BILL OF QUANTITIES

FOR

THE PROPOSED CONSTRUCTION TO COMPLETION OF BOYS' DORMITORY BLOCK –TENGECHA BOYS' PRIMARY SCHOOL. [2-STOREYS]

PHASE 1-(foundation and ground floor)

PHASE 2-(first& Second floors)

2024.

PHASE 1.FOUNDATION &GROUND FLOOR.

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUNDATION **ELEMENT NO. 1**				
	SUBSTRUCTURES (PROVISIONAL)				
	Over Site excavations				
A	Excavate over site to remove top soil average 200mm deep and keep on site for later re use for landscaping.		SM		
	Excavations				
B	Excavate over-site to reduce levels commencing from stripped level average 300mm deep and spread on site average 10metres away.		CM		
C	Excavate for Foundation Trenches starting from reduced level not exceeding 1.50 metres deep and cart away as directed.		CM		
D	Ditto for Column Bases starting from reduced level not exceeding 1.50m deep and cart away from site as directed.		CM		
E	Extra over excavating rock irrespective of class		CM		
F	Return fill-in and rum selected excavated material.		CM		
G	Remove and cart away from site surplus excavated material as directed.		CM		
	Disposal of water				
H	Keep all excavations free from all water including spring or running water.	ITEM	ITEM		
	Planking and strutting				
J	Uphold the sites of all excavations	ITEM	ITEM		
	Filling				
K	Hardcore filling in making up levels exceeding 250mm thick, depositing and compacting in layers of 125mm maximum thickness.		SM		
L	50mm thick Murram blinding to surfaces of fill.		SM		
	Total for EL.No.1 Carried to foundation collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.2 **SUBSTRUCTURES (ALL PROVISIONAL)**				
A	**Anti-termite treatment** TERMIDOR or other equal and approved insecticide with a ten-year guarantee to surfaces of fill and tops of foundations.		SM		
	Concrete ***50mm thick mass concrete class Q (1:4:8) to bottoms of foundations.***				
B	Column bases		SM		
C	Strip footing ***In-situ concrete; reinforced; class 20/ (20) mm; vibrated.***		SM		
D	Column bases		CM		
E	Columns		CM		
F	Strip footing		CM		
G	150mm thick bed **Reinforcement** ***Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks.***		SM		
H	16mm bars		KG		
J	12mm bars for strip footing		KG		
K	8 mm bars for Rings		KG		
L	25mm wide x 20gauge hoop iron ties.		KG		
L	Binding wire		KGS		
	Total for EL.NO.2Carried to foundation collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO 3.				
	Fabric; B.S. 4483				
A	Reference a142 mesh 200x200mm, weight 2.22kgs per square meter (measured net-no allowance made for laps) including bends, tying wire and distance blocks.		SM		
	Sawn formwork to in-situ concrete as described:-				
B	To sides; vertical or battering of strip footing.		SM		
C	Sides of column bases		SM		
D	Sides of columns		SM		
E	Edges of ground floor slab; 75 to 150mm wide.		LM		
	Walling				
F	200mm thick approved local natural stone; roughly squared to foundation walling; bedding and jointing in cement sand (1:3) mortar.		SM		
	Damp proofing				
G	Polythene; 500 gauge, 200mm laps (no allowance made to laps), horizontal; 1 no. layer laid on Murram blinding		SM		
H	200mm wide; B.S. 743 Type A bitumen hessian base 150mm laps (no allowance made for laps); horizontal, 2 no. layers, bedded in cement sand (1:3) mortar.		LM		
	Total for EL.NO.3Carried to collection				
	Foundation collection				
J	From Page TEN/B.P//01				
K	From Page TEN/B.P//02				
L	From Page Above				
	Total for foundation Carried to collection Summary-PHASE1				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUPERSTRUCTURES				
	GROUND FLOOR				
	ELEMENT NO.1 -REINFORCED CONCRETE STRUCTURE				
	COLUMNS				
	In-situ concrete; reinforced; class 20/ (20) mm; vibrated.				
A	Columns		CM		
B	Beams		CM		
C	Staircase		CM		
D	150mm thick suspended floor slabs		SM		
E	150mm thick landing		SM		
	Reinforcement				
	Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks.				
F	16mm bars		KGS		
G	10mm bars		KGS		
H	8mm bars		KGS		
I	450 mm long x 25 mm wide x 20-gauge hoop iron ties		KGS		
	Total for EL.no.1 carried to Ground Floor collection.				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.2 (FORMWORK&WALLING)				
	Sawn formwork to in-situ concrete as described:-				
A	Sides of column		SM		
B	To sides and soffits of beams		SM		
C	To soffits of Suspended slab		SM		
D	Soffits of landing		SM		
E	Sloping soffits of staircase		SM		
F	Sides and soffits of ring beam		SM		
G	Edges of staircase &strings 225-300mm wide including cutting to profile of treads and risers		LM		
