanent louvre ventillations made	NO	23				
	from (25mmx3mm) flats						
1	(150x50mm) prime grade cypress door frame	LM	81				
m	45mm thick solid flush door overall size (900x2100mm)	NO	8				
	with fan light above size (400x900mm)						
n	4mm thick clear glass as fanlight	SM	7				
	(40x25mm)						
0	(40x25mm) cypress timber beading including	LM	63				
	fixing to hold 4mm thick fanlight glass						
P	40x25mm architrave	LM	127				
q	25mm quadrant	LM	127				
г	Three lever mortise lock	NO	8				
8	38mm rubber door stopper	NO	8				
t	100mm steel butt hinges	NO	24				
u	250mm long x 25mmx 1mm thick fixing cramps	NO	48				
v	Allow for priming all metal and flash doors surfaces and	SM	173				
	apply two coats of 1st quality paint to all doors						
	and frames						
	ELEMENT 4-FINISHES						
1	Floor finishes						
а	25mm thick cement sand screed prepared to receive .	SM	299				
	granolithic paving						
ь	Ditto for ceramic tiles	SM	58				
С	Granolithic paving to wood floated floor screed including all the necessary strips	SM	299	-			
	, ,						
d	100mm skirting ditto	LM	173				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
e	12mm thick internal quality lime plaster finished smooth	SM	748				
	with steel trowel to all walls and suspended slab						
f	Jointing to external walls using mortar (1:3)	SM	460				
g	Prepare surface and apply undercoat and 2 coats of 1st quality silk vinyl emulsion paint to plastered walls internally and externally.	SM	1783				
h	12mm plaster to window and door head, cill and jambs 200-300mm girth	LM	115				
i	Prepare surface, apply undercoat and 2 coats of 1st quality silk vinyl emulsion paint to plastered surfaces 200-300mm girth	LM	115				
j	200X250mm wall tiles bedded in cement grout pointed in colour cement to match colour of tiles	SM	58				
k	Ditto 300x300mm floor tiles	SM	69				
2	Kitchen						
а	100mm thick 1:2:4 concrete in kitchen work top	SM	6				
ь	Y 10 reinforcement bars at 200 C/C	KG	230				
c	150mm block wall	SM	23				
d	12mm 1:3 cement sand plaster	SM	69				
e	Single drain single bowl stainless sink	NO	1				
f	Bricon or approved kitchen mixer	NO	1				
g	400mm wide 25mm thick block board shelves fixed with brackets to wall	LM	35				
h	Ditto in locable cupboards including hinges, fasteners and locks.	LM	35				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	THE THAT HE - DRAINIAGE AND BUILDING WORKS						
	ELEMENT 5 DRAINAGE AND PLUMBING WORKS						
1	Plumbing works						
а	Twyfords Hindustan vitreous china wash hand basin size	NO	2	+			
	500x400mm fixed on semi-concealed brackets						
ь	Ref. No. 1200 complete with 2No. Approved 12mm.	NO	2		-		
	chrome plated taps	110					
с	150x150mm semi- recessed "Twyfords" white toilet roll	NO	2				
	holder	110	-				
	TIOIGET						
d	White Twyfords classic WC suite comprising	NO	2				
	pan, heavy duty plastic seat and cover, ceramic cistern,	1,10	_				
	flush pipe and trap.			1			1
e	Supply and fix compact auto dryer satin chrome	NO	2	1			1
	2.2KW	1.0	_				
f	12mm gate valve as per peglar	NO	9				
•	Jamin gate varve do per peg.ar						
g	Ditto 15mm						
ъ	January Committee Committe						
h	15mm class B pipes including all necessary fittings	LM	173				
	including all the necessaary excavations and		1/3				
	chasing in wall						
	enaving in their						
i	12mm class B pipes including all necessary fittings	LM	230				
	including all the necessaary excavations and						
	chasing in wall						
				1	1		1
							1
				1			
				1	1		į
				1	1		1
					1		
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	ELEMENT 6 FIRE EXTINGUISHERS, ELECTRICAL INSTALLATIONS AND SMOKE DETECTORS						
	1 - FIRE EXTINGUISHERS	NO.	12				
a	Supply and fix controlled discharge 9 litre water carbon dioxide gas fire extinguisher manufactured to BS EN 3-9:2006, Bs 7863:2009, BS 5306-4:2001and the cylinder manufactured to BS 5045 complete with the following:						
	Charge and fixing bracket						
	Pictorial instructions						
	Colour code						
	Servicable on site						
