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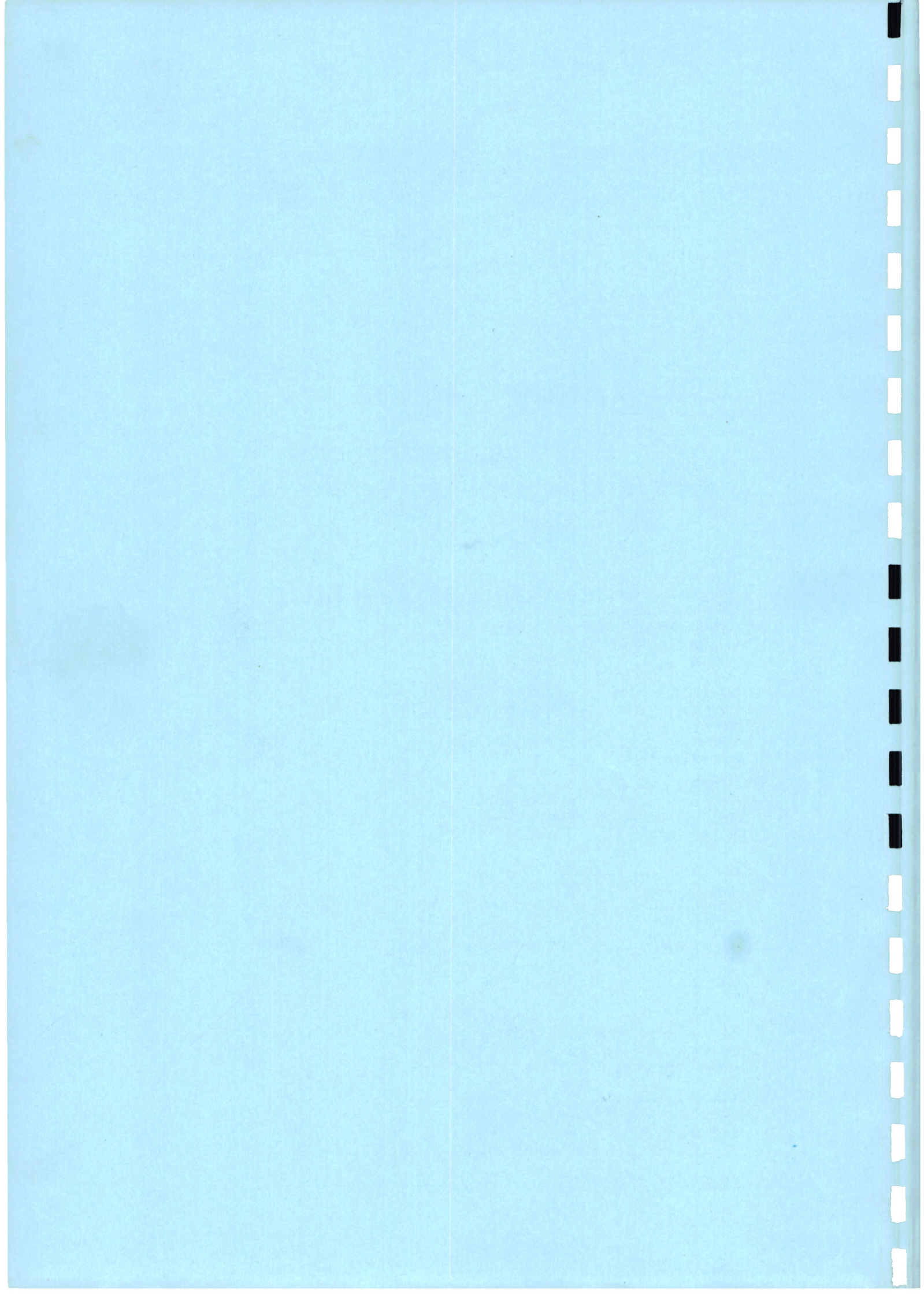
Paper laid by  
The Minister for  
Roads & Public Works  
Tuesday, 21<sup>st</sup> June, 2005

PARLIAMENT  
OF KENYA  
LIBRARY

802090  
21/6/05

## Electrical Installations (and Associated Services)

### Priced Bills of Quantities



THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 1 – SUB MAINS POWER DISTRIBUTION

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
1.01	<p><b>Supply, install, test, commission and set to work the following:-</b></p> <p>Free-standing purpose made front access sub main switchboard type "BLOKSET" (Fully Type-Tested Assemblies – TTA), modular, metal clad, manufactured in 14SWG galvanised mild steel sheet and finished in cream (or appropriate colour) powder coating as shown on the schematic. The bus – bars are to consist of two sections viz Essential and Priority Essential. The Priority Essential section is to be connected to the UPS. The switchboard should also consist of a PLC section. The switchboard should be as Power Technics or equivalent and approved (the other details as per Particular Specification), complete with the following:-</p> <p>(a) Digital multimeter capable of measuring voltage in the range 0 – 1000V, 3-phase, current in the range 0-2000A, 3-phase, and all power system parameters (KW, KVA, KWHr, KVAr, Frequency, P.F., harmonics and all the parameters). The multimeter to have an accessible terminal for connecting an external printer, and should be complete with selector switches for viewing/displaying the various parameters.</p> <p>(b) 2 No. 800A TP ACB type NT08H1, with trip unit type Micrologic 5.0P (adjustable in 320-800A range) main incomer. The ACB to be motorized and complete with Modbus communicating module and have both electrical and mechanical inter-lock.</p> <p>(c) 5 No. 800A and 300A TPN copper insulated split bus bars of 80 x 10mm cross section. The bus bars are to consist of two sections viz Essential and Priority Essential.</p> <p>(d) 8 No. 200A TPN motorized MCCBs as shown, but adjustable in the range 150 – 200A and complete with communicating ON/off and trip auxiliary contacts.</p> <p>(e) 6 No. 100A TPN motorized MCCBs as shown, but adjustable in the range 150 – 200A and complete with communicating ON/off and trip auxiliary contacts.</p> <p>(f) 6 No. 60A TPN motorized MCCBs as shown, but adjustable in the range 40 – 60A and complete with communicating ON/off and trip auxiliary contacts.</p> <p>(g) 4 No. 400A TPN motorized MCCBs as shown, but adjustable in the range 300 – 400A and complete with communicating ON/off and trip auxiliary contacts.</p>				
<b>Total C/F to Page L-9</b>					-



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 BILL NO. 1 – SUB MAINS POWER DISTRIBUTION

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-8</b>				-
(h)	5 No. 63A TPN motorized MCCBs as shown, but adjustable in the range 40 – 63A and complete with communicating ON/off and trip auxiliary contacts.				
(i)	Sufficient spare capacity for future development				
(j)	Sealable studs for all cover plate screws and all necessary accessories				
(k)	6mm perspex viewing window				
(l)	415V three-phase surge diverter as Furse ESP 415, wired as shown, complete with enclosure with viewing window. <b>(Note: The entire switchboard assembly to be Form 4, Type 2 i.e. totally safe with all live parts completely inaccessible on opening the outside cover. The outgoing MCCBs to be equipped with communicating auxiliary contacts connected to Data Concentractor DC150 incorporating RS485 communication port )</b>	1	Item	3,619,345	3,619,345
(m)	<b>PLC and SCADA System</b> <b>Hardware</b> The PLC section to be part of the main switchboard consisting of the following: -1 No. 10A SP/N MCB -1 No. Micro TSX3721 PLC complete with (i) A rack which integrates a 100/240 Vac power supply (ii) A processor including a 20K word memory + data memory, 1 Flash EPROM back-up memory -1 No. Discrete input/output module (32 inputs 24 Vdc and 32 solid – state outputs) -2 No. Discrete input/output module (8 inputs 24Vdc and 8 solid-state outputs) -1 No. Web-Server Ethernet TCP/IP module -5 No. Interface Sub-Bases for inputs and outputs complete with connectors and cables -1 No. Back-up Battery -Set of communication cables (Unitelway Protocol) -1 No. Power supply for Web-Server -1 No. Set of terminals for external cable connections	1	Item	827,080	827,080
<b>Total C/F to Page L-10</b>					<b>4,446,425</b>

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 BILL NO. 1 – SUB MAINS POWER DISTRIBUTION

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-9</b>				4,446,424.77
	<b>Engineering Cost</b>				
	Cost of engineering services for the PLC and SCADA system consisting of the following items				
	-Vijeo Look SCADA Software				
	-PC with 128 Mb RAM, 566 Mhz and Windows 2000				
	-Programming the PLC				
	-Designing the Application software				
	-Documentation	1	Item	852,292.60	852,292.60
	<b>Commissioning</b>				
	-Allow for commissioning of the PLC and SCADA system by Manufacturer's representative	1	Item	59,363.00	59,363.00
1.02	Carry out comprehensive labeling of all the bus bars, circuit breakers etc. of item No. 1.01 above, indicating the areas served, outgoing cable sizes etc.	1	Item	1,000.00	1,000.00
1.03	Comprehensive protective multiple earthing of item No. 1.01 in 1500mm long 12mm diameter pure electrolytic copper earth rod deep driven to permanent moisture level, copper clamp. 70mm <sup>2</sup> green earth lead complete with all accessories. (Note: Use parallel rods if effective earthing cannot be achieved with 1 No. rod).	1	Item	5,000.00	5,000.00
1.04	1500mm x 1500mm copper earth mat made from 25mm x 3mm copper tape at 300mm spacing, buried at permanent moisture level and complete with all clamps, welding joints and 70mm <sup>2</sup> yellow/green earth lead for earthing communication services equipment.	6	No.	8,000.00	48,000.00
1.05	160 kVA Double-conversion (on-line) Uninterruptible Power Supply Unit, UPS, equipped with static bypass switch, wired in hot redundancy and having the following characteristics:- Power Supply: 3-phase, 415/240 V Output Voltage: 415 V +/- 1% Output Frequency: 50 Hz +/- 0.5 Hz Overload Capacity: 150% for 1 minute Battery: Sealed lead-acid Service life: 10 years Backup time: 20 mins (Note: Please give dimensions and weight of the UPS and enclose product literature).	2	No	7,603,200.00	15,206,400.00
<b>Total C/F to Page L-11</b>					<b>20,618,480.37</b>



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 1 – SUB MAINS POWER DISTRIBUTION**

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-10</b>				<b>20,618,480.37</b>
1.06	415 kVA Automatic Voltage Regulator, AVR, wired as shown and housed in the switch room with the following characteristics:- Power Supply: 3-phase, 415/240 V Operation: Individual phases to be regulated independently Output Voltage Tolerance: +/- 25% of nominal supply voltage Output Voltage: +/- 1% of 415/240 V. Response time: 20ms/V Frequency: 50 Hz +/- 5% Warranty: Not less than 2 years (Note: Please give dimensions and weight of the AVR and enclose product literature).	1	No	5,762,880.00	5,762,880.00
1.07	800 A TPN Manual by-pass switch across the AVR.  <b>Ducting, Trenching &amp; Cabling</b>	1	No.	6,000.00	6,000.00
1.08	Diameter 150mm HG PVC ducts for external power distribution.	600	m.	150.00	90,000.00
1.09	450 x 450 x 250mm 14-gauge galvanised steel cable draw box, complete with cover, screws etc.	10	No.	1,400.00	14,000.00
1.10	400 x 75mm 12 gauge galvanised steel perforated cable tray for support of cables complete with supporting frame.	300	m.	1,870.00	561,000.00
1.11	200 x 50mm 12 gauge galvanised steel perforated cable tray for support of cables complete with supporting frame.	250	m.	1,130.00	282,500.00
1.12	Excavate trenches for the above ducts average depth 700mm, remove soft earth, lay duct, cover with "DANGER – HATARI" tiles, back-fill with soil and compact to natural ground level.	300	m	150.00	45,000.00
1.13a)	Build 600 x 600 x 700mm deep power manhole complete with internal plaster and heavy duty EAFW steel cover.	30	No.	6,500.00	195,000.00
1.13b)	As 1.12a) above, but earthing manhole, with cover marked "EARTH"	5	No.	6,500.00	32,500.00
1.14a)	4C 240mm <sup>2</sup> PVC/SWA/PVC copper cable.	200	m.	7,850.00	1,570,000.00
1.14b)	4C 150mm <sup>2</sup> PVC/SWA/PVC copper cable.	40	m.	3,980.00	159,200.00
1.14c)	4C 120mm <sup>2</sup> PVC/SWA/PVC copper cable	960	m.	3,285.00	3,153,600.00
<b>Total C/F to Page L-12</b>					<b>32,490,160.37</b>



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ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
BILL NO. 1 – SUB MAINS POWER DISTRIBUTION**

