

REPUBLIC OF KENYA



COUNTY GOVERNMENT OF LAIKIPIA

DEPARTMENT OF INFRASTRUCTURE

BILL OF QUANTITIES

FOR

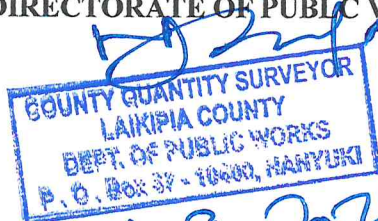
PROPOSED MWIRERI BASIC DIGITAL HUB , UMANDE WARD

IN

LAIKIPIA EAST SUB- COUNTY

PREPARED BY

COUNTY QUANTITY SURVEYOR
DIRECTORATE OF PUBLIC WORKS



ISSUED BY

FUND MANAGER NG-CDF
LAIKIPIA EAST CONSTITUENCY

AUGUST, 2026

ITEM	DESCRIPTION	KSHS
	<u>PARTICULAR PRELIMINARIES</u>	
A.	PRICING ITEMS OF PRELIMINARIES Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. The contractor is advised to read and understand all preliminary items. In the event that an item is not priced the cost is deemed to be included in the measured works/Bills of Quantities. This is a FULL contract and the prices inserted against the various items shall be for all expenses required for the proper execution of the works.	
B.	DESCRIPTION OF THE WORKS The works to be carried out under this contract involves Construction of ICT JITUME HUB at Mwireri ,Umande Ward as described	
C.	MEASUREMENTS In the event of any discrepancies arising between the Bill of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the PROJECT MANAGER in accordance with clause 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with clause 22 of the said Conditions.	
D	LOCATION OF SITE The Site for the proposed works is at Mwireri , Umande ward . The Contractor is advised to visit the site, to familiarize with the nature and position of the site. No claims arising from the Contractor's failure to do so will be entertained.	
	Carried to Collection	-

ITEM	DESCRIPTION	AMOUNT
A.	TENDER VALIDITY PERIOD Clause 3.6 of the Instructions to Tenderers has been amended to read; Tenders shall remain valid for a period of One Hundred and Twenty (120) days from the date of Tender Opening, and not All Tenderers are advised to note this amendment when filling the Form of Tender TENDER SECURITY (N/A) Bid bond/Tender security, which must be from an established bank or insurance company, shall remain valid for a period of One Hundred and Fifty (150) days from the date of Tender Opening i.e. Thirty (30) days beyond the Tender Validity Period.	-
B	DEMOLITIONS AND ALTERATIONS The Contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs, etc as directed by the Project Manager and as necessary for the adequate propping and protection of existing property, finishes, workmen employed on the site, employer's agents and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the Contractor. All protective devices are to be removed on completion of the works and any loss or damage made good to the satisfaction of the Project Manager The works shall be propped, strutted and supported as necessary before any alteration or demolition work commences. Prices shall include for all cleaning and preparatory work to structure and finishes and for making good to all finishes on completion whether or not specifically described. Unless described as set aside for re-use all arising debris and surplus materials shall be carefully removed from building and carted away from site. The Contractor shall be entirely responsible for any breakage or damage which may occur to materials required for re-use during their removal unless it is certified by the Project Manager that such damage or breakage was inevitable as a result of the condition of the item concerned	
C	CLEARING AWAY The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Project Manager.	
	Carried to Collection	-

ITEM	DESCRIPTION	AMOUNT
A.	CLEARING AWAY CTD... The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager.	
B	CLAIMS It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claim shall be entertained upon the expiry of the said contract period.	
C	PAYMENTS The tenderer's attention is drawn to the fact that the GOVERNMENT DOES NOT MAKE ADVANCE PAYMENTS but pays for work done and materials delivered to site: all in accordance with Clause 23 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to the	
D	PREVENTION OF ACCIDENT, DAMAGE OR LOSS The Contractor is instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.	
E	WORKING CONDITIONS The Contractor shall allow in his rates for any interference that he may encounter in the course of the works for the Client may in some cases ask the Contractor not to proceed with the works until some activities within the site are completed, as the station will be operating as usual during the course of the contract.	
F	SIGNBOARD Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager.	
	Carried to Collection	