	discharge horn and hose						
	Brass hot stamping						
	Operating valve						
	Local Fire Brigade approval						
ь	Ditto fire blanket 6' x 4' container	NO.	4				
2	ELECTRICAL INSTALLATIONS						
а	Allow for electrical installations to be carried out by a nominated sub-contractor as per electrical drawing	ITEM	1				
ь							
	Builder's work in connection with electrical 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 sockets, lighting points, consumer units etc	ITEM	1				
С	Supply and install a 420V AC Autochangeover distribution panel as per attached specifications [kplc document number KPI/6C/I/13/TSP/09/092.]	100014					
	Kr 1/0C/1/13/13r/09/092.]	ITEM	1				-
							-
				1			-
							-
				-			
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
3	SMOKE DETECTORS						
а	Allow for Hardwired Smoke detectors installations; including a battery back up; to be carried out by a nominated sub-contractor	ITEM	1				
ь	Allow for general attendance on specialist contractor	ITEM	1				
c	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						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	SECTION 5; PIT LATRINE					_	
	ELEMENT NO.1; SUBSTRUCTURES						
	Excavation						
a	Site excavate to reduce levels commencing from existing ground level;150mm deep and not exceeding 1.5m deep;	SM	5				
ь	Excavate from reduced levels; 1.5m deep and not exceeding 3m deep	СМ	6				
с	Excavate 3m deep to 4.5m deep	СМ	5				
d	Excavate from 4.5m to 6m deep	СМ	5				
e	Excavate from 6m deep to 7.5 m deep	СМ	5				
f	Extra over excavation in rock	СМ	9				
g							
	Remove surplus soil from site to a place approved by local authority	СМ	36				
	Mass concrete mix (1:4:8) in						
h	50mm thick blinding under strip foundations	SM	2				
	Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm at 28 days; in						
i	150mm thick ground floor slab	SM	5				
•	Strip foundations					_	
j	Strip foundations	СМ	1				
	Supply and fix steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacer blocks and supporting all in position:						
k	10mm bars	KG	77				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Mesh fabric reinforcement						
1	Mesh reinforcement No. Al42 size 200 $\times$ 200mm weighing 2.22 kg per square meter; in floor slab; including all necessary supports	SM	5				
	Sawn formwork to:						
m	Edges: slabs 75 - 150mm girth	м	9				
n	Vertical sides; strip footing; 200mm high	М	9				
	Walls						
o	200mm thick natural coral stone foundation walls; machine dressed square; bedded and jointed in cement and sand (1:4) mortar; reinforced with 20SWG Hoop Iron in every alternate course	SM	14				
	Anti-termite treatment						
р	Approved anti-termite chemical treatment; applied by approved professional pest control specialist; applied strictly in accordance with the manufacturers' instructions; ten(10) year guarantee	SM	3				
	DPM						
q	Guage 1000 polythene damp proof membrane	SM	5				
	25mm thick cement/sand (1:4) rendering; on concrete or stonework; wood float finished to						
т	Plinths ; externally	SM	5				
	Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint on rendered surfaces to:						
S	Plinths: externally	SM	5				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	ELEMENT NO. 2; R.C SUPERSTRUCTURE						
	Sawn formwork to						
a	Sides and soffits beams	SM	6				
	Supply and fix square twisted steel bars in structural concrete work including cutting, bending, hoisting, tie wire, spacer blocks and supporting all in position						
ь	8mm bars	KG	24				
c	12mm bars	KG	47				
	Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm at 28 days; in						
1	p:l		_				
d	Ring beams	СМ	1				
	ELEMENT NO. 3; WALLS						
	External Walls						
	Machine dressed natural stone walling bedded in cement/sand mortar(1:4) with minimum stone crushing strength of 7N/mm2; reinforced with 20SWG Hoop Iron in every alternate course						
а	200mm thick walls	SM	21				
Ъ	Extra over external walling for horizontal pointing	SM	21			_	
		SIV!					
