	PROPOSED CIVIL WORKS AT NYAMININIA 33/11KV SUBSTATION			
Item	**Description**	**Unit**	**Qty**	**Rate**
	ELEMENT No.1			
	PRELIMINARIES AND ENABLING WORKS			
A	Allow for all necessary statutory approvals for the works by relevant county authorities ;Replication of drawings to required formats by county government; Endorsement by relevant proffesional persons; and submit a set of approved drawings before commencement to client on completion,including site registration fees.	ITEM	1	
B	Allow for a qualified person conversant with Kenya Power safety regulations and can received safety electrical permits for the entire constract period	ITEM	1	
C	Allow for prompt communication and updates facilitation to client supervision team	ITEM	1	
D	Allow for security and insurance for the proposed works	ITEM	1	
E	Allow for temporary sign post for the proposed works.	ITEM	1	
F	Allow for temporary metered electricity supply/generator for the works (Lv suppy within site)	ITEM	1	
G	Allow for clean water on site for the construction works.	ITEM	1	
H	Allow for temporary site office to accommodate atleast seven people/store for materials storage etc.	ITEM	1	
J	Allow for shutdowns executions delays and monthly site meetings.	ITEM	1	
	ELEMENT No.2			
	SWITCH YARD REHABILITATION			
A	Demolition of the existing pit latrine, gatehouse and any iddle plinths on site which may obstruct new works, hand over the recoverables to KPLC, cart away the debris and make good.	ITEM	1	
B	Clear site of all shrubs, grass and any other vegetation and burn/cart away the arising.	SM	3300	
C	Allow for carefully collecting all KPLC scrap, materials and equipment on site under KPLC supervision, transfer and store as per client directives.	ITEM	1	
D	Excavate oversite vegetable soil average depth 350mm and cart way to Local Authority designated damping site.	SM	3300	
E	Average 150mm thick selected and well compacted imported murram fill in switchyard, compact using approx. 2 ton vibrating roller to gradual slope to receive ballast.	SM	3300	
F	Prepare and apply Gradiator 4TC or equal and and approved insecticide to surfaces of murram fill and blinding as per Manufacturer's written instructions (to be done by a specialist subcontractor and guarantee given)	SM	3300	
G	Apply suitable weed killer, herbicide to surfaces of blinding as per the Manufacture's written instructions (to be done by a specialist subcontractor and guarantee given)	SM	3300	
H	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated murram with welted laps of 200mm wide.	SM	3300	
J	Supply and spread uniformly 150mm thick 'one inch '(25mm) ballast in switchyard	SM	3300	
	TOTAL CARRIED TO SAMMARY PAGE 1			

Item	Description	Unit	Qty	Rate
K	Precast concrete channel 200mm high at the ballast perimeter to prevent ballast spill over as restraint	LM	120	
	ELEMENT No. 3			
	TRANSFORMER PLINTH 1 No.			
A	***Excavations.***			
1	Excavate for 1No. transformer plinth pit size (9400x6900)mm, depths n.e. 1.5m from original ground level.	CM	98	
2	Ditto exceeding 1.5m but n. e. 3m	CM	20	
3	Extra over excavation in rock.	CM	20	
4	Allow for keeping excavated pits water free by pumping, bailling or otherwise.	ITEM	1	
5	Allow for planking and strutting to uphold the foundations.	ITEM	1	
6	Return,fill and ram selected excavated materials around transformer plinth.	CM	43	
7	Removing excess excavated materials from Site and disposing off.	CM	55	
8	Compacting bases of the transformer plinth foundation base and blinding with concrete mix (1:4:8 - 50 mm thick)	SM	37	
B	***High yieled steel reinforcement bars including cutting,bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Reinforcement bars Y8, Y10 and Y12 to bases, upstand beams and top slabs for Tx. plinth all spaced @ 200 c/c.	KG	1800	
C	***Formwork***			
1	Steel/ wooden formwork to sides of plinth upstand beams and the plinths sides to produce a fairly smooth concrete surface finish (plastering concrete surfaces will not be allowed))	SM	650	
D	***Concrete***			
1	Class 25(20) concrete in the transformer foundation base 300mm thick.	CM	15	
2	Class 25(20) concrete in the plinth upstand beams.	CM	15	
3	Class 25(20) concrete in the plinths top slabs sizes (5000x2500)	CM	6	
E	***Hardcore fill***			
1	Well compacted hardcore fill in the plinth	CM	15	
2	50mm thick murram blinding and DPM on the hardcore	SM	10	
F	***Finishes***			
2	Surfaces finish smooth trowelled in (1:3) cement/ Sand mortar including 50mm chamfer all round top edges of plinth.	SM	40	
G	***Transformer Ground Anchor***			
1	Excavate for 1No. Ground anchors size (1500x1500)mm depth n.e. 1.5m from stripped level and dispose off the spoil	CM	1	
H	***Vibrated reinforced concrete class 20/25 1:2:4 as described in;***			
1	Ground anchors	CM	5	
2	Allow for fixing ground anchors in place before concreting, client to provide the steel anchors.	ITEM	1	
	TOTAL CARRIED TO SAMMARY PAGE 2			

