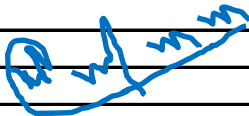




Item	Description	Unit	Qty	Rate	Amount (Kshs)
	ELEMENT No 2 132KV LILO BAYS				
	SWITCH - GEAR FOUNDATION PLINTHS(Substructure Works -All provisional)132 KV SWITCHGEAR PLINTHS				
	The following in 40 No. CT/CVT/SD/PI Foundation type F1, 36No. Isolator Foundation Type F2, 11Nos. CB Foundation Type F3 and 8No Foundation Type F4 GANTRY-Total 95Nos.				
A	Clear site of all existing ballast and set aside the ballast for re-use as shall be necessary	SM	1000		
B	Excavate foundation pits commencing from ground level and not exceeding 1.5m deep	CM	240		
C	Ditto Exceeding 1.5m but not exceeding 3.0m	CM	95		
D	Extra -Over for excavating in all classes of rock	CM	2		
E	Allow for all necessary plunking and strutting	ITEM	1		
F	Allow for disposal of general water by pumping, bailing or otherwise	ITEM	1		
G	Return, Ram and Fill Selected Excavated materials around the foundations	CM	180		
H	Load and Cart-Away surplus excavated materials from site to County Government Approved dumping site	CM	150		
I	Level and Compact bases of pits to receive blinding.	SM	125		
	<u>Blinding(Plain Concrete Class 15)</u>				
J	50mm thick (1:3:6) Concrete blinding to pit bottoms	SM	250		
	<u>Vibrated Reinforced Concrete Class 25/20 mm Aggregates In:</u>				
K	200mm Thick base	CM	90		
L	Stub columns	CM	150		
	<u>High yielded steel reinforcement bars including cutting,bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.</u>				
M	D8-16mm	KG	17500		
	<u>Fair - Face FormWork to:</u>				
O	To vertical sides of bases -(150-225mm)	LM	440		
P	To vertical sides of stub-Columns	SM	480		
G	Plinth top surface finish smooth trowelled including 50mm chamfer all round on all plinths.	SM	200		
H	Supply and fix all galvanized steel bolts min M24X650mm long Including poring anchoring holding in position and allowing for all bolts nuts washers and bottom plates.	No.	492		
I	Supply and fix earthing material To include 400No. Earth Rods,GI strip 75x6mm GI flat -Min 1000m,connectors clamps and lugs including bolts and nuts to conect strips (welding not allowed) and connect to existing Grid ..(furnish drawing to client for approval)	ITEM	1		
Ib	Allow 2500mm earth strip and all connectors to 4m Grid on entire portion 120m x40m				
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
J	2.4m high x10A gauge chainlink fence, complete with 4mm diameter 5 strands of galvanized plain wire pass through 3.0m high 150x150X Ycranked reinforced concrete posts placed at 3.0m centers, 12 gauge barbed wire on 450mm Y cranks, including, excavation and erection works, 1:3:6 mix mass concrete surround at 600mm deep.	LM	260		
K	Allow for 600mm masonry wall above ground including all Material,labour,builders works and plaster finishes with 2 coats of black bituminous paint	LM	260		
ELEMENT No.3 33 KV SIDE & 'T' Bus SUPPORT & TAKE OFFS					
33KV SWITCHGEAR PLINTHS					
The following in 50 No. Foundation Type (CT/VT/SA/PI, TAKE OFF) 7Nos. CB, 11 No. ABS Foundation , 11 Nos. Bus suport Foundation Total 80 Nos.					
