

# REPUBLIC OF KENYA

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## COUNTY GOVERNMENT OF NYAMIRA DEPARTMENT OF HEALTH SERVICES

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### PROPOSED COMPLETION OF OPD BLOCK AT KIENDEGE HEALTH FACILITY

### BILLS OF QUANTITIES

Prepared by:

Public Works Office

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>BILL NO. 1 - BUILDERS WORK</b>				
	<b><u>ELEMENT NO.1</u></b>				
	<b><u>WINDOWS</u></b>				
	<b><u>Supply and fix the following exshop standard welded mild steel casement windows comprising standard z-section framing; complete with aluminium fastners, stays and all other necessary ironmongery; including 75x3mm perforated mild steel permanent vent and hood at the top infilled with mosquito wire guaze and all primed in one coat red oxide primer before delivery to site and all welds ground smooth including fixing lugs to masonry and/or beams bedded in cement and sand (1:3)mortar and pointing all around with mastic</u></b>				
	<b><u>NOTE:-</u></b>				
	<b>All references to ideal casement catalogue but the tenderer may supply any other equal and approved to the satisfaction of the Project Manager</b>				
A	Window overall size 1700x1600mm high	8	NO		
B	Window overall size 1000x1600mm high	1	NO		
C	Window overall size 900 x 600mm high	3	NO		
	<b><u>GRILLS</u></b>				
D	Standard fabricated grill 1600mm x1200mm high including cutting and pinning lugs to concrete or blockwork surround and bedding frame in cement and sand mortar (1:4) as per the Architectural details including painting	9	NO		
E	Ditto but size 3600 x900mm ditto	1	NO		
	<b><u>Glazing</u></b>				
F	4mm thick clear sheet glass panes over 0.10 but n.e 0.50 square metres: fixed with putty	22	SM		
G	Ditto but Obscure ditto	2	SM		
	<b><u>Sills</u></b>				
H	125x20mm Thick Reinforced concrete sill with one curved edge including bedding and pointing in cement and sand (1:3) mortar including painting	18	LM		
	<b><u>Curtain tracks</u></b>				
I	2000mm long ornamental bronze curtain track with corbel brackets for and including 20mm anodized curtain rail for 3 separate curtains- blinds, main etc	10	NO		
	<b><u>prepare and apply two undercoats and one finishing coat gloss paint on metal work</u></b>				
J	General surfaces of mild steel windows ( both sides)	48	SM		
	<b><u>ELEMENT NO.1</u></b>				
	<b><u>WINDOWS</u></b>				
	<b><u>CARRIED TO SUMMARY</u></b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.2</u></b>				
	<b><u>DOORS</u></b>				
	<b><u>Grill</u></b>				
A	Door size 900 x2100mm high grill door to Architectural details including painting	1	NO		
	<b>Wrot prime grade cypress door frames</b>				
B	20x20mm beading	30	LM		
C	25mm Quardrant	50	LM		
D	40x20mm Architrave	50	LM		
E	150x50mm door frame with four labours plugged	50	LM		
F	150x75mm transome with four labours	20	LM		
	<b>Flush doors leaves</b>				
G	50mm Thick Solid flush door size 900x2100mm to project manager;s approval	7	NO		
H	50mm Thick flush door size 900x2100mm to project manager;s approval	3	NO		
I	4mm Thick clear sheets glass and glazing to wooden fanlights	20	S.M		
	<b><u>Supply and fix the following ironmongery as UNION catalogue or equal and approved</u></b>				
J	Three lever mortice lock complete with set lever brass handle furniture	10	NO		
K	100mm steel butt hinges with screws	15	Pairs		
L	Rubber door stop complete with 38mm rawl bolt	10	NO		
M	100mm tower bolt	10	NO		
N	100mm aluminium D pull handles	10	NO		
	<b>Total carried to Collection</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>Doors (CONT'D)</b> <b>Painting and decorating</b> <b>Prepare and apply one coat aluminium primer to wood surfaces of:-</b>				
A	100-200mm girth	50	LM		
B	Ditto not exceeding 100mm girth	224	LM		
	<b>Knot prime stop and prepare and apply one under coat and two finishing coats of gross oil paint to:-</b>				
C	General surfaces of timber doors	40	SM		
D	Ditto 100-200mm girth	224	LM		
	<b>Prepare and apply two undercoats and one finishing coat of gloss paint on metal work</b>				
F	General surfaces of casement doors	120	S.M		
	<b>Carried to collection.</b>				
	<b>COLLECTION</b> <b>Brought forward from page No.</b>	3			
	<b>Brought down above</b>				
	<b>TOTAL FOR ELEMENT NO.2</b> <b>DOORS</b> <b>CARRIED TO SUMMARY</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>ELEMENT NO. 03</b>				
	<b>RAINWATER GOODS</b>				
A	300mm girth gutter including soldered joints in the running length fixed to fascia board and including brackets at approved pattern brackets at 1000mm/cc	72	LM		
B	Ditto 100x100mm down pipe secured to wall with and including steel brackets (4no. pipes)	36	M		
C	Extra over ditto to sawn neck	6	NO		
D	Ditto to shoe	6	NO		
E	Extra over gutter connection to down pipe	6	NO		
	<b><u>Painting and Decorating</u></b> <b>prepare and apply two undercoats and two finishing coats of varnish to:-</b>				
F	General surfaces of eaves	46	S.M		
	<b><u>Touch up primer, prepare and apply two undercoats and one finishing coat gloss paint on metal work</u></b>				
G	General surfaces of metal gutters and rainwater down pipes	46	S.M		
H	<b><u>Wrot cypress, prime grade</u></b> 200x25mm thick fascia board to ends of rafters(m.s)	72	LM		
	<b><u>Painting and Decorating</u></b> <b><u>Knot prime stop and prepare and apply one under coat and two finishing coats of gross oil paint to:</u></b>	72	LM		
	<b>TOTAL FOR ELEMENT NO.3</b>				
	<b>RAINWATER GOODS</b>				
	<b>CARRIED TO SUMMARY</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.4</u></b>				
	<b><u>EXTERNAL WALL FINISHES</u></b>				
	<b><u>External wall finishes</u></b> <b><u>25mm thick cement, sand render, with wood float finish, as described to:-</u></b>				
A	Concrete surfaces of Walls , Columns and ring beams	550	SM		
	<b><u>Painting and decorations</u></b>				
	<b><u>Prepares and apply one undercoat and two finishing coats exterior quality plastic emulsion paint on:-</u></b>				
B	Fair faced surfaces of concrete walls, columns and ring beams	550	SM		
	<b><u>Paving slab</u></b>				
C	Supply and lay precast concrete slabs size 600 x600 mm laid on and including 50mm thick consolidated sand and 100mm thick murrum sub- base to fall and all necessary excavation	28	SM		
	<b>TOTAL FOR ELEMENT NO 4</b> <b>EXTERNAL WALL FINISHES</b> <b>CARRIED TO SUMMARY</b>				



PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>ELEMENT NO.6</u></b></p> <p><b><u>FLOOR FINISHES</u></b></p> <p><b><u>Floor finishes</u></b></p> <p><b><u>In situ cement and sand (1:3) screed beds, with steel trowelled finish, on concrete</u></b></p>				
A	25mm thickness screeding to receive ceramic floor tiles including stairs	208	SM		
B	400x400x8mm as manufactured by SAJ CERAMICS LTD or other approved coloured ceramic non-slip floor tiles bedded and jointed in cement and sand 1:1 and pointed in coloured cement grouting	208	SM		
C	Ditto : but 100mm high skirting	84	LM		
	<p><b>TOTAL FOR ELEMENT NO.6</b></p> <p><b>FLOOR FINISHES</b></p> <p><b>CARRIED TO SUMMARY</b></p>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.7</u></b>				
	<b>CEILING FINISHES</b>				
	<b><u>chip board ceiling</u></b>				
A	12mm thick Chipboard ceiling fixed to and including 50x50mm sawn cypress brandering at 600mm centres both directions fixed with clout headed nails and set out in symmetrical panels with 'V' joints	196	SM		
B	<b><u>Extra over</u></b> removable access trap door size 750x750mm with 100x50mm sawn treated cypress trimming joists 120x25mm wrot cedar frame all round and 12mm soft board removable pannel set loose on top of the framing including painting	2	NO		
	<b><u>Prime Grade wrot cypress timber selected and kept clean</u></b>				
C	100x25mm cornice with two labourers	115	LM		
	<b><u>Painting and decorations</u></b>				
D	Prime only back of timber before fixing surface not exceeding 100mm girth	115	LM		
	<b><u>Knot,prime&amp;stop and prepare and apply three coats first quality emulsion paint.</u></b>				
E	Chip board ceiling.	196	SM		
	<b>TOTAL FOR ELEMENT NO .7</b>				
	<b>CEILING FINISHES</b>				
	<b>CARRIED TO SUMMARY</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>OPD BLOCK SUMMARY</b>	<b>PAGE</b>	<b>NO</b>		
1	WINDOWS		2		
2	DOORS		4		
3	RAINWATER GOODS		5		
4	EXTERNAL WALL FINISHES		6		
5	INTERNAL WALL FINISHES		7		
6	FLOOR FINISHES		8		
7	CEILING FINISHES		9		
<b>TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>BILL NO. 2</b>					
<b>ELEMENT NO.1</b>					
<b>SANITARY FITTING - SUPPLY AND INSTALL</b>					
1.0	<b>Supply only of the following appliances including their support brackets , and fixing screws e.t.c/ Sanitary fitting, including all accessories.</b>				
1.1	<b><u>NOTE: TRADE NAMES</u></b>  Where Trade names are mentioned below, the Tenderer MUST provide the same materials. Other brands shall not be accepted without a written permission from the Engineer/Architect.				
A	Entice, close coupled low level wash-down W.C. suite as Twyford "Advent HO" Ref. No. ADI 148WH with horizontal outlet, 6L cistern Ref. No. AD26 11 WH with high pressure ball-valve and international overflow fittings all complete, or equal and approved	NO	5		
B	Mixer tap, 15mm single lever CP pillar type as Cobra Watertech 'Focus 900 single tap hole basin mixer, complete with cast fixed outlet and pop-up waste.	NO	21		
C	Instaneous Shower Rose brazillia or equal and approved	NO	5		
D	Instantaneous under sink water heater with 3KW element.	NO	1		
E	Wash hand basin as Twyford 'Advent/View' size 510x 415mm with 2No. Logics Water taps, complete with wall hangers, C.P. Chain waste, plug, plastic bottle trap.Single	NO	19		
F	Combined stainless steel sluice sink slop Hopper,1600mm x 600mm x850mm with cistern,medical sluice sink or equal and approved.	NO	1		
G	Stainless steel scrub sink,1200mm x 350mm x 580mm unit with a mixer tap or equal and approved.	NO	1		
<b>Total C/F to collection page</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1.2					
A	Plate glass mirror with bevel edges with fixing screws and cups. Size 1200 x 450mm as Twyford No. PB0383	NO	4		
B	Plate glass mirror with bevel edges with fixing screws and cups. Size 600 x 300mm as Twyford	NO	6		
C	White vitreous China semi recessed soap and sponge tray size 305x165mm as Twyford Ref. No. VC 9312 WH (bath)	NO	5		