Item	Description	Unit	Qty	Rate
1	Supply and fix fabicated heavy duty gratting of deformed R16 @ 10mm c/c fastened on 50x50x4mm angle iron fastened to contrete with 10mm plate with full welds; painted with zinc red oxide primer base coat and final alluminium leafing paint to cover the transformer oil spillage sump.	ITEM	1	
	ELEMENT No. 4			
	FOUNDATION PLINTHS			
A	**64No. typical foundation plinths for 33 & 11Kv Air Break Switches,Post insulators,Current transformers, Circuit Breakers, Lightning arresters and Transition structures.**			
1	Excavate for 64No. structure plinths foundation pits size (3400x1200) depths not exceeding 1.5m from original ground level.	CM	392	
2	Ditto exceeding 1.5m but n.e 3.0m.	CM	79	
3	Extra over excavation in rock.	CM	20	
4	Allow for keeping excavated pits water free by pumping, bailling or otherwise.	ITEM	1	
5	Allow for planking and strutting to uphold the foundations.	ITEM	1	
6	Compacting bases of pits and blinding with concrete mix (1:4:8 - 50 mm thick)	SM	93	
7	Class 25(20) concrete in foundation bases and stub columns sizes (1200x1200x300 thick) and (700x700x1500 high) respectively.	CM	85	
8	Return,fill and ram selected excavated materials around foundations.	CM	315	
9	Removing excess excavated materials from Site and disposing off.	CM	80	
B	***High yieled steel reinforcement bars including cutting,bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Reinforcement bars Y12 to bases and stub columns of structure plinths, Y8 in rings on stub columns all spaced @ 200 c/c.	KG	3200	
2	Grouting the foundtion bolts in stub columns by setting to precision and securing them in place when pouring concrete. (Bolts provided by client approx. size 600mm long and 20mm diameter).	PCS	256	
C	***Formwork***			
1	Steel/ wooden formwork to sides of stub columns and bases to produce a fairly smooth concrete surface finish to stub columns faces. (plastering concrete surfaces will not be allowed))	SM	215	
2	Surface finish smooth trowelled including 50mm chamfer all round on all plinths.	SM	54	
D	***6No. typical foundation plinths for 33&11Kv bus bars***			
1	Excavate for 6No. Bus bar structure plinths foundation pits size (2800x2200) depths not exceeding 1.5m from original ground level.	CM	56	
2	Ditto exceeding 1.5m but n.e 3.0m.	CM	12	
3	Extra over excavation in rock.	CM	5	
4	Allow for keeping excavated pits water free by pumping, bailling or otherwise.	ITEM	1	
	TOTAL CARRIED TO SAMMARY PAGE 3			

Item	Description	Unit	Qty	Rate
5	Allow for planking and strutting to uphold the foundations.	ITEM	1	
6	Compacting bases of pits and blinding with concrete mix (1:4:8 - 50 mm thick)	SM	24	
7	Class 25(20) concrete in foundation bases and stub columns sizes (2200x1800x300 thick) and (1600x1200x1500 high) respectively.	CM	35	
8	Return,fill and ram selected excavated materials around foundations.	CM	31	
9	Removing excess excavated materials from Site and disposing off.	CM	25	
E	***High yieled steel reinforcement bars including cutting,bending, tying and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Reinforcement bars Y12 to bases and stub columns of structure plinths, Y8 in rings on stub columns all spaced @ 200 c/c.	KG	3100	
2	Grouting the foundtion bolts in stub columns by setting to precision and securing them in place when pouring concrete. (Bolts provided by client approx. size 600mm long and 20mm diameter).	PCS	96	
F	***Formwork***			
1	Steel/ wooden formwork to sides of stub columns and bases to produce a fairly smooth concrete surface finish to stub columns faces. (plastering concrete surfaces will not be allowed))	SM	56	
2	Surface finish smooth trowelled including 50mm chamfer all round on all plinths.	SM	12	
	ELEMENT No. 5			
	CABLE TRENCHES AND DUCTS			
A	***Trench (600x600mm deep) length 160 metres at various locations***			
1	Excavate for cable trench 1.2m wide from reduced level not exceeding 0.7 metres deep.	CM	135	
2	Load, cart away excavated materials and dispose at areas designated by local authority.	CM	101	
3	Backfill and ram selected excavated materials around trench walls.	CM	34	
4	50mm plain concrete(1:4:8) blinding on cable trench base	SM	160	
B	***Vibrated reinforced concrete class 20/25 1:2:4 as described in;***			
1	In 150mm thick trench base.	CM	22	
2	In 150mm thick trench walls with fairly smooth face finish.	CM	30	
3	Provide and fix heavy duty galvanized (900x450x50mm) composite polymer resin cover(medium weight/ m2 ultimate load capacity) .	No.	356	
C	***High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Y 8 in cable trench @ 200 c/c both ways	KG	1656	
D	***Form work to***			
1	To sides of trench walls.	SM	440	
	TOTAL CARRIED TO SAMMARY PAGE 4			

Item	Description	Unit	Qty	Rate
E	***Cable Ducts***			
1	Provide and put in place 150mm diameter heavy duty pvc cable ducts at various points surrounded 150mm mass concrete (1:2:4)	LM	200	
2	Provide 150mm diameter PVC bends	No.	40	
3	50x50x4mm angle line embedded in concrete cable trench edges	LM	320	
F	***Cable trays***			
1	Provide in the cable trench a layer of a steel cable tray 600mm wide suspended 200mm above trench base by supports at 1200 c/c, fabricated out of (50x50x4mm thick) angle irons and (50x25x4mm thick) RHS spaced at 400mm c/c. Painted with 2 coats of red oxide primer ans 2 coats of Zinc Alluminium paint (gloss)	LM	160	
G	***Trench (1200x900mm deep) length 100 metres at various locations***			
1	Excavate for cable trench 1.8m wide from reduced level not exceeding 0.7 metres deep.	CM	126	
2	Load, cart away excavated materials and dispose at areas designated by local authority.	CM	105	
3	Backfill and ram selected excavated materials around trench walls.	CM	21	
4	50mm plain concrete(1:4:8) blinding on cable trench base	SM	150	
H	***Vibrated reinforced concrete class 20/25 1:2:4 as described in;***			
1	In 150mm thick trench base.	CM	23	
2	In 150mm thick trench walls with fairly smooth face finish.	CM	18	
3	Provide and fix heavy duty galvanized (1500x450x50mm) composite polymer resin cover(medium weight/ m2 ultimate load capacity) .	No.	280	
J	***High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Y 8 in cable trench @ 200 c/c both ways	KG	1190	
K	***Form work to***			
1	To sides of trench walls.	**SM**	280	
2	50x50x4mm angle line embedded in concrete cable trench edges	SM	200	
3	Provide in the cable trench a layer of a steel cable tray 400mm wide suspended 200mm above trench base by supports at 1200 c/c, fabricated out of (50x50x4mm thick) angle irons and (50x25x4mm thick) RHS spaced at 400mm c/c. Painted with 2 coats of red oxide primer ans 2 coats of Zinc Alluminium paint (gloss)	LM	100	
	ELEMENT No.6			
	CONTROL ROOM 10M X5M			
	Substructure			
A	***Excavations***			
1	Excavate oversite vegetable soil average depth 150mm and cart	SM	92	
	TOTAL CARRIED TO SAMMARY PAGE 5			