B	Excavate foundation pits commencing from ground level and not exceeding 1.5m deep	CM	300		
C	Ditto Exceeding 1.5m but not exceeding 3.0m	CM	150		
D	Extra -Over for excavating in all classes of rock	CM	50		
E	Allow for all necessary plunking and strutting	ITEM	1		
F	Allow for disposal of general water by pumping, bailing or otherwise	ITEM	1		
G	Return, Ram and Fill Selected Excavated materials around the foundations	CM	250		
H	Load and Cart-Away surplus excavated materials from site to County Government Approved damping site	CM	150		
I	Level and Compact bases of pits to receive blinding.	SM	150		
<i>Blinding(Plain Concrete Class 15)</i>					
J	50mm thick (1:3:6) Concrete blinding to pit bottoms	SM	180		
<i>Vibrated Reinforced Concrete Class 25/20 mm Aggregates In:</i>					
K	200mm Thick base	CM	40		
L	Stub columns	CM	60		
<i>High yieled steel reinforcement bars including cutting,bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.</i>					
					
TOTAL TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate	Amount (Kshs)
M	D8-16mm	KG	5000		
	<i>Fair - Face FormWork to:</i>				
O	To vertical sides of bases -(150-225mm)	LM	300		
P	To vertical sides of stub-Columns	SM	360		
G	Plinth top surface finish smooth trowelled including 50mm chamfer all round on all plinths.	SM	120		
H	Supply and fix all galvanized steel bolts min M24X650mm long Including poring anchoring holding in position and allowing for all bolts nuts washers and bottom plates.	No.	320		
I	Supply and fix earthing material To include 320No. Earth Rods,GI strip 75x6mm GI flat -Min 1200m,connectors clamps and lugs including bolts and nuts to conect strips (welding not allowed) and connect to existing Grid .And all other associated accesories .(furnish drawing to client for approval)	ITEM	1		
	ELEMENT NO.4 CABLE TRENCHES				
6	Trench (600-900mmx600-900mm deep) length Approx.450IM				
A	Excavate for cable trench 1.2m wide from ground level not exceeding 1.0m metres deep.	CM	540		
B	Load and cart- away excess excavated materials from site to County Government Approved dumping site	CM	430		
C	Backfill and ram selected excavated materials around trench walls.	CM	110		
D	50mm plain concrete(1:4:8) blinding on cable trench base	SM	650		
E	Allow for all necessary plunking and stritting	ITEM	1		
F	Allow for disposal of general water by pumping. Bailing or otherwise.	ITEM	1		
G	<i>Vibrated reinforced concrete class 20/25 1:2:4 as described in;</i>				
H	150mm thick trench base.	CM	70		
I	150mm thick trench walls with fairly smooth face finish.	CM	135		
J	Allow for connecting the new cable trenches to the old trenches including hacking and cutting old reinforced concrete works to merge with the new ones	ITEM	1		
K	Provide and put in place (1300x300x100mm) thick precast concrete trench covers reinfoed with D8 &10 bars spaced at 150mm both ways with fair face finish on both sides, -TYP C	No.	830		
	DITTO 1000mm x 300 mm x 100mm-TYP B	No.	700		
L	Supply and fix galvanized perforated steel cable trays cable trays from 30mm thick 50 mm500 mm wide i including mounting on the trench and all joints and bends.	LM	250		
M	Allow concrete for bedding and thickenings class 25 /20 concrete	CM	75		
N	PVC ducts HD 150mm Dia with soround haunch in all areas and road crossings,equipment linking and all bends Ts and like	LM	120		
					
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
ELEMENT No.6 33 KV STEEL GALVANIZED STRUCTURES					
	Fabricate Steel Structures to conform BS4380,Grade 43A,Yield stress 250N/Sqmm,Tensile 410N/sqmm,Bolts BS4990 Class 8.8,Hot dip ISO 1461,zinc coating 610g/sm,bolts &nuts at 410gm/sm,all holes 17.5mm dia for 16mm dia bolts,all welds 16mm fillets,with erection mark BOM 132 /33-;-Adopt Boq quantities and Weights where drawings NOT legible				
A	CT Structure-190 Kgs.-150x150x6mm	PCS	15		
B	VT Structure-190 Kgs.-150x150x6mm	PCS	9		
D	Surge Diverter Structure-160Kgs.-150x150 x 6mm	PCS	3		
E	Busbar Support 4.5m High T" -150x150x8mm-460kgs	PCS	11		
F	Lightening Arrester Tubular-16M -Cascaded-450kg	PCS	4		
G	Post Insulator Structure/cable support)-250 Kgs.	PCS	7		
F	Allow for grouting after KPLC Erection of structures	ITEM	1		
G	Allow for assembly , and erection of 132KV Gentries & Busbars	ITEM	1		
ELEMENT No. 7 45MVA TX WORKS -					
NOTE -Bidder to adopt Rates ,drawing during execution					
B	General excavation 0-2m	CM	200		
C	ALL Classes of rocks excavation	ITEM	50		
	Allow for soil stbilization /bottom soiling with parked boulders	CM	75		
	Allow for 'Plum' stabilization concrete -30mm aggregates-150mm-	CM	15		
E	BASE concrete Class 30 to footings 300mm deep 12x6m	CM	23		
F	Concrete Class 30 to upstand beam & walls 1200x200mm- -40lm	CM	13		