ITEM	DESCRIPTION	AMOUNT
A	VALUE ADDED TAX operative from 1st September, 1993 which requires payment of VAT on all contracts. The Contractor should therefore include allowance in his rates and prices for VAT and any other Government taes currently in force. The tenderer is advised that in accordance with Government public notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, VAT will be deducted against the contract sum at the prevailing rate by the Employer and remitted directly to the Commissioner of VAT through all interim certificates. it should however be noted that this is not additional tax but a new mode of payment for VAT, any excess payment will be refundable once the Contractor has submitted monthly returns to the Commisioner of VAT who will do the refunds when satisfied that the VAT regulations have been compiled with. N.B: V.A.T shall not be included in the rates but shall be given as a percentage in the grand summary page	
B.	PROJECT MANAGERS EXPENSES Provide a provisional sum of Kenya Shillings Six hundred and Fifty - Thousand Kenya Shillings(Kshs 650,000) only for Project Manager's supervisory expenses Allow for Cotractor's profit and overheads (.....%)	650,000.00
	Carried to Collection	

ITEM	DESCRIPTION	AMOUNT
A.	LABOUR CAMPS The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract.	
B	MATERIALS FROM DEMOLITIONS Any materials arising from demolitions and not re-used shall become the property of the Government of Kenya.	
C	PRICING RATES The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, all to comply with the said Conditions of Contract.	
D	SECURITY The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.	
E	URGENCY OF THE WORKS The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in his rates for any costs he/ she deems that he/she may incur by having to complete these works within the stipulated contract period.	
F	PAYMENT FOR MATERIALS ON SITE All materials for incorporation in the works must be stored on site before payment is effected, unless specifically exempted by the Project Manager. This is to include materials of the Contractor, nominated sub-Contractors and nominated suppliers.	
G	EXISTING SERVICES Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned for the support, maintenance and protection of such services.	
	Carried to Collection	

ITEM	DESCRIPTION	AMOUNT
A	CONTRACT COMPLETION PERIOD The contract completion period in accordance with condition 31 of the Conditions of contract must be adhered to. The 'PROJECT MANAGER' shall strictly monitor the Contractors progress in relation to the progress chart and should it be found necessary the „PROJECT MANAGER' shall inform the Contractor in writing that his actual performance on site is not satisfactory .In all such cases the Contractor shall accelerate his rate of performance production and progress by all means such as additional labour,plant, e.t.c and working overtime all at his cost.	
B	PERFORMANCE BOND A bond of 5 % of the contract sum will be required in accordance with clause 6.00 on award of contract of the Instructions to Tenderer's. No payment on account for the works executed will be made to the contractor until he has submitted the Performance Bond to the Project Manager duly signed, sealed and stamped from an approved Bank	
C	TENDER DOCUMENTS Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's Page STD/8	
D	DELIVERY OF TENDER Tenders and all documents in connection therewith, as specified above must be delivered in the addressed envelope which should be properly sealed and deposited at the offices as specified in the letter accompanying these documents or as indicated in the invitation to tender. Tenders will be opened at the time specified in the letter accompanying these Tender Documents or as indicated in the invitation to tender. Tenders delivered/received later than the above time will not be opened.	
Carried to Collection		

ITEM	DESCRIPTION	AMOUNT
A	PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT The following are the insertions to be made in the appendix to the Contract Agreement: - Period of Final Measurement; 3 Months From Practical Completion Defects Liability Period; 6 Months from Practical Completion Date for Possession; To be agreed with the Project Manager Date for Completion; 12 Weeks from date of Possession Liquidated and Ascertained damages; At the rate of Kshs 5,000 per day or part thereof Prime cost sums for which The Contractor desires to tender Period of Interim Certificates Monthly Period of Honouring Certificates 30 days Percentage of Certified Value Retained 10% Limit of Retention Fund 10%	
	Carried to collection	
	<u>COLLECTION</u> Brought forward from page 2 Brought forward from page 3 Brought forward from page 4 Brought forward from page 5 Brought forward from page 6 Brought forward from page 7 Brought forward from above	
	TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO GRAND SUMMARY	

