



REPUBLIC OF KENYA

**MINISTRY OF TRANSPORT, INFRASTRUCTURE, PUBLIC WORKS,
HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT OF PUBLIC WORKS**

BILL OF QUANTITIES

FOR

**PROPOSED CONSTRUCTION OF A 4 NO.CLASSROOMS,2
LABORATORIES WITH ADMINISTRATION BLOCK AT RG
NGALA SECONDARY SCHOOL
NG-KILIFI NORTH CDF**

TENDER NO.....

ESTIMATES

REGIONAL QUANTITY SURVEYOR
MOMBASA REGION
P.O. BOX 90350
MOMBASA

REGIONAL WORKS OFFICER
MOMBASA REGION
P.O. BOX 90350
MOMBASA

MOTIH & UD
STATE DEPT FOR PUBLIC WORKS
Regional Works Officer
Mombasa

NOVEMBER, 2020

**BILLS OF QUANTITIES FOR 6 CLASSROOMS AND ADMINISTRATION BLOCK AT
R. G NGALA NATIONAL SCHOOL**

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	GROUND FLOOR				
	<u>ELEMENT NO. 1: -</u>				
	<u>SUBSTRUCTURE (ALL PROVISIONAL)</u>				
	<u>Excavation and Earthworks: -</u>				
A	Excavate oversite average 200mm deep	1270	Sm	50	63,500
B	Excavate trench for strip foundation not exceeding 1.5m deep	368	Cm	250	92,000
C	Ditto for column bases	18	Cm	250	4,500
D	Return fill and ram	461	Cm	100	46,100
E	Cart away surplus excavated material	88	Cm	150	13,200
F	Allow for strutting and plunking	1	item	20,000	20,000
G	Allow for excavation free from water	1	item	20,000	20,000
	<u>Hardcore: -</u>				
H	300mm thick approved Hardcore	995	Sm	450	447,750
I	50mm thick murrum blinding	995	Sm	75	74,625
J	Treat Hardcore surface with approved insecticide	995	Sm	100	99,500
	<u>Concrete works: -</u>				
K	Plain concrete (1:4:8) in 50mm blinding under strip foundation	306	Sm	450	137,700
L	Ditto under column bases	144	Sm	450	64,800
	<u>Vibrated reinforced concrete (1:2:4) in: -</u>				
M	Strip foundation	306	Cm	15,000	4,590,000
N	column bases	147	Cm	15,000	2,205,000
O	columns	4	Cm	15,000	60,000
P	Ground beam	30	Cm	15,000	450,000
Q	100mm surface bed	995	Sm	1,500	1,492,500
	Total carried to collection				9,881,175

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	SWAN FORMWORK				
A	Verticle sidees of column	180	sm	600	108,000
B	SIDES OF Ground beam	321	sm	600	192,600
C	Formwork to edges of surface bed 75-150mm high	394	Lm	300	118,200
	<u>High yield reinforcement bars: -</u>				
D	8mm diameter bars	1140	Kg	150	171,000
E	10mm ditto	800	Kg	150	120,000
F	12mm ditto	2508	Kg	150	376,200
G	16mm ditto	650	Kg	150	97,500
H	BRC mesh typeA-142	995	Sm	450	447,750
	<u>Sub-wall: -</u>				
I	200mm coral block walling in cement sand (1:3) mortar	540	Sm	1,600	864,000
	<u>Damp proof course: -</u>				
J	200mm wide Hessian based bituminous felt DPC	450	Lm	300	135,000
K	150 DITTO	21	Lm	250	5,250
	<u>Damp proof membrane: -</u>				
L	500 gauge polythene sheet DPM	995	Sm	120	119,400
	<u>Plinth: -</u>				
M	15mm thick cement sand (1:3) plaster on plinth walls	225	Sm	350	78,750
N	Prepare and apply three coats Bitumastic paint on plinth wall	225	Sm	200	45,000
O	Paving slabs around the building 600x600x50mm precast concrete paving slabs including 250mm marram and 50mm sand bed	246	Sm	1,200	295,200
					3,173,850
	COLLECTION				
	Brought forward from page cl/1				9,881,175
	Brought forward from above				3,173,850
	CARRIED TO TO SUMMARY				13,055,025

