



A. B. ABUBAKAR ENTERPRISES (NIG.) LIMITED

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16th January, 2018

The Procurement Officer,
African Centre of Excellence for Neglected Tropical
Diseases and Forensic Biotechnology (ACENTDFB),
Ahmadu Bello University, Zaria.

Dear Sir,

RE- CONSTRUCTION OF ANIMAL HOUSE

With reference to the above subject matter.

Find attached herewith Financial Bid Documents for the project stated above.

Our Tender Sum is.

₦30,470,488.00

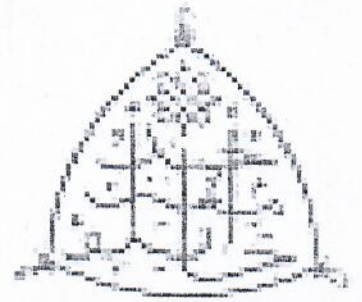
With a completion period of **6 WEEKS** and a validity period of **90 DAYS**.

Expect assurances of our highest regards.

Yours faithfully,

For: A. B. ABUBAKAR ENTP.NIG.LTD

Alh B. Abubakar
MD/CEO



**African Centre of Excellence For Neglected
Tropical Diseases and Forensic Biotechnology
(ACENTDFB)**

**AHMADU BELLO UNIVERSITY
ZARIA**

REVISED BILL OF QUANTITIES

For the

CONSTRUCTION OF ANIMAL HOUSE

At The

**Centre for Biotechnology Research and
Training (CBRT)**

December, 2017

	DESCRIPTION	Unit	QTY	Rate	Amount	
	SUBSTRUCTURE (All Provisional) <u>Excavation and Earthwork</u>					
	Topsoil					
A	Excavate topsoil, average 150mm deep	m ²	405	100	40,500	✓
	Excavation					
	Trench					
B	Excavate trench 700mm wide, starting from stripped level exceeding 1.00 but not exceeding 2.00 metre deep	m ²	160	600	96,000	✓
	Pit					
C	Excavate pit for column bases, starting from stripped level exceeding 1.00 but not exceeding 2.0 metre deep	m ²	30	600	18,000	✓
	Filling					
D	Backfill previously not exceeding 250mm thick well compacted and consolidated	m ²	57	100	5,700	✓
E	Laterite hardcore filling not exceeding 250mm thick well compacted and consolidated	m ²	135	380	51,300	✓
F	Rock boulder hardcore filling laid in layers not exceeding 250mm thick, hand packing in 100m	m ²	68	600	40,800	✓
	Disposal					
G	Remove excavated topsoil material and deposit at locations as specified off site	m ²	24	120	2,880	✓
H	Remove surplus excavated material and deposit at locations specified on site well spread and levelled	m ²	175	350	61,250	✓
	To Collection				316,430	

	DESCRIPTION	Unit	QTY	Rate	Amount	
	SUBSTRUCTURE (CONT'D)					
	Damp Proofing					
* A	Visqueen gauge 20 polythene damp proof membrane laid on laterite hardcore filling (measured separately)	m ²	405	300	121,250	121,500 ✓
	Concrete Work					
	<u>Plain insitu concrete (1:10) in :</u>					
B	Blinding, 50mm thick, poured against face of excavation	m ²	60	800	48000	✓
C.	<u>Plain insitu concrete (1:3:6-38mm aggregate) grade C20 in:</u>					
	Foundation in trenches, poured against faces of excavation	m ²	81	30,000	2,430,000	✓
D.	150mm ground slab laid on hardcore (measured separately)	m ²	61	3000	183,000	✓
	<u>Reinforced insitu concrete (1:2:4 – 19mm aggregate) grade C25 in:</u>					
E.	Column bases	m ²	15	35000	525,000	✓
F.	Columns in foundation	m ²	1	35000	35000	✓
* G.	Ground Beams	m ²	8	35000	35000	280,000 ✓
	Reinforcement					
	<u>High yield reinforcing bars to BS 4449 in straight and bent bars in:</u>					
H	16mm diameter bars in column bases	kg	945	230	217,350	✓
J	16mm diameter bars in columns	kg	165	230	37,950	✓
K	25mm diameter bars in columns	kg	770	230	177,100	✓
L	16mm diameter in ground beams	kg	640	230	147,200	✓
	<u>Mild steel reinforcing bars to BS4449 in straight and bent bars in:</u>					
M	10mm diameter stirrups in columns	kg	55	230	12,650	✓
N	8mm diameter stirrups in columns	kg	105	230	24,150	✓
P	8mm diameter links in ground beams	kg	145	230	33,350	✓
	To Collections				4,192,250	

