

## LOT 2 - CONSTRUCTION OF 1NO UNIT SCIENCE LABORATORY SUBSTRUCTURE IN NORTH TONGU DISTRICT.

Item	Description	Qty	Unit	Rate	Total GH¢
	<b><u>BILL NO. 1</u></b>				
	(The Contractor is free to price for additional items under Preliminaries not included in the List below)				
	<b><u>A: GENERAL CONDITIONS</u></b>				
	<b><u>EMPLOYER'S REQUIREMENTS</u></b>				
A	On-site Administration	1	Item		-
B	Site Meeting and Monitoring of the works	1	Item		-
C	Progress Photographs	1	Item		-
D	Provide adequate security at site	1	Item		-
E	Project Drawing	1	Item		-
F	Insurances of works	1	Item		-
G	Performance Security	1	Item		-
H	Testing of materials	1	Item		-
	<b><u>ACCURACY/SETTING OUT GENERALLY</u></b>				
J	Setting out of the works	1	Item		-
	<b><u>Facility/Temporary work/Services</u></b>				
K	Name or sign board	1	Item		-
L	Telephone/Facsimile facilities	1	Item		-
	<b><u>A40 Contractor's General Cost Items: Management and Staff</u></b>				
M	Provide for general and trade supervision	1	Item		-
	<b><u>A41 Contractor's General Cost Items: Site Accommodation</u></b>				
N	Site accommodation for workers	1	Item		-
	<b><u>PRELIMINARIES/GENERAL CONDITIONS</u></b>				
	<b><u>CARRIED FORWARD</u></b>				-
Item	Description	Qty	Unit	Rate	Total GH¢
	BROUGHT FORWARD				-
	<b><u>A42 Contractor's General Cost Items: Services and facilities</u></b>				



A	Power for works	1	Item	-
B	Lighting	1	Item	-
C	Water for works	1	Item	-
D	Health and safety protectives	1	Item	-
E	Storage of materials	1	Item	-
F	Clearing and disposal of general waste after construction	1	Item	-
G	Protection of work in all sections	1	Item	-
H	EPA	1	Item	-
J	Fire Permit	1	Item	-
K	Small plants and tools	1	Item	-
<b><u>A43 Contractor's General Cost Items: Mechanical plant</u></b>				
L	Personnel transport	1	Item	-
M	Concrete plant	1	Item	-
<b><u>A44 Contractor's General Cost Items: Temporary Works</u></b>				
N	Support scaffolding and propping	1	Item	-
<b><u>A53 Work by Statutory Authorities</u></b>				
P	Work by Statutory Authorities	1	Item	-
<b><u>BILL NO. 1</u></b>				
<b><u>GENERAL ITEMS (PRELIMINARIES)</u></b>				
Carried to General Summary				
<b><u>BILL NO. 2</u></b>				
<b><u>SUBSTRUCTURE</u></b>				
<b><u>D10 EARTH WORKS</u></b>				
<b><u>Site Preparation</u></b>				
A	Clear Site of all bush and undergrowth and dispose from site	380	m <sup>2</sup>	-
B	Cut off trees girth 0.60m ≤ 1.50mm girth	10	No	-
C	Cut off trees girth exceeding 1.50m girth	3	No	-
<b><u>Excavation and Earthworks</u></b>				
D	Excavate oversite to remove topsoil average 150mm deep	731	m <sup>2</sup>	-
E	Excavate trench not exceeding 1.50 metres deep commencing 150mm below ground level	328	m <sup>3</sup>	-
F	Excavate pit not exceeding 1.5 metres deep ditto	120	m <sup>3</sup>	-



G	Extra over all kinds of excavation for excavating in rock	3	m <sup>3</sup>		-
H	Return, fill in and well ram selected excavated material around foundation	50	m <sup>3</sup>		-
J	Remove surplus excavated material from site	30	m <sup>3</sup>	-	-
	<u>Hardcore as described, spread, levelled and well rammed and consolidated</u>				
K	Filling in layers not exceeding 225mm thick in making up levels under floors	150	m <sup>3</sup>		-
	<b><u>E10: IN-SITU CONCRETE</u></b>				
	<b><u>Plain in-situ concrete (1:4:8-20mm aggregate) in:</u></b>				
L	50mm thick blinding	4	m <sup>3</sup>		-
	<b><u>Plain in-situ concrete (1:4:8-20mm aggregate) in:</u></b>				
M	Foundation	16	m <sup>3</sup>		-
M	Step and Ramp	2	m <sup>3</sup>	-	-
P	150mm thick floor bed spread and leveled	25	m <sup>3</sup>	-	-
	C/F				-
Item	Description	Qty	Unit	Rate	Total GH¢
	B/F				-
A	<u>Reinforced in-situ vibrated concrete (1:2:4-20mm aggregate) as described filled into formwork and packed around reinforcement (both measured separately)</u>	7	m <sup>3</sup>		-
B	Column base	4	m <sup>3</sup>	-	-
C	Column	5	m <sup>3</sup>	-	-
D	Ground beam				
	<b><u>E30: REINFORCEMENT FOR IN-SITU CONCRETE</u></b>				
	<u>Supply and fix as described the following mild steel round bar reinforcement with and including all necessary binding wire:</u>				
E	<u>Column Bases</u>				
F	12mm diameter bars in column base	366	Kg		-
	<u>Column</u>				
G	16mm diameter bars in column	354	Kg		-
H	10mm diameter bars as stirrups	70	Kg	-	-
	<u>Ground beam</u>				
J	12mm diameter bars in column	440	Kg		-