G	Steel -Ribbed 8-25mm To base and beam and wall and Sump	Kg	7000		
H	Allow for INSERT plates 12mm thick 300x300 Including anchors a	PC	4		
J	Allow for Fair face formwork to all concrete works	LM	80		
K	Formwork all bases sides	SM	220		
L	Allow Concrete class 25 to perimeter sump wall 150mm thick	CM	10		
M	allow HEAVYduty gratings in 1m pieces made of 75x75mm angle framing with 25mm Ribbed bars at 25mm centres along th esump perimeter including fixing of Nosing edge angle to match for grating mounting ,all steel works galvaniozed to 95 microns	SM	35		
N	Allow for factory inspection For all steel Structures during fabrication,Galvanizing and delivery including all facilitation/transport and communication for 6no.(CIT members ,PE,PM)	ITEM	1		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
ELEMENT No. 8 45MVA TX TRANSPORTATION					
A	Allow mobilization positioning and access to TX in Mbaraki Stores	ITEM	1		
B	Load 80 Tonne TX to Low loader with any preferred method including all safety precautions	ITEM	1		
C	Transport 80 Tonnes TX By road from Mbaraki To Bomani ,including all permits ,escorts ,legislation	KM	40		
D	Offload TX to Plinth at substation including positioning and aligning on Final place	ITEM	1		
ELEMENT 9 SWITCHYARD LEVELLING & PLATFORM WORKS					
K	Oversite general excavation to Reduced level 200mm deep and Cart AWAY all loose soil	SM	13000		
	Cut trees and uproot stumps of up to 1.0m and average diameter 300mm and cart away the wood as directed by client.	ITEM	1		
M	Bulk excavation and Cart unsuitable soil 4M deep From reduce levels commencing from stripped level not exceeding 1.5m deep intervals. From contour 35.0 to 30.0 up to RL 31.00(4M) along the substation live area 120m long-30m width	CM	8000		
N	Fill in with approved material on embankments to make up levels and compact to 95% MDD (AASHTO T99) in layers of 150mm In live switchyard area-4 layers	CM	3000		
	Allow for stabilizing soft ground by boulders And hardcore 450mm deep	CM	2160		
F	Apply suitable weed killer, herbicide to surfaces of blinding as per the Manufacture's written instructions	SM	5000		
G	1000 gauge polythene or other equal and approved membrane laid on compacted and treated quarry dust with weltd laps of 200mm wide.	SM	5000		
					
TOTAL TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate	Amount (Kshs)
H	Supply and spread uniformly 150mm thick (1"-2.5") ballast in switch yard- singly graded	SM	4800		
I	Allow for compaction of 150mm inert maruum spoil or other approved coral fill to NON live area aadjacent to control building	CM	400		
	FUMIGATE with approved herbicide with warranty	SM	2800		
J	Supply and spread uniformly50MM thick QUARRY CHIPS	SM	2800		
K	Allow for Shrubs removal ,clearing cart away on all other areas	SM	8000		
L	allow for 3m perimeter access around the chainlink wall including stripping ,compaction of approved coral fill 300MM for security operations for non live front areas	CM	250		
M	Allow for Gabion boxes 2m x 1m filled with approved boulders .for ground slope protection at low areas	NO	200		
BELEMENT 10 ACCESS ROAD, DRIVEWAY & PARKING					
A	Mass excavation to reduce levels not exceeding 1.50m deep commencing from stripped level average 750mm deep.	CM	1400		
B	Load and cart away excavated material from site.	CM	1400		
C	Ram and compact sub-grade ready to receive sub-base	SM	1300		
Filling					
D	Imported filling material to make up levels	CM	360		
E	300mm Thick handpacked hardcore, filling leveled, well rammed and consolidated in 150mm thick layers	SM	360		
F	50mm Thick quarry dust blinding	SM	1500		
G	250 x 125mm High pre-cast concrete kerb bedded and jointed in cement and sand (1:4) mortar including 325x100mm thick mass concrete class 20/20 in foundation and haunching at the back, all necessary formwork and excavations.	LM	1000		
H	Extra-over ditto for curved on plan to various radii	LM	50		
I	250 x 125mm High pre-cast concrete channels	LM	1000		
	Extra-over ditto for curved on plan to various radii	LM	50		
J	Heavy duty industrial concrete paving blocks size (210x105x80mm) minimum strength 49N/mm square laid in herringbone pattern laid to slope on quarry dust (measured separately) and compacted	SM	1500		
TOTAL TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	BILL NO.12: CONTROL BUILDING				
	ELEMENT NO 1: SUBSTRUCTURES				
	Excavations				
	General excavations to include excavating in loam, clay. Black cotton soil, red soil or any soil which does not require ripping or use of compressor tools				
A	Excavate average 200mm deep to remove top soil and dispose.	SM	262		
B	Excavate trenches for wall foundations: commencing from reduced level and not exceeding 1.5 metres deep.	CM	55		
C	Ditto over 1.5m deep but not exceeding 3.0m deep	CM	13		