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>PROPOSED ICT JITUME HUB AT MWIRERI,UMANDE WARD</u>				
	<u>GROUND FLOOR</u>				
	<u>ELEMENT NO. 1</u>				
	<u>SUBSTRUCTURE (ALL PROVISIONAL)</u>				
A	Clear site of all grass, bushes, shrubs, undergrowth and small trees including grubbing up roots and burn arisings.	163	SM		
B	Excavate to remove top soil comencing from ground level, average depth 150mm and dispose as directed	163	SM		
C	Excavate oversite to reduce levels not exceeding 1.5m deep starting from stripped level	45	CM		
D	Excavate for strip foundation trenches not exceeding 1.5 metres deep from reduced level	73	CM		
E	Excavate for column bases not exceeding 1.5 metres deep from reduced level	14	CM		
F	Extra over excavation for excavating in hardrock; all classes	10	CM		
	<u>Backfilling</u>				
G	Return, fill and ram selected excavated material around foundations and columns	65	CM		
	<u>Disposal</u>				
H	Load and cart away from site surplus excavated material to designated dumping sites.	32	CM		
	<u>Disposal of water</u>				
J	Allow for keeping all excavations free from all water by pumping or otherwise	1	ITEM		
	<u>Planking and strutting</u>				
K	Allow for planking, strutting and shoring to sides of all excavations to keep excavations free from all fallen materials	1	ITEM		
TOTAL CARRIED TO COLLECTION					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Substructures (cont....d)</u>				
	<u>Imported filling</u>				
A	300mm thick hardcore bed hand packed watered and compacted in 150 mm thick layers	109	SM		
B	50mm Thick approved quality murrum or quarry dust blinding to surfaces of hardcore (m.s) to receive damp- proof membrane	109	SM		
	<u>Damp-Proof membrane</u>				
C	1000 gauge polythene damp proof membrane or equal and approved laid over blinded hardcore (m.s) with 200 mm end and side laps (measured net-no allowance for laps)	121	SM		
D	Termidor 25 EC" or other equal and approved anti-termite chemical treatment applied by an approved pest control specialist with a 10 year warranty strictly applied according to manufacturer's printed instructions	121	SM		
	<u>Concrete work</u>				
	<u>50mm thick blinding in plain concrete (1:3:6) in:-</u>				
E	Strip footing	49	SM		
F	Column Bases	41	SM		
	<u>Vibrated reinforced concrete (1:1.5:3/25-20mm) aggregate as described in:</u>				
G	Foundation strip footing	10	CM		
H	Column Bases	14	CM		
J	Starter Columns	5	CM		
K	150mm thick ground floor slab	121	SM		
L	150mm thick ramp	25	SM		
	<u>Reinforcement (All Provisional)</u>				
	<u>Steel mesh fabric reinforcement to BS 4483</u>				
M	B.R.C fabric mesh reinforcement ref: A142(measured net-no allowance made for laps)	121	SM		
TOTAL CARRIED TO COLLECTION					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Substructures (cont....d)</u>				
	<u>Supply, cut, bend and fix the following reinforcement bars including tying wire, stirrups and spacer blocks to B.S. 4461</u>				
	<u>To strip footing</u>				
A	10 Dia. Bars (D10)	540	KG		
	<u>To column bases</u>				
B	12 Dia. Bars (D12)	1356	KG		
	<u>To columns</u>				
C	16 Dia. Bars (D16)	261	KG		
C	12 Dia. Bars (D12)	42	KG		
D	8mm Dia. Bars (D12)	77	KG		
	<u>To Ramp</u>				
E	10 Dia. Bars (D10)	479	KG		
F	8mm Dia. Bars (D8)	273	KG		
	<u>Load bearing natural stone rough foundation walling in cement and sand mortar</u>				
G	200mm thick rough chisel dressed natural stone walling bedded and jointed in cement and sand (1:3) mortar and reinforced with 25x3mm thick hoop iron in every alternate course	107	SM		
	<u>DPC</u>				
H	200mm thick wide cabro damp proofing membrane (course) including levelling	80	LM		
	<u>Sawn form work to:</u>				
J	Edges of floor slab 75-150mm	52	LM		
K	Sides of strip footing	32	SM		
L	Sides of column bases	42	SM		
M	Sides of starter columns	30	SM		
N	Sides and soffits of 150 thick ramp	54	SM		
O	20mm thick C/S (1:3) plaster to plinth	23	SM		
P	Apply 2 coats of Bituminous paint to plinth	23	SM		
Q	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval	31	SM		
TOTAL CARRIED TO COLLECTION					
	<u>COLLECTION</u>				
	Total carried from page 17				
	Total carried from page 18				
	Total carried from Above				
TOTAL FOR SUBSTRUCTURE CARRIED TO GROUND FLOOR SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.2</u>				
	<u>R.C SUPERSTRUCTURE</u>				
	<u>Vibrated reinforced concrete class 20/20 in:- (1:2:4)</u>				
A	Beams	19	CM		