	Bituminous felt or other equal approved damp proof course; in cement/sand (1:3) mortar						
с	200mm wide	SM	2				
			-				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	SUNDRIES						
d	Make holes on 100mm thick concrete slab for 150mm diameter PVC pipe	NO.	1				
e	Provide and fix 100mm thick PVC vent with cap average length 3m  ELEMENT NO. 4; ROOF	М	3				
	The following in 4 No. purlins; steel structural roof; spanning 3.2m; hoisted to a height of approximately 2.4m from ground level						
а	150 x 50 x 2mm Z purlins bedded in masonry wall with cement sand mortar	м	15				
ь	Drill holes in steel members for 12mm bolts in Z purlins	NO.	23				
с	12mm bolts	NO.	23				
d	Supply and fix 24g mild steel trough roofing sheets type LT5; factory prepainted to approved standard colour; laid with 150mm end lap and 94mm side laps; fixed to metal purlins including hook bolts, washers and nuts at 1000mm centres	SM	12				
	Wrot Cypress; Prime grade						
	wrot Cypress; Frinie grade						
e	200 x 25mm fascia board; chamfered one edge	м	15				
	Prepare surfaces; apply three coats first grade gloss paint to approval; on timber surfaces to						
			_				
f	200mm girth; on fascia board	SM	3	1			
	ELEMENT NO. 5; OPENINGS		+	1			
	Concrete Louvres		<u> </u>	1			
				1			1
а	150 x150 x 150mm concrete louvre blocks fixed with cement sand mortar (1:3)	SM	2				
		-	-	1			
				+			
				1		1	
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Window Cill						
ь							
	Supply and fix clay window cills; bedded and jointed in cement/sand (1:3) mortar; pointed in matching coloured cement to windows	м	6				
	DOORS						
c	Mild steel door size $965 \times 2100$ mm complete with all iron mongery as per drawing SK. No. $06249$	NO.	2				
	lron mongery						
	Supply and fix "Assa Abloy" or equal approved iron mongery: matching screws; locks to include a set of 3 keys; available from their authorised local dealers to approval						
d	100mm mild steel butt hinges	NO.	7				
e	3 lever steel casement rebated door lock with handles	NO.	2				
	Prepare surfaces,three coats gloss oil paint to metal surfaces						
f	Doors internally	SM	2				
g	Doors externally  ELEMENT NO. 6; FINISHES	SM	2				
	FLOOR FINISHES						
	THE CONTINUE TO THE CONTINUE T						
	Screed; cement/sand (1:3) on concrete						
а	30mm thick to receive floor tiles	SM	5				
	Supply and fix coloured ceramic floor tiles on screed; joints pointed in matching cement grout to approval						
Ъ	300 x300 x 10mm thick tiles	611		1		_	
υ	Total this page	SM	5				ļ

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	WALLING						
	Plaster; 13mm cement/lime putty/sand; steel trowelled; on masonry and concrete to						
c	Walls and concrete surfaces	SM	6				
	Prepare surfaces; apply three coats First grade vinyl emulsion paint or other equal approved; on steel trowelled plaster to:						
d	Walls and concrete surfaces	SM	6				
	Backing: 10mm cement/sand (1:4); on masonry or concrete; wood float finished to						
e	Walls to receive ceramic tiles	SM	23				
	Supply and fix coloured glazed ceramic wall tiles; on backing; joints pointed in matching cement grout						
f	300 x 300 x 10mm thick tiles	SM	23				
g	300 x 50 x10mm thick border tile	м	14				
h	Supply and fix matching pvc tile strip to tile edges	м	56				
	Plaster; 13mm cement/lime putty/sand; wood float; on masonry and concrete to						
i	Walls and concrete surfaces; externally	SM	5				
	Prepare surfaces; apply three coats First grade vinyl emulsion paint or other equal approved; on wood float plaster to:						
j	Walls and concrete surfaces	SM	5				
	SECTION 6; GUARD HOUSE  ELEMENT NO.1; SUBSTRUCTURES						
	Excavation						
а	Site excavate to reduce levels commencing from existing ground level;150mm deep and not exceeding 1.5m deep;	SM	7				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
ь	Excavate for strip foundation trench, commencing reduced level ; not exceeding 1.5m deep	СМ	6				
с	Remove surplus soil from site to a place approved by local authority	СМ	7				
	Mass concrete mix (1:4:8) in						
d	50mm thick blinding under strip foundations	SM	5				
	Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm2 at 28 days; in						
e	150mm thick ground floor slab	СМ	1				
f	Strip foundations	СМ	1				
	Supply and fix steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacer blocks and supporting all in position:						
g	8mm bars	KG	17				
h	12mm bars	KG	29				
	Mesh fabric reinforcement						
i	Mesh reinforcement No. A142 size 200 x 200mm weighing 2.22 kg per square meter; in floor slab; including all necessary supports	SM	5				