H	Edges of risers 150 – 225mm wide		LM		
J	Edges of suspended floor slab 75 – 150mm wide		LM		
K	Edges of landing 75 – 150mm wide		LM		
L	25mm thick flex cell in expansion joints		SM		
M	25 x 12mm thick thioflex mastic sealant		LM		
	EXTERNAL WALLING				
N	200mm thick fine chisel dressed natural stone walling bedded and jointed in cement sand (1:3) mortar and reinforced in with 20mm wide hoop irons in every alternate course.		SM		
P	200mm thick ditto but eaves filling		LM		
Q	Extra over horizontal and vertical pointing in 100mm thick rod in cement and sand (1:3) mortar one coat of bituminous paint		SM		
R	**INTERNAL WALLING** 200mm thick local chisel dressed natural stone walling bedded and jointed in cement sand (1:3) mortar and reinforced in with 20mm wide hoop irons in every alternate course.		SM		
	Total For element no.02 Carried to ground floor collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.3. **(DOORS&WINDOWS)** **-DOORS.** ***Steel framed &Wrot celcured cypress framed frames and framings.//*** ***50mm thick mahogany paneled door comprising 150x50mm top rail 150x50mm stiles a50x50mm middle rails 200x50mm bottom rail infilled with 50mm thick solid moulded timber panels in 6 No. per leave with moulded bedding around panels edges beveled and grooved into frames all framed clamped and grooved together*** A *Double* steel casement doors overall size 1500x2400mm				
	Total for Doors Carried to collection(SUB)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	-WINDOWS				
A	**Wrot Cypress** 150 x 25mm thick window boards including bull-nosed edges and 25 x 25mm bearer; plugged, counter sinking and flush palleting 15 x 15mm quadrant bead		LM		
	Pelmet box				
B	Comprising 150 x 25mm wide fascia, 2 no. 150 x 25mm ends 100mm long; 100 x 25mm blocked top; and 50 x 25mm wrot cypress bearer; plugged (104 No.)		LM		
	Supply, assemble and fix the following purpose-made mild steel casement window; standard metal section from approved manufacturer complete with frame, transoms, mullions and with and including permanent ventilators comprising "T" bar, gauze and 16 gauge sheet metal hood 50mm high x 50mm projection to full width of window, coupling mullions, approved iron monger and one coat manufacturers primer; all welding ground to smooth finish.				
	Steel; for glazing with putty, lugs to two jambs, cutting and pinning to concrete or block-work, fixing to head and sill with screws; plugging.				
C	Window, overall size 1500 x 1500mm high with 2 No. openable and 2 No. fixed light each size 900 x 300mm high.		NO		
	Total Carried to collection(SUB)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Glazing				
A	5mm thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with putty.		SM		
	Painting and Decorations				
	On metal work				
	Prepare and apply three coats oil paint full gloss to Crown Solo or other equal and approved to:-				
B	General window surfaces; over 300mm girth internal		SM		
C	General window surfaces; over 300mm girth external		SM		
	Prepare and apply three coats polyurethane clear varnish on woodwork internally.-				
E	Frames; 200 to 300mm girth		LM		
	Total Carried to collection (SUB)				
	Ground floor collection				
F	FROM PAGE TEN/B.P//06				
G	FROM PAGE TEN/B.P//07				
H	FROM ABOVE				
	Total for El.no.3 (openings)Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 4				
	FINISHES.				
	Wall Finishes				
	Plaster; 12mm thick 2 No. coat, 9mmfirst coat of cement sand (1:6); 3mm second coat of cement and lime putty (1:10); steel trowelled to concrete or block work base generally:-				
A	Walls; internally		SM		
B	Extra over horizontal pointing in 10mm thick rod in cement and sand (1:3) mortar to external wall.		LM		
	Painting and Decorations				
	Prepare and apply three coats of first quality plastic emulsion paint to:-				
C	Plastered walls and beams		SM		
	FLOOR FINISHES				
	Beds and Backings				
D	32mm thick one coat backings; wood floated smooth to concrete base; to floors level; internally to receive terrazzo floor finish.		SM		
E	Skirting's; 100mm wide with rounded junction with wall finish and straight junction with floor finish.		LM		
F	***Ceramic floor tiles finish to*** Ground floor slab		SM		
G	Quarter space or half space landing		SM		
H	Treads 250mm wide& sloping face of stairs		LM		
I	Risers 150mm wide		LM		
J	Open strings and closed string 370mm extreme width ditto		LM		
Total for EL.NO.4 (FINISHES) Carried to collection.					