D	Lab sinks with all accessories.Size 420(l)*320(w)*215(d)mm, manufactured by injection moulded from polypropylene co-polymer resin with a self draining base. The sinks shall be mounted on top or underside of the work benches.The sinks to be complete with a 300mm long stainless steel flex connector, 500mm long plug & chain and isolation angle valve.Code: MS 401	NO	2		
	<b>Total C/F to collection page</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>1.3</b>					
A	Chrome plated towel rail, size 20mm x 650mm long as Twyford Ref. No. IC 6854CP.	NO	3		
B	15mm heavy duty flex connector 350mm long with brass back nuts (Italy or Spain type) for connecting to tap fitting	NO	17		
C	Ditto but 400mm long.	NO	2		
D	15mm angle (service) valve for wc, sink and whb chrome plated, type Tivoli of German or equal and approved.	NO	19		
E	Flush with chorine and drain	Item	1		
F	Test and Commission <b>Hand Driers</b>	Item	1		
G	Med clinics or equal and approved:Mediflow:Auto Dryer 2.75KW: operating on an infrared automatic sensing system with safety cut out complete with plastic ,rawl plugs and fixing screws.	NO	10		
H	<b>Soap Dispenser</b> 1 litre capacity press type Liquid Soap dispenser(Automatic)	NO	19		
<b>Total C/F to collection</b>					
<b>COLLECTION PAGE</b> Brought forward from page No BQ11  Brought forward from page No BQ12  Brought forward from page No BQ13 (Above)					
<b>Total for Bill No. 1A Carried to Summary</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
2	<b>ELEMENT NO.2</b>				
2.0	<b>WATER SUPPLY INSTALLATION</b>				
2.1	<p><b>Supply, install, test and commission the following: PIPE WORK AND FITTINGS</b></p> <p>Prices for pipe work shall include the cost for couplings, sockets, nipples, fixing brackets and plugs, (timber plugs not accepted) and jointing to fittings e.t.c., including jointing tapes, compounds e.t.c, together with fixing pipe sleeves and the necessary builders work, all as required in the pipe work installation.</p>				
2.2	<p><b>WATER SUPPLY SYSTEM</b></p> <p>Main supply, cold and hot water distribution and over-flow.</p> <p>PP-R (Polypropylene Random Co-polymer) pipes and fittings to DIN 8078 and DIN 16962 with polyfusion welded joints to DVS 2207 to approval.</p> <p>Cold-water pipe work (above and underground)</p>				
A	50mm PP-R pipe (PN-25) fixed to wall surface or in wall chase	LM	50		
B	40mm ditto	LM	60		
C	32mm ditto	LM	130		
D	25mm ditto	LM	160		
	<b>Total C/F to collection page</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>Extra Over PP-R pipe work for the following fittings (PN-25):-</b>				
2.3	Elbows (90 <sup>0</sup> or 45 <sup>0</sup> )				
A	25mm ditto	NO	117		
B	32mm ditto	NO	99		
C	40mm ditto	NO	60		
D	50mm ditto	NO	12		
E	25mm Tees	NO	56		
F	32mm ditto	NO	45		
G	40mm ditto	NO	28		
H	32mm x 25mm ditto reducer	NO	33		
	<b>Total C/F TO collection page</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>2.4</b>	<b>Transition Fittings (PP-R to BSP threaded fittings)</b>				
A	50x32mm elbow 90° female or male	NO	50		
B	32x3/4mm Adoptor	NO	66		
C	40x1 1/4 mm Male	NO	17		
<b>2.5</b>	<b>Valves</b>				
A	50mm dia. full way gate valve, screws down type with non-rising spindle, with females schemed and joining to steel pipes (unit as regular equal approved)	NO	1		
B	32mm ditto	NO	3		
C	40mm dia. bronze non-return valve as pegler (or equal and approved).	NO	1		
D	40mm dia. brass strainer as pegler or equal and approved	No	1		
E	25mm dia. high pressure service ball valve with heavy gauge plastic float valve	NO	21		
<b>2.6</b>	<b><u>Excavation backfilling of trenches</u></b>				
A	Excavate pipe trench in murrum, clay, red or black cotton soil for trench not exeeding 800mm deep and avarage 600mmdeep, part return, fill and ram and remainder of the soil cart away and make good.	LM	30		
B	Test and Commission	ITEM	1		
	<b>Total C/F collection page</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>2.7</b>	<b><u>Water Tanks &amp; Hot water cylinders</u></b>				
A	50mm diameter inlet/outlet/washout connection sockets with 10,000l Water Tanks as ROTO on well done base.	NO	1		