4/A37/500

4,192,250

	DESCRIPTION	Unit	QTY	Rate	Amount
	SUBSTRUCTURE (CONT'D)				
	Reinforcement (Cont'd)				
	<u>Fabric Reinforcement to BS4485.BRC Type A65 weighing 2.29kg/m2 to 150mm side and end laps (measured nett) in:</u>				
A	Beds	m ²	405	800	324,000 ✓
	<u>Formwork</u>				
	Sawn formwork to				
	Sides of columns	m ²	55	1000	55,000 ✓
	Edges of slabs not exceeding 300mm high	m	35	500	17,500 ✓
	<u>Blockwork</u>				
	<u>Hollow sandcrete blockwork laid stretcher bedded and jointed in cement mortar (1:3) filled solid with lean concrete in:</u>				
	230mm walls	m ²	35	3800	133,000 ✓
	To collections				529,500
	Collections				316,430 ✓
	Page 2				4,192,250
	* Page 3				4,192,250
	Page 4				529,500 ✓
	Additional Foundations				
	SUBSTRUCTURE carried to Summary				5,038,180

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 5,118,180.00
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	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>SUPERSTRUCTURE</u>				
	FRAME				
	Concrete Work				
	<u>Reinforced insitu concrete grade C25 in:</u>				
A.	Column	m ²	2	35000	70,000 ✓
B.	Beams	m ²	3	35000	105,000 ✓
	<u>Reinforcement</u>				
	High yield reinforcement bars hot rolled deformed round bar to BS 4449 straight and bent in:				
C	16mm diameter bars in columns	kg	160	230	36,800 ✓
D	12mm diameter in beams	kg	240	230	55,200 ✓
E	20mm diameter in beams	kg	120	230	27,600 ✓
	<u>Mild steel reinforcement bar, plain round to BS 4449 straight and bent in:</u>				
F	10mm diameter in beams	kg	120	230	27,600 ✓
G	8mm diameter in beams	kg	120	230	27,600 ✓
	Formwork				
	Sawn formwork to:				
H	Sides of columns	m ²	140	1000	140,000 ✓
* J	Sides and soffit of beams	m ²	100	1000	140,000 ✓ 100,000 ✓ total
	FRAMES carried to Summary				589,880

~~589,880.00~~
589,880.00
total

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>ROOFING</u>				
	<u>Roofing Covering</u>				
A	Long span coloured aluminium roofing sheet WB 0.55mm thick double lap fixed to steel 'Z' purlins (measured separately) including aluminium hook bolts plastic sealer washer, seal washer and seal caps, all in accordance with manufacturer's details	m ²	466	6000	2,796,000 ✓
B	600mm girth ridge capping	m	50	1800	90,000 ✓
	<u>Roof Trusses</u>				
	Concrete works				
	<u>Reinforced insitu concrete grade C25 in:</u>				
C	230mm roof beam to receive 'Z' steel roof member (measured separately)	m ²	0	4000 32000	32000 32000 ✓
D	Fascia	m ²	8	230 165,600	165,600 165,600 ✓
	Reinforcement				
	<u>High yield reinforcement bars hot rolled, deformed round bar to BS 4449, straight and bend in:</u>				
E	12mm diameter bars in roof beams and Fascia towelled smooth	kg	720	230	165,600 ✓
	Formworks				
	Sawn formwork to:				
F	Sides of roof beams and fascia	m ²	90	1000	90,000 ✓
	Metal Works				
G	2mm thick Z- purlins with and including angle cleats fixed to metal carcassing (measured separately)	m	450	4000	1,800,000 ✓
H	Angle iron carcassing grouted in concrete at specified intervals, welded and jointed to Engineer's	m	40	1600	64,000 ✓
	ROOF carried to Summary				5,037,600

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>WALLS</u>				
	Hollow sandcrete blocks 450 x 230mm nominal size laid stretcher, bedded and jointed in cement mortar (1:3) in:				
* A	230mm walls	m ²	600	3000	2,400,000 X 1,800,000.00 <u> </u>
	WALLS carried to Summary				2,400,000