B	Columns	8	CM		
C	150mm thick suspended slab	121	SM		
	<u>Reinforcement (All Provisional)</u>				
	<u>Supply, cut, bend and fix the following reinforcement bars including tying wire, stirrups and spacer blocks to B.S. 4461</u>				
	<u>To beams</u>				
D	20mm diameter bars (D20)	789	KG		
E	16mm diameter bars (D16)	899	KG		
G	8mm diameter bars (D8)	1021	KG		
	<u>To columns</u>				
H	16mm diameter bars (D16)	326	KG		
J	12mm diameter bars (D12)	388	KG		
K	8mm diameter bars (D8)	422	KG		
	<u>To suspended slab</u>				
L	10mm diameter bars (D10)	1034	KG		
M	8mm diameter bars (D8)	687	KG		
	<u>Sawn formwork to :-</u>				
N	Sides and soffits of beams	301	SM		
O	Sides of columns	59	SM		
P	Edges of suspended slab	47	LM		
Q	Soffits of suspended slab	92	SM		
	TOTAL FOR R.C SUPERSTRUCTURE CARRIED TO GROUND FLOOR SUMMARY				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.3				
	STAIRCASE				
	Vibrated reinforced concrete class 25/20 in:- (1:1.5:3)				
A	Staircase steps and waist	3	CM		
B	150mm thick suspended landings	18	SM		
	Reinforcement (All Provisional)				
	Supply, cut, bend and fix the following reinforcement bars including tying wire, stirrups and spacer blocks to B.S. 4461				
C	12mm diameter bars (D12)	148	KG		
D	8mm diameter bars (D8)	127	KG		
	Sawn formwork to :-				
E	Soffites of suspended landings	19	SM		
F	Sides of landing slabs	29	LM		
G	Slopping soffites of stairs	38	SM		
H	Open string of staircase 300mm (extreme height) including cutting to profile of treads and risers	12	LM		
J	Risers and risers 150- 300 mm girth	45	LM		
TOTAL FOR STAIRCASE CARRIED TO GROUND FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 5				
	<u>WINDOWS</u>				
	<u>Supply and fix the following steel casement window, 1.6mm mild steel section members; complete with permanent vents; all primed with red oxide complete with all necessary ironmongery and accesories (Glazing excluded)</u>				
A	Window overall size 1800 wide x 1500 mm high Ref: WD-01	5	NO		
B	Ditto but to size 1800 x 600mm high Ref: WD-02	5	NO		
C	Ditto but to size 900 x 600mm high Ref: WD-03	4	NO		
	<u>Burglar Proofing</u>				
D	Purpose made mild steel window burglar proofing comprising 25 x 25 x 3mm RHS frame, 25 x 25 x 3mm RHS mullions at 460mm centres and 16mm square bars at 150mm centres vertically welded to transoms and units assembled together with 2 No. 50 x 50 mm RHS mullions to Architect's Details	30	SM		
	<u>Glazing</u>				
	<u>Clear Glass</u>				
D	6mm thick clear glass and glazing to metal putty in panes and	30	SM		
E	Ditto but to Obscure Glass	13	SM		
	<u>Window Cill</u>				
F	150 x 45mm thick precast concrete window cill weathered throated and bedded in cement and sand (1:3) mortar to racked external wall window cill: building ends to window jamb including painting with 3 coats of exterior acrylic paint.	20	LM		
	<u>Prepare and apply one undercoat and two finishing coats of</u>				
G	To steel casement and burglar proofing (internally) (m.s)	30	SM		
H	Ditto but externally	30	SM		
	<u>Curtain rods;</u>				
J	1.5mm thick, 20mm thick diameter twin powdercoated mild steel rod complete accessories to approval	25	LM		
TOTAL FOR WINDOWS CARRIED TO GROUND FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.4</u>				
	<u>WALLING</u>				
	<u>Approved machine cut stone load bearing (6N/mm2) masonry walling, bedded jointed and pointed in cement sand (1:3) mortar and reinforced in 25x3mm wide hoop irons in every alternate course to approval</u>				
A	200mm thick walling (External walls)	98	SM		
B	Ditto but to internal walls	70	SM		
C	Ditto but to 150mm thick	22	SM		
D	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	80	LM		
TOTAL FOR WALLING CARRIED TO GROUND FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6</u> <u>DOORS</u> <u>Steel Door</u> <u>Supply, assemble and fix the following PURPOSE MADE HEAVY DUTY STEEL DOORS to comply with BS 990 obtained from an approved manufacturer, once shoped primed with red oxide before delivery, made of 50x25x3 mm RHS frame, 25x50x3mm zed & tee sections and reinforced with 16mm mild steel square bars welded to an approved pattern infilled with 6mm thick clear sheet glass complete with three lever lock as union catalogue or equal; the frames fishtailed and grouted to masonry wall and infilled 6mm thick clear sheet glazing (ms) to Architect's details</u>				
A	Double to size 1500x2400mm high in two openable leaves size 700x2250mm high. Ref: DR-01	2	NO		