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	10mm diameter bars as links	96	Kg	-	-
	<b><u>BRC Mesh Reinforcement: BS 4483, hard drawn plain round steel, welded</u></b>				
K	Steel fabric reinforcement Ref. No. A142 and fixing in bed with 200mm minimum side and end laps (measured net - no allowance made for laps)	270	m <sup>2</sup>	-	-
	<b><u>E20: FORMWORK FOR IN-SITU CONCRETE</u></b>				
	<u>Sawn formwork as described to:</u>				
	Vertical side of column	34	m <sup>2</sup>	-	-
L	Sides of horizontal beam	94	m <sup>2</sup>	-	-
M	Vertical side of step	1	m <sup>2</sup>	-	-
N	Edge of bed 150mm wide	76	m	-	-
P	Edge of riser 150mm wide	24	m	-	-
	C/F				
Item	Description	Qty	Unit	Rate	Total GH¢
	B/F				-
	<b><u>F10: BRICK/BLOCK WALLING</u></b>				
	<u>Sandcrate, lightweight aggregate blocks, 450mm x 225mm, solid; compressive strength 2.5N/mm<sup>2</sup> in cement mortar (1:4)</u>				
A	150mm thick wall	300	m <sup>2</sup>	-	-
	<b><u>M20: PLASTERING/RENDERED/ROUGHCAST COATINGS</u></b>				
	<u>Mortar, cement and sand (1:4); steel trowelled</u>				
B	12mm Cement and sand render to wall	70	m <sup>2</sup>	-	-
	<b><u>M60: PAINTING/CLEAR FINISHING</u></b>				
	<u>Prepare and apply three coats of Acrylic emulsion paint on:</u>				
C	Prepare and apply three coats of emulsion paint on rendered wall	70	m <sup>2</sup>	-	-
	<b><u>Surface Treatment</u></b>				
D	Treat all surfaces of excavation and filling with anti-termite treatment before laying concrete (Dieldrex anti-termite treatment to foundations)	1	Item	-	-
	<b><u>J20: WATER PROOFING</u></b>				
	<b><u>J31: Transparent polythene sheet</u></b>				
	Transparent polythene sheet; to soffit of concrete slab				
E	Allow a provisional sum of (GH¢ 1000.00) for any additional works that may arise from earth works.	1	Item		0,00
	<b><u>SUBSTRUCTURE</u></b>				-
	Carried to Summary				
Item	Description	Qty	Unit	Rate	Total GH¢
	<b><u>SUPERSTRUCTURE</u></b>				



<b>IN-SITU CONCRETE/LARGE PRECAST CONCRETE</b>					
<u>Reinforced in-situ vibrated concrete (1:2:4-20mm aggregate) as described filled into formwork and around reinforcement (both measured separately)</u>					
A	Horizontal beam	5	m <sup>3</sup>	-	-
B	Column	4	m <sup>3</sup>	-	-
<b>E30:REINFORCEMENT FOR IN-SITU CONCRETRE</b>					
<u>Mild steel round bar reinforcement to BS4449 in:</u>					
<u>Supply and fix as described the following mild steel round bar reinforcement with and including all necessary binding wire</u>					
<b>Column</b>					
C	Straight or bent, 16mm diameter	410	kg	-	-
D	Links, 10mm diameter	120	kg	-	-
<b>Beam</b>					
	Straight or bent, 16mm diameter	325	kg	-	-
E	Links, 10mm diameter	287	kg	-	-
<b>E20:FORMWORK FOR IN-SITU CONCRETE</b>					
<u>Sawn Formwork to:</u>					
F	Column	89	m <sup>2</sup>	-	-
G	Beam	72	m <sup>2</sup>	-	-
<b>CONCRETE WORK</b>					
Carried to Summary					
<b>MASONRY</b>					
<u>Sandcrate, lightweight aggregate blocks, 450mm x 125mm, solid, compressive strength 2.5N/mm2 in cement mortar (1:4)</u>					
A	125mm Wall	389	m <sup>2</sup>	-	-
B	75mm thick honey comb wall	2	m <sup>2</sup>	-	-
<b>BLOCKWORK</b>					
Carried to Summary					
Item	Description	Qty	Unit	Rate	Total GH¢
<b>CLADDING/COVERING</b>					
<b>H72: ALUMINIUM SHEET COVERING/FLASHINGS</b>					
A	<u>Raincoat or equally approved Longspan aluminium, corrugated sheets; pre-painted; standard profile; 0.50mm gauge, two corrugations side laps, 150mm end laps; bedded with mastic sealing strips</u>	250	m <sup>2</sup>	-	-
B	Roofing coverings; fixing to timber purlins at 1050mm general spacing with galvanised drive screws, nuts, washers, caps; drilling holes; pitch 45 degrees	32	m	-	-