1,800,000.00

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>WINDOWS AND DOORS</u>				
	<u>Concrete works</u>				
	<u>Reinforced insitu concrete grade C25 in:</u>				
A	Lintels	m ²	4	35000	140,000 ✓
	Reinforcement				
	Mild steel reinforcing bars to BS 4449 in straight and bent bars in:				
B	12mm diameter bars in lintels	kg	470	230	108,600 ✓ 108,100
C	10mm diameter stirrups in lintels	kg	250	230	57,500 ✓ <i>nee</i>
	Formworks				
D	Sawn formworks to sides and soffit of lintel	m	205	500	102,500 ✓
	<u>DOORS</u>				
	Supply and fix purpose made aluminium/flush doors with and including cutting of building-in and pinning lugs into blockworks/concrete work and treating all joints in contact with wall with mastic sealants				
E	Double leaf (outward swinging) aluminium panelled security door size 2400 x 2100mm as with 5mm tinted glazing	Nr	2	300,000	600,000 ✓
F	Ditto but 1800 x 2100mm	Nr	2	40,000	80,000 ✓
G	Ditto but 900 x 2100mm	Nr	10	35000	350,000 ✓
H	750 x 2100mm finished solid core flush doors	Nr.	4	30,000	120,000 ✓
	To Collections				1,458,100

1,458,100.00

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	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>WINDOWS AND DOORS (Cont'd)</u>				
	<u>Supply and fix approved aluminium window with and including building-in and pinning lugs into walls and treating all joints in contact with walls with mastic sealants in:</u>				
A	1500 x 1500mm powder coated aluminium 4 leaf sliding windows with 5mm tinted glazing	Nr	8	40,000	320,000 ✓
B	Ditto but 900 x 900mm	Nr	2	30,000	60,000 ✓
C	Ditto 1500 x 1500mm overall height	Nr	4	40,000	160,000 ✓
D	Ditto 1500 x 900mm	Nr	1	35,000	35,000 ✓
E	Ditto 900 x 600mm	Nr	0	—	—
F	Ditto 600 x 600mm	Nr	2	12,000	24,000 ✓
G	Ditto 1500 x 2100mm overall height	Nr	0	—	—
	<u>Burglar Proof</u>				
	Supply and fix the following in approved "Black iron" steel burglar proofing				
H	Size 50mm x 50mm CSA	Nr	45	3,000	135,000 ✓
	To Collection Below				743,000 ✓ 1734,00
	COLLECTIONS				6,987,000 1,458,100 ✓ 734,000 ✓
	Page 8 Page 9				
	WINDOWS AND DOORS carried to Summary				2,192,100 ✓

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	DESCRIPTION	Unit	QTY	Rate	Amount	
	<u>FINISHES</u>					
	<u>WALLS</u>					
A	15mm cement and sand (1:4) rendering, finished fair and smooth to wall internally with and including narrow widths	m ²	400	500	200,000	✓
B	Ditto externally	m ²	180	500	90,000	✓
C	Red bricks facing on 13mm thick cement/sand plaster on approach elevation	m ²	0			
D	White glazed wall tiles 152 x 152 x 6mm thick, jointed and pointed with matching cement mortar on floated backing internally	m ²	45	2000	90,000	✓
	<u>Backing</u>					
E	15mm cement and sand (1:3) floated backing on sandcrete walls	m ²	0	—	—	
	<u>Painting and Decorations</u>					
F	Prepare and apply one undercoat, one layer priming and two finishing coats of emulsion paint on rendered wall surfaces internally, including narrow widths	m ²	400	300	120,000	✓
G	Ditto but internally	m ²	180	300	54,000	✓
	<u>FLOOR</u>					
H	35mm cement and sand (1:3) paving trowelled smooth, treated with an approved hardener and polished with carborandium internally	m ²	810	350	283,500	✓
J	Vetrified Tiles on 35mm thick cement/and finish	m ²	810	4000	3,240,000	✓
	To Collections				4,077,500	✓

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>FINISHES (Cont'd)</u>				
	<u>CEILING</u>				
A	Suspended cement gypsum and plaster of Paris ceiling and conice to Architect's specification	m ²	405	3000	1,215,000 ✓
B	Ditto externally	m ²	48	3000	144,000 ✓
C	Approved suspended ceiling board sizes 600 x 600mm fixed to metal roof members internally	m ²	0	—	—
D	Approved PVC ceiling externally	m ²	0	—	—
	To Collections				1,358,000 x 1,358,000
	COLLECTIONS				4,077,500 1,358,000
	Page 10 Page 11				
	FINISHES carried to Summary				5,436,500 ✓

