



REPUBLIC OF KENYA



COUNTY GOVERNMENT OF NYANDARUA

DEPARTMENT OF PUBLIC WORKS, ROADS, TRANSPORT, HOUSING AND
ENERGY

PROPOSED CONSTRUCTION AND COMPLETION OF INO. GATHIRIGA E.C.D.E
CLASSROOM BLOCK FOR UNSTABLE SOILS

FOR

THE DEPARTMENT OF EDUCATION, CHILDREN, GENDER AFFAIRS, CULTURE
AND SOCIAL SERVICES

BILLS OF QUANTITIES

ARCHITECT,
COUNTY ARCHITECT,
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

QUANTITY SURVEYOR,
COUNTY QUANTITY SURVEYOR,
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

ELEC/MECH ENGINEER
COUNTY ELEC / MECH. ENGINEER,
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

STRUCTURAL ENGINEER,
COUNTY ENGINEER - STRUCTURAL
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

SEPTEMBER, 2024

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<p><u>ELEMENT NO. 01 - PRELIMINARIES</u></p> <p>The Contractor is to allow for all Preliminaries including site offices and stores, transport of workmen to and from site, transport of materials, supply, setting out, servicing, fueling of the plant and equipment, provision of plant operator, insurance for the works shall be the sole responsibility of the contractor and all other preliminaries incidental to these works</p>				
A	Allow for all Preliminaries associated with the works	Item	1		
	Element 01				
	PRELIMINARIES		CARRIED TO SUMMARY	KSHS	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 02 - SUBSTRUCTURES</u>				
	<u>Site clearance</u>				
A	Clear the site off bushes, grass, shrubs and all vegetation; cart away as directed.	SM	110		
	<u>Excavation</u>				
	<u>Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials</u>				
B	Bulk excavation starting from the ground level but not exceeding 1.50 meters deep	CM	73		
C	For foundation trench starting from reduced level not exceeding 1.50 meters deep.	CM	47		
D	For pits for column bases starting from ground level not exceeding 1.50 meters.	CM	16		
E	Extra-over all excavation for excavating in rock irrespective of class	CM	13		
F	Return, fill-in and rum selected excavated materials around foundations	CM	78		
G	Remove and cart away from site surplus excavated materials spread on site as shown by the Client.	CM	71		
	<u>Filling</u>				
H	Hardcore filling in making up levels, hand packed, exceeding 300mm thick in layers of 150mm maximum thickness	CM	23		
I	50mm thick murrum blinding to surfaces of fill	SM	74		
	<u>Antitermite treatment</u>				
J	Premise 200 SC' or other equal and approved anti-termite insecticide treatment with ten years guarantee, applied strictly in accordance with manufacturer's instructions, to tops of fill and foundation walls	SM	74		
	Element 02				
	Substructure (All Provisional)	Carried Forward		Kshs.	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>Concrete</u>				
A	50mm thick mass concrete class Q (1:3:6) to bottoms of foundations	SM	48		
	<u>Insitu concrete; reinforced; class 20 / 20; vibrated</u>				
B	Foundations in trenches irrespective of thickness	CM	6		
C	Column bases	CM	5		
D	Columns	CM	2		
E	Ground beam	CM	6		
F	150mm thick bed	SM	74		
	<u>Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks</u>				
G	12mm bars	KG	447		
H	10mm bars	KG	109		
I	8mm bars	KG	176		
	<u>Fabric; B.S. 4483</u>				
J	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	SM	74		
	<u>Sawn formwork to insitu concrete as described:-</u>				
K	To sides; vertical or battering of strip foundations.	SM	20		
L	To sides; vertical or battering of column bases and columns	SM	35		
M	To sides; vertical or battering of ground beam	SM	43		
	Element 02				
	Substructure (All Provisional)	Carried Forward		Kshs.	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
A	Edges of ground floor slab; 75 to 150mm wide	LM	45		
	<u>Foundation walling</u>				
