

**BoQ; PROPOSED NEW CLASSROOMS (4No.) AT MAGADI SODA SCHOOL**

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 1
Bill No. 1	GENERAL PRELIMINARY				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT NO. 1</u></b>				
	<b><u>GENERAL PRELIMINARY</u></b>				
1.01	Allow contractual requirements, training levy with holding tax and other GoK statutes necessary to commence and proceed with the works to completion.	SUM	1		
1.02	Allow preliminaries to cover overheads, transport, security, storage, water for construction, power supply, clients safety requirements, "Contractors all risks" and other insurances as required by the general Conditions of Contract, all temporary Works not covered elsewhere under specific items of Bills of Quantities (Provisional Sum not to exceed 10% of Contract Sum)	SUM	1		
1.03	Allow for Relocation of existing Chain link fence 100m long and additional link of 20m long. The additional length shall be in 75x75x6mm angle irons and first grade chain link and embedded in concrete class 20 mix.	SUM	1		
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 2
Bill No. 2	SUBSTRUCTURE				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<p style="text-align: center;"><b><u>ELEMENT NO. 2</u></b></p> <p><b><u>SUBSTRUCTURE</u></b> (All Provisional)</p> <p>Notes:1. This section comprises all works upto and including the surface bed. 2. Site clearance is included in external works</p> <p><b><u>EXCAVATIONS &amp; EARTHWORKS</u></b></p> <p>2.01 Strip top soil upto 150mm deep (average) to remove vegetable soil and cart away and deposit as directed.</p> <p>2.02 Bulky excavation in normal soil to reduced levels for a depth not exceeding 1.50 metres deep.</p> <p>2.03 Excavate for foundation trench commencing from reduced levels and not exceeding a further 1.5 metres deep.</p> <p>2.04 Extra over excavation in any position for excavation in rock.</p> <p>2.05 Allow for keeping the whole of excavation free from water.</p> <p>2.06 Allow for maintaining and upholding sides of excavations clear of all fallen materials, rubbish etc.</p> <p>2.07 Allow, for destroying any white ants nests found in the vicinity of the building or in tunnels exposed during the course of excavations, taking out and destroying queen ants, depositing cyanide lumps in holes and tunnels and filling with ballast or murrum well packed and sealed.</p> <p>2.08 Return and properly ram approved fill materials around foundations</p> <p>2.09 Load and cart away surplus excavated materials from site and deposit as directed</p>				
	<b>Total Carried Forward to Collection</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 3
Bill No. 2	SUBSTRUCTURE				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
2.10	Provide, lay and compact approved hardcore filling, hand packed and consolidated in layer not exceeding 400mm deep.	CM	146		
2.11	Level Surface of Hardcore filling and blind with approved quarry dust ready to receive concrete	SM	295		
2.12	Anti-termite treatment applied on surface of Hardcore	SM	295		
2.13	Single layer 1000 gauge polythene sheeting with 150mm side and end laps laid under surface bed	SM	295		
	<b><u>CONCRETE WORK</u></b>				
2.14	50mm thick concrete (1:4:8) blinding in foundation trenches	SM	7		
2.15	Concrete (1:3:6) mix 20mm max. aggregate size in strip footing	CM	14		
	<b><u>Concrete Mix (1:2:4) in:-</u></b>				
2.16	Steps	CM	6		
2.17	150mm thick Surface bed	CM	48		
	<b><u>TEST CUBES (PROVISIONAL)</u></b>				
	<b><u>Allow for all costs in connection with the making of the cubes, curing, transport and crushing by an approved Laboratory and obtaining the Test Certificate</u></b>				
2.18	Set of four 150mm x 150mm x 150mm test cubes.	No.	8		
	<b><u>FORMWORK TO</u></b>				
2.19	Edge of Surface bed 75-150mm high	LM	95		
2.20	Steps 75-100mm high	LM	25		
	<b><u>STEEL FABRIC REINFORCEMENT TO B.S 4483</u></b>				
2.21	No-A 142 Fabric reinforcement laid in bed	SM	295		
	<b>Total Carried Forward to Collection</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 4
Bill No. 2	SUBSTRUCTURE				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>FOUNDATION WALLING</u></b>				
	<b><u>Quarry natural masonry stone walling in cement and sand (1:3) mortar</u></b>				
2.22	225mm thick Walling	SM	185		
	<b><u>PLINTHS:</u></b>				
2.23	20mm thick Cement and Sand (1:3) rendering steel float finished to plinth	SM	95		
2.24	Prepare and apply three coats of black bituminous paint to rendered plinth externally	SM	95		
2.25	Extra for fairface finish to sluttered concrete surfaces	SM	40		
	<b><u>VERANDA</u></b>				
2.26	Excavate for foundation trench commencing from reduced levels and not exceeding a further 1.5 metres deep.	CM	13		
2.27	Concrete (1:3:6) mix 20mm max. aggregate size in strip footing	CM	4		
	<b><u>Quarry natural masonry stone walling in cement and sand (1:3) mortar</u></b>				
2.28	225mm thick Walling	SM	25		
2.29	Provide, lay and compact approved hardcore filling, hand packed and consolidated in layer not exceeding 400mm deep.	CM	17		
2.30	Single layer 1000 gauge polythene sheeting with 150mm side and end laps laid under surface bed	SM	42		
	<b><u>STEEL FABRIC REINFORCEMENT TO B.S 4483</u></b>				
2.31	No-A 142 Fabric reinforcement laid in bed	SM	42		
	<b>Total Carried Forward to Collection</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL						Page 5
<b>Bill No. 2</b>	<b>SUBSTRUCTURE</b>					<b>Project:</b>
<b>Item No.</b>	<b>Description</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Bid Rate</b>	<b>Amount (Kshs)</b>	
	<u><b>Concrete Mix (1:2:4) in:-</b></u>					
2.32	Steps	CM	2			
2.33	150mm thick Surface bed	CM	7			
	<u><b>FORMWORK TO</b></u>					
2.34	Edge of Surface bed 75-150mm high	LM	95			
2.35	Steps 75-100mm high	LM	25			
	<b>TOTAL CARRIED TO COLLECTION</b>					
	<u><b>COLLECTION</b></u>					
	From page 2					
	From page 3					
	From Page 4					
	From Above					
	<b>Total Carried Forward to Summary</b>					