D	Excavate pits for column bases	CM	38		
E	Ditto over 1.5m deep but not exceeding 3.0m deep	CM	15		
F	Ditto but cable trenches	CM	77		
G	Extra over excavation for excavating in hardrock all classes.	CM	5		
	Backfilling around Foundations				
H	Backfill around foundation : selected excavated material : placed 'n 200mm thick layers : well watered and compacted to 98% MDD	CM	59		
	Disposal of Excavated Material				
I	Surplus excavated material : remove and deposit in spoil heaps on	CM	203		
	Disposal of water				
J	Keep excavations free from all water by baling, pumping or	ITEM	1		
	Planking and strutting				
K	Planking and strutting to sides of all excavations : keep excavation free from all fallen materials	ITEM	1		
	Imported Hardcore				
L	Approved quarry stone hardcore : 450mm thick (overall) : hand packed and well compacted in 150mm thick layers	CM	93		
	Murram Blinding				
M	50mm Murram blinding to surface of hardcore	SM	185		
	Antitermite Treatment				
N	Chemical antitermite treatment to murram filling ; Dragnet 30% EC or equal and approved : provide 10 year guarantee	SM	185		
	Insitu Concrete : Class 15/25mm				
O	50 mm Blinding layer: under wall foundations.	SM	40		
P	Ditto : under column bases.	SM	25		
Q	Ditto : under cable trenches/channel;	SM	62		
	Insitu concrete : class 25/20 : vibrated : reinforced				
R	Strip foundations trenches .	CM	8		
S	Column bases.	CM	8		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
T	Column stubs.	CM	3		
U	Cable trenches	CM	15		
V	Bed to cable channel/trenches ; laid to falls	CM	7		
W	150mm thick floor bed	CM	40		
X	Ramp	CM	2		
Y	11kv switchboard panel pad supports	CM	2		
	Mesh fabric reinforcement to BS 4483 : 200mm laps				
Z	Fabric mesh reference A142 weighing 2.22kg per square metre : in floor beds	M2	185		
	High yield steel bar reinforcement to BS 44461				
A1	D 8	KG	1198		
B1	D 10	KG	202		
C1	D 12	KG	261		
D1	D 16	KG	1207		
	Wrot formwork : to				
A	Vertical sides : column bases	M2	40		
B	Vertical sides : column stubs	M2	65		
C	Ditto : strip foundations	M2	21		
D	Ditto : sides of channel/trench walls	M2	191		
E	Vertical edge of floor bed	LM	65		
F	Extra-over for boxing size 400 x 400x600mm deep to form control panel grooves on 150mm thick concrete slab.	No	8		
G	Vertical sides of ground beam	M2	40		
	<u>Quarry natural stone bedded and jointed in cement and sand (1:3)mortar : 20 gauge x 25mm hoop iron in every alternate course</u>				
H	200mm Walling	M2	120		
I	One layer 1000 gauge polythene sheet damp proof membrane : under beds : 300mm laps.	M2	185		
J	Makes 200mm diameter holes on walling	No	30		
K	Ditto but concrete 200mm cable trench	No	30		
L	Supply and lay 200mm diameter heavy duty PVC ducts as cable sleeves	LM	90		
M	100mm Thick concrete (1:3:6) bed and surround to; 200mm diameter pipe, allowing for all necessary formwork.	LM	90		
N	6mm Chequer plate trench cover to 600x600mm trench of average size 700x800mm : comprising 25 x 25 x 3mm RHS cross members : welded to and including 25 x 25 x 3mm RHS as edge frame : in 750mm lengths.	SM	40		
O	Ditto but 1000x1200mm trench of average size, 700x800mm	SM	9		
P	Ditto but 1000x1200mm trench of average size, 400x800mm	SM	5		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
Q	Ditto but 400x400mm control panel groove of average size,450x400mm	SM	2		
R	40x40x 3mm Angle frame set in fillet in concrete sides of open channel : 50x3mm lugs at 1000mm centres with fish tail ends cast into concrete	LM	144		
S	Prepare and apply undercoat of zinc chromate primer to all general metal surfaces.	SM	160		
T	Ditto but two coats of gloss aluminium paint.	SM	160		
	Cable trays				
U	Fabricate and fix steel cable trays frame for 900 x900mm cable trench, comprising of 50x50x4mm thick SHS frame, weld together with 900mm wide 50x50x4mm struts, spaced at 400mm C/C to horizontal ; to form cable tray and riser 200mm above the trench	LM	15		
V	Ditto but for 600 x 600mm cable trench.	LM	53		
W	Supply and fix 150x50x6mm thick RHS anchored on concrete pads (measured separately) to client satisfactory	LM	15		
	ELEMENT NO.2: CONCRETE SUPERSTRUCTURE				
	In situ concrete: class 25/20 : vibrated reinforced in;				
X	Columns	CM	6		
Y	Ring beams	CM	5		
Z	Ditto : intermediate beams	CM	8		
A1	Ditto : Lintels	CM	1		
B1	Ditto but 150 mm thick suspended slab	SM	229		
	High yield deformed bar reinforcement in beams and suspended slab to BS 44461, including, cutting, bending,tying wire and spacer blocks;				
C1	D 8	KG	429		
D1	D 10	KG	2451		
E1	D 12	KG	270		
F1	D 16	KG	501		
	Wrot formwork : to				
	Vertical sides of columns	M2	100		
A	Sides and soffits of Ring beams	M2	93		
B	Ditto : intermediate beams	M2	71		
C	Ditto : lintels	M2	14		
D	Ditto: soffits suspended slab	M2	204		
