

REPUBLIC OF KENYA



MINISTRY OF TRANSPORT AND INFRASTRUCTURE
(DEPARTMENT OF PUBLIC WORKS)

CHAINLINK PERIMETER FENCING AND CONSTRUCTION OF 1No. GUARD HOUSE

AT

KANJARA PRIMARY SCHOOL

BILLS OF QUANTITIES

ISSUED BY:
COUNTY WORKS OFFICE
P. O. BOX 120 - 70200
WAJIR

2020

ITEM	DESCRIPTION	QTY	ITEM	RATE	AMOUNT
	<u>Fencing</u>				
A	Clear site of all obstructions and hedges and cart away from site	1300	LM	50	65,000
B	Provide all materials and construct 2400mm high chain link fence above ground level consisting of 100 x 100mm overall cranked precast concrete post (mix 1:2:4) posts at 3.0m centres reinforced with 4 No. 8mm diameter high tensile bars including 6mm diameter stirrups at 300mm centres complete with 12 ½ gauge x 10 strand galvanized barbed wire fencing and morticed in mass concrete surround 1:3:6 mix including excavations, formworks and disposals.	1300	LM	3000	3,900,000
C	Extra over ditto; for 100 x 100mm precast concrete struts 2600mm long.	130	NO	2500	325,000
	<u>Gates</u>				
D	Excavate pit to form pier foundation not exceeding 1.5m deep part return fill in and ram and part cart away.	4	NO	750	3000
E	Concrete (1:2:4) in base size 1000 x 1000 x 300mm thick.	4	NO	2500	10,000
F	Concrete pillar size 500 x 500 x 2100mm high including all steel reinforcements, formwork and finishes	4	NO	3000	12,000
G	Pair of galvanized mild steel gate overall size 6000mm wide x 2100mm high in two equal leaves 3000 x 2100mm high constructed of 100 x 50 x 4mm RHS frame; 50 x 50 x 4mm SHS vertical members at 150mm centres; 100 x 50 x 4mm horizontal centre piece; 70 x 50 x 6mm quadrant track fish tailed and built into concrete including purpose made locking mechanism.	1	NO	125000	125000
H	Ditto; pedestrian gate 1000 x 2100mm high.	2	NO	31,000	62,000
	<u>Painting</u>				
	<u>Prepare and apply one undercoat and two finishing coats of 1st quality gloss oil paint to:-</u>				
I	Surfaces of concrete pillars	18	SM	300	5400
	<u>Prepare and apply three coats gloss paint to metal surfaces overall</u>				
J	Metallic surfaces overall	30	SM	300	9000
	TOTAL FENCING WORKS CARRIED TO GRAND SUMMARY				4,451,400

	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 1</u>				
	<u>1NO. GUARD HOUSE</u>				
	<u>SUBSTRUCTURES</u> (ALL PROVISIONAL)				
	Site clearance				
A	Clear site of works of shrubs, bush and small trees, grub up roots and burn debris	11	SM	200	2200
B	Excavate to remove top soil and load wheel and deposit where directed, average depth 200mm	11	SM	250	2750
	<u>Earthworks</u>				
C	Excavate for foundations commencing at reduced level n.e 1.5m deep	14	CM	450	6300
D	Extra over excavation in soft rock	3	CM	1500	4500
	Disposal				
E	Backfilling around foundations	8	CM	150	1200
F	Load and cart away surplus spoil to approved dump site	9	CM	650	5850
	Total carried to collection				22800

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Imported filling				
A	Approved hardcore filling to make up levels	3	CM	1400	4200
	Damp proof membrane				
B	500g gauge polythene laid under surface beds	9	SM	300	2700
	Anti-termite treatment				
C	Chemical anti-termite treatment executed by an approved specialist under a ten year guarantee to surfaces of hardcore, etc.	9	SM	250	2250
D	Blinding under foundations and bases, thickness 50mm	9	SM	750	6750
	Mass concrete class 15				
E	Foundation	1	CM	10500	10500
F	Beds, thickness 100mm	9	SM	1050	9450
	Total carried to collection				35850