C	Preformed Ridge Capping; preformed, 600mm girth, 150mm lapped joints, fixing to timber with galvanised drive screws, nuts, washers and caps	30	m	-	-
D	Preformed hip-cap; preformed, 600mm girth, 150mm lapped joints, fixing to timber with galvanised drive screws, nuts, washers and caps	79	m	-	-
E	150mm side trim fixed to fascia boards	76	m	-	-
F	150mm preformed Gutter, 600mm girth with drop outs	76	m	-	-
	<b><u>COVERING</u></b>				
	Carried to Summary				-
	<b><u>STRUCTURAL/CARCASSING METAL/TIMBER</u></b>				
	<b><u>G20: CARPENTRY/TIMBER FRAMING/FIRST FIXING</u></b>				
	<b><u>Hardwood; treated with preservative; sawn</u></b>				
		30	m		-
A	50 x 150mm Ridge Board				
		66	m		-
B	50 x 150mm Hip and Jack Rafters				
		493	m		-
C	50 x 100mm Rafters				
		535	m		-
D	50 x 75mm Purlins				
		618	m		-
E	50 x 50mm Noggings				
		98	m	-	-
F	50 x 50mm Hangers				
	<u>The following in 7No. Hardwood Trusses, with span over 9.0m, but not exceeding 12.0m, overall height 4.0m, above ground level including hoisting into position</u>				
		66	m		-
G	50x150mm Top chord				
		50	m	-	-
H	50x150mm Bottom chord				
		88	m	-	-
J	50x100mm Struts and ties				
					-
		C/F			
		B/F			
	<u>Carpenter's Metalwork</u>				
A	16mm Diameter mild steel rag bolt, 250mm long cast in concrete	24	No		-
		6	No		-
B	100x100mm Equal angle plate, bolted				
					-
	<b>CARPENTRY</b>				
	Carried to Summary				-
	<b><u>JOINNERY/ METAL WORKS</u></b>				
	<b><u>WINDOWS/DOORS/STAIRS</u></b>				





	<u>Eaves and verge boarding</u> <u>Wrought hardwood as described</u>	79	m		-
A	25x275mm fascia board				
	<b><u>L20: TIMBER DOORS/SHUTTERS/HATCHES</u></b>				
	<b><u>Doors in hardwood; treated with preservative; wrought</u></b>				
B	44mm thick (finished) hardwood panel. Size 1500 x 2050mm	4	No		-
C	Ditto: size 900 x 2050mm	4	No.		-
	<u>Door and window frames in hardwood; treated with preservative; wrought</u>				
D	50 x 150mm hardwood frame plugged to wall	168	m		-
	<u>Fillet, etc</u>	34	m		-
E	12mm x 50mm Planted door stops	125	m	-	-
F	12 x 50mm Window stopper	92	m	-	-
G	25mm x 14mm thick Cover Battern	280	m	-	-
H	Ceilling Battern				
	<u>Ironmongery</u>				
	<u>Supply and fix the following ironmongery to hardwood with matching screws</u>				
J	100mm Mortice lock set	12	No		-
K	High quality Pad lock	6	No		-
L	Hasp and staple	6	No		-
M	Pair 100mm Brass butt hinges	12	No		-
N	Pair 75mm Brass butt hinges	12	No		-
P	100mm Brass barrel bolt	12	No		-
	<b><u>JOINERY</u></b>				
	Carried to Summary				-
Item	Description	Qty	Unit	Rate	Total GH¢
	<b><u>METALWORK</u></b>				
A	<u>Nasco' anodised aluminium louvre carriers and fittings as produced and marketed by Messers PASICO Gh. Limited, or equal approved in approved mastic sealers and screwed to hardwood.</u>	24	No.		-
B	Pair Ditto 1143mm long with clip for 8No. 150mm blades	399	No	-	-
C	16mm diameter mild steel burglar proof bar	38	m <sup>2</sup>		-
	<u>Mild steel</u>				
D	2.5mm x 5mm x 50mm mild steel square welded mesh	38	m <sup>2</sup>		-