B	50mm diameter inlet/outlet/washout connection sockets with 5,000l O/H Water Tanks	NO	1		
C	10M high steel Tower to structural engineer's detail	Item	1		
<b>2.8</b>	<b><u>Water Booster Pump</u></b>				
A	Booster pump. Power 0.5HP,70L/Min , 80m Head. Single phase, 50Hz or equal and approved.	Set	1		
B	Supply and Install Electric control panel to match above pump set, for fully automatic operation of the pump susyem.	NO	1		
C	Supply and Install level controllers, float swith type for starting/stopping of the booster pumps, one to the low level cut-out and two at the high level tank, including all the necessary wiring.	ITEM	1		
<b>2.9</b>	<b><u>TESTING AND STERILIZATION</u></b>				
E	Allow for flow and pressure testing the whole of the water reticulation system during the works process and on completion to the satisfaction of the Engineer. (Pressure test records to be kept on site with a copy given to the Engineer for approval and record.)	ITEM	1		
F	Allow for flushing out and sterilization of the water storage tanks and pipe work system. (Sterilization and testing to be carried out to approval and water chemical test/analysis certificates from an approved laboratory given to the Engineer upon completion).	Item	1		
	<b>Total C/F to Collection Page</b>				
	<b><u>COLLECTION PAGE</u></b> <b>BILL 2: WATER SUPPLY INSTALLATION</b>  Brought forward from page No. BQ14  Brought forward from page No. BQ15  Brought forward from page No. BQ16  Brought forward from page No. BQ17 (above)				
	<b>Total for Bill No. 2 Carried to Summary page</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>3</b>	<b>ELEMENT NO.3</b>				
<b>3.0</b>	<b>FOUL &amp; WASTE WATER DRAINAGE</b> Supply, install, test and commission the following:				
<b>3.1</b>	<b>PIPE WORK AND FITTINGS</b>				
	<b>General Notes:</b>				
	<b>Prices for pipe work shall include the cost for couplings connectors, fixing brackets, clips, holder bats and jointing to fittings, appliances e.t.c, together with wall chasing and holes cutting or fixing pipe sleeves all as required in the pipe work installation.</b>				
	<b>Note for u.P.V.C Pipe work All U.P.V.C. connectors, bends, branches, e.t.c. are to be formed strictly according to the manufacturer's instructions. All u.P.V.C. pipes and fitting shall be as manufactured by Caradon Terrain Limited or other equal and approved.</b>				
	<b>u.P.V.C and MuPVC Waste and ventilating pipes and fittings to B.S No. 5255, Heavy gauge. (Ref. No. s refer to Carradon Terrain Ltd. Catalogues)</b>				
A	40mm pipe	LM	150		
B	50mm pipe	LM	30		
C	75mm pipe	LM	144		
D	100mm ditto medium duty (Brown) UPVC pipe	LM	150		
E	160mm ditto medium duty (Brown) UPVC pipe	LM	25		
F	200mm ditto medium duty (Brown) UPVC pipe	LM	10		
	<b>Total C/F to collection page</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>3.2</b>	<b><u>Extra over the UPVC Pipe work for the following fittings:</u></b>				
A	40mm sweep bend	NO	17		
B	100mm ditto	NO	13		
C	75MM ditto	NO	5		
D	100mm sweep Tee	NO	8		
E	160mm ditto	NO	5		
F	40mm sweep Tee ditto	NO	12		
G	200mm ditto	NO	4		
H	40mm ditto	NO	9		
I	100mm ditto	NO	4		
J	100mm Floor trapped gully with gully inlet grating	NO	4		
<b>3.3</b>	<b>EXTRA OVER THE Upvc SOIL PIPE WORK FOR THE FOLLOWING FITTINGS:</b>				
A	100mm Single Branch Bend	NO	21		
B	40mm Boss Connector	NO	25		
C	100mm access cap (RE)	NO	45		
D	100mm weathering apron	NO	3		
E	100mm vent cowl	NO	3		
	<b>Total C/F to collection</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>3.4</b>	<b>uPVC Underground drainage pipes &amp; fittings, Heavy gauge to BS 4660 Class 41,(Golden Brown in colour) with Rubber -ring Joints.</b>				
A	100mm Long Radius Bend	No	6		
<b>3.5</b>	<b>Manholes and Chambers</b>				
A	Gully trap chamber size 350x350x600mm deep, in masonry walling, housing a uPVC gully trap with drain pipe, 50mm thick P.C.C cover with vent -hole etc.	No	4		
B	Man-hole or inspection chambers complete with covers and frames 450 x 600 x average of 950mm not exceeding 1200mm	No	7		
<b>3.6</b>	<b><u>Excavation backfilling of trenches</u></b>				