Item	Description	Unit	Qty	Rate
2	Excavate for foundation strip 700mm wide commencing from stripped level depth not exceeding 1.5m.	CM	37	
3	Ditto but for widening for column bases size (1000x1000)mm	CM	3	
4	Ditto but for cable trenches (600x600)mm, approx. 15m long	CM	12	
5	Extra over for excavations in all classes of rock at any depth	CM	4	
6	Allow for all necessary planking and strutting to uphold foundations.	ITEM	1	
7	Allow for keeping excavation free from general water by pumping, bailling or otherwise.	ITEM	1	
B	***Blinding***			
	Mass Concrete Class P as described.			
1	Plain concrete (1:4:8-20mm aggregates) in 50mm thick blinding to strip foundation, column bases and control room cable trench.	SM	44	
C	***Sawn formwork to: -***			
1	Sides of strip footing 100-150mm high	LM	74	
2	Sides of ground floor slab 100-150mm high	LM	30	
3	Ditto but in cable trenches	SM	45	
4	Ditto but to column bases footings.	SM	4	
D	***Concrete.***			
	Vibrated reinforced concrete class 25 (1:2:4/25) as described in			
1	Strip foundation (700x250mm thick)	CM	7	
2	Cable trenches 150mm thick	CM	5	
3	Column bases (1000x1000x250mm thick)	CM	2	
4	Substructure columns stubs size (200x200)mm	CM	1	
5	Concrete door ramp	CM	5	
E	***Reinforcement***			
	High yield mild steel reinforcement from 8mm to 12mm including cutting, bending, spacers, tying wire and fixing to BS 4449 in, strip foundation, column bases, footing and cable trenches.			
1	Y 12 in columns @ 200 c/c	KG	239	
2	Y 10 in foundation strip @ 200 c/c	KG	169	
3	Y8 in rings and control room cable trench @ 200 c/c	KG	175	
F	***Substructure walling***			
	Substructure natural stone walling in cement sand mortar (1:3) including reinforcing with 20 SWG Hoop iron at every alternate course			
1	200mm thick wall.	SM	126	
G	***Hardcore Fill***			
1	Excavations in control room to reduce levels and cart away the spoil	CM	15	
2	Average 150mm thick layers of selected and well compacted imported murram fill , compact using approx. 2 ton vibrating roller to receive hardcore filling.	CM	88	
	TOTAL CARRIED TO SAMMARY PAGE 6			

Item	Description	Unit	Qty	Rate
3	Selected imported hardcore fill, compacted in layers of 150mm thick to make up levels to satisfaction of client	CM	30	
4	Return, fill and ram selected excavated materials around foundations and trenches.	CM	10	
5	Load cart away surplus excavated materials and dispose in areas designated by local authority.	CM	37	
6	50mm thick approved murram blinding on hardcore fill.	SM	70	
H	***Insecticide.***			
1	Prepare and apply "Premise 200 SC " or equal and approved insectcide to surfaces of blinding as per manufacturer"s written instructions.	SM	50	
J	***Damp Proofing.***			
1	1000 gauge polythene DPM laid on top of blinding including 200mm side and end laps.	SM	70	
K	***BRC Mesh A142***			
1	BRC mesh reference No. A142 weighing 2.22kg per square meter including 150mm minimum end and side laps,bends, tying wires and spacer blocks.	SM	70	
L	***Concrete***			
	Vibrated reinforced concrete class 25 (1:2:4/25) as described in			
1	150mm thick ground floor slab.	SM	50	
	Superstructures			
M	***Damp Proof Course.***			
1	200mm wide dump proof cource (DPC) laid with 1:3 mix cement sand mortar.	LM	35	
N	***Walling***			
	Walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternate courses.			
1	200mm thick medium dressed natural stone wall/approved concrete blocks/Machine cut stones as control room walling.	SM	160	
P	***Sawn formwork to;***			
1	Vertical sides of floor slab beams and roof slab	SM	42	
2	Ditto but soffit	SM	2	
3	Ditto but soffit of roof slab	SM	45	
4	Sides of columns	SM	15	
Q	***Concrete***			
	Vibrated reinforced concrete class			
	25 (1:2:4/25) as described in:			
1	Columns size (200x200)mm	CM	2	
2	Ring beam	CM	5	
3	150mm thick roof slab	SM	50	
	TOTAL CARRIED TO SAMMARY PAGE 7			

Item	Description	Unit	Qty	Rate
R	***Reinforcement***			
	Steel reinforcement bars including cutting, bending, spacer blocks, tying wires and fixing. High tensile bars to BS 4461: 8mm to 12mm bars to:			
1	Y 8 in rings @ 200 c/c	KG	149	
2	Y 10 in slab	KG	550	
3	Y 12 in clumn and beams	KG	240	
S	***Roofing***			
	Supply and fix 5No.fabricated steel trusses spanning 5000mm and hoisted to a height not exceeding 4.50m high including fixing to roof slab as described;			
1	Trusses consisting of 50x50x4mm tie beam,rafters 50x50x3mm,struts and ties 50x50x3mm; all with 10 cleats 100x50x4mm for purlin anchor,to heights not exceeding 4.5m spanning 5m with weight not exceeding 200kg including securing them to roof slab.	NO	5	
2	Zed purlins ZS6 100mm deep	LM	90	
3	Prepare and apply 2 coats of metal primer paint on roof metal framework.	ITEM	1	
5	Supply and fix BP760 box profile factory pre-painted gauge 26 roofing sheets to an approved colour laid with 94mm side laps and 150mm end laps fixed to steel 'Z' purlin (m/s) including 'J' bolts washers, nuts and rubber caps at 600mm centers	SM	110	
6	Ditto but 28Gx480mm with stiffeners ridge caps	LM	11	
T	***Rainwater Goods***			
1	Allow for all the necessary rain water goods including down pipes, swan necks and bends.	ITEM	1	
1	14 Gauge mild steel gutter sheet welded and bolted to gutter stool	LM	22	
2	Fabricate SHS 50x50x3mm thick steel facsia cladding framework structure 1000mm height, 50x50x3mm SHS struts, including fixing into the wall with adequate wall passes as described to client satisfaction.	LM	40	
3	Supply and fix BP760 box profile factory pre-painted gauge 26 cladding sheets to an approved colour laid with 94mm side laps fixed to 1000mm high steel fascia cladding frame including 'J' bolts washers, nuts and rubber caps, including underside of cladding 500mm wide	SM	45	
4	Purpose made 14 gauge box gutter 900mm girth, srewed/welded to gutter stool on 50x25x3mm thick M.S fixed to rafters at 600mm centres; internally painted with two coats of black bituminous paint, externally with one coats of red oxide primer and two coats of finishing silver alluminium paint	LM	27	
5	Extra over for stopped ends.	No.	2	
6	Ditto for 100mm diameter holes in gutter.	No.	2	
7	Extra over down pipe for swan neck (pvc pipes 100mm dia. And bends)	No.	4	
	TOTAL CARRIED TO SAMMARY PAGE 8			