5,436,500

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	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>ELECTRICAL INSTALLATIONS</u>				
	INCOMING SERVICES				
	<u>Incoming transmission cable</u>				
A	120mm ² single core AOHL 11KV bare conductance fixed to insulator (measured separately)	m	1	30,000	30,000 ✓
	<u>Poles</u>				
	The following 8500mm long overall pre-cast,				
B	Intermediate type, 1No pole with No 100mm x 100mm x 6mm x 1800mm long galvanized steel cross arm bolted on, with twisted galvanized steel brackets, and set of 3Nos porcelains 11KV pin insulators as in diagram	No	1	50,000	50,000 ✓
C	Drop pole, 2No, ditto, but 1No set of 3No disc insulators including 2No 10m long x 70mm ² galvanized steel stay wire and stay insulator, complete with adjustable locknut, including all necessary excavations for in-situ concrete stay wire anchor, backfilling and removal of surplus as in diagram	No	1	100,000	100,000 ✓
	<u>Drop cable</u>				
C	70mm ² single core XLPE copper conductor drawn into UPVC duet partially exposed and partially buried underground	No	30	75,000	2,250,000 ✓
D	100mm diameter UPVC pipe buried underground including all necessary excavation 600mm deep, backfilling with clean river sharp sand and removed surplus excavated material	No	30	1500	45,000 ✓
	<u>Equipment</u>				
E	MV Panel				
F	Approved floor mounted MV Panel with 1No 250TPN MCCB from change-over switch (measured separately) containing outgoing 4No 100A 8-WAY TPN ELCB and 4No spares	No	0	—	—
	To Collection				2,475,000 ✓

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>ELECTRICAL INSTALLATIONS (Cont'd)</u>				
	<u>Equipment (cont'd)</u>				
	<u>Change Over Switch</u>				
A	400A TPN manual change over switch gear with mechanical interlock including 2No 400A TPN isolator switch on from generator and the other from transformer (transformer measured separately) mounted complete on wall with all necessary accessories as manufacturer's instructions	No	1	60,000	60,000 ✓
	<u>Distribution Board</u>				
B	'MEM' or ÇEC' quality or equal and approved 3-phase 100A * ways TPN distribution board with 12No mixed capacities miniature breakers	No	1	50,000	50,000 ✓
C	45A TPN earth leakage circuit breaker (ECLB)	No	1	40,000	40,000 ✓
D	200mm wide x 75mm deep overall purpose made galvanized iron steel trunking divided into three compartments with cable belt crops and 3No screwed access cover. Trunking fabricated with 16swg galvanized iron sheets all as specified and concealed in concrete or block wall including accessories forming chases and making good	No	1	35,000	35,000 ✓
	FINAL SUB-CIRCUIT				
	<u>Power and Lighting Installations</u>				
	The following final sub-circuit as location drawing EWOL, executed in concealed PVC pipe system and single core PVC insulated copper conductance				
	<u>Lighting points</u>				
E	5A 1-gang 1-way lighting points	No	9	3000	27,000 ✓
	To Collection				212,000 ✓

	DESCRIPTION	Unit	QTY	Rate	Amount	
	ELECTRICAL INSTALLATIONS (Cont'd)					
	Power and Lighting Installations (cont'd)					
A	5A 2-gang 1-way lighting points		9	2000	18,000	✓
B	5A 3-gang 1-way lighting points		9	2000	18,000	✓
C	5A 1-gang 1-way lighting points		9	2000	18,000	✓
D	5A 2-gang 2-way lighting points		11	2000	22,000	✓
E	5A 3-gang 2-way lighting points		11	2000	22,000	✓
F	5A 1-gang 1-way lighting points		11	2000	22,000	✓
	Power Points					
G	13A twin switched socket outlet laid on floors		22	1700	37,400	✓
H	13A single switched socket outlet		22	700	15,400	✓
J	13A single switched socket outlet		8	700	5,600	✓
	Lighting Fittings					
	<u>Supply and install the following MK type or equal and approved fittings accessories</u>					
K	4 x 20W Fluorescent fitting complete with thorn CAT		40	32000	1,280,000	✓
L	1 x 60W NOVA range neck fitting complete with Thorn CAT No MTC 1060		20	35000	700,000	✓
M	1 x 100W tungsten bulkhead fitting complete thorn CAT No OLG		11	2500	27,500	✓
N	1 x 60W surface circular mounted lighting fitting complete with Thorn CAT LT56116		12			
	Other Outlets					
P	Television socket outlets		8	1000	8,000	✓
Q	Computer outlets		9	2000	18,000	✓
R	Alarm Bell		7	8000	56,000	✓
S	Smoke Detector		8	9000	72,000	✓
T	Fire Alarm break glass system		9	7000	63,000	✓
U	8-zone fire alarm panel		1	150,000	150,000	✓
	To Collection				1,922,100	