B	200mm thick approved local natural stone; roughly squared to foundation walling; bedding and jointing in cement sand (1:3) mortar	SM	63		
	<u>Damp proofing</u>				
C	Polythene sheet; 500 gauge, 200mm welted laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding	SM	74		
D	200mm wide; B.S. 743 Type A bitumen hessian base 150 mm laps (no allowance made for laps); horizontal, 1 no. layer, bedded in cement sand (1:3) mortar	LM	50		
	<u>In situ finishings</u>				
E	14mm thick 2 No. coat work cement sand (1:3) render; wood floated to concrete or blockwork base to walls; external	SM	23		
	<u>Prepare and apply three coats black bituminous paint on:-</u>				
F	Rendered plinths, externally.	SM	23		
	Element 02				
	SUBSTRUCTURES CARRIED TO SUMMARY			KSHS	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 03 - R.C SUPERSTRUCTURE</u>				
	<u>In situ concrete; reinforced; class 20 / (20mm); vibrated</u>				
A	Beams	CM	3		
	<u>Reinforcement</u>				
	<u>Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks</u>				
B	12mm diameter bars	KG	154		
C	8mm ditto	KG	86		
	<u>Sawn formwork to in situ concrete as described:-</u>				
D	To sides and soffits of beams	SM	26		
	<u>STEEL COLUMNS.</u>				
	75mm diameter x 3mm thick Circular Hollow Section (CHS); 2500mm long fixed with fish tail lugs to concrete floor slab.				
E		N0	4		
	<u>On Metal work</u>				
	<u>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:-</u>				
F	General surfaces of steel columns; not exceeding 100mm girth external	LM	11		
	Element 03				
	R.C SUPERSTRUCTURE CARRIED TO SUMMARY			KSHS	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 04 - WALLING</u>				
	<u>Precast concrete grade 20(20mm aggregate) including formwork, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in cement and sand (1:4) mortar</u>				
A	WINDOW CILL; 225 x 50 mm extreme height; once weathered; once throated; reinforced as necessary for handling; surface fair finish 275 mm girth; bedding, jointing and pointing in cement sand (1:3) mortar	LM	10		
	<u>NATURAL STONE WALLING</u>				
B	200mm thick approved local; chisel dressed both sides; bedding, jointing and pointing in cement sand (1:3) mortar	SM	86		
C	Ditto in gable wall	SM	12		
D	200 mm eaves filling, 200mm high including dressing between rafters	LM	17		
	<u>Labour and material</u>				
E	Raking cutting in 200mm thick natural stone walling	LM	21		
F	Extra over horizontal keying in 10mm thick rod in cement and sand (1:3) mortar; one coat of bituminous paint.	SM	86		
	Element 04				
	WALLING CARRIED TO SUMMARY			KSHS	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 05 - ROOFING</u>				
	<u>Galvanized corrugated Sheet roofing; 30 gauge; Pre-painted</u>				
A	Roof covering not exceeding 45° from horizontal; fixing to timber structure (m/s) with roofing nails and neoprene washers.	SM	112		
	<u>Accessories, fixing as necessary to roof sheets</u>				
B	150mm dia. Half round ridge cap	LM	12		
	<u>CARPENTRY</u>				
	<u>The following in 11No. sawn celcured cypress timber (second grade); trusses nailed connections; hoisting 3m above ground and spanning 9.90m</u>				
C	100 x 50mm ceiling joist	LM	14		
D	100 x 50mm rafters	LM	69		
E	100 x 50mm kingpost	LM	9		
F	100 x 50mm struts and ties	LM	65		
G	100 x 25mm splice plate	LM	44		
	<u>The following in sawn celcured cypress</u>				
H	100 x 50mm wall plate rag-bolted at 1200mm centres with 12mm diameter bolts (m/s)	LM	19		
I	200 x 40mm ridge board	LM	11		
J	75 x 50mm purlins	LM	55		
	<u>The following in wrot cypress</u>				
K	200 x 25mm thick fascia/barge boards	LM	44		
	<u>Labour and material</u>				
L	12mm diameter rag bolt, 200mm long complete with and including head, nut and two washers; cast into and including mortice in stone or concrete and run with cement and sand (1:3) mortar	N0	12		
M	Drill 50mm thick timber to receive 12mm dia. Bolt (m/s)	N0	12		