	COLLECTION	
	ELEMENT NO.1 *(pg TEN/B.P//04)*	
	ELEMENT NO.2 *(pg TEN/B.P//05)*	
	ELEMENT NO.3 *(pg TEN/B.P//08)*	
	ELEMENT NO.4 *(pg TEN/B.P//09)*	
TOTAL FOR GROUND FLOOR CARRIED TO SUMMARY-PHASE-1		

PHASE 1 SUMMARY PAGE

ITEM	**WORK DESCRIPTION**	**(SCHEDULED COST)**
1.	**FOUNDATION WORKS**	
2.	**GROUND FLOOR**	
	TOTAL for Builder's work	
Allow a sum for electrical, & railing works		
Allow Prime Cost sums of KSH.500,000		
Add KSH.300,000 for supply of 2- decker beds		
TOTAL FOR PHASE 1 (carried to grand summary page)		

AMOUNT IN WORDS

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TEN/B.P//10-END PHASE 1

PHASE 2 - FIRST&2ND FLOORS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.1 - REINFORCED CONCRETE STRUCTURE				
	COLUMNS				
	In-situ concrete; reinforced; class 20/ (20) mm; vibrated.				
A	Columns		CM		
B	Beams		CM		
C	Staircase		CM		
E	150mm thick suspended floor slabs		SM		
F	150mm thick landing		SM		
	Reinforcement				
	Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks.				
G	16mm bars		KGS		
H	12mm bars		KGS		
H	10mm bars		KGS		
I	8mm bars		KGS		
J	450 mm long x 25 mm wide x 20-gauge hoop iron tie		KGS		
Total for EL.no.1 carried to collection phase-2					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.2 (FORMWORK&WALLING)				
	Sawn formwork to in-situ concrete as described:-				
A	Sides of column		SM		
B	To sides and soffits of beams		SM		
C	To soffits of Suspended slab		SM		
D	Soffits of landing		SM		
E	Sloping soffits of staircase		SM		
F	Sides and soffits of ring beam		SM		
G	Edges of staircase &strings 225-300mm wide including cutting to profile of treads and risers		LM		
H	Edges of risers 150 – 225mm wide		LM		
J	Edges of suspended floor slab 75 – 150mm wide		LM		
K	Edges of landing 75 – 150mm wide		LM		
L	25mm thick flex cell in expansion joints		SM		
M	25 x 12mm thick thioflex mastic sealant		LM		
	EXTERNAL WALLING				
N	200mm thick fine chisel dressed natural stone walling bedded and jointed in cement sand (1:3) mortar and reinforced in with 20mm wide hoop irons in every alternate course.		SM		
P	200mm thick ditto but eaves filling		LM		
Q	Extra over horizontal and vertical pointing in 100mm thick rod in cement and sand (1:3) mortar one coat of bituminous paint		SM		
R	**INTERNAL WALLING** 200mm thick local chisel dressed natural stone walling bedded and jointed in cement sand (1:3) mortar and reinforced in with 20mm wide hoop irons in every alternate course.		SM		