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 6
Bill No. 3	SUPERSTRUCTURE				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT No 3</u></b>				
	<b><u>SUPERSTRUCTURE:</u></b>				
	<b><u>Bituminous Felt Damp Proof Course along the Wall</u></b> (Measured net-no allowance for laps)				
3.01	200mm wide horizontal layer including leveling bed and setting out & establishing wall position	LM	115		
	<b><u>MASONRY BLOCK WALLING</u></b>				
	<b><u>Quarry dressed masonry block walling in cement and sand (1:3) mortar</u></b>				
3.02	200mm thick Walling	SM	421		
	<b><u>CONCRETE WORKS</u></b>				
	<b><u>well Vibrated Reinforced Concrete (1:2:4) in :-</u></b>				
3.03	Beams and lintels including the necessary formwork to sides and soffits of the openings appropriately	CM	10		
	<b><u>TEST CUBES (PROVISIONAL)</u></b>				
	<b><u>Allow for all costs in connection with the making of the cubes, curing, transport and crushing by an approved Laboratory and obtaining the Test Certificate</u></b>				
3.04	Set up of four 150mm x 150mm x 150mm test cubes.	No.	12		
	<b><u>STEEL REINFORCEMENT</u></b>				
	<b><u>As described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks</u></b>				
3.05	8mm (nominal) High tensile cold twisted square steel reinforcement in structure	Kgs	285		
3.06	16mm Ditto	Kgs	750		
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 7
Bill No. 4	ROOF				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT 4</u></b>				
	<b><u>ROOF</u></b>				
	<b><u>ROOF STRUCTURE</u></b>				
4.01	75 X 50 X 4.0 mm RHS main tie beam	LM	1772		
4.02	50 X 50 X 4.0mm SHS rafters	LM	938		
4.03	50 X 50 X 4.0mm SHS rafters	LM	686		
4.04	125 X 50 X 20 X 2mm Cold rolled zed purlins.	LM	1691		
4.05	200 x 25mm Planned ridgeboard	LM	30		
4.06	200 x 25mm planned with one labour fasciaband	LM	164		
4.07	6mm thick MS side plates in trusses	KG	136		
4.08	150 x 75 x 3mm rolled angle cleat to purlin support	KG	225		
4.09	M12 bolts 50mm long to purlin connection	No	250		
4.10	M20 x 300mm long grade 4.6 bolts to truss assembly and fixing to concrete beams	No	36		
4.11	8mm MS plate gutter cleats	KG	180		
4.12	12mm diameter MS sag rods cut and threaded on threaded on both sides each with M12 nut and washer	LM	40		
4.13	Gauge 28 corrugated "AluZINC" (coloured) in length of 3m each	SM	475		
4.14	150 mm diameter half round ridge G24 "AluZINC" jointed to match the sheeting	LM	45		
4.15	G 24 "Dumu Mabati" sheeting size 150 x100 overall boxing valley gutter nailed on rafters	LM	10		
4.16	150mm mild steel gutter all along the building including hooking on to the fasciaboard with holder bats	LM	75		
	<b>Total Carried Forward to Collection</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 8
Bill No. 4	ROOF				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>CEILING FINISHES</u></b>				
4.17	12 mm thick celotex ceiling in 'V' joints	SM	295		
	<b><u>Sawn Cypress to brandering</u></b>				
4.18	75x50 brandering	LM	295		
	<b><u>PAINTING AND DECORATION</u></b>				
	<b><u>Prepare and apply three layers plastic emulsion paints internally on:</u></b>				
4.19	Ceiling	SM	295		
	<b><u>Knot, Prime and apply undercoat and two coats gloss finish on woodwork externally on :</u></b>				
4.20	Surfaces 200 - 300mm girth	LM	376		
	<b><u>Prepare and apply three coats polyurethane varnish on woodwork externally on :</u></b>				
4.21	General surfaces	SM	100		
	<b><u>RAINWATER DISPOSAL</u></b>				
	<b><u>Galvanized mild steel tubing to B.S. 1387 (Heavy grade)</u></b>				
4.22	100mm diameter downpipe fixed to wall with holder bats at 600mm centres	LM	26		
4.23	Extra over for bend	No.	14		
4.24	Extra over for shoe outlet	No.	7		
	<b>TOTAL CARRIED TO COLLECTION</b>				
	<b>COLLECTION</b>				
	From page 7				
	From above				
	<b>Total Carried Forward to Summary</b>				



Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 9
Bill No. 5	EXTERNAL FINISHINGS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT NO. 5</u></b>				
	<b><u>EXTERNAL FINISHINGS</u></b>				
	<b><u>CONCRETE WORK</u></b>				
	<b><u>FAIRFACE FINISH TO:-</u></b>				
5.01	Concrete surfaces in any position	SM	66		
	<b><u>FINE CHISEL DRESSING</u></b>				
5.02	Extra over for fine chisel dressing to stone walls and finished with neat recessed and pointed horizontal joints.	SM	310		
	<b><u>PAVING AND PLASTERWORK</u></b>				
	<b><u>CEMENT AND SAND (1:3) PAVINGS:-</u></b>				
5.03	50mm paving slabs round the buildings	SM	113		
	<b><u>External cement render 1:3 on:-</u></b>				
5.04	Walls	SM	106		
5.05	Soffits of suspended beams	SM	10		
	<b><u>PAINTING AND DECORATION PREPARE AND APPLY THREE COATS PLASTIC EMULSION PAINT EXTERNALLY ON:-</u></b>				
5.06	Rendered walls	SM	106		
5.07	Rendered Soffit	SM	10		
5.08	Fairfaced concrete surface	SM	66		
	<b><u>TOUCH UP PRIMED SURFACES AND APPLY ONE UNDERCOAT AND TWO FINISHING COATS OF GLOSS OIL PAINT TO METAL WORK EXTERNALLY ON:</u></b>				
5.09	Surfaces not exceeding 100mm girth	LM	166		
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 10
Bill No. 6	INTERNAL FINISHES				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT NO. 6</u></b>				
	<b><u>INTERNAL FINISHINGS</u></b>				
	<b><u>PAVINGS AND PLASTERWORK</u></b>				
	<b><u>CEMENT AND SAND (1:3) SCREEDS finished to receive floor finishes</u></b>				
6.01	25mm thick CEMENT SAND mortar to receive tiles.	SM	140		
6.02	Supply and fix the 400 x 400 x 8mm non - slip ceramic tiles on the Classrooms floor including the Sika grout approved, including 150mm high tile skirting	SM	160		
	<b><u>INTERNAL LIME PLASTER ON:</u></b>				
6.03	Walls	SM	455		
6.04	Extra for fair edge tile	LM	77		
	<b><u>PAINTING AND DECORATING</u></b>				
	<b><u>PREPARE AND APPLY ONE UNDERCOAT AND THREE COATS OF PLASTIC EMULSION PAINT</u></b>				
	<b><u>Internally on:-</u></b>				
6.05	Plastered walls	SM	455		
	<b>Total Carried Forward to Summary</b>				



Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 12
Bill No. 7	DOORS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>Iron-mongery</u>				
	<u>Supply and fix the following Ironmongery with screws to match</u>				
7.11	3 lever mortice dead lock and set furniture	No.	4		
7.12	150mm long barrel bolts	No.	12		
7.13	100mm pressed steel butt hinges	PRS	12		
7.14	Rubber door stop	No.	4		
	<b>TOTAL CARRIED TO COLLECTION</b>				
	<u>COLLECTION</u>				
	From page 11				-
	From above				-
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 13
Bill No. 8	WINDOWS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT No. 8</u></b>				
	<b><u>WINDOWS</u></b>				
	<b><u>WINDOW CILL</u></b>				
8.01	150mm x 25mm thick burnt clay window cill jointed in coloured cement mortar	LM	35		
8.02	125 x 25mm internal cill to concrete walling or stone walling	LM	20		
8.03	Cut and fit end of cill to stone walling.	No.	14		
	<b><u>METALWORK</u></b>				
	<b><u>GALVANIZED MILD STEEL</u></b>				
	<b><u>Supply, assemble and fix the following purpose-made steel casement windows finished with one coat red oxide primer complete with opening accessories and permanent vents for the full width including cutting and pinning fixing lugs to concrete or blockwork jambs, bedding in cement and mortar (1:3) and pointing all around frames in mastic</u></b>				
8.04	Window overall size 2000mm x 1740mm comprising one fixed centre, one opening right and one opening left	No.	20		
	<b><u>GLAZING</u></b>				
	<b><u>4mm CLEAR SHEET GLASS AND GLAZING</u></b>				
8.05	To metal with clips and putty in panes 0.10 to 0.50 square metres each	SM	70		
8.06	Ditto 0.50 to 1.00 square metres each	SM	24		
8.07	Ditto 1.00 to 1.50 square metres each	SM	12		
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 14
Bill No. 8	WINDOWS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>PAINTING AND DECORATING</u></b>  <b><u>TOUCH UP PRIMED SURFACES AND APPLY ONE UNDERCOAT AND TWO COATS GLOSS FINISH ON METALWORK</u></b>  <b><u>Internally on:-</u></b>  8.08 Surfaces of glazed metal windows (measured overall).  8.09 Ditto to mild steel grillage (measured overall)  <b><u>Externally on:-</u></b>  8.10 Surfaces of glazed metal windows (measured overall)  <b><u>Sundry items</u></b>  8.11 20mm diameter mild steel burglar proofing bars  8.12 Make 50mm deep x 20mm wide hole in the masonry wall to received the burglar proofing bars  8.13 Make hole through 50mm thick timber for 20mm diameter bars				
	<b>TOTAL CARRIED TO COLLECTION</b>  <b><u>COLLECTION</u></b>  From page 13  From above				
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 15
Bill No. 9	JOINERY & FITTINGS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<b><u>ELEMENT NO. 9</u></b>				
	<b><u>JOINERY &amp; FITTINGS</u></b>				
	<b><u>The following in internal Fittings</u></b>				
9.01	3000x1200mm Noticeboards in 20mm thick Softboards	No	4		
9.02	3000x1200mm Chalkboards in 6mm thick Hardboard	No	4		
9.03	Beadings around notice & Chalkboards in well seasoned hardwood timber of sizes 50x25mm with one labour	LM	36		
	<b><u>PAINTING AND DECORATION</u></b>				
	<b><u>Prepare and apply one coat aluminium primer to woodwork before fixing on:-</u></b>				
9.04	Surfaces not exceeding 100mm girth	LM	36		
9.05	General surfaces	SM	20		
	<b><u>Knot, prime, stop and apply one undercoat and two coats gloss finish on woodwork internally on:-</u></b>				
9.06	General surfaces	SM	20		
9.07	Surfaces not exceeding 100mm girth	LM	36		
	<b>Total Carried Forward to Summary</b>				