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-11</b>				<b>32,490,160.37</b>
1.14d)	4C 95mm <sup>2</sup> PVC/SWA/PVC copper cable	150	m.	2,680.00	402,000.00
1.14e)	4C 50mm <sup>2</sup> PVC/SWA/PVC copper cable	500	m.	1,460.00	730,000.00
1.14f)	4C 25mm <sup>2</sup> PVC/SWA/PVC copper cable.	100	m	880.00	88,000.00
1.14h)	2C 25mm <sup>2</sup> PVC/SWA/PVC copper cable	-	m	475.00	
1.14i)	2C 16mm <sup>2</sup> PVC/SWA/PVC copper cable	-	m	365.00	
1.14j)	Cable glands for 4C 240mm <sup>2</sup> PVC/SWA/PVC cable.	16	No.	1,560.00	24,960.00
1.14k)	Cable glands for 4C 150mm <sup>2</sup> PVC/SWA/PVC cable.	48	No.	700.00	33,600.00
1.14l)	Cable glands for 4C 120mm <sup>2</sup> PVC/SWA/PVC cable.	32	No.	700.00	22,400.00
1.14m)	Cable glands for 4C 95mm <sup>2</sup> PVC/SWA/PVC cable	-	No.	650.00	
1.14n)	Cable glands for 4C 50mm <sup>2</sup> PVC/SWA/PVC cable	32	No.	510.00	16,320.00
1.14o)	Cable glands for 2C 50mm <sup>2</sup> PVC/SWA/PVC cable.	-	No.	510.00	
1.14p)	Cable glands for 2C 35mm <sup>2</sup> PVC/SWA/PVC cable	-	No.	410.00	
1.14p)	Cable glands for 2C 25mm <sup>2</sup> PVC/SWA/PVC cable	32	No.	320.00	10,240.00
1.14p)	Cable glands for 2C 16mm <sup>2</sup> PVC/SWA/PVC cable	-	No.	290.00	
1.15a)	Clipping spacer saddles with screws for the cable above.	200	No.	25.00	5,000.00
1.15b)	Heavy duty cable ties for cables running in the trays above, 300mm	400	No.	15.00	6,000.00
1.16	300 x 300 x 150mm 14 SWG galvanised steel adaptable box for termination of armoured cables complete with covers, fixing and mounting accessories.	10	No.	700.00	7,000.00
1.17	Make and install 200 x 200mm wide silver plate labels with 50mm long lettering for "ELECTRICAL DUCT" and 150mm long "SPIKE" sign to be pasted to the electric ducts.	50	No.	200.00	10,000.00
1.18	Allow for carrying out comprehensive testing of the installation as per IEE Wiring Regulation, 16 <sup>th</sup> Edition.	1	Item	5,000.00	5,000.00
1.19	Carry out very concise load balancing to achieve a maximum imbalance not greater than $\pm 10\%$ between any two phases, measured at the main switch.	1	Item	5,000.00	5,000.00
<b>Total for Bill No. 1: Sub Mains Power Distribution, C/F to Summary Page</b>					<b>33,855,680.37</b>



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 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 2: GROUND FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Supply, install, test, commission and set to work the following. All lighting fittings to be complete with lamp, control gear etc as applicable.				
2.1	<b>Lighting</b>				
2.1.1	Lighting point 1-way switched.	160	No.	700.00	112,000.00
2.1.2a)	Lighting point 2-way switched.	10	No.	750.00	7,500.00
2.1.2b)	Lighting point 2-way switched with intermediate switch.	-	No.	800.00	
2.1.3	5 A white moulded switch plates as MK or Crabtree: -				
	(a) 1-gang 1-way	44	No.	80.00	3,520.00
	(b) 1-gang 2-way	6	No.	90.00	540.00
	(c) 2-gang 1-way	5	No.	160.00	800.00
	(d) 2-gang 2-way	-	No.	140.00	
	(e) 1-gang intermediate	-	No.	950.00	
	(f) 4-gang 1-way	-	No.	235.00	
	(g) 3-gang 2 way	-	No.	200.00	
	(h) Dimming switch	15	No.	1,500.00	22,500.00
2.1.4a)	Lighting control panel mounted in Chamber Hansard room complet with switches	1	Item	20,000.00	20,000.00
2.1.4b)	Install permanent "DANGER" 415V labels where groups of switches have been fed by more than one phase.	10	No.	150.00	1,500.00
2.1.5	Lighting fittings, complete with lamps of specified wattage and appropriate colour rendering: - (Note: All fittings to be fitted with High Frequency control gear)				
2.1.5a)	28W Polycarbonate Bulkhead with Honeycomb Prismatic Diffuser as Thorn Loepard or approved equivalent. (Type A - Normal switching in localised room)	4	No.	5,309.32	21,237.28
2.1.5b)	2 x 35W Indirect/Direct luminaire with T5 lamp as Thorn Gemini or approved equivalent. (Type B - Switched through dimmers)	49	No	33,536.76	1,643,301.24
2.1.5c)	Recessed horizontal 165mm Diameter 2 x 26W G24d-3 Downlighter as Reggiani RE-6416-BV10 or approved equivalent. (Type C - Normal switching from lighting control panel)	25	No	8,937.80	223,445.00
<b>Total C/F to Page L-14</b>					<b>2,056,343.52</b>

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 BILL NO. 2: GROUND FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-13</b>				2,056,343.52
2.1.5d)	Recessed horizontal 165mm Diameter 2 x 18W G24d-2 Downlighter as Reggiani RE-6415-BV10 or approved equivalent. (Type C1 - Normal switching from lighting control panel)	21	No.	8,004.00	168,084.00
2.1.5e)	250W Metal Halide uplighter with Halo Blue Glass as Hacer Boulevard or approved equivalent. (Type D - Normal switching from lighting control panel)	25	No.	62,031.00	1,550,775.00
2.1.5f)	150W Metal Halide uplighter with Halo Blue Glass as Hacer Boulevard or approved equivalent. (Type D1 – Normal switching from lighting control panel)	13	No.	54,027.00	702,351.00
2.1.5g)	Low Voltage 50W Recessed round white fixed downlighter as Reggiani RE-3427-00100 (Type LV – Normal switching from lighting control panel)	25	No.	3,795.29	94,882.19
2.1.5h)	2 x 35W Surface/wall ultraslim luminaire with curved prismatic acrylic diffuser for T5 lamps as Thorn Prisma. (Type 1 - Switched through dimmers)		No.	19,309.65	0.00
2.1.5i)	8W maintained Exit Emergency Light as Thorn Cat. No. EFVM3/ICEL, or approved equivalent. Minimum 3-hour autonomy.	6	No.	17,382.08	104,292.47
2.1.5j)	Supply and install lighting contactor complete with manual override switch and purpose made panel to be mounted in Utility Room	10	No.	6,000.00	60,000.00
2.1.5k)	Menu-driven lighting scene programme to control upto 36 lighting effects over 24-hour period with adjustable rates of fade and password protection for security As Thorn Programmable Light Scene Timer – CLSC with the following features: - real time clock - adjustable fade rates by channel - max/min light level settings - 50 Hrs battery back-up - manual override capability	1		750,000.00	750,000.00
2.2.0	<b><u>Power Supply</u></b>				
2.2.0a)	12-way TP/N power distribution board 'A' complete with 100A TP/N integral isolator and all accessories including lockable cover. The Distribution Board to be as Schneider Electric or Merlin Gerin or approved equivalent.	1	No.	20,000.00	20,000.00
<b>Total C/F to Page L-15</b>					5,506,728.17



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 2: GROUND FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-14</b>				<b>5,506,728.17</b>
2.2.0b)	MCB units for item no. 2.2.0a) above				
	a) 10A SP	40	No.	380.00	15,200.00
	b) 20A SP	-	No.	380.00	
	c) 30A SP	-	No.	380.00	
	d) Blanking plates for spare ways	5	No.	25.00	125.00
2.2.0c)	10-way TP/N power distribution board 'B' complete with 100A TP/N integral isolator and all accessories including lockable cover. The Distribution Board to be as Schneider Electric or Merlin Gerin or approved equivalent.	1	No.	18,000.00	18,000.00
2.2.0d)	MCB units for item no. 2.3.0c) above				
	a) 10A SP	-	No.		
	b) 20A SP	-	No.		
	c) 30A SP	40	No.	380.00	15,200.00
	d) Blanking plates for spare ways	9	No.	380.00	3,420.00
2.2.0e)	8-way TP/N power distribution board 'C' complete with 100A TP/N integral isolator and all accessories including lockable cover. The Distribution Board to be as Schneider Electric or Merlin Gerin or approved equivalent.	1	No.	16,000.00	16,000.00
2.2.0f)	MCB units for item no. 2.2.0e) above				
	a) 10A SP	6	No.	380.00	2,280.00
	b) 20A SP	10	No.	380.00	3,800.00
	c) 30A SP	-	No.	380.00	
	d) Blanking plates for spare ways	11	No.	25.00	275.00
2.2.0g)	8-way TP/N power distribution board 'D' complete with 100A TP/N integral isolator and all accessories including lockable cover. The Distribution Board to be as Schneider Electric or Merlin Gerin or approved equivalent.	1	No.	16,000.00	16,000.00
2.2.0h)	MCB units for item no. 2.2.0g) above				
	a) 10A SP	-	No.	380.00	
	b) 20A SP	-	No.	380.00	
	c) 30A SP	13	No.	380.00	4,940.00
	d) Blanking plates for spare ways	21	No.	380.00	7,980.00
2.2.0i)	10-way TP/N power distribution board 'E' complete with 100A TP/N integral isolator and all accessories including lockable cover. The Distribution Board to be as Schneider Electric or Merlin Gerin or approved equivalent.	1	No.	18,000.00	18,000.00
2.2.0j)	MCB units for item no. 2.2.0i) above				
	a) 5A SP	1	No.	380.00	380.00
	b) 20A SP	-	No.	380.00	
	c) 30A SP	10	No.	380.00	3,800.00
	d) Blanking plates for spare ways	23	No.	25.00	575.00
2.2.0k)	Earthing for the two boards above.	1	Lot	5,000.00	5,000.00
	<b>Total C/F to Page L-16</b>				<b>5,637,703.17</b>



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 BILL NO. 2: GROUND FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-15</b>				5,637,703.17
2.2.1	Outlet point for water heater and hand drier comprising 20mm diameter conduit, wiring in 3 x 4.0 mm <sup>2</sup> SC-PVC-CU cables and all accessories including 20A DP switch with neon light as MK or Crabtree.	12	No	1,000.00	12,000.00
2.2.2	Twin standard 13A-socket outlet for normal power, wired in 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables inside concealed conduits.	47	No.	800.00	37,600.00
2.2.3a)	Twin non-standard 13A-socket outlet for clean power wired in 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables, drawn in conduits from the desks to the floor boxes and in ducts/trays from floor boxes to distribution boards. The sockets to be complete with fused 13A, non-standard unbreakable top plug	650	No.	2,500.00	1,625,000.00
2.2.3b)	Additional fused 13A non-standard unbreakable top plugs	130	No.	250.00	32,500.00
2.2.4	Outlet point for PTZ camera comprising 20mm diameter conduit, wired in ringmain 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables and all accessories including 20A DP switch with neon light as MK or Crabtree (PROVISIONAL)	60	No.	2,000.00	120,000.00
2.2.5	Outlet point for Cell Phone Immobilizer comprising 20mm diameter conduit, wired in ringmain 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables and all accessories including 20A DP switch with neon light as MK or Crabtree.	10	No.	2,000.00	20,000.00
2.2.6	300 x 50mm 3-compartment angle trunking to details shown, in 14-gauge galvanized steel sheet with cream powder coating finish to approved colour, complete with cover, screws, and all accessories.	120	m.	1,670.00	200,400.00
2.2.7	300 x 50mm, factory-made corner-bends for the above trunking, in same material and colour finish.	26	No.	465.00	12,090.00
2.2.8	Twin-outlet plates on the trunking, same colour finish	20	No.	265.00	5,300.00
2.2.9	Socket outlets, Twin, on trunking	20	No.	700.00	14,000.00
2.2.10	Dia. 32mm HG PVC conduits through floor slab	450	m.	70.00	31,500.00
2.2.11	Outlet for fire suppression control panel to Digital Congress Network equipment room comprising 2A fused unswitched and marked spur outlet, concealed PVC conduit, wiring in 3 x 2.5mm <sup>2</sup> SC-PVC-CU cables	1	No.	2,000.00	2,000.00
	<b>Total C/F to Page L-17</b>				7,750,093.17