	Sawn formwork to:						
j	Edges: slabs 75 - 150mm girth	м	9				
k	Vertical sides; strip footing; 200mm high	SM	5				
1	Walls						
	200mm thick natural coral stone foundation walls; machine dressed square; bedded and jointed in cement and sand (1:4) mortar; reinforced with 20SWG Hoop Iron in every alternate course	SM	8				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	<u>Hardcore</u>						
m	300mm thick hardcore of approved inert material; well watered and compacted in 150mm thick (maximum) layers	СМ	2				
	Blinding						
n	50mm thick approved quality murram blinding to surfaces of hardcore	SM	5				
	Anti-termite treatment						
o	Approved anti-termite chemical treatment; applied by approved professional pest control specialist; applied strictly in accordance with the manufacturers' instructions; ten(10) year guarantee	SM	5				
	DPM						
р	Guage 1000 polythene damp proof membrane	SM	5				
	25mm thick cement/sand (1:4) rendering; on concrete or stonework; wood float finished to						
q	Plinths ; externally	SM	5				
	Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint on rendered surfaces to:						
г	Plinths: externally	SM	5				
	ELEMENT NO. 2; R.C SUPERSTRUCTURE						
	Sawn formwork to						
a	Sides and soffits beams	SM	5				
ь	Bench slab  Supply and fix square twisted steel bars in structural concrete work including cutting, bending, hoisting, tie wire, spacer blocks and supporting all in position	SM	1				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
с	8mm bars	KG	18				
1	In the second se		20				
d	12mm bars	KG	38				
	Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm2 at 28 days; in						
e	Ring beam	СМ	1				
f	Bench slab	СМ	1				
	ELEMENT NO. 3; WALLS						
	External Walls						
	Machine dressed natural stone walling bedded in cement/sand mortar(1:4) with minimum stone crushing strength of 7N/mm2; reinforced with 20SWG Hoop Iron in every alternate course						
а	200mm thick walls	SM	21				
ь	Extra over external walling for horizontal pointing	SM	21				
	Bituminous felt or other equal approved damp proof course; in cement/sand (1:3) mortar						
с	200mm wide	SM	2				
	ELEMENT NO. 4; ROOF						
	The following in 4 No. purlins; steel structural roof; spanning 3.2m; hoisted to a height of approximately 2.4m from ground level						
а	150 x 50 x 2mm Z purlins bedded in masonry wall with cement sand mortar	м	15				
ь	Drill holes in steel members for 12mm bolts in Z purlins	NO.	23				
c	12mm bolts	NO.	23				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
- 1							
d	Supply and fix 24g mild steel trough roofing sheets type LT5; factory prepainted to approved standard colour; laid with 150mm end lap and 94mm side laps; fixed to metal purlins including hook bolts, washers and nuts at 1000mm centres	SM	12				
	Wrot Cypress; Prime grade						
	Whot Cypress, Filmic grade						
e	200 x 25mm fascia board; chamfered one edge	м	15				
	Prepare surfaces; apply three coats first grade oss paint to approval; on timber surfaces to						
f	200mm girth; on fascia board	SM	3				
	ELEMENT NO. 5; OPENINGS						
	Windows						
	Mild steel casement windows; fixed panes; custom made; sections to drawings and with approved ironmongery; sections divided with 25 x25 x 3mm thick RHS welded onto main frame 40 x 25 x 3mm RHS;						
а	Ditto but 900 x 1200mm high	NO.	5				
	Window Cill						
ь			1				
В	Supply and fix clay window cills; bedded and jointed in cement/sand (1:3) mortar; pointed in matching coloured cement to windows	м	6				
	DOORS			1			
c	Mild steel door size 965 x 2100 mm complete with all iron mongery as per drawing SK. No. 06249	NO.	1				
		1	-	1			
				1			
				1			
				1			
			+	+			
			1	1			
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	lron mongery						
	Supply and fix "Assa Abloy" or equal approved iron mongery; matching screws; locks to include a set of 3 keys; available from their authorised local dealers to approval						
d	100mm mild steel butt hinges	NO.	3				
e	3 lever steel casement rebated door lock with handles	NO.	1				
	Prepare surfaces, three coats gloss oil paint to metal surfaces						
f	Doors internally	SM	2				
g	Doors externally	SM	2				
	ELEMENT NO. 6; FINISHES						
	FLOOR FINISHES						
	Screed; cement/sand (1:3) on concrete						
а	30mm thick to receive floor tiles	SM	5				
	Supply and fix coloured ceramic floor tiles on screed; joints pointed in matching cement grout to approval						
ь	300 x300 x 10mm thick tiles	SM	5				
	WALLING Plaster; 13mm cement/lime putty/sand; steel trowelled; on masonry and concrete to						