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 2: - REINFORCED CONCRETE SUPERSTRUCTURE</u>				
A	Vibrated reinforced concrete(1:2:4) in : BEAMS	41	CM	15,000	615,000
B	COLUMNS	26	CM	15,000	390,000
C	STAIRCASE	5	CM	15,000	75,000
D	150 mm suspended slab	995	SM	1,650	1,641,750
E	150 mm landing	12	SM	1,650	19,800
	SWAN FORMWORK TO:				
f	Sides and soffits of beams	600	SM	400	240,000
G	VERTICLE SIDES OF COLUMNS	396	SM	400	158,400
H	soffits of suspended slab	995	SM	400	398,000
I	soffits and sides of sloping stair case	32	SM	400	12,800
J	soffits of landing	12	SM	400	4,800
k	Edges of suspended slab 75-150 mm high	390	LM	400	156,000
L	Edges os staircase risers ditTo	90	LM	400	36,000
	<u>High yield reinforcement bars: -</u>				
M	8mm diameter bars	4900	Kg	150	735,000
N	10mm ditto	2410	Kg	150	361,500
O	12mm ditto	52	Kg	150	7,800
P	16mm ditto	13882	Kg	150	2,082,300
Q	20 MM DITTO	986	Kg	150	147,900
	CARRIED TO SUMMARY				7,082,050

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 3: -</u> WALLING				
A	200mm coral block walling in cement sand (1:3) mortar	1131	Sm	1,600	1,809,600
B	150mm DITTO	40	Sm	1,600	64,000
CARRIED TO TO COLLECTION					1,873,600

Item No	Description	Qty	Unit	Rate	Total (Kshs)
ELEMENT NO. 4: -					
DOORS: -					
Wrot Hardwood: -					
A	150 x 50mm rebated door frame	273	Lm	900	245,700
B	45 x 20mm architrave with two labours	273	Lm	250	68,250
C	25mm quadrant moulds	273	Lm	150	40,950
D	50MM thick framed panel door size 900x2100mm	21	No	14,000	294,000
E	Flash door size 900x2100 mahogany Double door pannel 1600x2100	16 2	No NO	8,000 18,000	128,000 36,000
Iron mongery as "UNION" or equal and approved with matching screws: -					
F	100mm brass butt hinges	60	Prs	300	18,000
G	Three lever UNION locks	21	No	4,500	94,500
H	Ditto rebated	2	No	6,500	13,000
I	Two lever mortice locks	16	No	3,500	56,000
N	50MM LONG TOWER BOLTS	25	No	500	12,500
O	150 MM LONG DITTO	16	No	500	8,000
Painting: -					
Prepare and apply undercoat and two coats first quality gloss oil paint on: -					
K	General surfaces of timber	195	Sm	200	39,000
L	Surfaces of timber 200 - 300mm girth	173	Lm	120	20,760
M	Surfaces not exceeding 100mm girth	273	Lm	80	21,840
TOTAL OF DOORS, CARRIED TO SUMMARY					1,096,500

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 5: - WINDOWS: - WROT MAHOGANY Timber casement windows in wrot mahogany made of 150x50mm main frame including 75x50mm frame, 50x50mm intermediate members, 2no. Openable shutters and one fixed shutter with 16mm diameter mild steel bars in 18mm pvc conduit pipes spaced at 150mm centers and at architect detail.				
A	Window size 600x600mm	16	NO	5,000	80,000
B	Window size 1200x600mm	4	NO	9,000	36,000
C	Window size 1800x1200mm	33	NO	16,000	528,000
D	5x150mm clear glass and glazing with metal putty in panes 0.1-0.5m ²	80	SM	2,500	200,000
C	ditto obscure glass	8	SM	2,500	20,000
	Painting: -				
D	Prepare and apply primer and two coats first quality gloss oil paint on general timber surfaces	88	sm	200	17,600
	TOTAL OF WINDOWS, CARRIED TO SUMMARY				765,600