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Reinforcement (all provisional)				
	High yield deformed steel bar reinforcement to BS4461				
A	12mm diameter	42	Kg	250	10500
B	10mm diameter	29	Kg	250	7250
	Steel mesh fabric reinforcement to BS 4483				
C	Layer of mesh fabric reinforcement laid in slab or bed with 200mm side and end labs (measured net-no allowance made for laps) Ref; A142 weighing 2.22kg per square metre.	9	SM	750	6750
	Formwork				
D	Edges of ground slab girth 75-150mm	12	LM	200	2400
	Load bearing natural stone rough dressed stone walling in cement and sand mortar (1:3)				
E	Walling thickness 200mm	9	SM	1700	15300
	Total carried to collection				42200
	<u>Collection</u>				
	Brought forward from page 01				22800
	Brought forward from page 02				35850
	Brought down from above				42200
	Total of Element 01 carried to summary				100850

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 2</u>				
	<u>R.C. SUPERSTRUCTURE</u>				
	<u>Vibrated reinforced concrete class 20</u>				
A	Beams	1	CM	14500	14500
	<u>Reinforcement</u>				
	<u>High yield deformed steel bar reinforcement to BS 4461</u>				
B	12mm diameter	42	Kg	250	10500
C	8mm diameter	22	Kg	250	5500
	<u>Formwork</u>				
D	Sides and soffits of beams	17	SM	300	5100
	Total of Element 02 carried to summary				35600

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 3</u>				
	<u>SUPERSTRUCTURE WALLING</u>				
	<u>Approved load bearing fine chiseled, zero joint, dressed and rubbed stone walling in cement and sand mortar</u>				
A	Walling, thickness 150mm	36	SM	1700	61200
B	Extra for fair face and neat horizontal and vertical zero joints	36	SM	550	19800
	Total of Element 03 carried to summary				81000

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 4</u>				
	<u>ROOF CONSTRUCTION, COVERING AND RAINWATER DISPOSAL</u>				
	<u>ROOF CONSTRUCTION</u>				
	<u>Roof construction</u>				
	<u>All the following structural timber shall be sawn second grade treated cypress with 9-15%M.C.</u>				
A	100 X 50mm wall plate.	12	LM	280	3360
B	75 X 50mm Purlins	15	LM	260	3900
	<u>Trusses</u>				
	<u>The following in trusses with nailed connection and rising approximately 2.80m above ground level</u>				
C	150 X 50mm rafters	12	LM	300	3600
	<u>Roof covering</u>				
D	Prepainted G.I and Aluzinc sheet metal roofing Gauge 30 corrugated boxed profiled sheets (as MRM ltd) complete with ridges	17	SM	1700	28900
	<u>Fascia board</u>				
E	25 x 200mm cypress facial/barge boards nailed to rafters (M.s)	17	LM	400	6800
	<u>Painting</u>				
	<u>Prepare and apply one coat of calcium plumbate and two coats of gloss oil paint to</u>				
F	General surfaces of wood exceeding 100mm but not exceeding 200mm girth	17	LM	200	3400
	Total of Element 04 carried to summary				49960

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 5</u>				
	<u>DOORS</u>				
	<u>Galvanized steel casement doors</u>				
A	900 x 2100mm high door complete with 50 x 50 x 3 mm fixed angle frame; 2.5 mm thick checkered plate build into panels, "union" 3-lever steel door locks, 3 x 200 mm lockable tower bolts.	1	NO	17000	17000
	<u>Prepare and apply three coats gloss oil paint to:</u>				
B	General surfaces door	4	SM	300	1200
	Total of Element 05 carried to summary				18200

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6</u>				
	<u>WINDOWS</u>				
	<u>Precast concrete units class 25 (25mm aggregate) reinforced with 2 NO. 12mm diameter bars</u>				
A	150 x 50mm thick; weathered, throated moulded to architectural details	2	LM	400	800
B	25 x 3mmwater bar including fixing	2	LM	120	240
	<u>supply and fix the following steel casement windows complete with all necessary ironmongery</u>				
C	1200 x 900mm	2	NO	10500	21000
D	5mm thick clear sheet glass and glazing with metal putty in panes	2.2	SM	1400	3080
E	Prepare and apply three coats of solo paint to metal window surfaces measured flat overall; internally	2.2	SM	300	660
F	Ditto; externally	2.2	SM	300	660
	Total of Element 06 carried to summary				26440