E	Ditto: sides of suspended slab	M	65		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	ELEMENT NO.5: DOORS				
	Steel Doors				
	<u>Supply and fix the following purpose -made steel doors, including fixing lugs, once shop primed with one coat red oxide primer before delivery to site, complete with frames and including all ironmongery to Client approval and as per Door drawing: SK NO. 06449</u>				
	BAT AND INSECT PROOFING				
	<u>Mild steel Bat and insect proofing screens panels in louver opening, including 13 x13 x 3mm flat frame in panels; welded one face with and including coffee tray gauge wire mesh: one shop coat red oxide primer : to</u>				
Q	Double leaf door overall size 2000 x 3000mm high	NO	2		
R	Ditto but Single leaf door overall size, 1500 x 2500mm high	NO	6		
	TOTAL CARRIED TO SUMMARY PAGE				
	Aluminium Door				
A	Medium duty aluminium door overall size 1000 x 2500mm high complete with locking devices and housing on top all to Client's approval.	No	7		
B	Supply and fix first grade emergency panic lock on the 1500mm wide doors to client approval.	NO	3		
C	Prepare and apply gloss paint to general surfaces ; steel doors; both sides measured	M2	66		
	ELEMENT NO.6: FLOOR FINISHES				
	Cement and sand (1:4) trowelled screeds : on concrete : to				
D	25mm Floor screed to receive terazzo including plastic diving	M2	185		
	Polished Terrazzo Floor Finishes on concrete				
E	30mm thick terrazzo floor finish	SM	185		
F	Ditto 25mm thick Skirting 150mm high:	m	115		
	Non-Slip Ceramic Tiles				
G	300 x 300 x 6mm Thick ceramic floor tiles approved bedded and jointed in cement and sand (1:4) mortar and pointed with neat coloured cement.	M2	8		
H	100 x 6mm High ceramic tiles skirting bedded and jointed in cement and sand mortar (1:4) and pointed with neat coloured	m	12		
	Skirting				
I	20 x 100mm High cement and sand skirting with rounded top and curved junction with floor finish	m	12		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	ELEMENT NO.7: WALL FINISHES				
	12mm lime plaster in two coats : steel trowelled finish : on				
	concrete or blockwork : to				
J	Walls and columns	SM	510		
	Ditto but soffit of suspended slab	SM	220		
	Prepare and apply three coats PVA matt vinyl emulsion paint : on				
K	Plastered walls, columns and beams.	M2	650		
L	Ditto but soffit of suspended slab	M2	220		
M	200 x 300 x 4mm Thick glazed ceramic wall tiles : fixed with approved quality adhesive in accordance with the manufacturers instructions : on and including 12mm thick cement and sand screed backing : jointed, pointed and grouted in matching colour coloured cement grout and Plastic corner strips to edges of tiled surfaces	SM	15		
N	Key pointing in cement sand (1:3) in horizontal joints.	M2	171		
O	Plinth walls and edges of floor bed	M2	26		
	Prepare and apply three coats first grade external quality				
	paint : to				
P	Columns and beams	M2	128		
	Prepare and apply three coats bituminous paint : to				
Q	Plinth area and edges of floor bed	M2	26		
	ELEMENT NO.8: KITCHEN				
R	100mm thick 1:2:4 concrete in kitchen work top	SM	2		
S	Y 10 reinforcement bars at 150 centres	KG	17		
T	150mm block wall	SM	2		
U	12mm thick mix 1:3 cement sand plaster	SM	5		
V	Single drain single bowl stainless approved kitchen sink	NO	1		
W	Bricon or approved kitchen mixer tap	NO	1		
X	900x600mm wide 20mm thick MDF board bottom cabinets comprising of 2No. Cabinets, 4No. Drawers including fixing, mouver hinges, rails, handles and approved finishes.	ITEM	1		
W	Ditto in locable overhed cabinets but with 3No. open shelves	ITEM	1		
A	10mm thick granito tiles finishes on the kitchen work top fixed with approved quality adhesive in accordance with the manufacturers instructions : on and including 12mm thick cement and sand screed backing : jointed, pointed and grouted in matching colour coloured cement grout and alluminium corner strips to edges of tiled surfaces	SM	2		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	ELEMENT NO.9: DRAINAGE AND PLUMBING WORKS				
	To supply and install the following Sanitary fittings including all the necessary joints to service overflow and waste pipes, jointings and motices, plugs, screws bolts and making good. Sanitary Fittings will be to Client's approval of the relevant samples				
B	Approved Standard white countertop wash hand basin size: 585x430mm on with one center tap hole and a 2 nd RHS tap hole for Basin top mounted under counter soap dispenser .Cobra single lever mixer tap with pop up waste: and plastic bottle trap 32mm dia with seal.	NO	2		
C	Approved standard WC white wall concealed cistern white seat & cover unit to have short siphon internal overflow and wide mouth WC P-trap waste outlet.	NO	2		