	Element 05				
	Roofing (All Provisional) Carried Forward			Kshs.	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
A	<p style="text-align: right;">Brought Forward</p> <p><u>Painting and Decorations</u></p> <p><u>On Woodwork</u></p> <p><u>Prepare and apply one zinc plumbate primer and three coats of 'CROWN SOLO' or other equal and approved super gloss oil paint to:-</u></p> <p>Fascias; 200 to 300mm girth; external</p> <p>Element 05</p>	LM	44	Kshs.	
	<p>ROOFING CARRIED TO SUMMARY</p>			KSHS	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 06 - OPENINGS</u>				
	<u>DOORS</u>				
	<u>Wrot celcured cypress framed frames and framings</u>				
A	150 x 50 mm; 2 No. labours; plugged door frame	LM	7		
B	40 x 25 mm weathered architrave	LM	7		
C	25mm rounded quadrant	LM	7		
	<u>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</u>				
D	Door size 900 x 2700 mm high; 3 pairs 150mm long purpose made hinges and all necessary ironmongery	N0	1		
	<u>Iron mongery</u>				
	<u>Supply and fix the following to UNION catalogue or other equal and approved</u>				
	<i>To timber surfaces or the like fixing with screws.</i>				
E	100mm steel butt hinges	PRS	1.5		
F	2 lever satin chrome lockcase 57mm centres with Phoenix aluminium handle on plate.	N0	1		
	<i>To metal surfaces or the like welding/fixing with rivets</i>				
G	150mm long purpose-made hinges and drop bolts	N0	2		
	<i>To concrete or blockwork; fixing with bolts; plugging</i>				
H	Rubber door stop complete with 38 mm rawl bolt	N0	1		
	Element 06				
	Openings	Carried Forward		Kshs.	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>Painting and Decorations</u>				
	<u>Aluminium primer or other equal and approved wood primer before fixing: -</u>				
A	Backs of frame, board, etc over 100mm but not exceeding 200mm girth	LM	7		
B	Ditto not exceeding 100mm girth	LM	14		
	<u>Knot, prime and stop and prepare and apply one undercoat and three coats of gloss oil paint to woodwork internally</u>				
C	General surfaces of timber doors	SM	5		
D	Frames; 100mm to 200mm girth	LM	7		
E	Ditto not exceeding 100mm girth	LM	14		
	<u>Purpose made Z range casement steel doors in small panes c/w framework, integrated steel bull hinges and 150mm recessed towerbolts and permanent ventilators including 20 x 50mm burglar proof flats welded to door running along grids of small pane divisions; all welding ground smooth</u>				
F	Double door; 1500 x 2700mm high, with two openable leaves size 900 x 2100 and 600 x 2100mm high; 3 pairs 150mm long purpose made hinges and all necessary ironmongery	N0	1		
G	4mm Thick clear sheet glass panes; fixing with premium putty	SM	2		
	Element 06				
	Openings Carried Forward			Kshs.	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>WINDOWS</u>				
	<u>Supply, assemble and fix the following purpose-made mild steel casement windows in small panes of 300 x 200mm; standard metal section from approved manufacturer complete with frames, transomes, 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 ironmongery and one coat manufacturer's primer; all welding ground to smooth finish.</u>				
	<i>Steel; for glazing with putty, lugs to two jambs, cutting and pinning to concrete or blockwork, fixing to head and sill with screws; plugging</i>				
A	Window, overall size 1500 x 1800mm high.	N0	3		
B	Window, overall size 1500 x 1500mm high.	N0	2		
C	Window, overall size 900 x 900mm high.	N0	1		
	<u>Glazing</u>				
D	4mm Thick clear sheet glass panes; fixing with premium putty	SM	14		
	<u>Prepare and apply one coat etching primer; one undercoat and two coats gloss oil paint to Crown Solo or other equal and approved to: -</u>				
E	General surfaces of metal casement doors and windows; over 300mm girth.	SM	35		
	Element 06				
	OPENINGS			KSHS	
	CARRIED TO SUMMARY				