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 6: -</u>				
	<u>STAIR CASE BALUSTRADE AND BULCONY RAILLING</u>				
	<u>Staircase balustrades</u>				
	mild steel				
A	75x50x3mm thick RHS hand rail	80	Sm	300	24,000
B	50x25 x3mm thick RHS mild and bottom rail	120	Sm	300	36,000
C	One course blokwork	28	Sm	1,600	44,800
D	plaster on ditto externally and internally sement sand (1:3) mortor	84	sm	350	29,400
E	concrete balusters	693	no	600	415,800
F	concrete coping	130	lm	1,200	156,000
	<u>Painting: -</u>				
	Prepare and apply primer and two coarts firsty quality gloss oil paint on mild -steel surfaces 100-200mm girth	200	lm	120	24,000
	To plastered surfaces externally and internally	28	sm	200	5,600
	concret balusters	655	lm	120	78,600
	concrete coping	132	lm	120	15,840
	TOTAL OF STAIRCASE AND BULCONY RAILING				
	CARRIED TO SUMMARY				830,040

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 7: -</u>				
	<u>FINISHES: -</u>				
	<u>Wall finishes: -</u>				
A	15mm thick cement sand (1:3) plaster on walls internally	1131	Sm	350	395,850
B	Ditto rendering to walls beams and columns externally	552	Sm	350	193,200
	<u>Floor finishes: -</u>				
C	32mm thick cement sand (1:3) steel float floor screed	995	Sm	380	378,100
D	ditto on staircase and landing	90	Sm	370	33,300
E	100 x 25mm ditto skirting	2323	Lm	250	580,750
	<u>CELLING FINISHES</u>				
F	15MM thick cement sand (1:3) plaster on ceiling	995	Sm	360	358,200
D	Ditto to soffit of staircase and landing	75	sm	360	27,000
	<u>Painting: -</u>				
E	Prepare and apply undercoat and two coats first quality plastic emulsion paint on walls internally	1131	Sm	200	226,200
F	Ditto rendered walls externally	552	Sm	200	110,400
G	Ditto soffit of ceiling	995	Sm	200	199,000
H	Prepare and apply undercoat and two coats first quality glosspaint on walls internally	600	Sm	200	120,000
I	Ditto rendered walls externally	305	Sm	200	61,000
CARRIED TO SUMMARY					2,683,000

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>SUMMARY: -</u>				
1	SUBSTRUCTURE FROM PAGE CL / 2				13,055,025
2	FRAME FROM PAGE CL / 3				7,082,050
3	WALING FROM PAGE CL / 4				1,873,600
4	DOORS FROM PAGE CL / 5				1,096,500
5	WINDOWS FROM PAGE CL / 6				765,600
	STAIRCASE AND BALUSTERS/7				830,040
6	FINISHES FROM PAGE CL / 8				2,683,000
	TOTAL OF BUILDER'S WORK, CARRIED TO SUMMARY				27,385,815

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>PRIME COST AND PROVISIONAL SUMS: -</u>				
	<u>PRIME SUMS: -</u>				
A	Provide a provisional sum of Kenya Shillings Thirty five Thousand for ngcdf signage and the officially opening plaque				35,000
B	Provide a provisional sum of Kenya Shillings two hundred and fifty Thousand for Electrical Works				500,000
C	Provide a provisional sum of Kenya Shillings two hundred and twenty Thousand for fire fighting equipment				200,000
D	Provide a provisional sum of Kenya Shillings one hundred and twenty Thousand for plumbing works				100,000
E	Provide a provisional sum of Kenya Shillings two hundred and twenty Thousand for drainage works				120,000
F	Provide a provisional sum of Kenya Shillings three hundred and fifty Thousand for a septic tank				350,000
	Provide a provisional sum of Kenya Shillings one hundred and eighty Thousand for a soak pit				180,000
G	<u>PROVISIONAL SUMS: -</u>				
	Provide a provisional sum of Kenya Shillings four hundred twenty thousand for Project Management				800,000
	TOTAL OF PRIME COST AND PROVISIONAL SUMS CARRIED TO SUMMARY				2,285,000

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>SUMMARY: -</u>				
1	GROUND FLOOR BUILDERS WORK				27,385,815
2	GROUND FLOOR PRIME AND PROVISIONAL SUMS				2,285,000
	TOTAL OF GROUND FLOOR CARRIED TO GRAND SUMMARY				29,670,815