c	Walls and concrete surfaces	SM	5				
	Prepare surfaces; apply three coats First grade vinyl emulsion paint or other equal approved; on steel trowelled plaster to:						
d	Walls and concrete surfaces	SM	5				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Backing: 10mm cement/sand (1:4); on masonry or concrete ; wood float finished to						
e	Walls to receive ceramic tiles	SM	18				
	Supply and fix coloured glazed ceramic wall tiles; on backing; joints pointed in matching cement grout						
f	300 x 300 x 10mm thick tiles	SM	18				
g	300 x 50 x10mm thick border tile	М	9				
h	Supply and fix matching pvc tile strip to tile edges	м	36				
	Plaster; 13mm cement/lime putty/sand; wood float; on masonry and concrete to						
i	Walls and concrete surfaces; externally	SM	6				
	Prepare surfaces; apply three coats First grade vinyl emulsion paint or other equal approved; on wood float plaster to:						
j	Walls and concrete surfaces	SM	6				
	SECTION 7; EXTERNAL WORKS						
	ELEMENT NO.1; STORM WATER DRAINAGE						
	Excavation of trenches starting from ground level including maintaining sides and keeping bottoms free from water, mud and falling materials; grading bottoms, backfilling and carting away surplus excavated materials						
a	For drains; 1100mm wide x 600mm average depth	СМ	35				
	Pre-cast concrete units; pipes to BS 5911 and all fittings; jointed in cement sand (1:3) mortar						
ь	300mm diameter half round inverted block drains(IBDs) including 100mm thick murram bed and surround to approval	м	86				
c	stone pitching on sides with slates to 60 deg both sides 750mm each side	SM	140				
	Total this page						
d	culvert 600mm dia to cross road with 250mm haunch with headwallon both sides	LM	9				
e	twin culverts 900mm dia to existing road drainage with 250mm haunch with headwallon both sides on road crossing including all rehabilitation workd on the existing drainage	LM	58				
	ELEMENT NO.2; FOUL WATER DRAINAGE						
	Excavation						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
a	Excavate trench for buried drainage pipes not exceeding 150mm and average 500mm deep; part return, fill in, ram and cart away surplus	LM	46				
	Allow in pipework prices for all the couplings, connectors, joints, bends etc as required in the running lengths of pipework and also where necessary for pipe fixing clips, holder bats plugged and screwed; Installation must comply with BS EN 12056 - 2:2000						
	MuPVC Waste System Heavy guage Pipework Class 41						
Ъ	100mm waste pipe	М	46				
	Inspection Chambers/Manholes						
c	Allow excavation, concreteing to class 1:3:6 floor slab; walling 150mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2; benching to flor slab; including heavy duty rectangular cover and frame for manhole not exceeding 1500mm depth; as per drawing No. (50) 5314, MH Type A.	NO.	9				
d	Gully traps						
e	Allow for masonry gully trap in chamber complete with golden brown uPVC P-trap with seal drain pipe and concrete cover	NO.	2				
	Total this page					+	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
<u> </u>							
f	Allow for setting, testing and commissioning of the whole drainage works and connection to existing sewer system	ITEM	1				
g	2.4m high x12.5A gauge chainlink fence, complete with 4mm diameter 4 strands of galvanized plain wire pass through 2.4m high 100x125mm cranked precast concrete posts placed at 3.0m centers, 12 gauge barbed wire on cranks, and 1:3:6 mix mass concrete surround at 600mm deep.						
		LM	69				
	SECTION 8						
1	WATER STORAGE TANK STEEL TOWER						
а	Excavate for column bases (1.5X1.5)m n.e 1.5m	СМ	21				
1.	Lord and compact bottom of the greatest bases	611	10				
ь	Level and compact bottom of the excavated bases	SM	12				
с	50mm thick 1:4:8 blinding to column bases	SM	12				
d	12 mm diameter high yied steel bars to bases and stubs	KG	230				
е	8mm ditto	KG	58				
f	concrete (1:2:4, class 20) in column bases	СМ	3				
g	Allow for accurately setting 16 No. 20mm diameter	ITEM	1				
	galvanised steel foundation bolts at 250mm centres						
	on foundation column plinths.						
h	V. r. concrete (1:2:4, class 25) in tank foundation stub columns	СМ	2				
	plinths size (400mmx400mm)						
i	Sawn formwork to sides of columns	SM	15				
	Backfill and ram excavated material around foundation	CM	15 16				
k	Load and cart away the surplus	СМ	5				
	The following in steel work tower 2000x2000mm wide						
	x6000m high fixed 1500mm deep in ground including cutting and welding or bolting as necessary finished.						