D	Stainless steel toilet roll holder with top flap cover.	NO	2		
E	Stainless Steel basket soap dish size 200x150mm.	NO	1		
F	Approved standard hand drier with infrared sensor and DP Switch with wiring	NO	1		
G	Aluminium coat/towel hook complete with screw to wall fixtures and rubber door stopper	NO	2		
H	Approved standard basin mounted push action stainless steel liquid soap dispenser with 0.5 litre under counter soap holder.	NO	2		
I	"Bevelled" Mirror to Client's approval fixed on wall with chrome plated dome headed screws. Mirror size 600 x 800mm high	NO	1		
	Internal Plumbing Water SuddIv				
J	To supply & install PP-R (PN 20) stable tubing (pipes) of various size a necessary and tenderer must allow for jointing, clipping reducers' couplina, bends, reducers, tees, sockets, approved gate valves, flexible connectors floor traps, angle valves etc. necessary for the proper and satisfactory functioning of the installation when pricing.	ITEM	1		
	ELEMENT NO.8: PAVING				
K	150mm thick Hardcore bed : deposited, spread, levelled and compacted : to receive sand bed	M2	82		
L	50mm Sand bed : levelled and compacted to receive paving	M2	82		
M	50x 600 x 600mm precast concrete (class 20) paving slabs : laid	M2	82		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
ELEMENT NO. 9: FIRE FIGHTING EQUIPMENT					
	Supply and fix controlled 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: Charge and fixing bracket, Pictorial instructions, Colour code, Servicable on site, Brass hot stamping and Operating valve as described				
N	9 litre carbon dioxide fire extinguisher complete with re-fills, discharge horn and fittings to wall bracket, as manufactured by Angus or equal and approved.	No.	4		
O	9Kg dry powder multi-purposed fire class A'B and C as manufactured by Angus Fire Armour ABC multi-purpose model AP 9 K or equal and approved.	No.	4		
P	1200x1200mm woven glass fire blanket with 0.025 wick thermal conductivity.	No.	2		
Q	4.5Kg Co2 Powder Fire Extinguisher as Angus Fire Armour.	No.	4		
ELEMENT NO. 10: SMOKE DETECTORS					
A	Allow for Hardwired Smoke detectors installations; including a battery back up; to be carried out by a nominated sub-contractor	ITEM	1		
B	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		
ELEMENT NO.11: ELECTRICAL INSTALLATIONS WORKS					
D	Allow for electrical installations to be carried out by a nominated sub-contractor as per electrical Drawing No SK No. 08280/B Sheet 1C - lumpsum and to comprising the following ,1No. 12 way 3-phase 415V distribution board rated 100Amps complete with 3 phase MCBS, 32Amps -2set and six 1Phase way MCBS 16Amps.	ITEM	1		
E	Ditto 1No. Consumer unit rated 60Amps , 6 ways each MCBS rated 32 and 16Amps.	ITEM	1		
TOTAL TO SUMMARY PAGE					0
Item	Description	Unit	Qty	Rate	Amount (Kshs)

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	ELEMENT NO 13				
	ROOFING & RAINWATER DISPOSAL				
	Structural Steel work				
	<u>The following in framed structural steelwork : complete with and including all welded and bolted connections : delivery to site and erection with and including one shop coat of zinc plumbate primer</u>				
A	7 No. structural steel roof trusses spanning 10750 mm girth : hoisting and fixing approximate 4.5 M above ground level :				
B	100 x 50 x 4 mm thick RHS rafters	LM	85		
C	50 x 50 x 3 mm SHS struts and ties	LM	145		
D	50 x 50 x 3 mm SHS tie beam	LM	55		
E	100 x 100 x 6 mm thick base plate welded to truss : drilled with 4No. holes for 12 mm diameter bolts	No	14		
F	Supply and fix 150x50x2mm 'Z' - purlins with welded cleats and bolted to rafters primed	LM	224		
G	Fabricate steel framework comprising of SHS 40x40x4mm thick to form vertical fascia cladding, comprising of vertical and horizontal members, bracings, struts runners all adequately and including fixing into position in to client satisfaction.	LM	70		
H	Supply and fix BP760 box profile factory pre-painted gauge 28 full length roofing sheets to an approved colour laid with 94mm side laps and fixed to steel 'Z' purlin (m/s) including self tapping screws/bolts as necessary.	SM	270		
I	Ditto but vertical sides of fascia cladding framework and gable sides	SM	85		
J	Ditto but eave covering	SM	40		
K	Supply and fix 28Gx320mm with stiffed ridge caps	LM	23		
	Rainwater Goods				
L	Supply and fix 14 gauge Mild steel sheet purpose made box water gutter, 1200mm girth; to sit and fixed on eave cover framework as described (ms) and to rafters	LM	46		
M	Extra over for stopped ends.	NO	4		
N	Ditto 110mm diameter holes in gutter	NO	2		
O	110mm diameter down pipe	LM	12		
P	Extra-over down pipe for 900mm girth swanek including, tightly secured with sandle clips at 750mm cenetres.	NO	2		
Q	Extra over downpipe for 300m shoe	NO	2		
	Painting generally.				