E	<u>Sundries</u> Nylon mosquito proof woven plastic gauze cut to size and fixed to hardwood frame with battens (measured separately)				
	<u>METALWORK</u> Carried to Summary				-
	<u>ELECTRICAL INSTALLATIONS</u>				
A	<u>ELECTRICAL</u> Include a provisional sum of GH¢50,000.00 for work in connection power from the National Grid to the facility and it associated works	1	Sum		-
	<u>The rates inserted in the section of the bill of Quantities are to include all cost associated with the material, handling, fixing and contractor's mark-up.</u>				
B	To supply and install electrogalvanised metalclad, Distribution board with 12-Way 1 incoming 100A TPN Adjustable MCCB, CT's Indicating light, metering panel, cable termination, with outgoing as per specification and Drawings. Include surge arrestor.	1	No.		-
C	Supply and install 100A RCD Circute Breaker	1	No.		-
	<u>CABLES AND ACCESSORIES</u>				
E	1.5mm tropical cables for lighting systems (Red and Black)	240	m		-
F	2.5mm tropical cable for electrical sockets (Red,Black and Yellow)	360	m		-
	<u>Supply, fix and connect the following complete with all accessories</u>				
G	1.4m Sweep ceiling fan complete with multi-speed regulator as Crompton Greaves or approved equivalent	8	No.		-
H	Ditto 2.5 Hp Air Conditioner	8	No.		-
J	Ditto 1.5 Hp Air Conditioner	4	No.		-
	C/F				-
Item	Description	Qty	Unit	Rate	Total GH¢
	<u>LUMINAIRES</u> <u>Supply, install and connect the folowing luminaires with all Necessary accessories complete ( lamps, attachment etc.)</u>				-
A	1200mm long florescent frame with bulb and associated fittinds	25	No.		-
	<u>FLUSH PLATE SWITCHES</u>				
B	6 Amp; 1 Gang ; 2 way; single pole switch	12	No.		-
C	6 Amp; 2 Gang ; 2 way; single pole switch	5	No.	-	-
D	6 Amp; 3 Gang ; 2 way; single pole switch	5	No.	-	-
	<u>SOCKETS</u>				
E	13Amp; 2 Gang socket	13	No.		-
	<u>CONDUIT</u>				



F	PVC pipes in wall	240	m		-
G	75mm x 75mm conduit box	15	No.		-
H	75mm x 150mm conduit box	24	No.		-
J	4way Circular conduit box	30	No.		-
K	Supply and install suitable earthing system for the above installation	1	Item		-
<b><u>ELECTRICAL INSTALLATIONS</u></b>					
Carried to Summary					
<b><u>GLAZING</u></b>					
A	150mm wide plain/obscure glass louvre blade with slightly round long exposed edges and into metal clip 900mm long clip	336	No		-
Glazing Carried to Summary					
<b>ELEMENT NO .9 PLUMBING AND ENGINEERING INSTALLATIONS</b>					
A	WC complete twyford	8	Nr		-
B	Chromium plated towel rail plocked and screwed to wall	6	Nr		-
C	500x 400mm twyford wash- hand basin	8	Nr		-
D	Ditto mirror	6	Nr		-
E	Include a sum of Twenty Thousand Ghanan cedis for Polly tank and other plumbing fittings	1	item		-
Carried to summary					
Item	Description	Qty	Unit	Rate	Total GH¢
<b><u>M20:PLASTERING/RENDERED/ROUGHCAST COATINGS</u></b>					
<b><u>PLASTERWORK AND OTHER FLOOR, WALL, AND CEILING FINISHINGS</u></b>					
<u>In-situ finishings 12mm Cement and sand render (1:4) on concrete and blockwork</u>					
A	Wall	2200	m <sup>2</sup>		-
B	Column	8	m <sup>2</sup>		-
<u>25mm Cement and sand render (1:3) on concrete and blockwork</u>					
C	Wall, as writing board	9	m <sup>2</sup>		-
<u>Plain sheet finishings</u>					
D	6mm Plywood (Redwood) ceiling lining, fixed to horizontal soffits of hardwood noggings and joists	365	m <sup>2</sup>		-
<u>Beds and backings</u>					





E	Cement and sand (1:3) as described on blockwork or concrete 50mm Level paving, trowelled smooth	365	m <sup>2</sup>		
F	600x600x6mm porcelain floortiles including extra for round edged bedders and jointtted in cement and sand motor (1:4) and ponited in mixture of white cement on flated backings in wash rooms	365	m <sup>2</sup>		
G	150x150 6mm thich white ceramic wall tiles joint l cement motor on wall	81	m <sup>2</sup>		
<b><u>PLASTERWORK AND OTHER FLOOR</u></b>					
<b><u>WALL AND CEILING FINISHINGS</u></b>					
Carried to Summary					
<b><u>PAINTING AND DECORATING</u></b>					
<u>Prepare and apply one uder coat as skimming to wall :</u>					
A	Skimming to wall	2400	m <sup>2</sup>		
B	Prime back only joinery before fixing	68	m <sup>2</sup>		
<u>Prepare and apply three coats of Acrylic emulsion paint on:</u>					
C	Rendered wall	2400	m <sup>2</sup>		
D	Soffits of plywood ceiling	365	m <sup>2</sup>		
<u>Knot, prime, stop and paint two undercoats</u> <u>and one finishing coat of leyland/leylac oil paint</u> <u>on woodwork</u>					
E	General surfaces	52	m <sup>2</sup>		
F	Surfaces not exceeding 300mm girth	20	m <sup>2</sup>		
G	Approved writing board paint on rendered walls	20	m <sup>2</sup>		
<b><u>PAINTING AND DECORATING</u></b>					
Carried to Summary					
Item	Description	Qty	Unit	Rate	Total GH¢
<b><u>SUMMARY</u></b>					
<b><u>BILL NO. 2</u></b>					
A	<u>GENERAL ITEMS (PRELIMINARIES)</u>				
B	SUBSTRUCTURE				
C	CONCRETEWORK				
D	BLOCKWORK				
E	ROOFING				
F	CARPENTRY				
G	JOINERY				