	with 3 coats of red oxide primer						
1	300x300x10mm thick base plate with 4no. 18mm	NO	5				
	diameter holes spaced at 250mm centres and welded						
	to the bottom of tower column		1				
	Total this page				1		

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
m	100x100x8mm mild steel angles in main framework	LM	28				
	welded to base plates and reinforced with 12No. Cleats						
n	Ditto decking	LM	23				
0	Ditto (50x50x6mm) in bracing and struts	LM	85				
Р	black pipes (40mm ) in ballustrades	LM	35				
q	(50x100x6mm) RHS in decking	LM	23				
r	4mm thick galvanised checkered plate secured on decking	SM	10				
s	40mm GMS pipe handrail verical and horizontal	LM	46				
t	Allow for water storage tank access ladder with 50x50x4mm main frame with 16mm rods spaced at 300mm c/c	ITEM	1				
u	Apply two coats of gloss paint to tower	ITEM	1				
v	Supply and install 3500 litres capacity ROTO-TANK including hoisting to position and applying two coats of	ITEM	1				
	brilliant white gloss paint on its outer surface						
w	Allow for connecting piped water to elevated storage tank	ITEM	1				
	using 12mm class B pipes including all the necessary						
	water control fittings						
	Allow for suply for substation with water including all local authorities chares, submain pipes and all connections, testing and						
х	commissioning of all the plumbing works. Not exceeding 40m away	ITEM	1				
у	Earthing with earthing nest consisting supply and fixing of 150mm square bare copper wire, meshed to grids, square with earthing rods 5/8"x7', all under KPLC supervision to underline blinding in:						
	foundation strip trenches	LM	600				
z	column bases	LM	400				
aa	control room trenches	LM	250				
ЬЬ	external trenches.	LM	250				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Fencing						
a	Create the insulated chainlink fence around the guard/ wc house to the client satisfaction.	SM	20				
ь	Create pedestrian gate for the guard.	ITEM	1				
	GRAVELLING [Access road]-entry						
С	Rehabilitate the existing gravel access road from the main road to substation gate.	SM	120				
d	Excavate commencing from ground level 8.0metres wide access road and not exceeding 300mm deep and cart way the spoil	СМ	36				
			0 -				
e	Hand pack and compact hardcore 300mm layer to external road section to main road.	СМ	36				
f	Approved murrum fill 300mm well compacted with vibratory rollers in 150mm thick layers to above road to engineers approval	SM	120				
g	50mm surfacing of entry road with APPROVED gravell	SM	120				
	ROAD MARKING						
	Prepare surfaces and apply three coats of approved road marking paint: to						
h	Kerb stones and parking 75 to 150mm girth with Kenya Power branded colours.	КG	29				
	Cable ducts						
i	Supply and install 150mm diameter heavy gauge PVC pipes as ducts for cables crossing the access road and control room cable trench entrance location.	LM	150				
			1	1			
j	Vibrated mass concrete class 20/25 (1:2:4) in pvc cable ducts surrounding.	СМ	5				
	Total this page						

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	SWITCH YARD PLINTHS [2NO.TX. PLINTHS						
	SWITCH TAILO FLINTIIS (2NO.17. FLINTIIS						
a	Excavate pit foundations not exceeding 1.5m deep from reduced levels.	СМ	50				
ь	Return fill and ram suitable excavated material to the sides of the plinths	СМ	30				
с	Cart away from site surplus excavated materials	СМ	76				
d	Plain concrete 50mmm thick blinding 1:4:8 to footing	SM	102				
	Vibrated Reinforced Concrete Class 25/20 mm Aggregate in:-						
e	Base	СМ	21				
f	PEDESTALS	СМ	16				
g	COVER SLAB-300mm thick	СМ	18				
	High Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 (Provisional)						
h	8 mm diameter	KG	340				
i	12 mm diameter	KG	2500				
j	Fairface Formwork to:- Sides of base 225-300mm wide	LM	96				
k	Ditto slab	LM	36				
1	Vertical sides of footing	SM	48				
	Total this page and Carried to Summary Page						

pproved hardcore filling compacted to Engineer's approval  lind surface of hardcore with lean concrete  1000 gauge polythene sheet laid over hardcore  10tal this page and Carried to Summary Page  10tal	SM SM SM	25 30 30				
pproved hardcore filling compacted to Engineer's approval lind surface of hardcore with lean concrete  2000 gauge polythene sheet laid over hardcore Cotal this page and Carried to Summary Page  UMP RCC WALLING  Mass insitu concrete (1:4:8) in:- trip footing  (ibrated Reinforced Concrete Class 25/20 mm Aggregate in:-	SM SM	30				
Ooo gauge polythene sheet laid over hardcore Ootal this page and Carried to Summary Page UMP RCC WALLING Mass insitu concrete (1:4:8) in:- trip footing Gibrated Reinforced Concrete Class 25/20 mm Aggregate in:-	SM					
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trip footing  ibrated Reinforced Concrete Class 25/20 mm Aggregate in:-	SM					
ibrated Reinforced Concrete Class 25/20 mm Aggregate in:-	3/41	28				
<u>ase</u>	İ	28				
	СМ	9				
Valling finished fair face	CM	10				
ormwork		1				
ertical sides of base	SM	50				
ertical sides of walling						
ligh Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 Provisional)						
mm diameter	KG	529				
) mm diameter	KG	798				
upply and fix fabicated heavy duty gratting 25x4mm thick flats istened on 50x50x4mm angle iron fastened to contrete with 6mm late with full welds; painted with zinc red oxide primer base coat and final alluminium leafing paint to cover the transformer oil spillage ump.	ІТЕМ	1				
OIL sump chamber2m x 5m x 2m deep; perimeter 200mm thick block valling; internal plaster complete with niru finish; with ring beam at very 2m interval 250x200mm with 4 nos.12mm bars and 8mm shear nks at 200mm spacing; cover slab with manhole opening 150mm einforced with 8mm steel bothways at 150mm spacing; heavy duty teel cover; including pvc pipe 4"connecting with the main transformer it not exceeding 6m awayin two compartments						
	ITEM	1				
rovide galvanized 125 x 75mm U Channels welded to triangular shape .5x1.2x1.9metres); placed in reinforced concrete size, 1.0x1.0metres), rith approx. of the tip exposed above the concrete, including 50mm iameter hole drilled on exposed section.						