R	Prepare and apply 2 coats of red oxide primer and apply 2 coats of alluminium finish on rainwater goods	SM	1		
	Prepare and apply two coats black bituminous paint on rainwater gutters internally.	SM	55		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	EXTERNAL WORKS				
	BILL NO.13 GROUND MOUNTED TANK PLINTH				
S	Excavate Pit for water tank not exceeding 1.50 metres deep	8	CM		
T	Remove surplus excavated material from site	7	CM		
U	Return fill and well ram selected excavated materials around foundations	1	CM		
	Concrete work:-				
	50mm thick plain blinding concrete mix (1:4:8) class 10-15mm				
	aggregates in:-				
V	Foundations	10	SM		
	Guaranteed strength vibrated reinforced concrete mix (1:11/2:3) class 25-20mm aggregate in:-				
	Base.	3	CM		
W	Ditto but curved 250mm thick walling	2	CM		
X	Ditto but curved 300mm thick top cover	2	CM		
	Reinforcements				
	High yield deformed bars to B.S. 4461				
	D 8	31	KG.		
	D 12	635	KG.		
	Wrot Formwork to:-				
A	Curved base 225-300mm high	11	SM		
B	Curved edges of walling	18	SM		
	Fillings				
C	Approved hardcore of 100-200mm diameter fillings	4	CM		
	BILL NO.14 ELEVATED WATER STORAGE TANK STEEL TOWER				
D	Excavate for column pits 1.5m deep commencing from stripped level but not exceeding 1.5 m deep.	CM	6		
E	Extra over excavation in rock of all classes.	CM	2		
F	Remove surplus excavated material from site	CM	4		
G	Return fill and well ram selected excavated materials around foundations	CM	2		
H	50mm thick 1:4:8 blinding to column bases	SM	4		
	Vibrated reinforced concrete class 20/20 1:2:4 as described in;				
I	Colomn bases	CM	1		
J	Stubs	CM	1		
	TOTAL TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	<u>High Steel reinforcement bars including tying bending spacer blocks tying wires and fixing high tensile bars to BS 44461</u>				
K	D 12	KG	104		
L	D 8	KG	18		
M	Allow for accurately setting 16 No. 20mm diameter galvanised steel foundation bolts at 250mm centres on foundation column plinths.	ITEM	1		
N	Wrot formwork to sides of columns	SM	2		
O	Bases	SM	5		
P	Vertical sides of stub	SM	7		
Q	10mm thick top finish of cement/sand screed	SM	4		
	<u>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</u>				
R	300 x 300 x 10mm thick base plate with 4no. 18mm diameter holes spaced at 250mm centres and welded to the bottom of tower column	NO	4		
S	100x100x6mm mild steel SHS in main framework, welded to base plates and reinforced with 32No. Cleats	LM	24		
T	Ditto decking 100x50x6mm RHS	LM	11		
U	Ditto decking 100x50x4mm RHS	LM	22		
V	Ditto (50x50x4mm) in bracing and struts	LM	68		
W	Class A 42mm diameter x1.5mm thick balustradings	LM	12		
X	Ditto but handrail and cross member	LM	22		
Y	4mm thick galvanised chequered plate welded on decking	SM	8		
Z	Allow for water storage tank 6.0m high access ladder with 50x50x4mm main frame with 16mm rods spaced at 300mm c/c	ITEM	1		
A1	Apply two coats of gloss paint to tower	Item	1		
B1	Supply and install 3500 litres capacity APPROVED PLASTIC TANK including hoisting to position and applying two coats of brilliant white gloss paint on its outer surface	NO	1		
C1	Ditto but 6000 litres placed on concrete water tank plinth (separately measured)	NO	1		
D1	Allow for connecting piped water to both elevated storage and ground mounted water tanks using 25mm PN20 pipes including accessories, gate valves, foot valves, non-return valves	ITEM	1		
E1	Supply and connect water control fittings including fully installed 0.5hp booster pump.	ITEM	1		
F1	Prepare apply two coats of zinc chromate paint to general sufaces of metal	ITEM	1		
	TOTAL CARRIED TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	Reinforcement				
	High yield square twisted bars to B.S. 4461:				
S	D 8	2108	KG.		