H	METALWORK				-
J	ELECTRICAL INSTALLTION				-
K	GLAZING				-
L	PLASTERWORK AND OTHER FLOOR WALL AND CEILING FINISHINGS				-
M	PLUMBING AND ENGINEERING INSTALLATIONS				-
N	PAINTING AND DECORATING				-
	<b>BILL NO. 2 - SCIENCE LABORATORY</b>				
	Carried to General Summary				-
Item	Description	Qty	Unit	Rate	Total GH¢
	<b>BILL NO. 4 EXTERNAL WORKS</b>				
	<b>APRON</b>				
	<b>Excavation and Earthworks</b>				
A	Excavate trench not exceeding 1.50m metres deep commencing 150mm below ground level	10	m <sup>3</sup>	-	-
B	Return, fill in and well ram selected excavated material around foundation	16	m <sup>3</sup>		-
C	Remove surplus excavated material from site	6	m <sup>3</sup>	-	-
	<u>Hardcore as described, spread, levelled and well rammed and consolidated</u>				
D	Filling in layers not exceeding 225mm thick in making up levels under floors.	5	m <sup>3</sup>		-
	<u>Concrete Work</u>				
	Plain in-situ concrete (1:3:6-40mm aggregate ) as described foundation in trenches				
E	Concrete Slab	1	m <sup>3</sup>		-
	<u>Formwork</u>				
	Sawn formwork to				
F	Edge of slab, 100mm wide	30	m		-
	<u>Blockwork</u>				
	<u>Sandcrete blockwork in cement and sand (1:4) mortar</u>				
E	125mm thick solid wall	120	m <sup>2</sup>		-
F	20mm Cement and sand render to wall	50	m <sup>2</sup>		-
G	Prepare and apply three coats of emulsion paint on rendered wall	125	m <sup>2</sup>		-



	<b>BILL NO.4: EXTERNAL WORKS (APRON)</b> Carried to General Summary				
Item	Description	Qty	Unit	Rate	Total GH¢
	<b><u>GENERAL SUMMARY</u></b>				
	BILL NO.2 CONSTRUCTION OF 1NO 4 UNIT SCIENCE LAB				-
	BILL NO.3 - EXTERNAL WORKS (APRON)				-
	<b>SUB-TOTAL</b>				
	<b><u>TOTAL</u></b> CARRIED TO GENERAL SUMMARY				-
<b>CONSTRUCTION OF 1NO 4- SEATER WATER CLOSET FACILITY WITH MECHANISED BOREHOLE</b>					
Item	Description	Qty	Unit	Rate	Total GH¢
	<b>BILL No. 1 - PRELIMINARIES AND GENERAL ITEMS</b>				
	<b><u>Contractor's requirements</u></b>				
A	Setting Out				
B	Small Plants, Tools & Vehicles				
C	Scaffolding				
E	Safety, health and welfare				
F	Site Agents/Foremen				
G	Temporary Stores				
H	Shelter for the workmen				
J	Site Offices				
K	Watchman's Hut				
L	Water & Power for the Works				
M	Toilet facilities				
	<b>BILL No. 1 - PRELIMINARIES AND GENERAL ITEMS CARRIED TO SUMMARY</b>				



Item	Description	Qty	Unit	Rate	Total GH¢
	<b>BILL No. 2 -4 SEATER WATER CLOSET FACILITY</b>				
	<b><u>ELEMENT NO. 1 SUBSTRUCTURE</u></b>				
	<u>Site Preparation</u>				
A	Clear site of all bushes, shrub, undergrowth and tree $\leq 600\text{mm}$ girth and other obstruction grub up all roots and clear away	15	m <sup>2</sup>		0,00
B	Excavate oversite average 150mm deep to remove top soil and vegetable matter wheel a distance not exceeding 200 metres and deposit in spoil heaps where directed.	10	m <sup>2</sup>		0,00
C	Excavate trench to receive foundation maximum depth $\leq 2.00\text{ m}$	5	m <sup>3</sup>		0,00
D	Excavate pit for column base maximum depth $\leq 2.00\text{m}$ ditto	5	m <sup>3</sup>		0,00
E	Disposal excavated material off site	5	m <sup>3</sup>		0,00
F	Selected filling to excavation	8	m <sup>3</sup>		0,00
G	225mm bed of approved hardcore spread and levelled and finished to receive concrete	10	m <sup>2</sup>		0,00
	<b><u>In situ Concrete</u></b>				
H	Plain in situ concrete (1: 3: 6 - 38mm aggregate ) as describe in	1	m <sup>3</sup>		0,00
J	Plain in situ Concrete 10/40 blinding $\leq 150\text{mm}$ thick	4	m <sup>3</sup>		0,00
K	Plain in situ concrete 25/20 in foundation				
L	Bed $\leq 150\text{mm}$ thick	15	m <sup>3</sup>		0,00
L	Reinforced in situ vibrated concrete 25/20 described filled into form-work and packed around reinforcement (measured separately) in.				
M	Column Base	1	m <sup>3</sup>		0,00
N	Column	1	m <sup>3</sup>		0,00
	<u>Formwork for in situ concrete sawn formwork to</u>				
P	Edges of bed/ slab 150mm high	15	m		0,00
Q	Edges of bed/ slab 150mm high	8	m <sup>2</sup>		0,00
R	Sides of column base	7	m <sup>2</sup>		0,00
S	<b>Brick and Blockwalling</b>				