	NO.	2				
otal this page and Carried to Summary Page		1				
li P	mm diameter  mm diameter  ipply and fix fabicated heavy duty gratting 25x4mm thick flats stened on 50x50x4mm angle iron fastened to contrete with 6mm ate with full welds; painted with zinc red oxide primer base coat and final alluminium leafing paint to cover the transformer oil spillage imp.  IL sump chamber2m x 5m x 2m deep; perimeter 200mm thick block alling; internal plaster complete with niru finish; with ring beam at erry 2m interval 250x200mm with 4 nos.12mm bars and 8mm shear asks at 200mm spacing; cover slab with manhole opening 150mm inforced with 8mm steel bothways at 150mm spacing; heavy duty eel cover; including pvc pipe 4"connecting with the main transformer t not exceeding 6m awayin two compartments  rovide galvanized 125 x 75mm U Channels welded to triangular shape 5x1.2x1.9metres); placed in reinforced concrete size, 1.0x1.0metres), ith approx. of the tip exposed above the concrete, including 50mm	igh Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 (Trovisional)  mm diameter  mp diam	igh Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 (rovisional).  Imm diameter  Imm diameter  Imply and fix fabicated heavy duty gratting 25x4mm thick flats stened on 50x50x4mm angle iron fastened to contrete with 6mm are with full welds; painted with zinc red oxide primer base coat and final alluminium leafing paint to cover the transformer oil spillage imp.  IL sump chamber2m x 5m x 2m deep; perimeter 200mm thick block alling; internal plaster complete with niru finish; with ring beam at ery 2m interval 250x200mm with 4 nos.12mm bars and 8mm shear asks at 200mm spacing; cover slab with manhole opening 150mm inforced with 8mm steel bothways at 150mm spacing; heavy duty beel cover; including pvc pipe 4"connecting with the main transformer to not exceeding 6m awayin two compartments  ITEM 1  Provide galvanized 125 x 75mm U Channels welded to triangular shape 5x1.2x1.9metres); placed in reinforced concrete size, 1.0x1.0metres), the approx. of the tip exposed above the concrete, including 50mm ameter hole drilled on exposed section.  NO. 2	igh Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 (rovisional).  Imm diameter  Imm diamet	igh Tensile Steel Reinforcement Bars; Cold Worked to BS 4461 Invovisional)  mm diameter  mply and fix fabicated heavy duty gratting 25x4mm thick flats stened on 50x50x4mm angle iron fastened to contrete with 6mm at with full welds; painted with zinc red oxide primer base coat di final alluminium leafing paint to cover the transformer oil spillage mp.  IL sump chamber2m x 5m x 2m deep; perimeter 200mm thick block alling; internal plaster complete with niru finish; with ring beam at ery 2m interval 250x200mm with 4 nos.12mm bars and 8mm shear siks at 200mm spacing; cover slab with manhole opening 150mm inforced with 8mm steel bothways at 150mm spacing; heavy duty beel cover; including pvc pipe 4"connecting with the main transformer to not exceeding 6m awayin two compartments  ITEM 1  1  1  1  1  1  1  1  1  1  1  1  1	igh Tensile Steel Reinforcement Bars: Cold Worked to BS 4461 (rovisional)  mm diameter  mm diameter  mm diameter  mply and fix fabicated heavy duty gratting 25x4mm thick flats stened on 50x50x4mm angle iron fastened to contrete with 6mm ate with full welds: painted with zinc red oxide primer base coat di final alluminium leafing paint to cover the transformer oil spillage mp.  IL sump chamber2m x 5m x 2m deep; perimeter 200mm thick block alling; internal plaster complete with niru finish; with ring beam at ery 2m interval 250x200mm with 4 nos.12mm bars and 8mm shear aks at 200mm spacing; cover slab with manhole opening 150mm inforced with 8mm steel bothways at 150mm spacing; heavy duty seel cover; including pvc pipe 4"connecting with the main transformer t not exceeding 6m awayin two compartments  TIEM 1  ovide galvanized 125 x 75mm U Channels welded to triangular shape 5x1.2x1.9metres); placed in reinforced concrete size, 1.0x1.0metres), th approx. of the tip exposed above the concrete, including 50mm ameter hole drilled on exposed section.  No. 2

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	Re-arrangement for all existing structures to new foundations plinths of 33kv steel structures to +150mm on new 2x33kv bays consisting of 40nos of 33kv plinths &3nos of 33kv bus bars plinths.						