A	Excavate pipe trench in murrum, clay, red or black cotton soil for trench not exceeding 1200mm deep and average 600mm deep, part return, fill and ram and remainder of the soil cart away and make good.	LM	50		
<b>3.7</b>	<b><u>Testing &amp; Commissioning</u></b>				
	Allow for setting to work, testing, commissioning and cleaning all to the Engineer's approval	Item	1		
<b>Total C/F to collection page</b>					
<b>COLLECTION PAGE</b>					
<b>Bill 3: FOUL &amp; WASTE WATER DRAINAGE</b>					
Bought forward from page No BQ18					
Bought forward from page No BQ19					
Bought forward from page No BQ20(above)					
<b>Total Carried to Summary</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
4	<b>ELEMENT NO.4</b>				
4.0	<b><u>RAIN WATER DRAINAGE INSTALLATION</u></b> Supply, install, test and commission the following				
4.1	<b>PIPE WORK AND FITTINGS</b> <b><u>General Notes :</u></b> Prices for pipe work shall include the cost for couplings, connectors and jointing to fittings etc and fixing brackets all as required in the pipe work installation together with providing and fixing pipe sleeves in structural concrete work as necessary.				
4.2	<b>u.P.V.C Rain water Drainage Pipes and Fittings To B.S. No. 5255 and B.S. No. 4514 Grey in colour for above ground and Buried Pipes To B.S. 4660 and ISO Class 41, Golden Brown in Colour with Rubber joints</b>				
A	100mm drain pipe fixed to wall	LM	25		
B	100mm Vertical Spigot C.L Fulbora outlet with domed grating cover Balcony outlet type trapped floor gulley and inlet as Terrain No. 279.2 and 282.6	NO	2		
C	Allow for testing and commissioning the system to approval	Item	1		
	<b>Bill No 4. Carried To Summary</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
5	<b>ELEMENT NO.5</b>				
5.0	<b>FIRE FIGHTING</b>				
5.1	<b>Supply, assemble , and install the following Fire fighting Equipment including all the necessary brackets, screws, mortises and plugs (timber plugs not acceptable) together with agent charging, seals and inspection labels. All items shall comply to B.S.5423: 1982 and B.S 5306 Part 3, and to the Engineers approval</b>				
A	9 litres Foam type (AFFF Spray Gas Cartridge) fire extinguisher in metal casing and fixed to wall. Unit as ANGUS' or Equal and approved	NO	4		
B	9 Kg Dry powder With CO2 propellant extinguisher	NO	4		
C	9L CO2 Water type FE	NO	4		
D	Manual fire Alarm	NO	4		
E	Safety signage/instructions/directions incase of fire i.e Fire assembly point	Item	1		
<b>Bill No 5. Carried To Summary</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>6</b>	<b><u>ELEMENT NO.6</u></b>				
<b>6.0</b>	<b><u>MEP TOOLS AND EQUIPMENT</u></b>				
	<b>Provide the following tools and equipment to used by the County Mechanical Engineers</b>				
<b>6.1</b>	<b>Hand Tools</b>				
	<b>Wrenches:</b>				
A	Socket	NO	1		
B	Pipe up to 24"	NO	1		
C	Adjustable up to 8"	NO	1		
	Allen keys:				
E	Metric Long Arm 9 pcs 1.5mm - 10mm	NO	1		
F	Measuring tapes: and calipers up to 300mm IP54 Digital Vernier Caliper	Item	1		
G	Up to 40m range Digital Measuring tape	NO	1		
<b>6.2</b>	<b>DIAGNOSTIC TOOLS</b>				
	<b>For identifying issues and assessing system performance</b>				
H	Pressure gauge: for hydraulic and pneumatic systems	NO	1		
I	Thermometer for temperature reading	NO	1		
J	Flow meter: and leak detectors	Set	1		
K	Portable Electric Pressure Test Pump PPR Water Pipe Test Pressure Machine	Set	1		
L	Inspection camera/Borescope; used to inspect pipes for blockages nor damages without excavations	NO	1		
M	Hydraulic pressure test pump 50 Bar Hand Pressure test pump 726 PSI 3.2 Ga	NO	1		
<b>Bill No 5. Carried To Summary</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>SUMMARY OF TENDER</b>					
1	Element No. 1- SANITARY FITTINGS				
2	Element No 2-WATER SUPPLY INSTALLATION				
3	Element No.3 FOUL WASTE WATER DRAINAGE INSTALLATION				
4	Element No.4- RAIN WATER DRAINAGE INSTALLATION				
5	Element No. 5 FIRE FIGHTING				
6	Element No. 6 MEP TOOLS AND EQUIPMENT				
<b>TOTAL FOR MBS</b>					