Item	Description	Unit	Qty	Rate
U	***Painting generally.***			
1	Prepare and apply 2 coats of red oxide primer and apply 2 coats of silver alluminium finish on rainwater goods	ITEM	1	
V	***Windows***			
1	Composite purpose made mild steel casement window, frame size,25mm`Z`bar, 25mm million with 63x3 flat bar welded on the back and 25mm T bar for windows pane panels of maximum 275 x 225mm complete with 5mm glass with putty all to client approval	NO	4	
2	Prepare and apply 2 coats of red oxide primer and apply 2 coats of matt finish paint on windows frame of 63mm girth	SM	7	
3	250x50mm thick precast concrete weathered and throated window sill reinforced, finished fair face on all exposed surfaces, bedded and jointed in cement sand mortar (1:4)	LM	7	
W	***Doors***			
1	Double leaf steel doors overal size (1650x3075mm) openable 1500x3000mm high in two panels 750mm wide consisting of 1.6mm thick plate welded into 50x25x3mm framework; 75x50x6mm main frame with wall anchors; client approved steel louvres size (400x300)mm fixed at top bottom of all shutters as per the clients requirement.	NO	2	
2	Ditto but single leaf steel internal door 1200mm wide	NO	1	
3	Prepare and apply 2 coats of red oxide primer and 3 coats of gloss paint on all steel doors internall and externally.	ITEM	1	
X	***Finishes***			
1	13mm thick cement sand plaster (1:4) to walling and soffits of floor slab mixed with lime smooth finish to receive paint	SM	180	
2	13mm cement sand mortar(1:4) on walling and the gable surfaces externally with steel foat finish.	SM	138	
3	Prepare and apply undercoat, 1 coat of vinyl matt and 3 coats of premium grade silk vinyl emmulsion paint on all plastered surfaces internally and externally. (Colour scheme to be provided by client)	SM	320	
Y	***Flooring***			
1	20mm thick cement sand (1:3) screed for floor to receive terazzo	SM	55	
2	30mm thick well polished terrazzo floor finish	SM	55	
3	32 x 2mm thick Plastic dividing strips.	LM	108	
Z	***Plinth Area.***			
1	12mm thick cement sand mortar(1:4) render to plinth.	SM	21	
2	Prepare and apply undercoat and three coats of bituminous gloss paint to plinth.	SM	21	
AA	***Cable trench covers***			
1	Provide 50x50x3mm angle iron embeded on the edges of cable trench to receive chequer plate covers	LM	34	
	TOTAL CARRIED TO SAMMARY PAGE 9			

Item	Description	Unit	Qty	Rate
2	Provide 600x600x3mm thick chequer plate covers welded onto (1.5"x1.5"x3mm) SHS framework of same size to cable trench including provision of adequate handles to ease lifting to client approval, prime with undercoat and two coats of black paint (gloss)	NO	24	
AB	***Door ramp***			
	Vibrated reinforced concrete class 20/20 (1:2:4/20) in;			
1	concrete ramps at the doors	SM	5	
2	Mild steel bar to BS 4449; BRC mesh reference No. A142 weighing 2.22kg per square metre including 150mm minimum end and side lap,bends, tying wires and spacer blocks	SM	5	
3	600x600x50mm thick precast paving blocks embeded on well compacted 50mm murram, jointed with cement/sand mortar (1:4)	SM	46	
	ELEMENT No. 7			
A	**ELECTRICAL INSTALLATION WORKS**			
1	Electrical builders work to power supply points for 1No-12way-3phase distribution board, 1No. single phase 4-way consumer unit, 4No. double socket outlets, 8No. lighting points and all the necessary fittings, earthing the control room incuding chasing and making good all works as described	ITEM	1	
2	Supply and install 420V AC Autochangeover distribution panel(As per document No.KP1/6C.1/13/TSP/09/092)	ITEM	1	
B	***Substation Lighting***			
A	Supply 240 watts AC (LIGHT DEPENDENT TYPE) bulky head floodlights with energy saver 100 watts sodium metal halide lamps (for kplc to install on the bus bars)	NO	12	
B	Supply and fix emergency chargeable lights in the control room to client approval.	NO	2	
4	Allow for Electrical installation to be carried out by a nominated sub-contractor as per Electrical drawing-lump sum and to comprise of the following, (1) 1No.-12way 3-phase, 415v distribuition board rated 100Amps, complete with 3-phase MCBS, 32Amps, 3-sets,20Amps, 3-sets, 16Amps, 2-sets, (2) 1No. single phase consumer unit rated 100A wiht four single phase MCBS rated 10A, 16A, 30A & 20A, (3) 4No. approved double socket outlets, (4) 4no. approved complete flourescent ligths 30watts, 1200mm long & 4No. security lights, (5) 3No. approved switches. (6) Approved standard wiring cables and any other necessary fittings.	ITEM	1	
	ELEMENT No. 8			
A	**SMOKE DETECTORS INSTALLATIONS**			
1	Allow for Hardwired Smoke detectors installations; including a battery back up; to be carried out by a nominated sub-contractor	ITEM	1	
2	Allow for general attendance on specialist contractor	ITEM	1	
	TOTAL CARRIED TO SAMMARY PAGE 10			