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 7</u>				
	<u>FINISHES</u>				
	<u>FLOORS</u>				
	<u>Cement and sand (1:4) screeding smooth trowelled</u>				
A	30mm Thick to receive finishes	9	SM	450	4050
	<u>Plaster</u>				
	<u>12mm thick gauged plaster 1:4 to:-</u>				
B	Wall surfaces internally	36	SM	350	12600
	Total of element 7 carried to summary				16650

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 8</u>				
	<u>PAINTING AND DECORATING</u>				
	<u>WALLS</u>				
	Prepare and apply one undercoat and two finishing coats of 1st quality silk vinyl paint to:-				
A	General plastered surfaces of walls	36	SM	300	10800
	Total of element 8 carried to summary				10800

ELECTRICAL WORKS

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS
	Supply, install, test and commission the following:-				
	<u>LIGHTING POINTS</u>				
01	Lighting points wired in 3 x 1.5mm ² S-C P.V.C.I copper cables drawn in concealed 20mm diameter heavy gauge PVC conduits complete with necessary accessories excluding switches and fittings for:- a) one way switching	3	NO	2700	8100
	<u>SWITCHES</u>				
02	5 Amps moulded ivory switch plate as MEM or approved equivalent as follows:- a) Two gang one way	1	NO	400	400
	<u>LIGHTING FITTINGS</u>				
03	Lighting fittings complete with lumps of the correct wattage as follows:- a) pendant set comprising 10A- 3plate ceiling rose, BC lamp holder with energy saving bulb and flex cable b) 100w polycarbonate bulkhead fitting complete with energy saving bulb	1 2	NO NO	850 1500	850 3000
	<u>POWER POINTS AND SOCKET OUTLETS</u>				
04	Socket outlet points wired in 3 x 2.5mm ² S-C P.V.C.I copper cables drawn in concealed 20mm diameter heavy gauge PVC conduits	1	NO	3000	3000
05	13Amps twin socket outlets as MEM or approved equivalent	1	NO	750	750
	Total carried forward to the next page				16100

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS
	Total brought forward from previous page				16100
	<u>SUB -MAINS CABLE AND OTHER ITEMS</u>				
01	3 x 6.0mm ² single core PVC I copper sub-mains cable drawn in 25mm diameter heavy gauge PVC conduits	5	LM	450	2250
02	30Amps 2-ways splitter main switch as MEM	1	NO	3500	3500
03	T-shaped metallic cable loop -in- box 14swg	1	NO	2500	2500
04	80Amps cut out with a neutral link terminal	1	NO	2500	2500
05	6.0mm ² 2core underground armoured cable	90	LM	850	76500
06	Electrical earthing comprising of 1500mm long copper earth rod, 6.0mm SC cable and 300 x 300mm earthing chamber		ITEM	5750	5750
	TOTAL ELECTRICAL CARRIED TO SUMMARY				109100

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SUMMARY</u>				
1	Substructure				100850
2	Reinforced concrete superstructure				35600
3	Superstructure walling				81000
4	Roof construction, covering & rainwater disposal				49960
5	Doors				18200
6	Windows				26440
7	Internal Finishes				16650
8	Painting and Decorating				10800
9	Electrical works				109100
	Total for 1No. Guard house				448,560
1NO. GUARD HOUSES CARRIED TO GRAND SUMMARY					448,600

BILL OF QUANTITIES

FOR PERIMETER FENCING AND CONSTRUCTION OF 1 NO GUARD HOUSE AT KANJARA PRIMARY SCHOOL

GRAND SUMMARY

ITEM	DESCRIPTION	TENDERER'S AMOUNT KSHS	OFFICIAL USE ONLY KSHS
01	PERIMETER FENCING FROM P/F 01		4,451,400
02	1 NO. GUARD HOUSE FROM S/01		448,600
	SUB TOTAL		4,900,000
	GRAND TOTAL		4,900,000

AMOUNT IN WORDS.....

CONTRACTOR'S NAME.....

ADDRESS.....

DATE.....

SIGNATURE AND STAMP.....

WITNESS NAME.....

ADDRESS.....

DATE.....

SIGNATURE.....