T	Solid sandcrete blockwork in cement and sand (1:4) mortar 150mm Wall	25	m <sup>2</sup>		0,00
	<b>ELEMENT NO. 1 - SUB-STRUCTURE</b> <i>Carried to Summary of Bill No. 1</i>				0,00
Item	Description	Qty	Unit	Rate	Total GH¢
	<b><u>SUPERSTRUCTURE</u></b>				
	<b>ELEMENT NO. 2- IN-SITU CONCRETE</b>				
	<u>Reinforced in-situ vibrated concrete 30/20 as described filled into formwork and packed around reinforcement (both measured separately) in</u>				
A	Column	2	m <sup>3</sup>		0,00
B	Beam	2	m <sup>3</sup>		0,00
C	Slab	2	m <sup>3</sup>		0,00
	<b>Sawn Formwork for in situ concrete</b>	30	m <sup>2</sup>		0,00
D	Vertical sides of column	12	m <sup>2</sup>		0,00
E	Sides of beam	15	m <sup>2</sup>		0,00
F	Side and soffit of slab				
	<u>Reinforcement for in situ concrete</u>				
	<u>Supply and fix as described the following mild steel round bar reinforcement with and including all necessary binding wire in</u>				
G	12mm Nominal size bar in column	120	Kg		0,00
H	6mm Nominal size ditto as links	100	Kg		0,00
J	12mm Nominal size bar in beam	250	Kg		0,00
K	6mm Nominal size ditto as links	110	Kg		0,00
L	12mm Norminal size bar in slab	118	Kg		0,00
	<b>ELEMENT NO. 2- IN-SITU CONCRETE</b> <b>Carried to the Summary of Bill No. 2</b>				0,00
	<b>ELEMENT NO. 3 - MASONRY</b>				
	<u>Block walling</u>				
	<u>Sollid sandcrete blockwork in cement and sand mortar (1:4)</u>				



A	125mm Wall	80	m <sup>2</sup>		0,00
<b>ELEMENT NO. 3 - MASONRY</b>					
<i>Carried to the Summary of Bill No. 3</i>					
A	<b>ELEMENT NO. 4 - ROOFING -</b> Glandeson roofing sheet (ID 1 0.45mm) fixed to hardwood with two corrugated side lap and 225mm end lap with approved screws and washers	38	m <sup>2</sup>		0,00
B	Pre-shaped aluminium ridge capping 450mm girth	10	m		0,00
Item	<b>ELEMENT NO. 4 - ROOFING -</b> <i>Carried to the Summary of Bill No. 4</i>				0,00
Item	Description	Qty	Unit	Rate	Total GH¢
<b>ELEMENT NO. 5 - CARPENTRY</b>					
<i>Sawn hardwood treated with solignum</i>					
		20	m		0,00
A	50 x 150mm ridge board	20	m		0,00
B	50 x 100mm rafter	100	m		0,00
C	50 X 75mm pulins	110	m		0,00
D	50 x 50mm ceiling noggings and hangers	45	m		0,00
E	25 x 225mm fascia board	20	m		0,00
<b>ELEMENT NO. 5 - CARPENTRY</b>					
<i>Carried to Summary of bill no. 5</i>					
<b>ELEMENT NO. 6 - JOINERY</b>					
A	<i>Battern door well braced at the back</i>	4	Nr		0,00
B	Door size 800 x 2050mm	1	Nr		0,00
C	Double door Size: 1600 x 2100mm (Pannel)	84	m <sup>2</sup>		0,00
D	Plastic T & G ceiling finish	98	m		0,00
E	Ditto corner mould				
	<u>Frame</u>				
	<u>Wrought hardwood as described</u>				
F	50 x 150mm window Frame twice rebated and plugged to wall	40	m		0,00
G	Ditto door frame plugged to wall	48	m		0,00
H	12 x 50mm Hardwood stop	30	m		0,00
J	Battens nailed to window frames	60	m		0,00