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 BILL NO. 2: GROUND FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Total B/F from Page L-16				7,750,093.17
2.3.0	<b>Telephone</b>  A telephone PABX is installed in the PABX room located at 1st floor level directly above the proposed Digital Congress Network (DCN) equipment room. Telephone outlet points have been allowed for in the Minister's briefing room and DCN equipment room.  i) Allow for getting all required technical details of the existing telephone PABX including verifying any spare capacity on it and integrating the proposed system into the existing system.  ii) Allow for liaison and co-ordination with the National Assembly including verifying which telephone outlet points should be Extensions only and which should be connected as Direct lines.				
		1	Item	20,000.00	20,000.00
		1	Item	15,000.00	15,000.00
2.3.1	30-pair telephone distribution case as Krone, complete with cover and termination	2	No.	4,000.00	8,000.00
2.3.2	Allow for connection between PABX and telephone distribution case complete with all necessary accessories	1	Item	10,000.00	10,000.00
2.3.3	2-pair, 0.5 mm <sup>2</sup> PVC-PVC-copper cable; complete with termination	600	m	200.00	120,000.00
2.3.4	Outlet for telephone line jack unit, complete with square PVC box, draw wire and single telephone jack-plug as MK range.	6	No.	2,000.00	12,000.00
<b>Total for Bill No. 2: Ground Floor, C/F to Summary Page</b>					<b>7,935,093.17</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 3: GALLERY FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
				(KShs	Cts)	KShs	Cts
	Supply, install, test, commission and set to work the following. All lighting fittings to be complete with lamp, control gear etc as applicable.						
3.1	<b>Lighting</b>						
3.1.1	Lighting point 1-way switched.	295	No.	700.00		206,500.00	
3.1.2a)	Lighting point 2-way switched.	-	No.	750.00			
3.1.2b)	Lighting point 2-way switched with intermediate switch.	-	No.	800.00			
3.1.3	5 A white moulded switch plates as MK or Crabtree: -						
	(a) 1-gang 1-way	20	No.	80.00		1,600.00	
	(b) 1-gang 2-way	2	No.	90.00		180.00	
	(c) 2-gang 1-way	-	No.	125.00			
	(d) 2-gang 2-way	-	No.	140.00			
	(e) 1-gang intermediate	-	No.	950.00			
	(f) 4-gang 1-way	-	No.	235.00			
	(g) 3-gang 2 way	-	No.	200.00			
	(h) Dimming switch	15	No.	1,500.00		22,500.00	
3.1.4	Install permanent "DANGER" 415V labels where groups of switches have been fed by more than one phase.	5	No.	150.00		750.00	
3.1.5	Lighting fittings, complete with lamps of specified wattage and appropriate colour rendering: - (Note: All fittings to be fitted with High Frequency control gear)						
3.1.5a)	28W Polycarbonate Bulkhead with Honeycomb Prismatic Diffuser as Thorn Loepard or approved equivalent. (Type A - Normal switching in localised room)	7	No.	5,308.40		37,158.80	
3.1.5b)	2 x 35W Indirect/Direct luminaire with T5 lamp as Thorn Gemini or approved equivalent. (Type B - Switched through dimmers)		No.	33,536.76		0.00	
3.1.5c)	Recessed horizontal 165mm Diameter 2 x 26W G24d-3 Downlighter as Reggiani RE-6416-BV10 or approved equivalent. (Type C - Normal switching from lighting control panel)	44	No	8,937.80		393,263.20	
<b>Total C/F to Page L-19</b>						<b>661,952.00</b>	



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 3: GALLERY FLOOR – LIGHTING & POWER

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-16</b>				661,952.00
3.1.5d)	Recessed horizontal 165mm Diameter 2 x 18W G24d-2 Downlighter as Reggiani RE-6415-BV10 or approved equivalent. (Type C1 – Normal switching from lighting control panel)	5	No.	8,004.00	40,020.00
3.1.5e)	250W Metal Halide uplighter with Halo Blue Glass as Hacer Boulevard or approved equivalent. (Type D – Normal switching from lighting control panel)	-	No.	62,031.00	
3.1.5f)	150W Metal Halide uplighter with Halo Blue Glass as Hacer Boulevard or approved equivalent. (Type D1 – Normal switching from lighting control panel)	20	No.	54,027.00	1,080,540.00
3.1.5g)	Low Voltage 50W Recessed round white fixed downlighter as Reggiani RE-3427-00100 (Type LV – Normal switching from lighting control panel)	3	No.	3,795.29	11,385.86
3.1.5h)	2 x 35W Surface/wall ultraslim luminaire with curved prismatic acrylic diffuser for T5 lamps as Thorn Prisma. (Type 1 - Switched through dimmers)	43	No.	19,309.65	830,314.95
3.1.5i)	8W maintained Exit Emergency Light as Thorn Cat. No. EFVM3/ICEL, or approved equivalent. Minimum 3-hour autonomy.	6	No.	17,382.08	104,292.47
	<b><u>Ceiling Mounted Lighting</u></b>				
3.1.5j)	Surface mounting spotlight with integral transformer for 50W low voltage dichroic 50mm sealed dichroic Capsule, mains operated PAR20. As Thorn Multibeam (TMDPS50AW + TLCNAW) (Type F – Normal switching from lighting control panel)	65	No.	10,405.20	676,338.00
3.1.5k)	Recessed downlight fitted with 150W HIT-DE lamp as Thorn Corsa 245 Discharge (Type G – Normal switching from lighting control panel)	8	No.	51,692.50	413,540.00
	<b><u>Artwork Spotlight</u></b>				
3.1.5l)	Surface mounting spotlight with integral transformer for 50W low voltage dichroic 50mm sealed dichroic Capsule, mains operated PAR20. As Thorn Multibeam (TMDPS50AW + TLCNAW) (Type H – Normal switching from lighting control panel)	50	No.	10,405.20	520,260.00
<b>Total for Bill No. 3: Gallery Floor, C/F to Summary Page</b>					<b>4,338,643.28</b>



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 4 – SUPPLY TO AIR CONDITIONING PLANTS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Supply, install, test and commission the following:-</b>				
4.00	200A TPN motorized MCCB local to air conditioning chiller plants complete in a panel and communicating ON/off and trip auxiliary contacts	4	No.	20,000.00	80,000.00
4.01	Allow for a set of communication cables (Unitelway Protocol) to bring Item 4.00 under control of SCADA system	500	m.	700.00	350,000.00
4.02	63A TPN isolators local to air conditioning units in equipment rooms	5	No.	4,000.00	20,000.00
4.03	Label the above MCCB panel thus: "SUPPLY TO AIR CONDITIONING PLANT" in red 10mm higher permanent traffolyte labels.	1	Item	200.00	200.00
	<b>(Note: Circuit Breaker and cabling have been included under Bill No. 1)</b>				
<b>Total for Bill No. 4: Supply to Air Conditioning</b>					<b>450,200.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 5: LIGHTNING PROTECTION

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Note: All lightning protection products to be FURSE – Alternative makes will NOT be accepted.</b>				
5.1	<b>Air Termination</b>				
5.1.1	15mm diameter multiple point copper air terminal as Furse Cat. No. RA 600.	10	No.	2,000.00	20,000.00
5.1.2	Copper air terminal base as Furse Cat. No. SD 105.	10	No.	1,150.00	11,500.00
5.1.3	Copper junction clamps for tape.	50	No.	150.00	7,500.00
5.1.4	25 x 3mm turned copper tape as Furse Cat. No.TC 230.	500	m.	500.00	250,000.00
5.1.5	Copper ridge saddle as Furse Cat. No. CD 115.	-	No.	700.00	
5.1.6	D.C. tape clip as Furse Cat. No.CP 210.	100	No.	200.00	20,000.00
5.1.7	Copper rod-to-tape coupling.	10	No.	150.00	1,500.00
5.2	<b>Down Conductors</b>				
5.2.1	25 x 3mm turned copper tape as Furse Cat. No.TC 230.	70	m.	500.00	35,000.00
5.2.2	D.C. tape clip as Furse Cat. No. CP 210.	30	No.	200.00	6,000.00
5.2.3	Oblong test/junction clamp as Furse Cat. No. CN 105.	10	No.	1,400.00	14,000.00
5.2.4	Diameter 38mm HG PVC conduits for the down conductors above.	70	m.	70.00	4,900.00
5.3	<b>Earth Termination</b>				
5.3.1	15mm diameter, 1200mm long solid copper earth rod as Furse Cat. No. RC 020, complete with driving stud and spike.	10	No.	700.00	7,000.00
5.3.2	Earth rod-to-tape clamp type A.	10	No.	150.00	1,500.00
5.3.3	Concrete inspection earth pit Cat. No. PT 005 with 5 hole earth bar as Furse Cat. No. PT 006.	10	No.	1,500.00	15,000.00
5.3.4	1500mm x 1500mm copper earth mat made from 25mm x 3mm copper tape at 300mm spacing, buried at permanent moisture level and complete with all clamps, welding joints and 6m long 25mm x 3mm insulated copper tape clamped to the down conductors.	6	No.	8,000.00	48,000.00
<b>Total C/F to Page L-20</b>					<b>441,900.00</b>



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 5: LIGHTNING PROTECTION

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Total B/F from Page L-19				441,900.00
5.4	<b>Bonding</b>				
5.4.1	Bonding and clamping to all metal work including water pipes, gas pipes, hand-rails, air-conditioning units, window frames, cladding, metal roof etc. and the main earth for the building.	1	Item	10,000.00	10,000.00
<b>Total for Bill No. 5 –Lightning Protection, C/F to Summary Page</b>					451,900

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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Supply, install, test, commission and set to work the following: All fire alarm equipment must meet the requirements of BS5839 - 2002, EN54, LPCB and the relevant KEBS standards. This fire alarm specification is for a fully addressable analogue system, integrated voice evacuation and computer controlled graphics system.				
6.01	Outlet for fire alarm panel comprising 2A fused unswitched and marked spur outlet, concealed PVC conduit, wiring in 3 x 2.5mm <sup>2</sup> SC-PVC-CU cables	1	No.	2,000.00	2,000.00
6.02	Two loop analogue addressable fire detection and alarm control panel complete with ultra versatile touch screen user interface, upto 150 addressable devices per loop, printer and 96 zonal LEDs. the control panel should be capable of networking with other future fire alarm system covering the rest of the National Assembly offices, meeting rooms, restaurant etc. The control panel to be designed to meet fully the requirements of EN54 Pt 2 and 4, 1998 and BS5839 Part 1 2002. The panel to be complete with integral power backup rated to operate for upto 72 hours under conditions of sustained power failure. COOPER MENVIER DF6000 or equal and approved	1	No.	483,558.90	483,558.90
6.03	Fire Alarm Graphics software incorporating three levels of maps for actual indication of alarm source. Complete with a desktop computer capable of full control of fire alarm system by use of a password. As designed by COOPER MENVIER or any other software designed with communication protocol to interface with the system main fire alarm panel.	1	Item	1,429,652.40	1,429,652.40
6.04	Voice evacuation amplifier and interface unit complete with pre-recorded emergency messages in english and/or other language as desired.	1	No.	445,294.67	445,294.67
6.05	Allow for 2 core 1.5mm <sup>2</sup> fire resistant screened cable for wiring the entire fire detection, alarm and emergency voice evacuation system drawn inside concealed PVC conduit or surface wired as approved by the Engineer.	8780	m.	276.02	2,423,469.82
6.06	Carry out testing, commissioning and handing over of the entire fire alarm system including conducting extensive one month training of the users on the various aspects and operation of the fire alarm system.	1	Item	25,000.00	25,000.00
6.07	Provide maintenance and operations manuals and as installed drawings to be handed over to the clients representative.	1	Item	10,000.00	10,000.00
<b>Total C/F to Page L-22</b>					<b>4,818,975.80</b>

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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-21</b>				4,818,975.80
6.08	Ensure comprehensive system engineering of the entire fire alarm system by a certified MANUFACTURER'S REPRESENTATIVE to conform to the requirements of KEBS standards on fire alarm system installation, BS5839 (2002) and manufacturers recommendation.	1	Item	501,430.78	501,430.78
6.09	Obtain and submit MANUFACTURERS certification of the installation and components, including a written 36 month performance warranty	1	Item	30,000.00	30,000.00
6.10	Conduct comprehensive programming of the system by approved manufacturer's representative to perform as instructed by the Engineer, including voice evacuation messaging patterns.	1	Item	15,000.00	15,000.00
	<b>Speaker's Walk</b>				
6.11	Analogue addressable combined photoelectric smoke and heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAP820 or equal and approved.	8	No.	11,353.12	90,824.98
6.12	Analogue addressable heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAH860 or equal and approved.	4	No.	10,722.39	42,889.57
6.13	Addressable manual call points incorporating soft addressing technology. Integral short circuit isolator, test key and polycarbonate flap, designed to comply with EN54 pt11. COOPER MENVIER Type MBG813 or equal and approved.	8	No.	10,301.91	82,415.26
6.14	Ceiling mounted electronic speech sounder wired direct onto the voice evacuation system. COOPER MENVIER or equal and approved.	8	No.	16,398.95	131,191.63
6.15	Soft addressing input/output unit with built in short circuit isolator, three channel monitored inputs, three channel outputs rated 30V/1A and volt free contacts (NO/C/NC), to be used for AHU plant shut down. (COOPER MENVIER type MIO424 or equal and approved)	2	No.	8,055.00	16,110.00
6.16	High efficiency xenon beacons with enhanced optical design for maximum light dissipation and 2W xenon discharge lamp rated IP65.(COOPER MENVIER type MXB824 or equal and approved)	4	No.	7,148.26	28,593.05
	<b>Total C/F to Page L - 25</b>				5,757,431.06