FIRST FLOOR

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 1: - REINFORCED CONCRETE SUPERSTRUCTURE</u>				
A	Vibrated reinforced concrete(1:2:4) in : BEAMS	41	CM	15,000	615,000
B	COLUMNS	26	CM	15,000	390,000
C	STAIRCASE	5	CM	15,000	75,000
D	150 mm suspended slab	995	SM	1,650	1,641,750
E	150 mm landing	12	SM	1,650	19,800
	SWAN FORMWORK TO:				
f	Sides and soffits of beams	700	SM	400	280,000
G	VERTICLE SIDES OF COLUMNS	396	SM	400	158,400
H	soffits of suspended slab	995	SM	400	398,000
I	soffits and sides of sloping stair case	32	SM	400	12,800
J	soffits of landing	12	SM	400	4,800
k	Edges of suspended slab 75-150 mm high	390	LM	400	156,000
L	Edges os staircase risers ditto	90	LM	400	36,000
	<u>High yield reinforcement bars: -</u>				
M	8mm diameter bars	4900	Kg	150	735,000
O	12mm ditto	52	Kg	150	7,800
P	16mm ditto	14042	Kg	150	2,106,300
	CARRIED TO SUMMARY				6,636,650

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 2: -</u> WALLING				
A	200mm coral block walling in cement sand (1:3) mortar	703	Sm	1,600	1,124,800
B	100 MM DITTO	90	Sm	1,600	144,000
CARRIED TO TO SUMMARY					1,268,800

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 3: -</u>				
	<u>DOORS: -</u>				
	<u>Wrot Hardwood: -</u>				
A	150 x 50mm rebated door frame	154	Lm	900	138,600
B	45 x 20mm architrave with two labours	154	Lm	250	38,500
C	25mm quadrant moulds	154	Lm	150	23,100
	Flash door size 900x2100 mahogany	14	No	8,000	112,000
D	50MM thick framed panel door size 900x2100mm	8	No	14,000	112,000
	<u>Iron mongery as "UNION" or equal and approved with matching screws: -</u>				
E	100mm brass butt hinges	34	Prs	300	10,200
F	Three lever UNION locks	8	No	4,500	36,000
	Two lever UNION locks	14	No	3,500	49,000
G	150 MM LONG DITTO	8	No	500	4,000
	50mm long ditto	14	No	200	2,800
	<u>Painting: -</u>				
	<u>Prepare and apply undercoat and two coats first quality gloss oil paint on: -</u>				
H	General surfaces of timber	105	Sm	200	21,000
I	Surfaces of timber 200 - 300mm girth	154	Lm	120	18,480
J	Surfaces not exceeding 100mm girth	308	Lm	80	24,640
	TOTAL OF DOORS, CARRIED TO SUMMARY				590,320

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 4 - WINDOWS: - WROT MAHOGANY Timber casement windows in wrot mahogany made of 150x50mm main frame including 75x50mm frame, 50x50mm intermediate members, 2no. Openable shutters and one fixed shutter with 16mm diameter mild steel bars in 18mm pvc conduit pipes spaced at 150mm centers and at architect detail.				
A	Window size 1800x1200mm	33	NO	16,000	528,000
B	window size 600x600mm	14	NO	5,000	70,000
C	Window size 1200x600mm	4	NO	9,000	36,000
D	5mm clear glass and glazing with metal putty in panes 0.1-0.5m2	88	SM	2,500	220,000
E	Painting: - Prepare and apply primer and two coats first quality gloss oil paint on general timber surfaces	88	sm	200	17,600
	TOTAL OF WINDOWS, CARRIED TO SUMMARY				871,600

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 5: -</u>				
	<u>STAIR CASE BALUSTRADE AND BULCONY RAILLING</u>				
	<u>Staircase balustrades</u>				
	mild steel				
A	75x50x3mm thick RHS hand rail	80	Sm	300	24,000
B	50x25 x3mm thick RHS mild and bottom rail	120	Sm	300	36,000
C	One course blokwork	28	Sm	1,600	44,800
D	plaster on ditto externally and internally sement sand (1:3) mortar	84	sm	350	29,400
E	concrete balusters	693	no	600	415,800
F	concrete coping	130	lm	1,200	156,000
	<u>Painting: -</u>				
	Prepare and apply primer and two coarts firsty quality gloss oil paint on mild -steel surfaces 100-200mm girth	200	lm	120	24,000
	To plastered surfaces externally and internally	28	sm	200	5,600
	concret balusters	655	lm	120	78,600
	concrete coping	132	lm	120	15,840
	TOTAL OF STAIRCASE AND BULCONY RAILING				
	CARRIED TO SUMMARY				830,040