B	Ditto but single leaf to size 900x2400mm high. Ref: DR-02	1	NO		
	<u>Flush Door</u>				
C	45mm Thick Solid Core Flush door faced both sides, moulded and lipped all round overall size 800 x 2050 mm high. Ref: DR-03	9	NO		
	<u>Frames and finishing in wrot cypress</u>				
D	150 x 50mm frame once rebated to detail	46	LM		
E	40 x 25mm architrave	46	LM		
G	25mm diameter quadrant	46	LM		
TOTAL CARRIED TO COLLECTION					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Doors (cont...d)</u>				
	<u>Glazing Fan light</u>				
A	4mm thick clear glass and glazing to metal putty in panes and	9	SM		
B	Ditto to fanlight	2	SM		
	<u>Iron mongery</u>				
	<u>Supply and fix the following "UNION" ironmongery with</u>				
C	Two lever mortice lock complete with brass handles	10	NO		
D	Five lever mortice lock complete with brass handles	2	NO		
E	100mm brass butt hinges	13.5	PRS		
F	100mm heavy duty corrosion resistant steel hinges	4.5	PRS		
	<u>Prepare and apply three coats of premium quality clear varnish; Matt quality to:</u>				
G	General surfaces of wooden doors (b.s.m)	19	SM		
H	Surfaces not exceeding 100mm girth	92	LM		
J	Surfaces exceeding 100mm but not exceeding 200mm girth	46	LM		
	<u>Prepare and apply one undercoat and two finishing coats on gloss oil paint on metalwork as described to:-</u>				
K	General surfaces of steel doors (b.s.m)	9	SM		
TOTAL CARRIED TO COLLECTION BELOW					
	<i>Total Carried from Page 16</i> <i>Total Carried from Above</i>				
TOTAL FOR DOORS CARRIED TO GROUND FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 7:				
	<u>EXTERNAL FINISHES</u>				
	<u>Cement: Lime: Sand (1:3) render</u>				
A	25mm rendering to beams and columns finished with a wood float	160	SM		
	<u>Key pointing</u>				
B	Horizontal recessed keying & pointing in cement mortar to architect's approval	125	SM		
	<u>Prepare and apply one coat primer followed by two finishing coats of Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to</u>				
C	Concrete rendered surfaces	160	SM		
TOTAL FOR EXTERNAL FINISHES CARRIED TO GROUND FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 8				
	INTERNAL FINISHES				
	Wall Finishes				
	Plaster				
A	15mm two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-	254	SM		
	<u>Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to</u>				
B	Plastered surfaces	254	SM		
	Floor Finishes				
	<u>Cement and sand (1:3) screeds, backings, beds etc</u>				
C	32mm bed finished to receive Floor Tiles (m.s)	121	SM		
	<u>Cement and sand (1:3) backings etc</u>				
D	32mm bed finished to receive ceramic tiles to surfaces of Landings (m.s)	18	SM		
E	150-300mm girth ; Risers and Treads	45	LM		
F	32mm bed finished to receive Floor Tiles to surfaces of Ramp (m.s)	25	SM		
	Ceramic Floor tiles				
	<u>Approved non-slip ceramic floor tiles to regular pattern, bedding, jointing and pointing in cement nil complete with grouting and finished clean to approval;</u>				
G	300 x 300 x 8 mm thick Saj Ceramics floor tiles or equal and approved laid on backing screed (m.s) with and including an approved adhesive and pointed with matching cement	121	SM		
H	Ditto to landings	18	SM		
J	Ditto to 150-300mm girth rsers and treads	45	LM		
K	Ditto to ramp	25	SM		
	Staircase soffit finishes				
	<u>15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-</u>				
L	Soffits of staircase landing	18	SM		
TOTAL CARRIED TO COLLECTION					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>INTERNAL FINISHES CONT'D</u>				
A	Soffits of staircase landing	38	SM		
B	Ditto to sloping soffits exceeding 15° from horizontal	12	SM		
C	Staircase string 300mm extreme girth and cut to profile of steps	45	LM		
	<u>Paint works</u>				
	<u>Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to</u>				
D	Soffits of staircase landing	38	SM		
E	Ditto to sloping soffits exceeding 15° from horizontal	12	SM		
F	Staircase string 300mm extreme girth and cut to profile of steps	45	LM		
	<u>Ceiling finishes</u>				
	<u>15mm two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-</u>				
G	Soffits of concrete surfaces	121	SM		
	<u>Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to</u>				
H	Plastered ceilings	121	SM		
	<u>Walls- WC</u>				
	<u>Cement and sand (1:4) backing</u>				
J	15 mm thick to receive coloured glazed wall tiles	35	SM		
	<u>Glazed ceramic tiles bedding and jointing in cement and sand (1:3) mortar and flush pointed with white cement:</u>				