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-22</b>				5,757,431.06
6.17	Infra red beam smoke detector consisting of transmitter, receiver and control unit rated to cover upto 50 meters. COOPER MENVIER model MDB100A	3	No.	213,606.89	640,820.66
6.18	Air handling duct smoke detector consisting of an analogue addressable smoke detector and air sampling probes. COOPER MENVIER model MPD201 or equal and approved.	8	No.	26,973.00	215,783.98
6.19	Remote indicator unit for use duct smoke detector. (COOPER MENVIER model MPD201 or equal and approved)	3	No.	26,973.00	80,918.99
	<b>Equipment Rooms &amp; Wash Rooms</b>				
6.20	Analogue addressable combined photoelectric smoke and heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAP820 or equal and approved.	10	No.	11,353.12	113,531.22
6.21	Analogue addressable heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. (COOPER MENVIER Type MAH860 or equal and approved)	8	No.	10,722.39	85,779.14
6.22	Addressable manual call points incorporating soft addressing technology. Integral short circuit isolator, test key and polycarbonate flap, designed to comply with EN54 pt11. (COOPER MENVIER Type MBG813 or equal and approved)	9	No.	10,301.91	92,717.16
6.23	Ceiling mounted electronic speech sounder wired direct onto the voice evacuation system. (COOPER MENVIER or equal or approved)	9	No.	16,398.95	147,590.59
6.24	Soft addressing input/output unit with built in short circuit isolator, three channel monitored inputs, three channel outputs rated 30V/1A and volt free contacts (NO/C/NC), to be used for AHU plant shut down. (COOPER MENVIER type MIO424 or equal and approved)	2	No.	8,055.00	16,110.00
6.25	High efficiency xenon beacons with enhanced optical design for maximum light dissipation and 2W xenon discharge lamp rated IP65. (COOPER MENVIER type MXB824 or equal and approved)	5	No.	7,148.26	35,741.31
	<b>Total C/F to Page L-26</b>				7,186,424.11

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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-25</b>				7,186,424.11
6.26	Air handling duct smoke detector consisting of an analogue addressable smoke detector and air sampling probes. (COOPER MENVIER model MPD201 or equal and approved)	5	No.	26,973.00	134,864.99
6.27	Remote indicator unit for use duct smoke detector. COOPER MENVIER model MPD201 or equal and approved.	5	No.	26,973.00	134,864.99
	<b>National Assembly Chambers</b>				
6.28	Analogue addressable combined photoelectric smoke and heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAP820 or equal and approved.	20	No.	11,353.12	227,062.44
6.29	Analogue addressable heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAH860 or equal and approved.	6	No.	10,722.39	64,334.36
6.30	Addressable manual call points incorporating soft addressing technology. Integral short circuit isolator, test key and polycarbonate flap, designed to comply with EN54 pt11. COOPER MENVIER Type MBG813 or equal and approved.	12	No.	10,301.91	123,622.88
6.31	Ceiling mounted electronic speech sounder wired direct onto the voice evacuation system. COOPER MENVIER or equal and approved.	16	No.	16,398.95	262,383.26
6.32	Soft addressing input/output unit with built in short circuit isolator, three channel monitored inputs, three channel outputs rated 30V/1A and volt free contacts (NO/C/NC), to be used for AHU plant shut down. COOPER MENVIER type MIO424 or equal and approved.	2	No.	8,055.00	16,110.00
6.33	High efficiency xenon beacons with enhanced optical design for maximum light dissipation and 2W xenon discharge lamp rated IP65. COOPER MENVIER type MXB824 or equal and approved.	9	No.	7,148.26	64,334.36
6.34	Infra red beam smoke detector consisting of transmitter, receiver and control unit rated to cover upto 50 meters. COOPER MENVIER model MDB100A.		No.	213,606.89	-
	<b>Total C/F to Page L-27</b>				8,214,001.39

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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page I-24</b>				<b>8,214,001.39</b>
6.35	Air handling duct smoke detector consisting of an analogue addressable smoke detector and air sampling probes. COOPER MENVIER model MPD201 or equal and approved.	4	No.	26,973.00	107,891.99
6.36	Remote indicator unit for use duct smoke detector. COOPER MENVIER model MPD201 or equal and approved.	4	No.	26,973.00	107,891.99
	<b>VIP Cubicles</b>				
6.37	Analogue addressable combined photoelectric smoke and heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAP820 or equal and approved.	40	No.	11,353.12	454,124.88
6.38	Analogue addressable heat detector incorporating a short COOPER MENVIER Type MAH860 or equal and approved.	5	No.	10,722.39	53,611.97
6.39	Addressable manual call points incorporating soft addressing technology. Integral short circuit isolator, test key and polycarbonate flap, designed to comply with EN54 pt11. COOPER MENVIER Type MBG813 or equal and approved.	10	No.	10,301.91	103,019.07
6.4	Ceiling mounted electronic speech sounder wired direct onto the voice evacuation system. COOPER MENVIER or equal and approved.	7	No.	16,398.95	114,792.68
6.41	High efficiency xenon beacons with enhanced optical design for maximum light dissipation and 2W xenon discharge lamp rated IP65. COOPER MENVIER type MXB824 or equal and approved.	4	No.	7,148.26	28,593.05
	<b>AC Equipment Room</b>				
6.42	Analogue addressable combined photoelectric smoke and heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAP820 or equal and approved.	4	No.	11,353.12	45,412.49
6.43	Analogue addressable heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAH860 or equal and approved.	2	No.	10,722.39	21,444.79
	<b>Total C/F to Page L-28</b>				<b>9,250,784.28</b>

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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Total B/F from Page L-27</b>				9,250,784.28
6.44	Addressable manual call points incorporating soft addressing technology. Integral short circuit isolator, test key and polycarbonate flap, designed to comply with EN54 pt11. COOPER MENVIER Type MBG813 or equal and approved.	1	No.	10,301.91	10,301.91
6.45	Ceiling mounted electronic speech sounder wired direct onto the voice evacuation system. COOPER MENVIER or equal and approved.	2	No.	16,398.95	32,797.91
6.46	Soft addressing input/output unit with built in short circuit isolator, three channel monitored inputs, three channel outputs rated 30V/1A and volt free contacts (NO/C/NC), to be used for AHU plant shut down. COOPER MENVIER type MIO424 or equal and approved.	2	No.		0.00
6.47	High efficiency xenon beacons with enhanced optical design for maximum light dissipation and 2W xenon discharge lamp rated IP65. COOPER MENVIER type MXB824 or equal and approved.	1	No.	7,148.26	7,148.26
<b>Speaker's and Public Galleries</b>					
6.48	Analogue addressable combined photoelectric smoke and heat detector incorporating a short circuit isolator, drift compensation and alarm indicator LED visible 360 degrees. COOPER MENVIER Type MAP820 or equal and approved.	5	No.	11,353.12	56,765.61
6.49	Addressable manual call points incorporating soft addressing technology. Integral short circuit isolator, test key and polycarbonate flap, designed to comply with EN54 pt11. COOPER MENVIER Type MBG813 or equal and approved.	7	No.	10,301.91	72,113.35
6.5	Ceiling mounted electronic speech sounder wired direct onto the voice evacuation system. COOPER MENVIER or equal and approved.	6	No.	16,398.95	98,393.72
6.51	High efficiency xenon beacons with enhanced optical design for maximum light dissipation and 2W xenon discharge lamp rated IP65. COOPER MENVIER type MXB824 or equal and approved.	4	No.	7,148.26	28,593.05
<b>Total C/F to Page L-29</b>					9,556,898.08



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 6: FIRE ALARM INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Total B/F from Page L-28				9,556,898.08
6.52	Infra red beam smoke detector consisting of transmitter, receiver and control unit rated to cover upto 50 meters.  COOPER MENVIER model MDB100A.	4	No.	213,606.89	854,427.55
<b>Total for Bill No. 6: Fire Alarm Installations, C/F to Summary Page</b>					<b>10,411,325.64</b>

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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 7 – AUDIO VISUAL SERVICES WIREWAYS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
7.01	100mm diameter HG PVC duct for audio visual services wireways.	500	m.	250.00	125,000.00
7.02	Excavate trenches for duct above, average depth 700mm, remove soft earth, lay ducts, backfill with soil and compact to natural ground level.	400	m.	200.00	80,000.00
7.03	Build 630 x 450 x 700mm deep standard Telkom Kenya telephone manhole for above services complete with internal plaster and heavy duty EAFW steel cover.	40	No.	6,500.00	260,000.00
7.04	Install 4mm <sup>2</sup> SC-PVC cable draw wire inside the above ducts.	500	Item	5,000.00	2,500,000.00
7.05	Make and install 200 x 200mm silver plate labels for the audio visual ducts with a 150mm long "AUDIO VISUAL" sign and 50mm high red letters spelling "AUDIO VISUAL DUCT".	100	No.	200.00	20,000.00
7.06	600 x 75mm 12 gauge galvanised steel perforated cable tray for support of cables complete with supporting frame.	200	m.	2,000.00	400,000.00
7.07	300 x 50mm 12 gauge galvanised steel perforated cable tray for support of cables complete with supporting frame.	100	m.	1,800.00	180,000.00
7.08	50mm diameter PVC duct in floor slab terminating into cable loop-in box.	1,200	m.	180.00	216,000.00
7.09	Floor box as MK for drawing communication cables complete with covers, fixing and mounting accessories	310	No.	5,000.00	1,550,000.00
7.10	32mm diameter PVC conduit running from cable loop-in box and terminating in desks.	400	m.	150.00	60,000.00
7.11	300 x 50mm 2-compartment trunking, in 14-gauge galvanized steel sheet with cream powder coating finish to approved colour, complete with cover, screws, and all accessories. (PROVISIONAL)	550	m.	1,500.00	825,000.00
7.12	300 x 50mm, factory-made corner-bends for the above trunking, in same material and colour finish.(PROVISIONAL)	100	m	400.00	40,000.00
7.13a)	2C 10mm <sup>2</sup> PVC copper cables for DCN and Broadcast equipment racks	200	m	270.00	54,000.00
7.13b)	4C 10mm <sup>2</sup> PVC copper cables for DCN and Broadcast equipment racks	200	m	450.00	90,000.00
7.13c)	SC 6mm <sup>2</sup> yellow/green earthing cable	350	m	320.00	112,000.00
7.14	100mm diameter steel duct for audio visual services wireways.	-	m.	-	
<b>Total for Bill No. 7: Audio Visual Wireways, C/F to Summary Page</b>					<b>6,512,000.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 8 – ACCESS CONTROL

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
A	<b>PREAMBLE</b>				
1	Total No. of doors.	2	No.		
2	Details of doors, door handles, frames etc. to be confirmed with the Project Architects, M/s K&M Archplans Architects, P O Box 76240, Nairobi, Tel: 2723298 Fax: 2718159				
3	Strike : Electric				
B	<b>BILLS OF QUANTITIES</b>				
	Supply, install, test, commission and set to work the following :-				
8.00	Proximity card reader for double-leaf door type PRX-30, complete with its controls and all accessories for IN/OUT operation including software.	2	No.	118,755.00	237,510.00
8.01	A computer is to be provided for SCADA System which can also be used for Access Control as well. Allow for complete software package in the computer provided above	1	Item	50,000.00	50,000.00
8.02	Door magnet (250 kg) Res. Force.	4	No.	1,750.00	7,000.00
8.03	Supply proximity cards, each bearing photograph of individual staff member. Conduct tailor-made programming of each card as per Client's requirements.	200	No.	550.00	110,000.00
8.04	Allow for associated cabling, installation, testing, commissioning, all accessories, customized programming, training and handing over.	1	Item	75,000.00	75,000.00
8.05	Any other items necessary to complete the access control system satisfactorily. Please list the items	1	Item		
8.06	Heavy duty automatic door closers, as Yale, or approved equivalent, for the secured doors above.	4	No.	15,000.00	60,000.00
<b>Total for Bill No. 8: Access Control, C/F to Summary Page</b>					<b>539,510.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 9 – CLEAN POWER SUPPLY AT COUNTY HALL