Bill of Quantities - PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL					Page 16
Bill No. 10	ELECTRICAL INSTALLATION				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<p style="text-align: center;"><b><u>ELEMENT No 10</u></b></p> <p style="text-align: center;"><b><u>ELECTRICAL INSTALLATION</u></b></p> <p><b><u>Original UK make switches, socket &amp; Fittings and Cables to be genuine East Africa Cables brand.</u></b></p>				
10.01	Supply and install 6-way Crabtree flush mounting consumer unit complete with hinged cover, blanking plates and intergral 100A main switch	No.	1		
10.02	One gang one way switch	No	8		
10.03	One gang two way switch	No.	2		
10.04	13A Twin socket outlet	No	4		
10.05	Bulkhead Fittings	No	20		
10.06	25mm <sup>2</sup> PVC conduits	No	2		
10.07	20mm <sup>2</sup> PVC conduits	No	16		
10.08	4 feet LED Flourescent Fittings	No	20		
10.09	Junction Boxes	No	12		
10.10	1.5mm <sup>2</sup> PVC Twin Flat Cable with earth	Rolls	6		
10.11	2.5mm <sup>2</sup> PVC Twin Flat Cable with earth	Rolls	2		
10.12	Sealing Chamber G. I. Box	No	2		
10.13	1.5mm <sup>2</sup> Towers Clips	Pkts	12		
10.14	2.5mm <sup>2</sup> Towers Clips	Pkts	4		
10.15	Earth Rod	No	2		
10.16	Yellow/Green Single core 16mm <sup>2</sup>	Roll	4		
10.17	Plaster Depth Boxes Twin	No	8		
10.18	Plaster Depth Boxes Single	No	8		
10.19	Cutout with Neutral	No	4		
10.20	Ceiling Fans with all accessories for fixing.	No.	12		
10.21	Wood screws	Pcts	6		
	<b>Total Carried Forward to Summary</b>				



PROPOSED NEW CLASSROOMS AT MAGADI SCHOOL

Page 17

SUMMARY

Project:

Item No.

Description

Amount (Kshs)

SUMMARY

ELEMENT

Page

- 1 GENERAL PRELIMINARIES
- 2 SUBSTRUCTURE
- 3 SUPERSTRUCTURE
- 4 ROOF COVERING
- 5 EXTERNAL FINISHINGS
- 6 INTERNAL FINISHINGS
- 7 DOORS
- 8 WINDOWS
- 9 JOINERY & FITTINGS
- 10 ELECTRICITY

1  
5  
6  
8  
9  
10  
12  
14  
15  
16

Total

Contingencies + VOP\*\*\* (@ 10%)

Sub-Total

VAT.

16%

%

Grand Total Carried to page on the form of Tender