	Total For element no.02 Carried to first floor collection Phase-2				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.3. (DOORS&WINDOWS) **-DOORS.** ***Steel framed &Wrot celcured cypress framed frames and framings.*** ***50mm thick mahogany paneled door comprising 150x50mm top rail 150x50mm stiles a50x50mm middle rails 200x50mm bottom rail infilled with 50mm thick solid moulded timber panels in 6 No. per leave with moulded bedding around panels edges beveled and grooved into frames all framed clamped and grooved together***				
A	Double leaf steel casement door overall size 1500x2400mm		NO		
	45mm Thick semi-solid core flush doors to B.S. 459: part 2 veneered both sides with first quality plywood and lipped on all edges in approved hardwood.				
B	Semi-solid core flush size2600 2400mm high.		NO		
	Total for Doors Carried to collection(SUB)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	-WINDOWS				
A	**Wrot Cypress** 150 x 25mm thick window boards including bull-nosed edges and 25 x 25mm bearer; plugged, counter sinking and flush palleting 15 x 15mm quadrant bead		LM		
	Pelmet box				
B	Comprising 150 x 25mm wide fascia, 2 no. 150 x 25mm ends 100mm long; 100 x 25mm blocked top; and 50 x 25mm wrot cypress bearer; plugged (104 No.)		LM		
	Supply, assemble and fix the following purpose-made mild steel casement window; standard metal section from approved manufacturer complete with frame, transoms, mullions and with and including permanent ventilators comprising "T" bar, gauze and 16 gauge sheet metal hood 50mm high x 50mm projection to full width of window, coupling mullions, approved iron monger and one coat manufacturers primer; all welding ground to smooth finish.				
	Steel; for glazing with putty, lugs to two jambs, cutting and pinning to concrete or block-work, fixing to head and sill with screws; plugging.				
C	Window, overall size 1500 x 1200mm high with 2 No. openable and 2 No. fixed light each size 900 x 300mm high.		NO		
D	Window, overall size 600 x 600mm high with 1 No. openable and 2 No. fixed light each size 200 x 200mm high		NO		
	Total Carried to collection(SUB)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Glazing				
A	5mm thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with putty.		SM		
	Painting and Decorations				
	On metal work				
	Prepare and apply three coats oil paint full gloss to Crown Solo or other equal and approved to:-				
B	General window surfaces; over 300mm girth internal		SM		
C	General window surfaces; over 300mm girth external		SM		
D	Surfaces of metal (burglar proofing grills)		SM		
E	***Prepare and apply three coats polyurethane clear varnish on woodwork internally.-*** Frames; 200 to 300mm girth		LM		
	Total Carried to collection (SUB)				
	Ground floor collection				
F	FROM PAGE TEN/B.P//13				
G	FROM PAGE TEN/B.P//14				
H	FROM ABOVE				
	Total for El.no.3 (openings)Carried to collection				

ELEMENT NO .4 –ROOFING.