<b>Ironmongery</b>					
K	Mortice Lock with Anodised Aluminium lever handles (high grade Italian)	4	Nr		0,00
L	Pair 100mm heavy duty Hinges	4	Nr		0,00
M	Ditto 150mm heavy duty Hinges	4	Nr		0,00
N	tower bolt and socket	4	Nr		0,00
<b>ELEMENT NO. 6 - JOINERY</b>					
Carried to Summary of Bill No. 6					0,00
Item	Description	Qty	Unit	Rate	Total GH¢
<b>ELEMENT NO. 7 - METAL WORK</b>					
A	Pair Naco anodised Aluminium louvre carrier 11423.0mm long with clips for 8No. Glass blades 150mm wide screwed to hardwood frames with screws to match.	4	Nr		0,00
B	Pair Ditto 584.2mm long with clips for 4No glass blade ditto	4	Nr		0,00
<b>Burglar Proofing</b>					
C	16mm diameter mild steel bar as burglar proof to window	120	m		0,00
<b>ELEMENT NO. 7 - METAL WORK</b>					
Carried to Summary of Bill no. 7					0,00
<b>ELEMENT NO. 8: ELECTRICAL INSTALLATIONS</b>					
D	Include the Sum of Ten Thousand Hundred Ghana Cedis for (GH¢ 10,000.00) for wiring of the building	1	Item		0,00
<b>ELEMENT NO. 8: ELECTRICAL INSTALLATIONS</b>					
Carried to Summary of Bill No. 8					0,00
<b>ELEMENT NO. 9: PLUMBING AND ENGINEERING INSTALLATIONS</b>					
A	W.C Complete (Twyford )/squate	4	Nr		0,00
B	Chromium plated towel rail plugged and screwed to wall	4	Nr		0,00
C	500 x 400mm Twyford Wash-hand Basin	4	Nr		0,00
D	Include The Sum of Ten Thousand Ghana Cedis (GH¢ 10,000.00) for Polytank, and other Plumbing fittings	1	Item		0,00
<b>ELEMENT NO. 9: PLUMBING AND ENGINEERING INSTALLATIONS</b>					
Carried to Summary of Bill NO.9					0,00
<b>ELEMENT NO. 10: FINISHINGS</b>					
A	31mm screeded bed (1:3) to receive floor tiles	63	m²		0,00
B	19mm floated bed to receive wall tile	63	m²		0,00



<u>Ceramic floor tiles: 3mm joints, symmetrical layout fixing</u> <u>with adhesive cement, grouting with matching</u> <u>coloured grout</u> 600 x 600 x 6mm thick porcelain floor tiles including extra for round edges bedded and jointed in cement and sand mortar (1:4) and pointed in mixture of white cement on floated backing to washroom					
C		50	m <sup>2</sup>		0,00
D	150 x 150 x 6mm thick white ceramic wall tile joined in cement mortar on wall	20	m <sup>2</sup>		0,00
E	Skirting height 75mm	6	m <sup>2</sup>		0,00
<b>Plastered, rendered and roughcast coating</b> <u>20mm Cement and sand (1:4) rendering as describe to concrete or blockwork</u>					
F	Wall width > 300mm	80	m <sup>2</sup>		0,00
<b>ELEMENT NO. 10: FINISHINGS</b> Carried to Summary of Bill No. 10					0,00
Item	Description	Qty	Unit	Rate	Total GH¢
<b>ELEMENT NO.11-GLAZING</b>					
A	150mm wide louvre blade with polished edged new black fitted in louvre	16	Nr		0,00
<b>ELEMENT NO.11-GLAZING</b> Carried to summary of Bill no. 11					0,00
<b>ELEMENT NO. 12: PAINTING AND DECORATING</b> <u>Prepare and supply two coats of Laylac</u> <u>emulsion paint on</u>					
A	wall	85	m <sup>2</sup>		0,00
<u>Prepare and apply two undercoats and one gloss</u> <u>finishing coat of oil paint on:</u>					
B	Wooden surface	50	m <sup>2</sup>		0,00
<b>ELEMENT NO. 12: PAINTING AND DECORATING</b> Carried to Summary of Bill No. 12					0,00
Item	Description	Qty	Unit	Rate	Total GH¢
<b>SUMMARY</b>					
1	<b>BILL No. 2 -4 SEATER WATER CLOSET FACILITY</b>				
2	ELEMENT NO. 1 SUBSTRUCTURE				0,00
2	<u><b>SUPERSTRUCTURE</b></u>				
3	ELEMENT NO. 2- IN-SITU CONCRETE				0,00
3	ELEMENT NO. 3 - MASONRY				0,00
	ELEMENT NO. 4 - ROOFING -				0,00



4	ELEMENT NO. 5 - CARPENTRY				0,00
4	ELEMENT NO. 6 - JOINERY				0,00
5	ELEMENT NO. 7 - METAL WORK				0,00
5	ELECTRICAL INSTALLATIONS				0,00
6	PLUMBING AND ENGINEERING INSTALLATIONS				0,00
6	ELEMENT NO. 10: FINISHINGS				0,00
6	ELEMENT NO. 11-GLAZING				0,00
	ELEMENT NO. 12: PAINTING AND DECORATING				0,00
	<b><u>GRAND SUMMARY</u></b>				0,00