Item	Description	Unit	Qty	Rate
3	Builder's work in connection with Smoke detector installations; cut away for and attend in all trades on the sub-contractor installing the following points in a mainly concealed system; including chases, holes and recess notching in timber etc; and making good all finishes for cut in boxes, electrical wiring, mounting brackets, smoke detector feeds, fire alarm points etc	ITEM	1	
	ELEMENT No. 9			
	FIRE EXTINGUISHERS			
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:***			
1	Charge and fixing bracket,Pictorial instructions,Colour code,Servicable on site, discharge horn and hose,Brass hot stamping ,Operating valve,Local Fire Brigade approval	NO	4	
2	Ditto but powder fire extinguishers	No	2	
3	Ditto fire blanket 6' x 4' container	No	2	
	ELEMENT No.10			
A	***OIL INTERCEPTOR***			
1	Excavate starting from ground level a pit size (5mx3mx2m depth)	CM	32	
2	Return,fill and ram selected excavated materials around the intercepter walls	CM	22	
3	Removing excess excavated materials from Site and disposing off.	CM	10	
4	Compacting bases of pit and blinding with concrete mix (1:4:8 - 50 mm thick)	SM	7	
5	Concrete (1:2:4/25) reinforced with BRC A142 including 200mm laps, and all necessary tying wires and supports in slab 200mm thick.	SM	7	
6	Concrete block walling 225mm thick in cement/sand mortar (1:3) reinforced with 20SWG hoop iron in every two alternating courses.	SM	27	
7	25mm thick cement/sand water proof (1:4) rendering on wall surfaces and floor slab finished smooth and waterproofed.	SM	45	
B	***Sawn Formwork***			
1	Vertical sides of slabs and beams girth 150-300 high	LM	40	
2	Soffits of slab	SM	6	
C	***High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	In slab and ring beams Y8 and Y10 @ 200 c/c	KG	450	
D	***Vibrated reinforced concrete class 20/25 1:2:4 as described in;***			
1	Slab and beams	CM	6	
2	Provide and fix heavy duty galvanized (600x450x50mm) composite polymer resin manhole covers and frames	No.	4	
	TOTAL CARRIED TO SAMMARY PAGE 11			

Item	Description	Unit	Qty	Rate
3	Soakpit 1.8m dia n.e 25ft deep to seepage laevel includding filling with boulders and loose sand at top 1m layer with provision for inlet point for pvc pipes with cover slab 150mm with BRC layer overlying 3 masonary courses	ITEM	1	
4	Provide and lay 100mm medium gauge PVC pipes with 100mm concrete surrounded, connecting the plinth sumps to the oil interceptor.	LM	60	
5	Construct on site manholes to M.O.P.W. specifications including heavy duty galvanized (600x450x50mm) composite polymer resin manhole covers.	No.	4	
	ELEMENT No.11			
	PERIMETER WALLING -250 LM			
A	***Demolition works***			
1	Carefully demolish the existing chainlink fence and hand over the recoverables to KPLC and cart away the debris.	ITEM	1	
B	***Walling***			
1	Excavate for foundation trench 1000mm wide commencing from ground level depth not exceeding 1.5m	CM	375	
2	Excavations for widening 68No. column bases size (1.0x1.0)m spaced at 3.0m c/c	CM	29	
3	Extra over for excavation in all classes of rock at any depth.	CM	5	
4	Fill in and ram selected excavated materials around the substructural walling and columns.	CM	274	
5	Load, cart away from site surplus excavated materials and dispose at areas designated by local authority.	CM	101	
6	Provide all the necessary planking and strutting to uphold sides of trenches.	ITEM	1	
7	Allow for keeping all excavations water free by pumping, bailing or otherwise.	ITEM	1	
8	50mm thick (1:4:8) mass concrete blinding to walling and column bases	SM	210	
C	***Vibrated reinforced concrete class 20/25 1:2:4 as described in;***			
1	Foundation strip size (700x250)mm and columns size (1000x1000)mm.	CM	55	
2	Substructure and superstructure columns (200x200)mm	CM	13	
3	(300x200)mm ground beam and ring beam size (200x200)mm respectively.	CM	25	
D	***High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Y10 in foundation strip spaced @ 200mm both ways, ground beam and ring beams.	KG	2390	
2	Y12 in column bases @ 200mm c/c both ways, and in columns.	KG	1310	
3	Y8 in rings to columns, ground beam and ring beam @ 200mm c/c.	KG	900	
E	***Sawn/Steel form work to***			
1	Vertical sides of substructure and superstructure columns, foundation strip, ground beam and ring beam.	SM	500	
1	Vertical sides of substructure and superstructure columns, foundation strip, ground beam and ring beam.	SM	500	
	TOTAL CARRIED TO SAMMARY PAGE 12			

Item	Description	Unit	Qty	Rate
F	***225mm thick natural stone/machine dressed stones/approved concrete blocks in substructure and superstructure walling in cement sand mortar (1:3) including and reinforcing with 20 SWG hoop iron in every two alternating course.***			
1	225mm thick in substructure walling	SM	350	
2	25mm thick cement/sand (1:4) rendering on plinth area finished smooth to receive bituminous paint-600mm high	SM	150	
3	225mm thick and 2400mm high machine-cut or fair faced dressed natural or approved concrete blocks stone walling in cement/sand (1:3) mortar including 20G hoop-iron in every alternate courses.Internally plastered (1:4) cement/sand and trowelled smooth to receive paint. Externally horizontal joints keyed in cement /sand mortar 1:3 and moulds to columns and ring beams externally.	SM	625	
4	Prepare surface and apply three coats of greyish Crown permaplast paint to the boundary wall plastered surfaces.	SM	610	
5	350mm wide pre-cast concrete coping twice weathered and throated fixed to walling.	LM	192	
6	(800x550)mm concrete coping weathered and throated on all sides fixed to double columns.	NO	10	
7	(550x450)mm square concrete coping weathered and throated on all sides fixed to columns.	NO	74	
F	***Expansion Joints 4No.***			
1	40mm thick construction joints in flex cell or equally approved expansion jointis including (25x25)mm expedite sealer.	SM	15	
G	***Razor Wire***			
	Supply and fix Razor Wire at the top of boundary wall conforming to the following specifications:			
1	Coil size-450mm diameter, Blade profile-ripper razor wire,Stretch factor-maximum of 10m per coil and secured to wall with galvanised steel plates @ 1m centres and (1"x1"x3mm thick and 600mm high galvanised SHS fixed on each column to secure the razor wire also.	LM	262	
2	Apply two coats of greyish Crown permaplast paint to the boundary wall plastered surfaces and column moulds	SM	625	
	ELEMENT No.12			
A	***Substation gate***			
1	Fabricate and fix a primary substation gate as per the provided drawing SK No. 07044/B	No.	2	
2	Excavate for gate pillar bases size (1200x1200)mm depth n.e 1.5m from stripped level and cart away.	CM	12	
3	50mm thick (1:4:8/20) concrete blinding to column bases.	SM	8	
4	Vibrated reinforced concrete (1:2:4/25) to 300mm thick column bases.	CM	4	
5	Ditto but to (300x400) gate columns with fairly smooth surface finish including grouting angle irons to hold gate.	CM	6	
6	Sawn formwork to sides of columns.	SM	30	
	TOTAL CARRIED TO SAMMARY PAGE 13			