K	400 x 250 x 8mm Thick tiles	35	SM		
	<u>Carried to Collection</u>				
	<u>COLLECTION</u>				
	<i>From page 19</i>				
	<i>From Above</i>				
	TOTAL FOR INTERNAL FINISHES CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO 9				
	BALUSTRADING AND RAILING				
	<u>Balustrades and staircase railings</u>				
	<u>To stair and Ramp</u>				
A	900mm high mild Steel balustrade; comprising 60 x 10mm mild Steel balusters at 900mm centres; bolted to base plate and tread (m.s), with 7No. 25mm diameter horizontal bars, and 75x4mm diameter CHS mild Steel handrail part welded into 60x10mm balustrades; to Architects drawings	50	LM		
B	50mm diameter x 3mm CHS handrail supported by 50 x 50 x 3mm thick SHS balusters anchored to slab with and including w/steel bolts and plates at 1800mm centres smooth welded 100mm high (Staircase & ramp	33	LM		
	<u>Prepare, prime and apply one undercoat and two finishing coats first quality gloss oil paint on</u>				
C	General metal surfaces of balustrading girth not exceeding 100mm	83	LM		
TOTAL FOR BALUSTRADING AND RAILING CARRIED TO GRAND SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>GROUND FLOOR SUMMARY</u>				
1	SUBSTRUCTURE WORKS				
2	R. C SUPER STRUCTURE				
3	STAIRCASE				
4	WALLING				
5	WINDOWS				
6	DOORS				
7	EXTERNAL FINISHES				
8	INTERNAL FINISHES				
9	BALUSTRADING & RAILING				
TOTAL FOR GROUND FLOOR CARRIED TO GRAND SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FIRST FLOOR				
	ELEMENT NO.1				
	R.C SUPERSTRUCTURE				
	Vibrated reinforced concrete class 20/20 in:- (1:2:4)				
A	Beams	18	CM		
B	Columns	6	CM		
C	Gutter beam	5	CM		
	Reinforcement (All Provisional)				
	Supply, cut, bend and fix the following reinforcement bars including tying wire, stirrups and spacer blocks to B.S. 4461				
	To beams				
D	20mm diameter bars (D20)	768	KG		
E	16mm diameter bars (D16)	867	KG		
F	8mm diameter bars (D8)	1675	KG		
	To columns				
G	16mm diameter bars (D16)	326	KG		
H	8mm diameter bars (D8)	91	KG		
	Sawn formwork to :-				
J	Sides and soffits of beams	357	SM		
K	Sides of columns	51	SM		
	TOTAL FOR R.C SUPERSTRUCTURE CARRIED TO FIRST FLOOR SUMMARY				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.2</u>				
	<u>WALLING</u>				
	<u>Approved machine cut stone load bearing (6N/mm²) masonry walling, bedded jointed and pointed in cement sand (1:3) mortar and reinforced in 25x3mm wide hoop irons in every alternate course to approval</u>				
A	200mm thick walling (External walls)	85	SM		
B	Ditto but to parapet walling	54	SM		
C	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	46	LM		
TOTAL FOR WALLING CARRIED TO FIRST FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO 3				
	ROOFING (All Provisional)				
	Roof Construction				
	<u>The following in framed steel work to B.S 449 including 2 coats of red oxide primer after fixing, holes, bolts all joints welded at least 6mm fillet welds;all exposed ends of hollow sections to be blanked with 3mm thick plates; and hoisting approximately 8,500 mm from ground level; Contractor to prepare shop drawings and fabrication details and have them approved by the Engineer before fabrication:</u>				
	<u>The following in trusses and/or independent member</u>				
A	75 x 50mm x 3 mm (5.6 Kg / Lm) RHS Rafters	868	KG		
B	50 x 50mm x 3mm (4.33Kg/Lm) struts and ties	591	KG		
C	40x40x2mm thick z purlins bolted with 75mm long bolts	440	KG		
D	75 X 50mm x 3 mm (5.6 Kg / Lm) RHS Wall plate on and including 10mm cement and sand (1:4) mortar bed secured to reinforced concrete ring beam (m.s) by mild steel anchor bolts (m.s)	272	KG		
	Sundries				
E	12mm Diameter sag rod 5400 mm long threaded at each end for and including nut and washer including drilling hole through 2.0 mm thick "Z" purlin (Provisional)	45	No		
F	16mm diameter x 300mm long bolts complete with nuts and washers; one end grouted into concrete, the other fixed to base plates (m/s)	69	No		
	Roof Covering				
	<u>Approved Gauge 28 IT5 pre-painted roofing sheets in full</u>				
G	28G Box profile IT5 Sheets	130	SM		
H	Matching ridge/valley/hip	27	LM		
	In wrot cypress				
J	225x25mm Fascia/Barge board	63	LM		
	<u>Prepare and apply undercoat and two finishing coats of gloss oil paint on wooden surfaces to:-</u>				
K	Fascia surfaces exceeding 200mm but no exceeding 300mm girth	63	LM		
	TOTAL CARRIED TO COLLECTION				-