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>BILL NO.3</b>					
<b>ELECTRIAL WORKS</b>					
<b>SCHEDULE 1: GROUND FLOOR</b>					
<b>1</b>	<b>LIGHTING POINTS AND FITTINGS</b>				
	<b>Supply, install, test, commission and maintain:-</b>				
<b>a</b>	Lighting points wired in 3x1.5 Sq.mm PVC insulated single core (SC) copper wires as East African cables or equal and approved drawn in 20mm diameter. HG PVC conduit concealed in walls and floor with all accessories but excluding switch and fitting;-				
	i) one way switched.	No.	14		
	ii) two way switched.	No.	5		
	iii) unswitched.	No.	8		
<b>b</b>	10Amps, switch plate as CLIPSAL, or approved equivalent as;-				
	ij)1 Gang 1 Way/2 Way	No.	6		
	ii)2 Gang 1 Way/2 Way	No.	2		
	ij)3 Gang 1 Way/2 Way	No.	1		
<b>1.2</b>	<b>LIGHTING FITTINGS</b>				
	<b>Instal all Lighting fittings complete with all accessories including lamps of appropriate wattage and colour rendering and fixing materials as follows:-</b>				
<b>a</b>	1x36w 1200mm , 3,120 lm , 4000k LED Batten Luminaire as Thorn LED Batten specified.	No.	16		
<b>b</b>	30W Oval bulkhead light fitting as philips or approved equivalent.	No.	8		
<b>c</b>	WC waterproof light- surface mounted downlight LED 12W White-2250-300k-CRI 80.	No.	1		
<b>d</b>	A photocell unit c/w appropriate contactor to fit 70-75 Lux switch on level and 1.5 Maximum differential.	No.	2		
<b>2</b>	<b>SMALL POWER</b>				
	<b>Supply, install, test, commission and maintain:-</b>				
<b>a</b>	13 Amp twin ring socket outlet points at 300mm A.F.F.L wired 3 x 2.5mm <sup>2</sup> PVC SC copper cables as East African or equal and approved ring main cct drawn in 25mm HG PVC conduits concealed in walls and floors with all accessories but <b>excluding</b> the socket outlet plate - ring main circuit.	No.	10		
<b>b</b>	13A switched twin outlet white moulded case socket outlet plates as MK Clipsal, BG, Crabtree or an approved equivalent.	No.	10		
<b>c</b>	Hand drier power points comprising wiring in 3x2.5mm <sup>2</sup> PVC/SC/CU cables drawn in 25mm diameter HG/PVC conduit complete with all necessary accessories.	No.	2		
<b>d</b>	Instant shower power outlet points in ring mains wired in 3x2.5 mm <sup>2</sup> PVC/SC/CU cables drawn in 25mm diameter concealed HG PVC conduit.	No.	1		
<b>e</b>	20A, DP control switch with neon light and cord outlet for items above as Crabtree or approved equivalent.	No.	3		
	<b>TELEPHONE/DATA AND TV WORKS</b>				
	Telephone/Data outlet point comprising of concealed 20 mm dia. HG PVC conduits plus 1.5 mm <sup>2</sup> single core draw wire.	No.	12		
<b>TOTAL FOR GROUND FLOOR C/F TO SUMMARY PAGE</b>					
					-



PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>SCHEDULE 3: LIGHTNING PROTECTION</b>					
<b>3.1</b>	<b>Supply, install, test, commission and maintain:-</b>				
<b>a</b>	Air termination Type Furse RA225 + RA600 pure copper type arrester fixed to ridge saddle Furse SD155 bolted to roof with water tight rubber washers	No.	3		
<b>b</b>	25mm x 3mm pure copper tape TC030 on tape clip Furse CP210 fixed at 750mm intervals to approved detail	LM	35		
<b>c</b>	25mm <sup>2</sup> PVC insulated pure copper conductor enclosed in HG 38mm dia. concealed PVC conduit between copper tape and test joint	LM	12		
<b>d</b>	Lugs for '2.5.3' above including fixing bolts to roof conductors	No.	3		
<b>e</b>	25mm Testing clamps Furse CN305	No.	3		
<b>f</b>	Rod to earth conductors clamps Furse CR520	No.	3		
<b>g</b>	5ft pure Copper Earth rods Furse RC015 with driving sud, furse ST015 and spike furse SP015 driven into ground	No.	3		
<b>h</b>	50mm <sup>2</sup> ECC in 1 x 25mm dia PVC conduit between the test clamp and the earth rods.	LM	12		
<b>i</b>	125 x 100 x 50mm deep boxes with cover and marked safety Earth installed in RC columns to approved detail.	No.	3		
<b>j</b>	Concrete earthing inspection pits, Furse PT-005	No.	3		
<b>k</b>	Test and report complete the installation for compliance with KS04503 1995 and BS code of Practice BS6651.	Item	1		
<b>TOTAL FOR LIGHTNING PROTECTION C/F TO SUMMARY PAGE</b>					



PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>PRICE SUMMARY PAGE</b>				
<b>A</b>	<b>Total Brought Forward From:-</b>				<b>BQ AMOUNT</b>
	<b>SCHEDULE 1: GROUND FLOOR</b>				
	<b>SCHEDULE 2: FIRST FLOOR</b>				
	<b>SCHEDULE 3: LIGHTNING PROTECTION SYSTEM</b>				
	<b>SCHEDULE 4: SUB-MAINS DISTRIBUTION</b>				
	<b>Sub Total 1</b>				
<b>C</b>	Allow PC Sum of ksh. 30,000 for Contingency.				
	<b>TOTAL FOR ELECTRICAL WORKS</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
ITEM	DESCRIPTION				AMOUNT
	<b><u>BILL NO.4</u></b>				
	<b><u>PRIME COST AND PROVISIONAL SUMS</u></b>				
	<b><u>PROVISIONAL SUMS</u></b>				
<b>A</b>	Allow a provisional sum of Kenya Shillings Fifty Thousand (Kshs 50,000) only for contingencies				
<b>B</b>	Allow a provisional sum of Kenya shillings Two Thousand (Kshs 150,000) only for Construction of burning chamber				
<b>C</b>	Allow a provisional sum of Kenya shillings One Hundred Thousand (Kshs 150,000) only for Supervision team from department of TR&P.works				
<b>D</b>	Allow a provisional sum of Kenya shillings Fifty Thousand (Kshs 50,000) only for placenta pit				
<b>E</b>	Allow a provisional sum of Kenya shillings Forty Thousand (Kshs 40,000) only for Ash Pit				
<b>F</b>	Allow a provisional sum of Kenya shillings One Million Five Hundred Thousand (Kshs 1,000,000) only for Reinforcement septic tank and soak pit as directed on site				
<b>G</b>	Allow a provisional sum of Kenya shillings One Hundred and Fifty Thousand (Kshs 150,000) only for 2No. Door Pit latrine as directed on site ( top of septic tank)				
	<b>TOTAL FOR PROVISIONAL SUMS</b>				

PROPOSED ESTIMATE FOR OPD COMPLETION AT KIENDEGE HEALTH FACILITY.BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<b>GRAND SUMMARY</b>					
ITEM	DESCRIPTION	PAGE	OFFICIAL USE	TENDERER'S USE	
			Kshs	Kshs	
1	BUILDING WORKS	BQ/10			
2	MBS WORKS	BQ/24			
3	ELECTRICAL WORKS	BQ/29			
4	PC & PROVISIONAL SUMS	BQ/30			
A	SUB TOTAL				
5	16% V.A.T INCLUSIVE				
B	TOTAL AMOUNT FOR COMPLETION OF KIENDEGE OPD BLOCK CARRIED TO FORM OF TENDER				

NAME OF TENDERER .....

ADDRESS.....

SIGNATURE.....STAMP.....

DATE.....

NAME OF WITNESS.....

ADDRESS.....

SIGNATURE.....

DATE.....

GS/1