Item	Description	Unit	Qty	Rate
B	***High yieled steel reinforcement bars including cutting, tying, bending and fixing in place, spacer blocks and tying wires to BS 4449.***			
1	Reinforcement bars Y12 to column bases @ 200 c/c	KG	160	
2	Reinforcement bars Y16 to columns, 6No. in each column.	KG	210	
3	Reinforcement bars Y8 rings to column @ 150mm C/C	KG	240	
4	SHS (100x100)mm fixed to the columns to firmly hold the gate including concrete footings	LM	14	
5	Apply two coats of red oxide undercoats and two gloss paint coats to clients approval.	ITEM	1	
	ELEMENT No.13			
A	CHAINKLNK			
1	(2.4m highx12.5 gauge chainlink) fence on precast concrete posts complete with 4 strands of 3mm galvanised steel wire passing through holes drilled on overall height of 2.4m high and crank with 2 strands of 12.5 gauge barbed wire including securing chainlink to wire strands.	LM	20	
	ELEMENT No.15			
A	***ACCESS ROAD (Paving Blocks)***			
1	Excavate for a 4m wide access road depth not exceeding 500mm starting from the reduced levels and cart away the spoil.	CM	275	
2	Approved handpacked hardcore fill, average depth of 300mm and well compacted in layers of 150mm using a 10 tonne vibrating roller.	CM	165	
3	50mm thick approved and well compacted quarry dust blinding on hardcore surfaces	SM	550	
4	Heavy duty industrial concrete paving blocks size (210x105x80mm) minimum strength 49N/mm square laid to slope on quarry dust and compacted.	SM	550	
5	125 x 250 mm Splayed kerb to BS 340 including 125 x 100 mm channel on and including concrete Class 'E' foundation and 200 mm haunching to back of a kerb including all necessary excavation, formwork and disposal.	LM	200	
6	Ditto curved to plan.	LM	10	
7	Extra over for junction between straight and curved kerbs.	NO	8	
8	Extra over for painting all with roadmarking paint to client's approval	LM	200	
B	***ACCESS ROAD (murram)***			
1	Clear all the shrubs on proposed access road and cart away	SM	224	
2	Excavate for 6m wide murram access road average depth not exceeding 600mm starting from the ground levels and cart away the spoil.	CM	110	
3	Approved handpacked hardcore fill, average depth of 350mm and well compacted in layers of 150mm using a 10 tonne vibrating roller.	CM	65	
	TOTAL CARRIED TO SAMMARY PAGE 14			

Item	Description	Unit	Qty	Rate
4	150mm thick approved and well compacted murram blinding on hardcore surfaces using 10 ton vibrating roller as road surface.	SM	185	
5	Install a 900mm ID, 9m long drainage culvert surrounded 200mm thick concrete (1:2:4) mix, including all the necessary excavations, formwork, head and wing walls and a sump on murram access road. Also consider approvals by roads authorities.	NO	2	
7	Allow for draining the murram access road.	ITEM	1	
	ELEMENT No.16			
A	***Storm Water Drainage***			
1	Excavate on site drain trench not exceeding 1.5m deep including plunking and strutting, disposal of spoil to receive drainage channels and forming sloping sides in well compacted murram bed.	LM	110	
2	Lay (300x450)mm precast concrete invert block drains to suitable fall with grooved edges and toungued, joints filled with cement/sand mortar (1:3) and laid on 75mm concrete bed, (1:3:6) mix	LM	110	
3	Lay on sides of sloped trench (600x300x50mm) precast concrete slabs jointed in 1:3 mortar	SM	125	
4	Stone pitching in (1:3) mortar at various locations.	SM	100	
5	Allow for mass concrete (1:2;4) mix in drainage channels works	CM	7	
	ELEMENT No.15			
	PIT LATRINE			
	Substructures			
A	***Excavation***			
1	Site excavate for latrine pit size (1200x700)mm commencing from existing ground level, not exceeding 1.5m deep including for	CM	7	
2	Excavate exceeding 1.5m deep and not exceeding 3m deep	CM	1	
3	Excavate 3m deep to 4.5m deep	CM	1	
4	Excavate from 4.5m to 6m deep	CM	1	
5	Excavate from 6m deep to 7.5 m deep	CM	1	
6	Excavate from 7.5m deep to 9m deep	CM	2	
7	Excavate from 9m deep to 10.5m deep	CM	2	
8	Extra over excavation in rock at any depth	CM	6	
9	Remove surplus soil from site to a place approved by local authority	CM	15	
B	***Mass concrete mix (1:4:8) in***			
1	50mm thick blinding under strip foundations	SM	4	
C	***Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm at 28 days; in***			
1	Strip foundations 250mm thick	CM	1	
2	150mm thick ground floor slab	SM	5	
	TOTAL CARRIED TO SAMMARY PAGE 15			

Item	Description	Unit	Qty	Rate
D	***Supply and fix steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacer blocks and supporting all in position:***			
1	10mm bars in floor slab @ 200 c/c both ways T&B.	KG	77	
E	***Mesh fabric reinforcement***			
1	Mesh reinforcement No. A142 size 200 x 200mm weighing 2.22 kg per square meter; in floor slab; including all necessary	SM	5	
F	***Sawn formwork to:***			
1	Edges: slabs 75 - 150mm girth	LM	9	
2	Vertical sides; strip footing; 200mm high	LM	9	
G	**Walls**			
1	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	
H	***Anti-termite treatment***			
1	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	
J	***DPM***			
1	Guage 1000 polythene damp proof membrane	SM	5	
K	**25mm thick cement/sand (1:4) rendering; on concrete or stonework; wood float finished to**			
1	Plinths ; externally	SM	5	
L	**Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water**			
1	Plinths: externally	SM	5	
M	***R.C SUPERSTRUCTURE***			
	Sawn formwork to			
1	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			
2	8mm bars	SM	24	
	12mm bars	SM	47	
	Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm at 28 days; in			
3	Ring beams	SM	1	
N	***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			
1	200mm thick walls	SM	21	
	TOTAL CARRIED TO SAMMARY PAGE 16			