[illegible]

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO 4				
	<u>WINDOWS</u>				
	<u>Supply and fix the following steel casement window, 1.6mm mild steel section members; complete with permanent vents; all primed with red oxide complete with all necessary ironmongery and accesories (Glazing excluded)</u>				
A	Window overall size 1800 wide x 1500 mm high Ref: WD-01	12	NO		
	<u>Burglar Proofing</u>				
C	Purpose made mild steel window burglar proofing comprising 25 x	32	SM		
	<u>Glazing</u>				
	<u>Clear Glass</u>				
D	6mm thick clear glass and glazing to metal putty in panes and including setting of edges of glass in wash leather in panel sizes	32	SM		
	<u>Window Cill</u>				
F	150 x 45mm thick precast concrete window cill weathered throated	21	LM		
	<u>Prepare and apply one undercoat and two finishing coats of crown super gloss paint to:</u>				
G	To steel casement and burglar proofing (internally) (m.s)	32	SM		
H	Ditto but externally	32	SM		
	<u>Curtain rods;</u>				
J	1.5mm thick, 20mm thick diameter twin powdercoated mild steel	25	LM		
TOTAL FOR WINDOWS CARRIED TO FIRST FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 5</u> <u>DOORS</u> <u>Steel Door</u> <u>Supply, assemble and fix the following PURPOSE MADE HEAVY DUTY STEEL DOORS to comply with BS 990 obtained from an approved manufacturer, once shoped primed with red oxide before delivery, made of 50x25x3 mm RHS frame, 25x50x3mm zed & tee sections and reinforced with 16mm mild steel square bars welded to an approved pattern infilled with 6mm thick clear sheet glass complete with three lever lock as union catalogue or equal; the frames fishtailed and grouted to masonry wall and infilled 6mm thick clear sheet glazing (ms) to Architect's details</u>				
A	To Double leaf door size 1500x2400mm high in two openable	1	NO		
TOTAL CARRIED TO COLLECTION					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>Doors (cont...d)</u>				
	<u>Glazing</u>				
	4mm thick clear glass and glazing to metal putty in panes and including setting of edges of glass in wash leather in panel sizes	5	SM		
	<u>Iron mongery</u>				
B	<u>Supply and fix the following "UNION" ironmongery with matching screws</u>				
	Three lever mortice lock complete with brass handles	1	NO		
	100mm brass butt hinges	3	PRS		
C	<u>Prepare and apply one undercoat and two finishing coats on gloss oil paint on metalwork as described to:-</u>				
	General surfaces of steel doors (b.s.m)	5	SM		
TOTAL CARRIED TO COLLECTION BELOW					-
Total Carried from Page 28					-
Total Carried from Above					-
TOTAL FOR DOORS CARRIED TO FIRST FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6:</u>				
	<u>EXTERNAL FINISHES AND RAILINGS</u>				
	<u>Cement: Lime: Sand (1:3) render</u>				
A	25mm rendering to beams and columns finished with a wood float	85	SM		
	<u>Prepare surfaces and apply one undercoats stainer and two</u>				
B	General rendered surfaces externally	85	SM		
	<u>Key Pointing</u>				
C	Extra over walling for key pointing externally; patterns to Architect's approval	98	SM		
TOTAL FOR EXTERNAL FINISHES CARRIED TO FIRST FLOOR SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 7				
	INTERNAL FINISHES				
	Floors				
	Ceramic floor tiles				
A	30mm thick screed, cement and sand (1:4) with approved integral dust proofing additive wood float finish to receive floor tiles (m/s)	91	SM		
	<u>Approved non-slip ceramic floor tiles to regular pattern, bedding, jointing and pointing in cement nil complete with grouting and finished clean to approval;</u>				
B	300 x 300 x 8 mm thick Saj Ceramics floor tiles or equal and approved laid on backing screed (m.s) with and including an approved adhesive and pointed with matching cement	91	SM		