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>Render; 18mm thick, 1 No. coat work of cement and sand (1:3); wood floated to concrete or blockwork base generally to:-</u>				
A	Beams and walls; external	SM	33		
	<u>Plaster; 18mm thick, 2 No. coat work, 15mm first coat of cement sand (1:3); 3mm second coat of cement and lime putty (1:9); steel trowelled to concrete or blockwork base</u>				
B	Walls; internal	SM	85		
	<u>Electrical conduit work</u>				
C	installation of conduits and boxes for lighting and power points	ITEM	1		
	<u>Floor finishes</u>				
	<u>In situ Finishings</u>				
	<u>Screed; cement and sand (1:3) coloured</u>				
D	40mm thick red-oxide screed to concrete or blockwork base generally to floors level; internal	SM	74		
E	100mm wide skirting; rounded junction with wall finish, coved junction with floor finish.	LM	38		
	<u>Painting and Decorations</u>				
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
F	Rendered surfaces	SM	33		
G	Plastered surfaces	SM	85		
	Element 07				
	Finishes			Kshs.	

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>Ceiling finishes</u>				
	<u>Wrot cypress</u>				
A	75 x 25mm moulded cornice	lm	40		
	<u>Approved sawn softwood; second grade; pressure impregnated.</u>				
B	50 x 50mm brandering	LM	109		
C	50 x 50mm ditto; plugged	LM	81		
	<u>Chip board</u>				
D	9mm thick plain chip-board ceiling boards nailed to timber brandering (m/s); nails punched and puttied	SM	62		
	<u>Painting and Decorations</u>				
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
E	Chip-board ceiling boards	SM	62		
F	Moulded cornice not exceeding 100mm girth	LM	40		
	Element 07				
	FINISHES CARRIED TO SUMMARY			KSHS	

<u>SUMMARY</u>			
Item	Element	Page. No	Amount
1	Substructures (All Provisional)	BW / 4	
2	R.C Superstructure	BW / 5	
3	Walling	BW / 6	
4	Roofing Construction and Covering	BW / 8	
5	Openings	BW / 11	
6	Finishes	BW / 13	
TOTAL FOR BUILDER'S WORKS CARRIED TO GRAND SUMMARY			

PROVISIONAL SUMS

<u>PROVISIONAL SUMS</u>					
	<p><u>The following provisional sums are to be measured on completion and priced in accordance with the rates contained in these bills of quantities or prorata thereto or deducted in whole if not required</u></p>				
A	<p>Allow a Provisional Sum of Kenya shillings Thirty Thousand only for Supervisory Expenses</p>	ITEM			30,000
	PROVISIONAL SUMS CARRIED TO SUMMARY			KSHS	30,000

GRAND SUMMARY

GRAND SUMMARY

ITEM	DESCRIPTION	Page No.	FOR OFFICIAL USE ONLY	FOR TENDERER USE ONLY
			KSHS.	KSHS.
A	Builder's Works	BW / 14		
B	P.C & Provisional Sums	BW / 16	30,000.00	
	SUB-TOTAL			
	ADD 1% PROJECT MANAGEMENT PAYABLE TO COUNTY REVENUE ACCOUNT			
	TOTAL CARRIED TO FORM OF TENDER INCLUSIVE OF 16% V.A.T.			

Amount in words. Kenya shillings

.....

.....Cents

Tenderer's Signature and stamp.....

Address

.....

Date

Witness Signature

Address

.....

Date