Item	Description	Unit	Qty	Rate
2	Extra over external walling for horizontal pointing	SM	21	
5	**Bituminous felt or other equal approved damp proof course; in cement/sand (1:3) mortar**			
3	200mm wide	SM	2	
4	Make holes on 100mm thick concrete slab for 150mm diameter PVC pipe	NO	1	
5	Provide and fix 100mm thick PVC vent with cap average length 3m	LM	3	
P	***ROOF***			
	The following in 4 No. purlins; steel structural roof; spanning 3.2m; hoisted to a height of approximately 2.4m from ground level			
1	150 x 50 x 2mm Z purlins bedded in masonry wall with cement sand mortar	LM	15	
2	Drill holes in steel members for 12mm bolts in Z purlins	NO	23	
3	12mm bolts	NO	23	
4	Supply and fix 24g mild steel trough roofing sheets type LT5; factory prepainted to approved standard colour; laid with 150mm	SM	12	
5	Ditto cladding sheets to an approved colour laid with 94mm side laps fixed to 1000mm high steel fascia cladding frame including 'J' bolts washers, nuts and rubber caps, including underside of cladding 500mm wide, 14gauge galvinized gutters and 100mm dia. down pipe well secured.	SM	14	
Q	***OPENINGS***			
	Concrete Louvres			
1	150 x150 x 150mm concrete louvre blocks fixed with cement sand mortar (1:3)	SM	2	
	Window Cill			
2	Supply and fix clay window cills; bedded and jointed in cement/sand (1:3) mortar; pointed in matching coloured cement to windows	LM	6	
	DOORS			
3	Mild steel door size 965 x 2100 mm complete with all iron mongery as per drawing SK. No. 06249	NO	2	
	Iron 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			
4	100mm mild steel butt hinges	NO	7	
5	3 lever steel casement rebated door lock with handles	NO	2	
	Prepare surfaces,three coats gloss oil paint to metal surfaces			
1	Doors internally	SM	2	
2	Doors externally	SM	2	
	TOTAL CARRIED TO SAMMARY PAGE 17			

Item	Description	Unit	Qty	Rate
R	***FINISHES***			
	Floor Finishes			
	Screed; cement/sand (1:3) on concrete			
1	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			
2	300 x300 x 10mm thick tiles	SM	5	
S	***WALLING***			
	Plaster; 13mm cement/lime putty/sand; steel trowelled; on masonry and concrete to			
1	Walls and concrete surfaces	SM	6	
	Prepare surfaces; apply three coats First grade vinyl emulsion paint or other equal approved; on steel trowelled			
2	Walls and concrete surfaces	SM	6	
	Backing: 10mm cement/sand (1:4); on masonry or concrete ; wood float finished to			
3	Walls to receive ceramic tiles	SM	23	
	Supply and fix coloured glazed ceramic wall tiles; on backing; joints pointed in matching cement grout			
4	300 x 300 x 10mm thick tiles	LM	23	
5	300 x 50 x10mm thick border tile	LM	14	
6	Supply and fix matching pvc tile strip to tile edges	LM	56	
	Plaster; 13mm cement/lime putty/sand; wood float; on masonry and concrete to			
7	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:			
8	Walls and concrete surfaces	SM	6	
9	600x600x50mm thick precast paving blocks embeded on well compacted 50mm murram, jointed with cement/sand mortar (1:4)	SM	12	
	Ceilling Finishes			
	Supply and fix 12mm thick pvc ceiling including conices and supporting all in position	SM	5	
	ELECTRICAL INSTALLATION WORKS			
1	Allow for Electrical installation to be carried out by a nominated sub-contractor as per Electrical drawing-lump sum and to comprise of the following, 1No. approved double socket outlets, 1no. approved complete ligths & 2No. security lights, approved switches and Approved standard wiring cables and any other necessary fittings.	ITEM	1	
	TOTAL CARRIED TO SAMMARY PAGE 18			

Item	Description	Unit	Qty	Rate
	ELEMENT 16; GUARD HOUSE			
	SUBSTRUCTURES			
A	**Excavation**			
1	Site excavate to reduce levels commencing from existing ground level;150mm deep and not exceeding 1.5m deep;	SM	7	
2	Excavate for strip foundation trench, commencing reduced level ; not exceeding 1.5m deep	CM	6	
3	Remove surplus soil from site to a place approved by local authority	CM	7	
B	**Mass concrete mix (1:4:8) in**			
1	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			
2	150mm thick ground floor slab	CM	1	
	Strip foundations	CM	1	
	Supply and fix steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacer blocks and supporting all in position:			
3	8mm bars	KG	17	
	12mm bars	KG	29	
	Mesh fabric reinforcement			
4	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:			
5	Edges: slabs 75 - 150mm girth	LM	9	
6	Vertical sides; strip footing; 200mm high	SM	5	
C	**Walls**			
1	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	
	Hardcore			
2	300mm thick hardcore of approved inert material; well watered and compacted in 150mm thick (maximum) layers	CM	2	
	Blinding			
3	50mm thick approved quality murram blinding to surfaces of hardcore	SM	5	
	Anti-termite treatment			
4	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	
	TOTAL CARRIED TO SAMMARY PAGE 19			