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Supply, install, test, commission and set to work the following:</b>				
9.01	50A SPN MCB to be installed in an existing board to be identified on site.	1	No.	1,545.00	1,545.00
9.02	Allow for 2C 35mm <sup>2</sup> PVC/SWA/PVC copper cable.	200	m	1,100.00	220,000.00
9.03	Cable glands for 2C 35mm <sup>2</sup> PVC/SWA/PVC cable.	2	No.	410.00	820.00
9.04	10 Kva Double-conversion (on-line) Uninterruptible Power Supply Unit, UPS, equipped with static and manual bypasses and having the following characteristics:-  Power Supply: 1-phase, 240 V Output Voltage: 240 V +/- 1% Output Frequency: 50 Hz +/- 0.5 Hz Overload Capacity: 130% for 1 minute Battery: Sealed lead-acid Service life: Minimum 10 years Backup time: Minimum 30 minutes <b>(Note: Please enclose UPS product literature. UPS location to be confirmed on site).</b>		No.	1,477,840.00	0.00
9.05	6-way SP/N consumer unit complete with 100A SP/N integral isolator and all accessories including lockable cover. The Consumer Unit to be as Schneider Electric or Merlin Gerin or approved equivalent. Consumer unit location to be agreed on site.	1	No.	3,550.00	3,550.00
9.06	MCB units for item no. 9.05 above a) 30A SP b) Blanking plates for spare ways	4 2	No. No.	380.00 25.00	1,520.00 50.00
9.07a)	Twin non-standard 13A-socket outlet for clean power wired in 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables, drawn in conduits/surface mini trunkings/ceiling voids. The socket outlets to be complete with fused 13A non-standard unbreakable top-plugs.	50	No.	2,500.00	125,000.00
9.07b)	Additional 13A fused non-standard unbreakable top-plugs.	20	No.	250.00	5,000.00
<b>Total C/F to Page L-33</b>					<b>357,485.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 10 – CLEAN POWER SUPPLY AT CONTINENTAL HOUSE

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Supply, install, test, commission and set to work the following:				
10.01	40A SPN MCB's to be installed in existing boards at Ground and at 7th floors respectively.	2	No.	1,545.00	3,090.00
10.02	Allow for 2C 16mm <sup>2</sup> PVC/SWA/PVC copper cable.	200	m	1,100.00	220,000.00
10.03	Cable glands for 2C 16mm <sup>2</sup> PVC/SWA/PVC cable.	4	No.	410.00	1,640.00
10.04	5 kVA Double-conversion (on-line) Uninterruptible Power Supply Unit, UPS, at Ground and 7th floors respectively, equiped with static and manual bypasses and having the following characteristics:- Power Supply: 1-phase, 240 V Output Voltage: 240 V +/- 1% Output Frequency: 50 Hz +/- 0.5 Hz Overload Capacity: 130% for 1 minute Battery: Sealed lead-acid Service life: Minimum 10 years Backup time: Minimum 30 minutes (Note: Please enclose UPS product literature. UPS location to be agreed on site).	0	No.	934,960.00	0.00
10.05	4-way SP/N consumer unit complete with 100A SP/N integral isolator and all accessories including lockable cover. The Consumer Unit to be as Schneider Electric or Merlin Gerin or approved equivalent. Consumer unit location to be agreed on site.	2	No.	3,550.00	7,100.00
10.06	MCB units for item no. 9.05 above				
	a) 30A SP	4	No.	380.00	1,520.00
	b) Blanking plates for spare ways	4	No.	25.00	100.00
10.07a)	Twin non-standard 13A-socket outlet for clean power wired in 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables, drawn in conduits/surface mini trunkings/ceiling voids. The socket outlets to be complete fused 13A non-standard unbreakable top-plugs.	20	No.	2,500.00	50,000.00
10.07b)	Additional 13A fused non-standard unbreakable top-plugs.	20	No.	250.00	5,000.00
<b>Total C/F to Page L-33</b>					<b>288,450.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 11 – CLEAN POWER SUPPLY AT 1st FLOOR PARLIAMENT BUILDING

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	<b>Supply, install, test, commission and set to work the following:</b>				
11.01	60A TPN MCB to be installed in the sub-main switchboard, priority essential section.	1	No.	1,545.00	1,545.00
11.02	Allow for 4C 50mm <sup>2</sup> PVC/SWA/PVC copper cable.	200	m	1,200.00	240,000.00
11.03	Cable glands for 4C 50mm <sup>2</sup> PVC/SWA/PVC cable.	2	No.	410.00	820.00
11.04	6-way TP/N distribution board complete with 100A TP/N integral isolator and all accessories including lockable cover. The distribution board to be as Schneider Electric or Merlin Gerin or approved equivalent. Distribution board location to be agreed on site.	2	No.	3,550.00	7,100.00
11.05	MCB units for item no. 9.04 above				
	a) 30A SP	6	No.	380.00	2,280.00
	b) Blanking plates for spare ways	12	No.	25.00	300.00
11.06a)	Twin non-standard 13A-socket outlet for clean power wired in 6 x 2.5mm <sup>2</sup> SC-PVC-CU cables, drawn in conduits/surface mini trunkings/ceiling voids. The socket outlets to be complete with fused 13A non-standard unbreakable top-plugs.	100	No.	2,500.00	250,000.00
11.06b)	Additional 13A fused non-standard unbreakable top-plugs.	20	No.	250.00	5,000.00
<b>Total C/F to Page L-33</b>					<b>507,045.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 12 – GENERAL ITEMS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
12.00a)	Carry out comprehensive 24-hour power analysis, after installing sub-main switchboard, but before switching on load, with a digital power meter (with printer) to:  i) Record and print all the power system parameters. ii) Submit 3 copies of the print-outs.  <b>(Note: Parameters must be satisfactory before building is switched on).</b>	1	Item	20,000.00	20,000.00
12.00b)	Carry out comprehensive 24-hour power analysis, after switching sub-main switchboard on full load, with a digital power meter (with printer) to:  i) Record and print all the power system parameters. ii) Submit 3 copies of the print-outs.	1	Item	20,000.00	20,000.00
12.01	Acquire and submit a Bank Guarantee for 10% of the sub-contract sum, as a Performance Guarantee.	1	Item	150,000.00	150,000.00
12.02	Acquire and submit Insurance for the sub-contract work.	1	Item	20,000.00	20,000.00
12.03	Allow for presentation of all the required samples as per specifications, Bills of Quantities and Drawings.	1	Item	20,000.00	20,000.00
12.04	Prepare and submit Working Drawings as follows:-  i) Draft soft copy in Archicad® and Autocad® 2000 in CD-RW. ii) Amended soft copy in Archicad® and Autocad® 2000 in CD-RW. iii) 5 Final soft copies in Archicad® and Autocad® 2000 in CD-RW to Architect, Client, Quantity Surveyor, and Engineer (2 copies) iv) 3 Draft hard-copies of Working Drawings in Ao (Scales 1:50, 1:25) to Engineer, Architect and Main Contractor. v) 2 Amended hard copies of Working Drawings in Ao (Scales 1:50 and 1:25) to Engineer, Architect and Main Contractor. vi) 11 No. Final hard copies of working drawings  <b>(Note: Full set of drawings to be presented as per drawing list).</b>	1	Item	75,000.00	75,000.00
12.05	As item no. 16.04, but for Record (As-Installed) Drawings comprising:  i) Fully dimensioned drawings of all plants and apparatus.				
<b>Total C/F to Page L-33</b>					<b>305,000.00</b>

THE KENYA NATIONAL ASSEMBLY  
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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 12 – GENERAL ITEMS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Total B/F from Page L-32				305,000.00
12.05	ii) General arrangement drawings of equipment, plant etc. iii) Routes – types and sizes and arrangement of all pipework. iv) System schematics and trunking diagrams showing all salient information relating to control and instrumentation. v) Grading charts vi) Wiring and piping diagrams of plant and apparatus. vii) Schematic diagram of individual plants and switch and control boards. viii) All the required operating instructions for all panels, boards, control panels etc.	1	Item	50,000.00	50,000.00
12.06	Prepare and submit Maintenance Manuals for all items installed.	1	Item	10,000.00	10,000.00
12.07	Provide a year's (12 months') initial maintenance upon expiry of the Defects Liability Period. The maintenance to be carried out every quarter (3 months) for a period of 12 months.	1	Item	100,000.00	100,000.00
12.08	All other items of general preliminary to cover, but not limited to:-  i) Attendance on all other sub-contractors, such as for Communication Services, Mechanical Installations, Security Installations, Sound Equipment/ Wiring Installations, services etc. ii) Hiring and keeping a Supervisor/Foreman on site iii) Constant supervision of the works. iv) Provision of all the required spares. v) Testing and Inspection of materials/works. vi) Provision of labour camps. vii) Storage of materials. viii) Initial maintenance (During Defects Liability)  ix) Providing water/electricity for the works. x) Protection of the works/materials xi) Clearing away on completion. xii) Preparing Final Account. xiii) Providing all Test Certificates, etc.	1	Item	150,000.00	150,000.00
Total C/F to Page L-34					615,000.00



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 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 BILL NO. 12 – GENERAL ITEMS

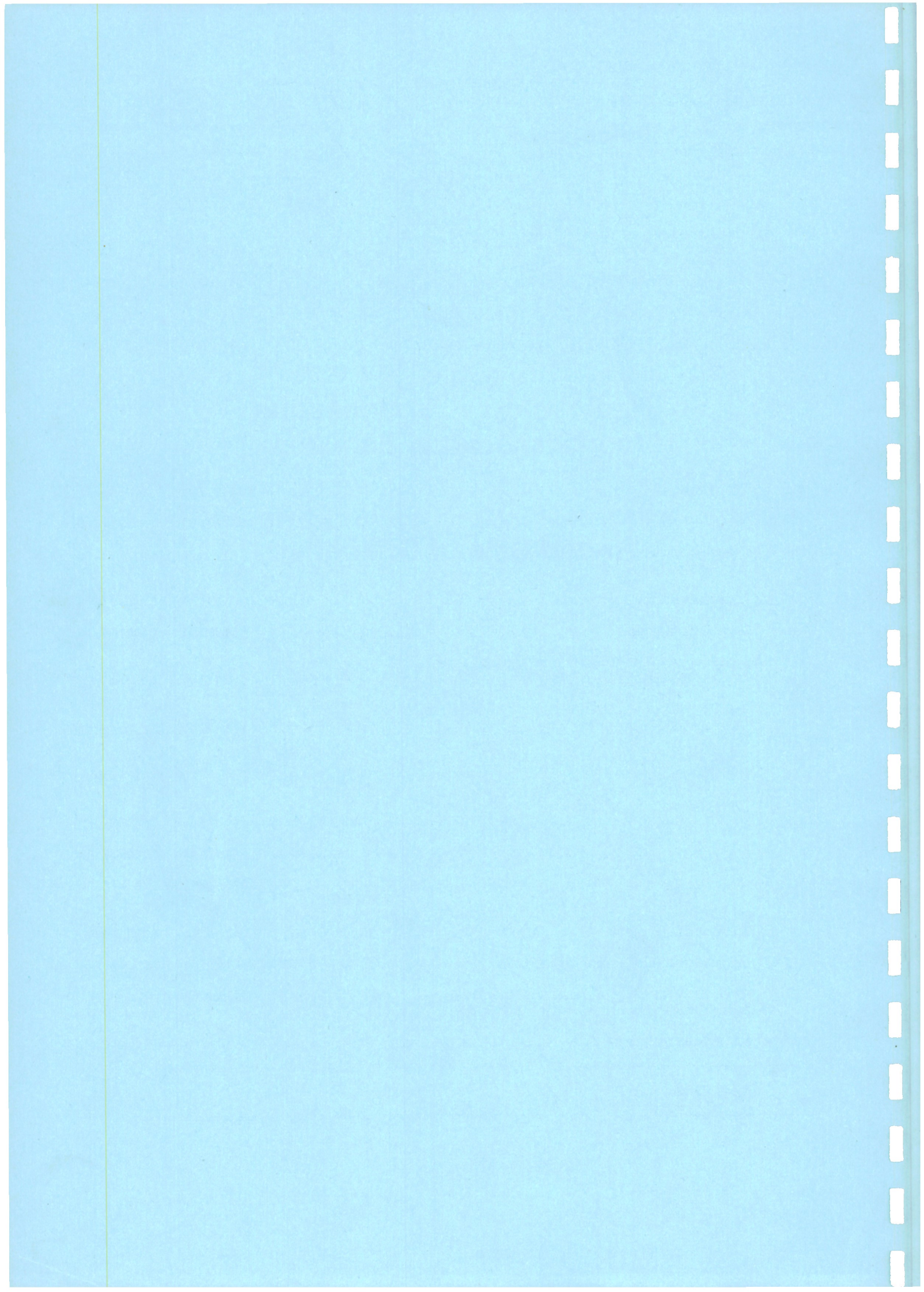
ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Total B/F from Page L-33				615,000.00
12.09	Allow for removal of existing wiring which shall be rendered redundant by the refurbishment works	1	Item	30,000.00	30,000.00
<b>Total for Bill No. 9: General Items, C/F to Summary Page</b>					<b>645,000.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING & REFURBISHMENT OF PARLIAMENT CHAMBER - NAIROBI  
 ELECTRICAL INSTALLATIONS AND ASSOCIATED SERVICES- BILLS OF QUANTITIES  
 SUMMARY PAGE:

ITEM	DESCRIPTION	AMOUNT	
		KSHS.	CTS.
S.01	Bill No. 1: Sub Mains Power Distribution B/F from Page L-12		33,855,680.37
S.02	Bill No. 2: Ground Floor Lighting & Power B/F from Page L-17		7,935,093.17 ✓
S.03	Bill No. 3: Gallery Floor Lighting & Power B/F from Page L-19		4,338,643.28 ✓
S.04	Bill No. 4 Supply to Air Conditioning Plant B/F from Page L-20		450,200.00 ✓
S.05	Bill No. 5. Lightning Protection B/F from Page L-22		451,900.00 ✓
S.06	Bill No. 6. Fire Alarm Installations B/F from Page L-29		10,411,325.64 ✓
S.07	Bill No. 7. Audio Visual Wireways B/F from Page L-30		6,512,000.00
S.08	Bill No. 8. Access Control B/F from Page L-31		539,510.00
S.09	Bill No. 9. Clean Power Supply at County Hall from Page L-32		357,485.00
S.10	Bill No. 10. Clean Power Supply at Continental House from Page L-33		288,450.00
S.11	Bill No. 11. Clean Power Supply at 1st Floor Parliament Building		507,045.00
S.12	Bill No. 12. General B/F from Page L-37		645,000.00
S.13	Sub-Contract Preliminaries, B/F from Part D		800,000.00
S.14	Sub-Total		66,292,332.45
S.15	Allow 10% of Sub-Total in Item No. S.14 as contingency and variation of price		6,629,233.25
S.16	Allow 5% of Sub-Total in Item No. S.14 to cater for currency fluctuation		3,314,616.62
	<b>Total (Carried to Form of Tender)</b>		<b>76,236,182.32</b>

**Radio and TV Broadcasting  
(and Associated Services)**

**Priced Bills of Quantities**



THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES  
 BILL NO. 1

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Supply, install, test, commission, programme, train and put to work the following:-</b>				
1.00	Studio Broadcast-quality cameras as per Technical Specifications.	7	No.	1,800,000.00	12,600,000.00
1.01	Rack mounted power supply for the above cameras.	7	No.	145,000.00	1,015,000.00
1.02	Camera control units as per Technical Specifications.	7	No.	585,000.00	4,095,000.00
1.03	Camera lens as per details of the Technical Specifications.	7	No.	335,000.00	2,345,000.00
1.04	The complete PTZ system as per details of the Technical Specifications.	7	No.	1,350,000.00	9,450,000.00
1.05	PTZ camera controllers with 3 axis joystick and rotary focus knob.	1	No.	1,350,000.00	1,350,000.00
1.06	Composite Video switcher for preview monitor, as per Technical Specifications.	1	No.	603,200.00	603,200.00
1.07	Vision Mixer, as per Technical Specifications.	1	No.	2,250,000.00	2,250,000.00
1.08	Document visualizer as described in the Technical Specifications (in the Speaker / Deputy Speaker's chair)	2	No.	475,000.00	950,000.00
1.09	Character Generator, as per Technical Specifications.	1	No.	1,960,000.00	1,960,400.00
1.10	Wave Form Monitor	2	No.	700,000.00	1,400,000.00
1.11	Video monitor banks, (pre-mix, preview, program) as per details of Technical Specifications.	11	No.	188,000.00	2,068,000.00
1.12	Specific position monitors in the chamber as described in the Technical Specifications.	304	No.	83,950.00	25,520,800.00
1.13	Plasma screens (50 – 90 inches) as described in the Technical Specifications.	13	No.	575,000.00	7,475,000.00
1.14	Editing Controller, as per details of the Technical Specifications.	1	No.	120,000.00	120,000.00
1.15	Scan Converter, as per Technical Specifications.	1	No.	350,000.00	350,000.00
1.16	Video Disk Recorder, as per Technical Specifications.	2	No.	720,000.00	1,440,000.00
1.17	25' Flat Display Screen TV monitor as per details of the Technical Specifications.	75	No.	55,000.00	4,125,000.00
1.18	Digital Multi-effects switcher, as per details described earlier.	1	No.	900,000.00	900,000.00
1.19	16-channel Audio Mixer, as per details of the Technical Specifications.	1	No.	450,000.00	450,000.00
1.20	A/B roll monitoring speakers	2	No.	60,000.00	120,000.00
<b>Total Carried Forward to Page H7</b>					<b>80,587,400.00</b>

**THE KENYA NATIONAL ASSEMBLY  
PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES**

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Total B/F from Page H6</b>				<b>80,587,400.00</b>
1.21	Chamber speakers, as per details of the Technical Specifications.	16	No.	<b>70,000.00</b>	<b>1,120,000.00</b>
1.22	Audio Mixer/ Amplifier	2	No.	<b>315,000.00</b>	<b>630,000.00</b>
1.23	DVCAM player as per details of the Technical Specifications.	2	No.	<b>665,000.00</b>	<b>1,330,000.00</b>
1.24	DVCAM recorder as per details of the Technical Specifications.	7	No.	<b>845,000.00</b>	<b>5,915,000.00</b>
1.25	CD Recorder, as per details of the Technical Specifications.	4	No.	<b>220,000.00</b>	<b>880,000.00</b>
1.26	Mini Disc Recorder, as per details of the Technical Specifications.	4	No.	<b>120,000.00</b>	<b>480,000.00</b>
1.27	Audio Tape Recorders, as per details of the Technical Specifications.	4	No.	<b>135,000.00</b>	<b>540,000.00</b>
1.28	Feedback Controller/Reducer, as per details of the Technical Specifications.	1	No.	<b>200,000.00</b>	<b>200,000.00</b>
1.29	Headphones, as per details of Technical Specifications.	4	No.	<b>14,000.00</b>	<b>56,000.00</b>
1.30	Reference Headphones as per details of the Technical Specifications.	4	No.	<b>14,000.00</b>	<b>56,000.00</b>
1.31	Monitoring speakers as described in the Technical Specifications.	2	Pairs	<b>100,000.00</b>	<b>200,000.00</b>
1.32	Video switcher as described in the Technical Specifications	1	No.	<b>245,000.00</b>	<b>245,000.00</b>
1.33	Professional Industrial Cameras, in committee rooms and public entrance, as per details of Technical Specifications.	11	No.	<b>525,000.00</b>	<b>5,775,000.00</b>
1.34	C-mount lens for the cameras above, as per details of the Technical Specifications.	11	No.	<b>195,000.00</b>	<b>2,145,000.00</b>
1.35	Recorders for the cameras above, as per details of the Technical Specifications.	11	No.	<b>105,000.00</b>	<b>1,155,000.00</b>
1.36	Professional Video Monitor for the industrial cameras above, as per details of the Technical Specifications.	11	No.	<b>105,000.00</b>	<b>1,155,000.00</b>
1.37	Installation and programming to achieve the input performance outlined in Item 5.5 of the Technical Specifications, and overall system performance.	Item		<b>3,500,000.00</b>	<b>3,500,000.00</b>
1.38	Cell-phone immobilizers to meet the performance requirements/standards outlined and the Technical Specifications.	NIL	NIL	<b>NIL</b>	<b>NIL</b>
1.39	Testing, Training, configuration, programming, demonstration and certification to cover the following areas:-  i) Achieve the intended purpose of the installation in full, as outlined in Part G.	Item		<b>500,000.00</b>	<b>500,000.00</b>
<b>Total Carried Forward to Page H8</b>					<b>106,469,400.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Total B/f from Page H7</b>				<b>106,469,400.00</b>
	ii) Cover the entire scope of the sub-contract as outlined in Part G.	Item			<b>250,000.00</b>
	iii) Provide the required personnel to provide the required training in the use of radio/TV broadcasting	Item			<b>800,000.00</b>
	iv) Appointment of Professional/Technical Project Manager	Item			<b>1,800,000.00</b>
	v) Cost of engaging manufacturer's technical support as outlined in Part G of the document.	Item			<b>900,000.00</b>
1.40	High capacity Triax cable for power and video transmission to link all the radio and TV equipment described above.	9,650	m.	<b>500.00</b>	<b>4,825,375.00</b>
1.41	Installation, Testing, Programming, demonstration and system configuration charges	Item			<b>1,000,000.00</b>
1.42	4-core high-speed fibre optic link in the control rooms to link all pieces of equipment.	4875	m.	<b>55.00</b>	<b>268,125.00</b>
1.43	As 1.42, but UTP Cat. 6 cables	4500	m.	<b>27.50</b>	<b>123,750.00</b>
1.44	Laying and termination of the Triax cable in item No. 1.42	9,650	m.	<b>35.00</b>	<b>337,750.00</b>
1.45	Laying and Termination of the fibre optic and UTP Cat. 6 cables in items 1.42 and 1.43	9375	m.	<b>35.00</b>	<b>328,125.00</b>
1.46	Fibre optic connectors	130	No.	<b>650.00</b>	<b>84,500.00</b>
1.47	Allow for racking and cabinetry for ALL the equipment above. The racks/cabinets to have sufficient capacity for all the equipment described above. In addition to the price for the rack/cabinet system, the tenderer must submit detailed, accurately dimensioned, drawings showing the actual sizes of all the required racks and cabinets.	Item			<b>1,000,000.00</b>
1.48	Allow for providing adequate ventilation and power supply to all the equipment above. The power supply points to be provided inside the racks/cabinets as modular features.	Item			<b>Nil</b>
	<b><i>Note: Please assess the room allocation (for the control room) and satisfy yourself on its adequacy to accommodate all the required racks/cabinets. Any additional space required must be mentioned in the detailed drawings of the racks/cabinets, which are to be submitted with the tender.</i></b>				
<b>Total Carried Forward to Page H9</b>					<b>118,186,650.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
1.49	<p><b>Total B/f from Page H8</b></p> <p>Any other items necessary to complete the installation of a fully functioning Radio/TV broadcasting System (Please specify each item).</p> <p>i) .....</p> <p>ii) .....</p> <p>iii) .....</p> <p>iv) .....</p> <p>v) .....</p>				<p><b>118,186,650.00</b></p> <p><b>250,000.00</b></p>
<b>Total for Bill No. 1 Carried Forward to Summary Page</b>					<b>118,436,650.00</b>



THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES

BILL NO. 2 – GENERAL ITEMS

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
2.00a)	Carry out comprehensive 24-hour power analysis, after installing main switchboard, but before switching on load, with a digital power meter (with printer) to:  i) Record and print all the power system parameters. ii) Submit 3 copies of the print-outs.  <b>(Note: Parameters must be satisfactory before LOAD is switched on. In particular, readings must be taken before and after the UPS units).</b>		Item		
2.00b)	Carry out comprehensive 24-hour power analysis, after switching main switchboard on full load, with a digital power meter (with printer) to:  i) Record and print all the power system parameters. ii) Submit 3 copies of the print-outs.		Item		
2.01	Acquire and submit 2% Tender Surety as outlined earlier.		Item		
2.02	Acquire and submit a Bank Guarantee for 10% of the sub-contract sum, as a Performance Guarantee.		Item		
2.03	Acquire and submit Insurance for the sub-contract work.		Item		
2.04	Allow for presentation of all the required samples as per specifications, Bills of Quantities and Drawings.		Item		
2.05	Prepare and submit Working Drawings as follows:-  i) Draft soft copy in Archicad® and Autocad® 2000 in CD-RW. ii) Amended soft copy in Archicad® and Autocad® 2000 in CD-RW. iii) 6 Final soft copies in Archicad® and Autocad® 2000 in CD-RW to Client, Project Managers, Architect, Client, Quantity Surveyor, and Engineer (2 copies) iv) 4 Draft hard-copies of Working Drawings in Ao (Scales 1:50, 1:25) to Project Managers, Engineer, Architect and Main Contractor. v) 3 Amended hard copies of Working Drawings in Ao (Scales 1:50 and 1:25) to Project Managers, Engineer, Architect and Main Contractor. vi) 11 No. Final hard copies of working drawings in Ao (Scales 1:50, 1:25) to Project Manager (1 copy) Engineer (3 copies), Architect (1 copy), Quantity Surveyor (1 copy), Client (3 copies), Contractor (3 copies).  <b>(Note: Full set of drawings to be presented as per drawing list).</b>		Item		
<b>Total C/F to Page H11</b>					

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES  
 BILL NO. 2: GENERAL ITEMS