1,922,500

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>ELECTRICAL INSTALLATIONS (Cont'd)</u>				
	<u>Supply and install the following accessories as before described</u>				
A	1800mm 3-blade 'Newlime' or equal and approved ceiling mounted fan complete with roses and hooks	m	1	25000	25 000 ✓
	<u>Builder's Work</u>				
	Cut away and make good all builder's work disturbed after electrical execution complete in the following:				
B	Lighting and switch points and their likes	No	1	2000	2 000 ✓
C	Socket outlet points and their likes	No	1	2000	2 000 ✓
	Fittings outlet points				
C	Allow for testing and commissioning all works in this section	No	30	2000	60,000 ✓
	To Collection Below				89,000.00 99,000x
	COLLECTION				
	Page 12				2,475,000 ✓
	Page 13				212,000 ✓
	Page 14				1,522,900.0 ✓
	Page 15				1,922,000 ✓
					x99,000x 89,000.00
	ELECTRICAL INSTALLATIONS Carried to Summary				4,708,100 ✓

4,698,900.00

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	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>MECHANICAL INSTALLATION</u>				
	<u>Cold Water Supply and Fire Fighting Equipment</u>				
	<u>Equipment</u>				
	Supply and install the following equipment				
A	Ángus' swinging or equal and approved fire hose reel, 20mm diameter, 30m long flexible discharged hose mounted for easy access on block wall complete with accessories	Nr	1	50,000	50,000 ✓
B	'GEEPEE' or equal and approved overhead PVC cylindrical water tank of 3000 litres capacity with and including mounting on concrete decked roof top about 7m high, complete with 3 no. gate valves, overflow pipe, cover and all other necessary accessories.	Nr	1	135,000	135,000 ✓
C	2.5HP 'SEAR' or equal and approved quality booster pumping machine mounted in accordance to manufacturer's details on duty and on standby	Nr	1	680,000	680,000 ✓
D	NRV, GV and water reader supplied by water board authority fixed to 38mm diameter incoming pipe measured separately)	Nr	1	100,000	100,000 ✓
	<u>Pipe-Works</u>				
E	38mm diameter incoming galvanized iron pipes, including stop cork, union connectors and bends as detailed by the engineer, and excavate trench not exceeding 600mm wide, backfill and remove surplus material (Provisional)	m	30	850	25,500 ✓
F	Ditto stop cock	Nr	1	1800	1800 ✓
G	Allow for connection to main line and other necessary charges	item			100,000 ✓
	To Collection				1,092,300 ✓

	DESCRIPTION	Unit	QTY	Rate	Amount
	<u>MECHANICAL INSTALLATION (Cont'd)</u>				
	<u>Overhead Tank Supply Pipes</u>				
A	38mm diameter UPVC cold water supply pressure pipes partly buried underground and partly fixed to block or concrete work	Nr	1	3000	3000 ✓
B	38mm diameter elbow	Nr	1	200	200 ✓
C	Ditto union connector	Nr	5	200	1000 ✓
	Ditto socket	Nr	5	200	1000 ✓
	Ditto gate valve	Nr	5	2000	10,000 ✓
A	38mm diameter UPVC cold water supply pressure bypass pipes buried underground and partly fixed to block or concrete work	Nr	28	3000	84,000 ✓
B	38mm diameter elbow	Nr	2	200	400 ✓
C	38mm Tee	Nr	4	200	800 ✓
	Ditto union connector	Nr	4	200	800 ✓
	38mm diameter socket	Nr	6	200	1,200 ✓
	Ditto gate valve	Nr	7	2000	14,000 ✓
D	38mm x 32mm diameter reducing Tee	Nr	8	250	2000 ✓
	To Collections				118,400 ✓