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>ELEMENT NO. 6: -</u>				
	<u>FINISHES: -</u>				
	<u>Wall finishes: -</u>				
A	15mm thick cement sand (1:3) plaster on walls internally	703	Sm	350	246,050
B	Ditto rendering to walls beams and columns externally	717	Sm	350	250,950
	<u>Floor finishes: -</u>				
C	32mm thick cement sand (1:3) steel float floor screed	1247	Sm	380	473,860
D	ditto on staircase and landing	90	Sm	370	33,300
E	100 x 25mm ditto skirting	608	Lm	250	152,000
	CELLING FINISHES				
F	15MM thick cement sand (1:3) plaster on ceiling	995	Sm	360	358,200
G	Ditto to soffit of staircase and landing	75	sm	360	27,000
	<u>Painting: -</u>				
H	Prepare and apply undercoat and two coats first quality plastic emulsion paint on walls internally	703	Sm	200	140,600
I	Ditto rendered walls externally	717	Sm	200	143,400
J	Ditto to soffit of ceiling	995	Sm	200	199,000
K	Prepare and apply undercoat and two coats first quality gloss paint on walls internally	350	Sm	200	70,000
L	Ditto rendered walls externally	300	Sm	200	60,000
CARRIED TO SUMMARY					2,154,360

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>SUMMARY: -</u>				
1	FRAME FROM PAGE FF / 1				6,636,650
2	WALING FROM PAGE FF / 2				1,268,800
3	DOORS FROM PAGE FF / 3				590,320
4	WINDOWS FROM PAGE FF / 4				871,600
5	STAIRCASE AND BALUSTERS FF/5				830,040
6	FINISHES FROM PAGE FF / 6				2,154,360
TOTAL OF BUILDER'S WORK, CARRIED TO FIRST FLOOR SUMMARY					12,351,770

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>FIRST FLOOR PRIME COST AND PROVISIONAL SUMS: -</u>				
	<u>PRIME SUMS: -</u>				
A	Provide a provisional sum of Kenya Shillings two hundred and fifty Thousand for Electrical Works				500,000
B	Provide a provisional sum of Kenya Shillings two hundred and twenty Thousand for fire fighting equipment				200,000
C	Provide a provisional sum of Kenya Shillings one hundred and twenty Thousand for plumbing works				120,000
D	Provide a provisional sum of Kenya Shillings fifty Thousand for drainage works				50,000
A	Provide a provisional sum of Kenya Shillings two hundred and fifty Thousand for CONTIGENCIES				500,000
	TOTAL OF PRIME COST AND PROVISIONAL SUMS CARRIED TO FIRST FLOOR SUMMARY				1,370,000

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	<u>SUMMARY: -</u>				
1	FIRST FLOOR BUILDERS WORK				12,351,770
2	FIRST FLOOR PRIME AND PROVISIONAL SUMS				1,370,000
	TOTAL OF FIRST FLOOR CARRIED TO GRAND SUMMARY				13,721,770

Item No	Description	TENDERER USE KSH	OFFICIAL USE KSH
	<u>GRAND SUMMARY: -</u>		
1	<u>PRELIMINARIES</u>		300,000
2	GROUND FLOOR BUILDERS WORK		29,670,815
3	FIRST FLOOR PRIME AND PROVISIONAL SUMS		13,721,770
	SUB TOTAL		43,692,585
	14% V.A.T		6,116,962
	TOTAL CARRIED TO FORM OF TENDER		49,809,547

AMOUNT IN WORDS.....

CONTRACTORS NAME.....

ADDRESS.....

SIGNATURE.....DATE 10/11/2020

NAME OF WITNESS.....

ADDRESS.....

SIGNATURE.....DATE.....