T	D 10	1209	KG.		
U	D 12	4650	KG.		
V	D 16	196	KG.		
	Quarry natural stone bedded and jointed in cement and sand (1:3)mortar : 20 gauge x 25mm hoop iron in every alternate course				
W	200mm. Thick substructure walls	547	SM		
	Machine cut natural stone blocks or other equal and approved building blocks: minimum compressive strength 7N/mM2 : regular coursed walling of uniform colour : bedded and jointed in cement and sand (1:3) mortar : 20 gauge x 25mm hoop iron in every alternate course				
X	200mm thick wall	962	SM		
	12mm lime plaster in two coats : steel trowelled finish on walls and columns				
Y	Walls and columns internally.	690	SM		
	Prepare and apply three coats PVA matt vinyl emulsion paint : on				
Z	Plastered walls, columns and beams.	1190	SM		
	Fair face:-				
A1	Extra over stone walling for wire brushing and key pointing to form recessed horizontal and vertical joints on both sides.	961	SM		
	Prepare and apply three coats bituminous paint : to				
B1	Plinth area above ground and ground beam externally.	260	SM		
	Razor Wire				
A	Supply and fix Razor Wire at the top of boundary wall, 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 the wall at 1.5m centers.	450	LM		
	Precast concrete class 20/20 in:-				
B	450 x 450 x 50mm. Thick coping weathered and throated all round bedded on top of columns with cement and sand (1:4) mortar.	135	NO.		
C	Ditto but 800x 450 x50mm	7	NO		
D	350 x 50mm Thick ditto bedded on top of 200mm. thick walling ditto.	450	LM		
	Expansion Joint				
E	20mm thick construction joint in flex cell or equal and approved expansion joint and (25x25)mm expedite sealer	30	SM		
	TOTAL CARRIED TO SUMMARY PAGE				

Item	Description	Unit	Qty	Rate	Amount (Kshs)
	GATES				
F	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 . including excavation for the gate columns, concrete works,erection and 3 coats of 1st grade gloss paint	1	NO		
G	Ditto but 1500x2400mm high pedestrian gates	1	NO		
H	Ditto Grill see through gate	1	NO		
	RETAINING WALL 900MM -175LM--				
	<i>Note -Bidder to adopt quantities (drawings during execution)</i>				
A	oversite clearance	SM	600		
B	Excavate foundation pits commencing from ground level and not exceeding 1.5m deep	CM	210		
C	Ditto Exceeding 1.5m but not exceeding 3.0m	CM	6		
D	Extra -Over for excavating in all classes of rock	CM	21		
E	Allow for all necessary plunking and strutting	ITEM	1		
F	Allow for disposal of general water by pumping, bailing or otherwise	ITEM	1		
G	Return, Ram and Fill Selected Excavated materials around the foundations	CM	150		
H	Load and Cart-Away surplus excavated materials from site to County Government Approved dumping site	CM	60		
I	Level and Compact bases of pits to receive blinding.	SM	173		
			0		
	<i>Blinding(Plain Concrete Class 15)</i>		0		
J	50mm thick (1:3:6) Concrete blinding to pit bottoms	SM	176		
			0		
	<i>Vibrated Reinforced Concrete Class 25/20 mm Aggregates In:</i>		0		
K	200mm Thick base	CM	36		
L	Stub columns	CM	60		
	<i>High yieled steel reinforcement bars including cutting,bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.</i>		0		
M	D8-16mm	KG	3600		
	<i>Fair - Face FormWork to:</i>		0		
N	To vertical sides of bases -(150-225mm)	LM	300		
O	To vertical sides of retaining	SM	540		
P	Plinth top surface finish smooth trowelled including 50mm chamfer all round on all concrete works	SM	360		
Q	Allow for water proof cements on all concrete works	ITEM	1		
R	Allow concrete for bedding and thickenings class 25 /20 concrete	CM	60		
S	Allow facilitation for Kplc PM,PE & Project Supervisor on communications and data-provisional Sum1,200,000 for both electronic and Print	ITEM	1		

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