**BILL No. 3 - DRILLING AND CONSTRUCTION OF 1NO BOREHOLE, MECHANISATION / CONSTRUCTION OF PLATFORM  
INSTALLATION OF POLYTANK**

Item	Description	Qty	Unit	Rate	Total GH¢
	<b>BILL NO. 3</b>				
	<b><u>CONSTRUCTION OF TANK STAND</u></b>				
	<b>SUPPLY OF PUMPS</b>				
A	Supply Submersible pump	1	Nr		0,00
	<b>INSTALLATION OF PUMPS</b>				
B	Installation of submersible pump	1	Nr		0,00
	<b>TRAINING OF PUMP CARETAKERS</b>				
C	Training of pump caretakers	1	Nr		0,00
D	Borehole Head	70	m		0,00
E	Drop Cable	50	m		0,00
F	Tropical electrical cable 2.50mm	1	m		0,00
G	Discharge Cock	1	Nr		0,00
H	Joint Kit	1	item		0,00
J	Electricity Connection	1	no		0,00



	Supply and installation of Polytankmax (rambo 1,000L) on concrete tank stand 2200 x 2200 x 1500mm high connected with PVC piping well buried into concrete and 19mm K55 bib tap				
	ELEMENT NO 1: CONSTRUCTION OF CONCRETE PLATFORM AND INSTALLATION OF SUBMERSIBLE PUMP				
	Carried to Bill No.3 summary				
	<b>DRILLING OF 1NO. BOREHOLE</b>				0,00
	Description	Qty	Unit	Rate	Total GH¢
A	Hydrogeological Survey	1	Item		0,00
	<u>Drilling</u>				
B	Drilling through over burden and highly weather rock for completion of 126mm diameter borehole in any type of	40	m		0,00
C	Drilling through moderately weather to fresh rock with D.T.H hammer bit for completion of 126 diameter borehole in any rock	80	m		0,00
D	Supply and install 126mm PVC casing	100	m		0,00
E	Supply and install 126mm PVC casing	21	m		0,00
F	Supply and install 126mm PVC Screen	10	m		0,00
G	Supply and install centralizer on 126mm casing and screens	18	m <sup>2</sup>		0,00
H	Supply and place gravel as in design type A	1	m <sup>3</sup>		0,00
J	Supply cement mix and place grout above gravels as in type A	5	m <sup>2</sup>		0,00
K	Backfill annulus above grout seal as in design type A	4	m <sup>2</sup>		0,00
L	Supply cement mix and place grout above backfill as in type A	4	m <sup>2</sup>		0,00
	<b>BOREHOLE DEVELOPMENT</b>				
M	Develop borehole by surging with compressed air and air lifting	4	Hrs		0,00
	<b>To Collection</b>				0,00
Item	Description	Qty	Unit	Rate	Total GH¢
	<b>TEST PUMPING</b>				
A	Supply and install equipment for carrying out test for hand pump borehole	1	nr		0,00
B	Carry out constant discharge test for hand pump boreholes	6	hr		0,00
C	Carry out recovery test for hand pump boreholes	3	hr		0,00



	<b>WATER QUALITY TEST</b>				
D	Take lable and store sample of water from boreholes	1	sample		0,00
E	Carry out chemicals analysis as specified	1	sample		0,00
F	Carry out bacteriological analyses as specified	1	sample		0,00
	<b>BOREHOLE CAPPING/BAILPLUG</b>	1	each		0,00
G	Supply and fix suitable cap on borehole	1	each		0,00
H	Supply and bailplug on bottom as degree type A	1	each		0,00
	<b>To Collection</b>				0,00
	<b>COLLECTION</b>				
	PAGE 3				0,00
	PAGE 4				0,00
	<b>DRILLING OF BOREHOLE</b>				
	Carried to General Summary				0,00
Item	Description	Qty	Unit	Rate	Total GH¢
	<b>CONSTRUCTION OF 1NO 4- SEATER WATER CLOSET FACILITY</b>				
	<b>BILL NO 4 - EXTERNAL WORKS</b>				
A	Include the sum of Sixty Thousand Cedis (GH¢ 60,000.00) Septic tank and Apron	1	Item		0,00
	<i>Carried to General Summary</i>				0,00
	<b>GROSS SUMMARY</b>				
	<b>CONSTRUCTION OF 1No 4-UNITS LABORATARY</b>				0,00
	<b>CONSTRUCTION OF No.1 4-UNIT WATER CLOSET</b>				0,00
	<b>CONSTRUCTION OF PLATFORM / PUMP INSTALLATION</b>				0,00
	<b>DRILLING OF BOREHOLE</b>				0,00
	<b>EXTERNAL WORKS</b>				-
	<b>TOTAL CARRIED TO SUMMARY</b>				-
	<b>TOTAL CARRIED TO SUMMARY (EUR)</b>				-