Item	Description	Unit	Qty	Rate
	DPM			
5	Guage 1000 polythene damp proof membrane	SM	5	
	25mm thick cement/sand (1:4) rendering; on concrete or stonework; wood float finished to			
6	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:			
7	Plinths: externally	SM	5	
D	**R.C SUPERSTRUCTURE**			
	Sawn formwork to			
1	Sides and soffits beams	SM	5	
2	Bench slab	SM	1	
	Supply and fix square twisted steel bars in structural concrete work including cutting, bending, hoisting, tie wire, spacer blocks and supporting all in position			
3	8mm bars	KG	18	
4	12mm bars	KG	38	
	Vibrated reinforced insitu concrete class 20/20; with minimum cube crushing strength of 20N/mm2 at 28 days; in			
5	Ring beam	CM	1	
6	Bench slab	CM	1	
E	**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			
1	200mm thick walls	SM	21	
2	Extra over external walling for horizontal pointing	SM	21	
	Bituminous felt or other equal approved damp proof course; in cement/sand (1:3) mortar			
3	200mm wide	SM	2	
F	**ROOF**			
	The following in 4 No. purlins; steel structural roof; spanning 3.2m; hoisted to a height of approximately 2.4m from ground level			
1	150 x 50 x 2mm Z purlins bedded in masonry wall with cement sand mortar	LM	15	
2	Drill holes in steel members for 12mm bolts in Z purlins	NO	23	
3	12mm bolts	NO	23	
4	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	
	TOTAL CARRIED TO SAMMARY PAGE 20			

Item	Description	Unit	Qty	Rate
5	Ditto cladding sheets to an approved colour laid with 94mm side laps fixed to 1000mm high steel fascia cladding frame including 'J' bolts washers, nuts and rubber caps, including underside of cladding 500mm wide, 14gauge galvinized gutters and 100mm dia. down pipe well secured.	SM	14	
G	**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;			
1	Ditto but 900 x 1200mm high	NO	5	
	Window Cill			
2	Supply and fix clay window cills; bedded and jointed in cement/sand (1:3) mortar; pointed in matching coloured cement to windows	LM	6	
	DOORS			
3	Mild steel door size 965 x 2100 mm complete with all iron mongery as per drawing SK. No. 06249	NO	1	
	Iron 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			
4	100mm mild steel butt hinges	NO	3	
5	3 lever steel casement rebated door lock with handles	NO	1	
	Prepare surfaces, three coats gloss oil paint to metal surfaces			
6	Doors internally	SM	2	
7	Doors externally	SM	2	
	FINISHES			
H	**FLOOR FINISHES**			
	Screed; cement/sand (1:3) on concrete			
1	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			
2	300 x300 x 10mm thick tiles	SM	5	
J	**WALLING**			
	Plaster; 13mm cement/lime putty/sand; steel trowelled; on masonry and concrete to			
1	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:			
2	Walls and concrete surfaces	SM	5	
	TOTAL CARRIED TO SAMMARY PAGE 21			

Item	Description	Unit	Qty	Rate
	Backing: 10mm cement/sand (1:4); on masonry or concrete ; wood float finished to			
3	Walls to receive ceramic tiles	SM	18	
	Supply and fix coloured glazed ceramic wall tiles; on backing; joints pointed in matching cement grout			
4	300 x 300 x 10mm thick tiles	SM	18	
5	300 x 50 x10mm thick border tile	LM	9	
6	Supply and fix matching pvc tile strip to tile edges	LM	36	
	Plaster; 13mm cement/lime putty/sand; wood float; on masonry and concrete to			
7	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:			
8	Walls and concrete surfaces	SM	7	
9	600x600x50mm thick precast paving blocks embeded on well compacted 50mm murram, jointed with cement/sand mortar (1:4)	SM	12	
	Ceilling Finishes			
1	Supply and fix 12mm thick 'celotex' softboard ceiling including conice, supporting all in position and apply three coats First grade vinyl emulsion paint or other equal approved	SM	5	
	ELECTRICAL INSTALLATION WORKS			
1	Allow for Electrical installation to be carried out by a nominated sub-contractor as per Electrical drawing-lump sum and to comprise of the following, 1No. approved double socket outlets, 1no. approved complete flourescent ligths 30watts, 600mm long & 2No. security lights, approved switches and Approved standard wiring cables and any other necessary fittings.	ITEM	1	
D	**WATER SUPPLY**			
1	Allow for the supply of substation with piped water including all local authorities' charges, sub main pipes 1 inch diameter standard plastic pipes and all connections, testing and commissioning of all the plumbing works. Main pipe not exceeding 400m away	ITEM	1	
2	Supply and install 6000 litres capacity ROTO-TANK or similar approved plastic water tank, approved 1/2'' watertap and 1200mm high masonry/concrete platform including all nacessary required fittings and connections	ITEM	1	
E	**WATER STORAGE TANK STEEL TOWER**			
1	Excavate for column bases (1.5X1.5)m n.e 1.5m	CM	21	
	Level and compact bottom of the excavated bases	SM	12	
2	50mm thick 1:4:8 blinding to column bases	SM	12	
3	12 mm diameter high yied steel bars to bases and stubs	KG	230	
4	8mm ditto	KG	58	
5	concrete (1:2:4, class 20) in column bases	CM	3	
6	Allow for accurately setting 16 No. 20mm diameter galvanised steel foundation bolts at 250mm centreson foundation column plinths.	ITEM	1	
	TOTAL CARRIED TO SAMMARY PAGE 22			

Item	Description	Unit	Qty	Rate
7	concrete (class 25) in tank foundation stub columns plinths size (400mmx400mm)	CM	2	
8	Sawn formwork to sides of columns	SM	15	
9	Backfill and ram excavated material around foundation	CM	16	
10	Load and cart away the surplus	CM	20	
	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 diameter holes spaced at 250mm centres and weldedto the bottom of tower column			
2	100x100x8mm mild steel angles in main framework welded to base plates and reinforced with 12No. Cleats	LM	28	
3	Ditto decking	LM	23	
4	Ditto (50x50x6mm) in bracing and struts	LM	85	
5	black pipes (40mm) in ballustrades	LM	35	
6	(50x100x6mm) RHS in decking	LM	23	
7	4mm thick galvanised checkered plate secured on decking	SM	10	
8	40mm GMS pipe handrail verical and horizontal	LM	46	
9	Allow for water storage tank access ladder with 50x50x4mm main frame with 16mm rods spaced at 300mm c/c	ITEM	1	
10	Apply two coats of gloss paint to tower	ITEM	1	
11	Supply and install 3500 litres capacity ROTO-TANK including hoisting to position and applying two coats of brilliant white gloss paint on its outer surface	ITEM	1	
12	Allow for connecting piped water to elevated storage tank using 12mm class B pipes including all the necessary water control fittings	ITEM	1	
	TOTAL CARRIED TO SAMMARY PAGE 23			

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	TOTAL FROM PAGE 4			
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	SUBTOTAL			
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	ALLOW 16% VAT			
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