	Excavate foundation pits commencing from reduced level but not						
а	exceeding 1.5 m deep  Ditto but not exceeding 3.0metres	CM	3				
	Cart away surplus excavated materials from Site to municipal council						
ь	desiganated damping site.	СМ	145				
c ·	Disposal of water and Strutting	ITEM	1				
d	Blinding mix (1:4:8 - 50 mm)  Class 25(20) in bases and stub column bases with face finishes	SM	70				
e		CM	60				
f	steel 8 to12mm to bases and column	KG	1785				
g	Shuttering in all plinths	SM	250				
h	Edges; 75 to 250 mm to plinths grouting bolts /inserts and the like by holding in position when pouring concrete not exceeding 600mm long-bolts supplied by client	LM	160				
i	12	NO.	175				
j	13mm thick plaster (1:3mix) to top surface of foundations with smooth finish trowelled	SM	30				
k	Attendance for KPLC staff to do earthing before all blinding including security for all copper strip edges	ITEM	1				
1	supply and install 32mm heavy duty PVC flexible conduit fastened on switchgear plinth reinforcement to lengths not exceeding 5.0metres in every plinth and to flush with finished plith level for earthing conductor.	ІТЕМ	1				
	CABLE TRENCH Trench (600x600mm deep) length approx.150metres at various locations						
m	Excavate for trench from reduced level not exceeding 1.5 metres deep and cart away	СМ	80				
n	Load, cart away from site excavated materials and dispose at areas designated by local authority.	СМ	80				
0	Fill in and ram selected excavated materials around trench walls						
	Trench bed	СМ	15	1			-
р	50mm plain concrete(1:4:8) blinding on cable trench	SM	120				
	Vibrated reinforced concrete class 20/20 1:2:4 as described in:						
q	150mm thick trench base and walls with fair face finish	СМ	30				
r	150mm thick plain concrete haunching on laid 100mm diameter PVC cable ducts	СМ	3				
s	Supply and lay 150mm diameter heavy gauge PVC ducts	LM	80				
	70 01 11 11			1			<u> </u>

soft formwork to s of trench wall l reinforcement bars including tying bending ter blocks tying wires and fixing high tensile to BS 4461 mm at 150 centres in cable trench	SM	300				
l reinforcement bars including tying bending ter blocks tying wires and fixing high tensile to BS 4461	SM	300				
er blocks tying wires and fixing high tensile to BS 4461						
to BS 4461						
nm at 150 centres in cable trench						
	KG	1000				
ride and put in place (1000x300x75mm) thick precast concrete ch covers reinfoced with Y8 bars spaced at 100mm both ways with face finish on both side; with all edges protected with 25x25x n angle iron.	NO.	315				
le trays						
ply and fix steel fabricated cable trays 50x50x4mm thick angle iron weld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to mm long pcs and place on top of angle iron spaced at 400mm C/C orm cable tray.		90				
ll this page						
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pl w m	y and fix steel fabricated cable trays 50x50x4mm thick angle iron veld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to m long pcs and place on top of angle iron spaced at 400mm C/C m cable tray.	y and fix steel fabricated cable trays 50x50x4mm thick angle iron yeld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to m long pcs and place on top of angle iron spaced at 400mm C/C m cable tray.	y and fix steel fabricated cable trays 50x50x4mm thick angle iron yeld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to m long pcs and place on top of angle iron spaced at 400mm C/C m cable tray.	y and fix steel fabricated cable trays 50x50x4mm thick angle iron yeld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to mm long pcs and place on top of angle iron spaced at 400mm C/C  M  90  m cable tray.	y and fix steel fabricated cable trays 50x50x4mm thick angle iron yeld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to m long pcs and place on top of angle iron spaced at 400mm C/C m cable tray.	y and fix steel fabricated cable trays 50x50x4mm thick angle iron yeld together 200mm long vertical angle stand spaced at 400mm to horizontal; 50x50x4mm thick galvanised angle iron cut to m long pcs and place on top of angle iron spaced at 400mm C/C m cable tray.

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	VALUE OF WORK DONE	% OF WORK DONE
	SUMMARY PAGE						
1	Total from page1						
2	Total from page2						
3	Total from page3						
4	Total from page4						
5	Total from page5						
6	Total from page6						
7	Total from page7						
8	Total from page8						
9	Total from page9						
10	Total from page10						
11	Total from page11						
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27	Total from page27						
28	Total from page28						
29	Total from page29						
30	Total from page30						
30	Total from page31						
31	Total from page 32						
32	Total from page 33						
33	Total from page 34						
34	Total from page 35						
	TOTAL CONTRACT PRICE VAT EXCLUSIVE						