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 4.				
	ROOFING				
	Galvanized corrugated sheet roofing; 30gauge; pre-painted.				
A	Roof covering not exceeding 45 degrees from horizontal; fixing to steel structure (m/s) with neoprene washers J bolts nuts neoprene washers and caps.		SM		
	Accessories, fixing as necessary to roof				
B	R.C Ridge coping		LM		
	The following in sawn cypress				
C	100 x 50mm tie beam		LM		
D	100 x 50mm rafters		LM		
E	100 x 50mm wall plate rag-bolted at 1200mm c/c with 12mm diameter bolts (m/s).		LM		
F	100x 50mm king posts		LM		
G	75x 50mm struts& ties		LM		
H	75x 50mm sawn sawn cypress purlins.		LM		
	Total Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Wrot cypress, prime grade				
A	200 x 25mm thick fascia board		LM		
B	25 x 100mm Tongue & Grooved boarding secret nailed to sawn cypress bearers or Brandering at 600mm centers.		SM		
	PLUMBING AND DRAINAGE				
	Rain water goods				
	24g Galvanized mild steel sheeting; all welds ground smooth				
C	150 x 100mm box gutter including soldered joints in the running length fixed to fascia board with and including brackets at approved centers.		LM		
D	Extra for blocked ends with 75mm dia. outlet 100mm long.		NO		
E	Extra for 90 degree bends		NO		
F	75mm dia. Rainwater downpipe fixed with and including mild steel straps at 900mm centers, plugged and screwed to wall.		LM		
G	Extra, swan-neck bends.		NO		
H	Extra; horse shoe bends		NO		
	Total Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Painting and Decorations				
	On woodwork				
	Prepare and apply one undercoat and two coats of CROWN SOLO or other equal and approved super gloss oil paint to:-				
A	Fascia; 200 to 300mm girth; external		LM		
	On metal work &over gutter beam				
	Prepare and apply one approved etching primer, one undercoat and two coats of CROWN SOLO or other equal and approved super gloss oil paint to:-				
B	General surface of gutters; over 300mm girth externally		SM		
C	Small pipes; eternally.		SM		
	Tongue & Grooved timber surfaces				
	Prepare and apply three coats of CROWN SOLO or other equal and approved polyurethane varnish to:-				
D	Surface of eaves; over 300mm girth externally.		SM		
	Total Carried to collection				
	COLLECTION				
E	Total from TEN/B.P//16				
F	Total from TEN/B.P//17				
G	Total from Above				
Total for Element NO.4 Carried toPhase3- Summary					

ELEMENT NO.5 FINISHES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 5				
	FINISHES.				
	Wall Finishes				
	Plaster; 12mm thick 2 No. coat, 9mmfirst coat of cement sand (1:6); 3mm second coat of cement and lime putty (1:10); steel trowelled to concrete or block work base generally:-				
A	Walls; internally		SM		
B	Extra over horizontal pointing in 10mm thick rod in cement and sand (1:3) mortar to external wall.		LM		
	Painting and Decorations				
	Prepare and apply three coats of first quality plastic emulsion paint to:-				
C	Plastered walls and beams		SM		
	FLOOR FINISHES				
	Beds and Backings				
D	32mm thick one coat backings; wood floated smooth to concrete base; to floors level; internally to receive terrazzo floor finish.		SM		
	Ceramic floor tiles finish to				
E	First floor slab		SM		
F	Quarter space or half space landing		SM		
G	Treads 250mm wide& sloping face		LM		
H	Risers 150mm wide		LM		
I	Open strings and closed string 370mm extreme width ditto		LM		
Total for EL.NO.5 (FINISHES) Carried to collection.					

	COLLECTION	
	ELEMENT NO.1	
	ELEMENT NO.2	
	ELEMENT NO.3	
	ELEMENT NO.4	
	ELEMENT NO.5	
TOTAL FOR FIRST FLOOR TO SUMMARY-PHASE-2		

PHASE 2 SUMMARY PAGE

ITEM	**WORK DESCRIPTION**	
	TOTAL for Builder's work	
Add ksh.500,000 for electrical, plumbing & railing works		
Allow Prime Cost sums of KSH.1,000,000		
Allow Ksh.550,000 for supply of 2-decker beds		
TOTAL FOR PHASE 1 (carried to grand summary page)		

AMOUNT IN WORDS

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TEN/B.P//17-END PHASE 2

GRAND SUMMARY PAGE

		AMOUNT
	TOTAL FOR CONSTRUCTION TO COMPLETION OF BOYS' DORMITORY BLOCK-TENGECHA BOYS' PRIMARY SCHOOL.[2 STOREYS] **FROM PAGE ;** **- PHASE 1** **-A.I.C/LTNH-RES//10** **- PHASE 2** **-A.I.C/LTNH-RES//17**	
COST OF CONSTRUCTION TO COMPLETION.		
ALLOW A SUM OF KSH 400,000 for project administration, supervision and approval process.		
GRANT TOTAL COST CARRIED TO FORM OF TENDER		

AMOUNT IN WORDS …

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(SUMS INCLUSIVE OF16% GOVERNMENT VALUE ADDED TAX)

TEN/B.P//LAST PRINTED PAGE