Item No.	Description	Qty	Unit	Rate (KSh)	Amount KShs. Cts.
	<b>Total B/F from Page H10</b>				
2.06	As item no. 2.05, but for Record (As-Installed) Drawings comprising:  i) Fully dimensioned drawings of all plants and apparatus. ii) General arrangement drawings of equipment, plant etc. iii) Routes – types and sizes and arrangement of all pipework. iv) System schematics and trunking diagrams showing all salient information relating to control and instrumentation. v) Grading charts vi) Wiring and piping diagrams of plant and apparatus. vii) Schematic diagram of individual plants and switch and control boards. viii) All the required operating instructions for all panels, boards, control panels etc.		Item		
2.07	Prepare and submit Maintenance Manuals for all items installed.		Item		
2.08	Provide a year's (12 months') initial maintenance upon expiry of the Defects Liability Period. The maintenance to be carried out every quarter (3 months) for a period of 12 months.		Item		
2.09	<u>All other items</u> of general preliminary to cover, but not limited to:-  i) Attendance on all other sub-contractors, such as for Communication Services, Mechanical Installations, Security Installations, Sound Equipment/ Wiring Installations, Generator Installations, Lift Services, Solar Water Heating, V-Sat services etc. ii) Hiring and keeping a Supervisor/Foreman on site iii) Constant supervision of the works. iv) Provision of all the required spares. v) Testing and Inspection of materials/works. vi) Provision of labour camps. vii) Storage of materials. viii) Initial maintenance (During Defects Liability) ix) Providing water/electricity for the works. x) Protection of the works/materials xi) Clearing away on completion. xii) Preparing Final Account. xiii) Providing all Test Certificates, etc.		Item		
<b>Total C/F to Page H12</b>					

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES  
 BILL NO. 2: GENERAL ITEMS

Item No.	Description	Qty	Unit	Rate (KSh)	Amount KShs. Cts.
	<b>Total B/F from Page H11</b>				
2.10	Allow for removal of any existing power services on site, comprising:-  i) Applying to the Kenya Power and Lighting Co. to disconnect and remove such services, including any power meters that may be on site. ii) Making all the required liaison with KPLC to ensure speedy disconnection, removal, and/or re-routing of all services that may be existing on site.  <b>(Note: The tenderer <u>MUST</u> visit site to assess and establish the nature of all existing services on site).</b>		Item		
2.11	Allow for removal of any existing communications services on site, comprising:-  i) Applying to the Telkom Kenya Ltd. to disconnect and remove such services that may be on site. ii) Making all the required liaison with Telkom Kenya Ltd. to ensure speedy disconnection, removal, and/or re-routing of all services that may be existing on site.  <b>(Note: The tenderer <u>MUST</u> visit site to assess and establish the nature of all existing services on site).</b>		Item		
2.12	Allow for any payments that may be required for the CCK type approval of any equipment to be used on this Project.		Item		
2.13	Allow for full CCK inspection, certification and approval of the entire installation.		Item		
<b>Total for Bill No. 2 – General Items, Carried Forward to Summary Page</b>					<b>500,000.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 RADIO AND TV BROADCASTING (and Associated Services)-BILLS OF QUANTITIES  
 SUMMARY PAGE:

ITEM	DESCRIPTION	AMOUNT	
		KSHS.	CTS.
S.01	Preliminaries and General Conditions, B/F from Page D20	3,500,000.00	
S.02	Bill No. 1: B/F from Page H9	118,436,650.00	
S.03	Bill No. 2: General Items B/F from Page H12	500,000.00	
S.04	Sub-Total	122,436,650.00	
S.05	Add 5% of the Sub-Total above to cover currency fluctuation	6,121,832.50	
S.06	Add 10% of the Sub-Total in item No. S.04 above to cover contingency and Variation of Price (V.O.P.)	12,243,665.00	
S.07	Provision for Communications Commission of Kenya/Telkom Kenya Ltd. statutory charges	1,500,000.00	
<b>Total (Carried to Form of Tender)</b>		<b>142,302,147.50</b>	

Total Amount in words .....

.....

Tenderer's Name and Stamp .....

Signature.....

Date .....

PIN No. ....

VAT No. ....

Witness .....

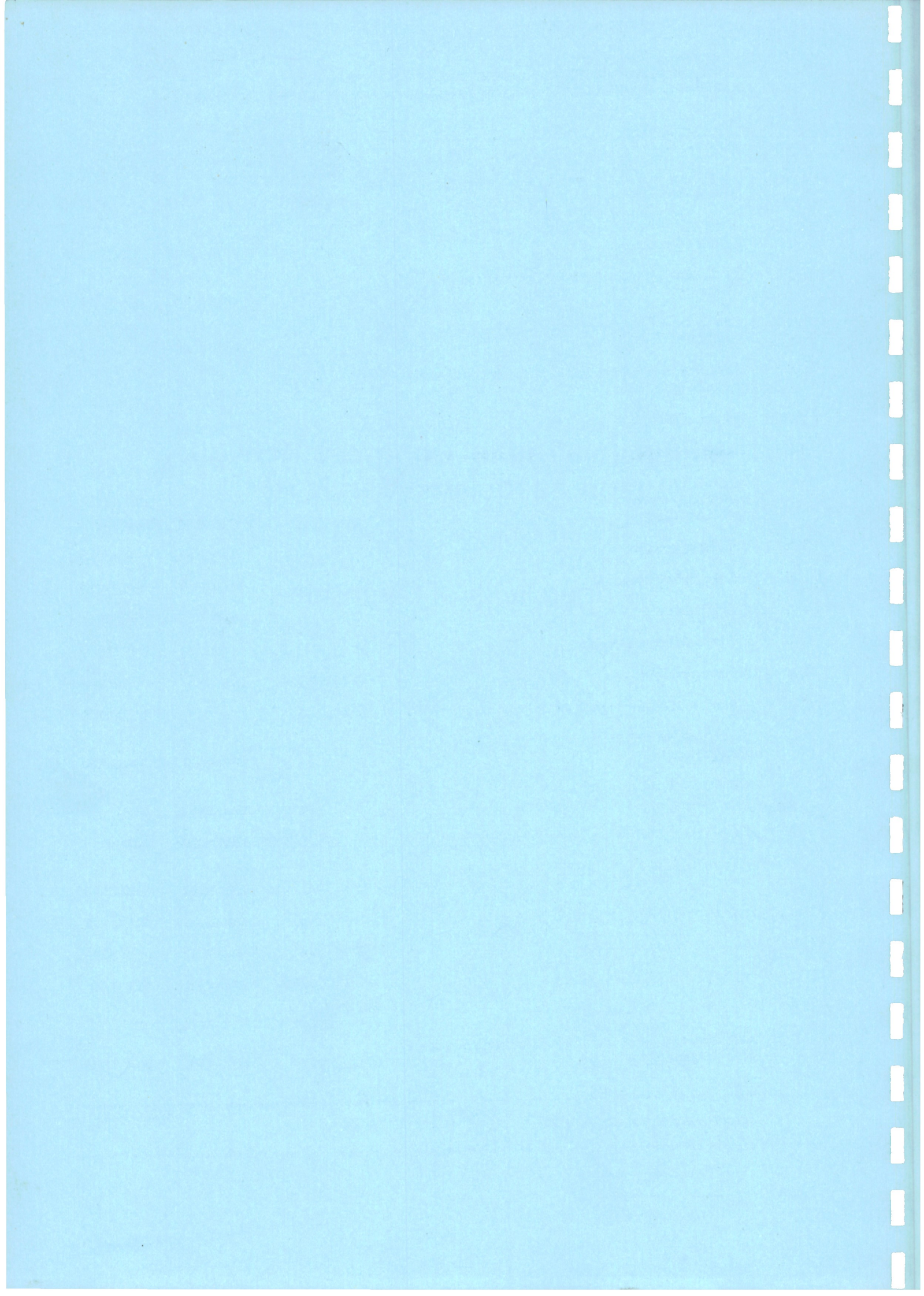
Address .....

Signature .....

Date .....

**Multimedia Digital Congress Network  
(and Associated Services)**

**Priced Bills of Quantities**



THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

BILL NO. 1

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Supply, install, test, commission, programme, train and put to work the following:-</b>				
1.00	DCU Digital Central Unit with PC Interface as per details of Technical Specification.	2	No.	350,000.00	700,000.00
1.01	Digital control gate as per details of the Technical Specification.	2	No.	400,000.00	800,000.00
1.02	Main System Control PC as per details of ht Technical Specifications.	2	No.	680,000.00	1,360,000.00
1.03	Flat Screen Monitor for the PC above, as described in the Technical Specifications.	2	No.	160,000.00	320,000.00
1.04	Quad Interface Modem	2	No.	320,000.00	640,000.00
1.05	The complete voting and congress management software module comprising the basic module, the conferences and resources manager, database module, speaker lists, speech time module, chip card module, voting module, protocol module, agenda module, synoptic module, network module.	LOT		2,600,000.00	2,600,000.00
1.06	Hall display module	2	No.	20,000.00	40,000.00
1.07	Full duplex interface module	2	No.	84,000.00	168,000.00
1.08	Client module	2	No.	96,000.00	192,000.00
1.09	Remote Maintenance Module	2	No.	84,000.00	168,000.00
1.10	Message module	2	No.	168,000.00	336,000.00
1.11	Video Cross-bar, as per details of the Technical Specifications.	2	No.	133,400.00	266,800.00
1.12	Digital/analog interface as per details of the Technical Specifications.	6	No.	224,000.00	1,344,000.00
1.13	Digital Multi-Bus Link as per details of the Technical Specifications.	2	No.	132,000.00	264,000.00
1.14	Central rack interface, as per Technical Specifications.	2	No.	420,000.00	840,000.00
1.15	Bus extension and connection modules as described in the Technical Specifications.	2	No.	120,000.00	240,000.00
1.16	Power Supply Unit, as per Technical Specifications.	10	No.	30,000.00	300,000.00
1.17	Digital sub-bus link	2	No.	46,000.00	92,000.00
1.18	System Extension Unit	2	No.	58,000.00	116,000.00
1.19	System Extension Port	2	No.	58,000.00	116,000.00
1.20	Basic delegate terminal, in the committee rooms, as described in the Technical Specifications.	40	No.	56,500.00	2,260,000.00
<b>Total Carried Forward to Page H7</b>					<b>13,162,800.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Total B/F from Page H6</b>				<b>13,162,800.00</b>
1.21	Standard Member Terminal as detailed in the Technical Specifications.	300	No.	140,000.00	42,000,000.00
1.22	Graphic Speaker Terminal with priority, cancel and over-ride capabilities, as detailed in the Technical Specifications.	2	No.	340,000.00	680,000.00
1.23	Interpreter terminals, as described in the technical specifications.	2	No.	170,000.00	340,000.00
1.24	Technician Terminal	1	No.	175,000.00	175,000.00
1.25	DCN Redundancy comprising:				
a)	DCU Digital Central Unit	1	No.	456,000.00	456,000.00
b)	Option Back-up control software module for control unit	1	No.	240,000.00	240,000.00
c)	Digital Power Units	5	No.	280,000.00	1,400,000.00
d)	Digital Conference bus control cross-unit, for remote controlled back-up operation	1	No.	196,000.00	196,000.00
e)	Option D Language Selector	1	No.	190,000.00	190,000.00
1.26	Microphones, as per details of Technical Specifications.	344	No.	12,300.00	4,231,200.00
1.27	Telephone handset, as specified herein.	1	No.	7,000.00	7,000.00
1.28	Language selector, as described herein.	304	No.	1,500.00	456,000.00
1.29	Conference bus cable, as described herein.	344	No.	4,200.00	1,444,800.00
1.30	RS-232 Serial port option for delegates	344	No.	5,000.00	1,720,000.00
1.31	Gooseneck Microphones with Light Ring	344	No.	10,000.00	3,440,000.00
1.32	Connection cable for recording/infarred system as described herein.	344	No.	16,000.00	5,504,000.00
1.33	Conference bus adapter as described in the Technical Specifications.	3	No.	35,000.00	105,000.00
1.34	Connection box, as described herein.	1	No.	20,000.00	20,000.00
1.35	Transport case, as described herein.	10	No.	50,000.00	500,000.00
1.36	Members PC terminals, as described herein	304	No.	45,000.00	13,680,000.00
1.37	Server software for digital recording and transcription system as described in Section III, Technical Specifications. The software to come with all security feature for adaptability to use on intranets/extranets and internet.	Item			2,100,000.00
1.38	Main server with upto 400 channels with the minimum specifications outlined in Section III, Technical Specifications.	1	No.	200,000.00	200,000.00
<b>Total Carried Forward to Page H8</b>					<b>92,247,800.00</b>



THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Total B/F from Page H7</b>				<b>92,247,800.00</b>
1.39a)	Provide the full hardware feature for the transcription and archiving system as described in the Technical Specifications.	LOT			<b>350,000.00</b>
1.39b)	Auxiliary Hardware with the same features as main system hardware, in redundant wiring.	LOT			<b>450,000.00</b>
1.40	Remote client software with features outlined in the Technical Specifications.	Item			<b>140,000.00</b>
1.41	Remote client P.C., in a local area network, with features outlined in the Technical Specifications.	25	No.	<b>60,000.00</b>	<b>1,500,000.00</b>
1.42	15" TFT Screen (16 million colours) for the remote client P.C. above.	25	No.	<b>20,000.00</b>	<b>500,000.00</b>
1.43	Foot pedals at the reporter stations for audio transcript functions.	5	No.	<b>2,000.00</b>	<b>10,000.00</b>
1.44	The following items to be included at all members/speakers stations: <ul style="list-style-type: none"> <li>▪ Log-in-Log-out buttons</li> <li>▪ Smart Card reader</li> <li>▪ Members Head-phones</li> <li>▪ Head-set</li> </ul>	344	No.	<b>42,000.00</b>	<b>14,448,000.00</b>
1.45	Dual data cable outlets, type RJ45, complete with phase plate	NIL	No.	<b>NIL</b>	<b>NIL</b>
1.46	48 port patch panel	NIL	No.	<b>NIL</b>	<b>NIL</b>
1.47	Floor-standing purpose-made cabinet (Type 42U or equivalent) complete with 4 No. exhaust fans and 8 No. 3-pin power outlets on UPS.	4	No.	<b>120,000.00</b>	<b>480,000.00</b>
1.48	19' x 20U wall mounted cable consolidation point.	6	No.	<b>75,000.00</b>	<b>450,000.00</b>
1.49	UTP Cat 6 patch cord, 3m	NIL	No.	<b>500.00</b>	<b>NIL</b>
1.50	Data cable termination, both ends	NIL	No.	<b>500.00</b>	<b>NIL</b>
1.51	200-pair cross connector punch-down blocks.	NIL	No.		-
1.52	48-port 10/100 mbps autosensing GBIC-based Gigabite Ethernet points, full duplex, 13-6 Gbps backplane, SNMP switch with enhanced image, NSMP, TELNET software, 1005V LANS port based GBIC multimedia, Giga Stack cables.	NIL	No.		-
1.53	Modular 6 slot chasis, 2AC power, upto 256 Gbps backplane, suppression engine, Ethernet/Fast, Ethernet/Giga Ethernet Layer 3 series, 48 10/100 mbps 9rj45) switch, GBIC module 16-port Enhanced IP L3 Software Remote Management Agent (RMA) 1000 base SX GIBIC Modules.	NIL	No.		-
1.54	Modular 6 slot control chasis router with a Redundant AC power supply, 32 F/64d, 8 AS, E and M cards, 1 port FE, DTUs voice enabled.	NIL	No.		-
<b>Total Carried Forward to Page H9</b>					<b>110,575,800.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Total B/F from Page H8</b>				<b>110,575,800.00</b>
1.55	Modular 10/100 mbps branch router with voice, IOP IP/VOICE plus 2 voice channels, 1 port WAN card, voice enabled.	NIL	No.		
1.56	3m fibre optic patch cables	NIL	No.		
1.57	8-port fibre optic patch panel.	NIL	No.		
1.58	24-port fibre optic patch panel	NIL	No.		
1.59	4 Duplex SC fibre outlets.	NIL	No.		
1.60	4-pair fibre optic cable	NIL			
1.61	Fibre optic SC outlets	NIL	No.		
1.62	Laying, termination of FTP and fibre optic cables.	NIL	No.		
1.63	Installation and programming to achieve the performance outlined in the Technical Specifications, and overall system performance.	Item			<b>4,000,000.00</b>
1.64	Testing, Training, configuration, programming, demonstration and certification to cover the following areas:-				
	i) Achieve the intended purpose of the installation in full, as outlined in Part G.	Item			<b>500,000.00</b>
	ii) Cover the entire scope of the sub-contract as outlined in Part G.	Item			<b>250,000.00</b>
	iii) Provide the required personnel to provide the required training in the use of multimedia digital congress network	Item			<b>800,000.00</b>
	iv) Appointment of Professional/Technical Project Manager	Item			<b>1,800,000.00</b>
	v) Cost of engaging manufacturer's technical support as outlined in Part G of the document.	Item			<b>900,000.00</b>
1.65	High capacity cable for power and communication to link all the multimedia digital congress network equipment described above.	6500	m.	67.50	<b>438,750.00</b>
1.66	Installation, Testing, Programming, demonstration and system configuration charges	Item			<b>300,000.00</b>
1.67	4-pair high-speed fibre optic link in the control rooms to link all pieces of equipment.	2750	m.	55.00	<b>151,250.00</b>
1.68	Laying and termination of the high capacity cable in item No. 1.65	6500	m.	35.00	<b>227,500.00</b>
<b>Total Carried Forward to Page H10</b>					<b>119,943,300.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

Item No.	Description	Qty	Unit	Rate	Amount KSh. Cts.
	<b>Total B/F from Page H9</b>				<b>119,943,300.00</b>
1.71	Fibre optic connectors	160	No.	<b>650.00</b>	<b>104,000.00</b>
1.70	Allow for racking and cabinetry for ALL the equipment above. The racks/cabinets to have sufficient capacity for all the equipment described above. In addition to the price for the rack/cabinet system, the tenderer must submit detailed, accurately dimensioned, drawings showing the actual sizes of all the required racks and cabinets.  Allow for providing adequate ventilation and power supply to all the equipment above. The power supply points to be provided inside the racks/cabinets as modular features.  <i>Note: Please assess the room allocation (for the control room) and satisfy yourself on its adequacy to accommodate all the required racks/cabinets. Any additional space required must be mentioned in the detailed drawings of the racks/cabinets, which are to be submitted with the tender.</i>	Item			<b>1,000,000.00</b>
		NIL			
1.71	Any other items necessary to complete the installation of a fully functioning Radio/TV broadcasting System (Please specify each item).  i) ..... ii) ..... iii) ..... iv) ..... v) .....				
1.72	FTP Cat. 6, copper cable, complete with all terminations.	NIL	m.		
<b>Total Carried Forward to Summary Page</b>					<b>121,047,300.00</b>

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

BILL NO. 2 – GENERAL ITEMS

Item No.	Description	Qty	Unit	Rate	Amount	
					KSh.	Cts.
2.00a)	Carry out comprehensive 24-hour power analysis, after installing main switchboard, but before switching on load, with a digital power meter (with printer) to:  i) Record and print all the power system parameters. ii) Submit 3 copies of the print-outs.  <b>(Note: Parameters must be satisfactory before LOAD is switched on. In particular, readings must be taken before and after the UPS units).</b>		Item			
2.00b)	Carry out comprehensive 24-hour power analysis, after switching main switchboard on full load, with a digital power meter (with printer) to:  i) Record and print all the power system parameters. ii) Submit 3 copies of the print-outs.		Item			
2.01	Acquire and submit 2% Tender Surety as outlined earlier.		Item			
2.02	Acquire and submit a Bank Guarantee for 10% of the sub-contract sum, as a Performance Guarantee.		Item			
2.03	Acquire and submit Insurance for the sub-contract work.		Item			
2.04	Allow for presentation of all the required samples as per specifications, Bills of Quantities and Drawings.		Item			
2.05	Prepare and submit Working Drawings as follows:-  i) Draft soft copy in Archicad® and Autocad® 2000 in CD-RW. ii) Amended soft copy in Archicad® and Autocad® 2000 in CD-RW. iii) 6 Final soft copies in Archicad® and Autocad® 2000 in CD-RW to Client, Project Managers, Architect, Client, Quantity Surveyor, and Engineer (2 copies) iv) 4 Draft hard-copies of Working Drawings in Ao (Scales 1:50, 1:25) to Project Managers, Engineer, Architect and Main Contractor. v) 3 Amended hard copies of Working Drawings in Ao (Scales 1:50 and 1:25) to Project Managers, Engineer, Architect and Main Contractor. vi) 11 No. Final hard copies of working drawings in Ao (Scales 1:50, 1:25) to Project Manager (1 copy) Engineer (3 copies), Architect (1 copy), Quantity Surveyor (1 copy), Client (3 copies), Contractor (3 copies).  <b>(Note: Full set of drawings to be presented as per drawing list).</b>		Item			
<b>Total C/F to Page H12</b>						

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

BILL NO. 2: GENERAL ITEMS

Item No.	Description	Qty	Unit	Rate (KSh)	Amount KShs. Cts.
	<b>Total B/F from Page H11</b>				
2.06	As item no. 2.05, but for Record (As-Installed) Drawings comprising:  i) Fully dimensioned drawings of all plants and apparatus. ii) General arrangement drawings of equipment, plant etc. iii) Routes – types and sizes and arrangement of all pipework. iv) System schematics and trunking diagrams showing all salient information relating to control and instrumentation. v) Grading charts vi) Wiring and piping diagrams of plant and apparatus. vii) Schematic diagram of individual plants and switch and control boards. viii) All the required operating instructions for all panels, boards, control panels etc.		Item		
2.07	Prepare and submit Maintenance Manuals for all items installed.		Item		
2.08	Provide a year's (12 months') initial maintenance upon expiry of the Defects Liability Period. The maintenance to be carried out every quarter (3 months) for a period of 12 months.		Item		
2.09	<u>All other items</u> of general preliminary to cover, but not limited to:-  i) Attendance on all other sub-contractors, such as for Communication Services, Mechanical Installations, Security Installations, Sound Equipment/ Wiring Installations, Generator Installations, Lift Services, Solar Water Heating, V-Sat services etc. ii) Hiring and keeping a Supervisor/Foreman on site iii) Constant supervision of the works. iv) Provision of all the required spares. v) Testing and Inspection of materials/works. vi) Provision of labour camps. vii) Storage of materials. viii) Initial maintenance (During Defects Liability) ix) Providing water/electricity for the works. x) Protection of the works/materials xi) Clearing away on completion. xii) Preparing Final Account. xiii) Providing all Test Certificates, etc.		Item		
<b>Total C/F to Page H13</b>					

THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)–BILLS OF QUANTITIES

BILL NO. 2: GENERAL ITEMS

Item No.	Description	Qty	Unit	Rate (KSh)	Amount KShs. Cts.
	<b>Total B/F from Page H12</b>				
2.10	Allow for removal of any existing power services on site, comprising:-  i) Applying to the Kenya Power and Lighting Co. to disconnect and remove such services, including any power meters that may be on site. ii) Making all the required liaison with KPLC to ensure speedy disconnection, removal, and/or re-routing of all services that may be existing on site.  <b>(Note: The tenderer <u>MUST</u> visit site to assess and establish the nature of all existing services on site).</b>		Item		
2.11	Allow for removal of any existing communications services on site, comprising:-  i) Applying to the Telkom Kenya Ltd. to disconnect and remove such services that may be on site. ii) Making all the required liaison with Telkom Kenya Ltd. to ensure speedy disconnection, removal, and/or re-routing of all services that may be existing on site.  <b>(Note: The tenderer <u>MUST</u> visit site to assess and establish the nature of all existing services on site).</b>		Item		
2.12	Allow for any payments that may be required for the CCK type approval of any equipment to be used on this Project.		Item		
.13	Allow for full CCK inspection, certification and approval of the entire installation.		Item		
<b>Total for Bill No. 2 – General Items, Carried Forward to Summary Page</b>					<b>500,000.00</b>



THE KENYA NATIONAL ASSEMBLY  
 PROPOSED REMODELLING AND REFURBISHMENT OF PARLIAMENT CHAMBER  
 MULTIMEDIA DIGITAL CONGRESS NETWORK (and Associated Services)-BILLS OF QUANTITIES

**SUMMARY PAGE:**

ITEM	DESCRIPTION	AMOUNT	
		KSHS.	CTS.
S.01	Preliminaries and General Conditions, B/F from Page D20	3,500,000.00	
S.02	Bill No. 1: B/F from Page H10	121,047,300.00	
S.03	Bill No. 2: General Items B/F from Page H13	500,000.00	
S.04	Sub-Total	125,047,300.00	
S.05	Add 5% of the Sub-Total above to cover currency fluctuation	6,252,365.00	
S.06	Add 10% of the Sub-Total in item No. S.04 above to cover contingency and Variation of Price (V.O.P.)	12,504,730.00	
S.07	Provision for Communications Commission of Kenya/Telkom Kenya Ltd. statutory charges	1,500,000.00	
<b>Total (Carried to Form of Tender)</b>		<b>145,304,395.00</b>	

Total Amount in words .....

.....

Tenderer's Name and Stamp .....

Signature.....

Date .....

PIN No. ....

VAT No. ....

Witness .....

Address .....

Signature .....

Date .....