C	100mm high ditto skirting	44	LM		
	Walls				
	Plaster				
D	15mm two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling as described to:-	81	SM		
	<u>Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to</u>				
E	Plastered walls	81	SM		
	Ceiling Finishes				
	Sawn cypres				
F	50x50mm thick brandering 600mm centres	160	LM		
	Acoustic Ceiling				
G	Suspended acoustic ceiling : 600 x 600 x 15mm fine pressed mineral fibre tiles on and including concealed 'T' frame grid system : tegular edges and shallow gap trims : allow for cutting and trimming to light fittings.	93	SM		
	Cornice				
H	100x50mm moulded cornice plugged	45	LM		
	<u>Prepare and apply three coats first grade silk vinyl emulsion paint on appropriate basecoat and shade to approval: on plastered surfaces: to</u>				
J	Cornice: over 100 but not exceeding 200 mm girth	45	LM		
TOTAL FOR INTERNAL FINISHES CARRIED TO SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>FIRST FLOOR SUMMARY</u>				
A	R.C SUPERSTRUCTURE				
B	WALLING				
C	ROOFING				
D	WINDOWS				
E	DOORS				
G	EXTERNAL FINISHES				
H	INTERNAL FINISHES				
TOTAL FOR FIRST FLOOR CARRIED TO GRAND SUMMARY					-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SUPPLY, INSTALL, TEST & COMMISSION THE FOLLOWING</u>				
A	<u>LIGHTING POINTS</u> Lighting points wired in 3 x 1.5 mm ² P.V.C – SC-CU cables (E.A) drawn in 20 mm diameter H.G P.V.C conduits concealed inside ceiling c/w all necessary accessories.	43	NO		
B	<u>LIGHTING FITTINGS</u> Light fittings c/w fixing accessories and lamps as follows:- (a)External LED Floodlight (100W, IP65)/Approved equivalent	4	NO		
	(b)LED Recessed Panel (600x600) + Downlights (decorative)/Approved equivalent	25	NO		
	(c)Round White LED Bulkhead 20 Watts	8	NO		
	(d)18W Intelligent Motion Sensor LED Ceiling Light white or Approved equivalent	6	NO		
C	<u>SWITCHES</u> (i) One gang two way switch as MK or approved equivalent	13	NO		
	(ii) Four gang two way switch as MK or approved equivalent.	1	NO		
D	<u>SOCKET OUTLET/POWER POINTS</u> (i)Socket outlet points wired in 3 x 2.5 mm ² SC-P.V.C-CU cables drawn inside 25 mm diameter p.v.c conduits c/w all necessary accessories	109	NO		
	(ii)13A 2 gang switched molded socket outlet plate as MK/approved equivalent	77	NO		
	(iii)13A 2-Gang Stainless Steel Floor Socket with Protective Hinged Cover, Pop-Up Floor Panel with RJ45 Ports	32	NO		
	CARRIED TO COLLECTION				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Brought from above				
E	<u>DATA POINTS/OUTLETS</u>				
	(i)Data outlet points with an internet draw wire complete with wiring in Cat 6A, UTP 4-pair cable as siemon or approved equivalent in concealed left inside 50mm by 50mm metallic trunking PVC HG conduit	72	NO		
	(i) Double data wall plates	20	NO		
	(ii) Tripple data wall plates	48	NO		
	(iii)Internet routers (Ubiquiti UniFi + wireless access point)	4	NO		
	(iv)Data cabinet/wall mount cabinet for compact installation of CCTV and small local area network(LAN) setups(18U × 600 mm (W) × 600 mm (D)	1	NO		
	CARRIED TO COLLECTION				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Brought from above				-
F	<u>DISTRIBUTION BOARD</u>				
	12 way distribution board flush molded on wall c/w 100A SPN/N integral isolator as ABD/approved equivalent.	2	NO		
	Single pole miniature cct breakers to fit the above consumer unit as follows:-				
	(i)10 amps sp	8	NO		
	(ii)20 amps sp	14	NO		
	(iii)32 amps sp	2	NO		
G	<u>SUB MAINS/OTHER ITEMS</u>				
	CU cable (E.A) drawn in 25mm diameter H.G pvc conduits concealed inside ceiling c/w all necessary accessories.	25	LM		
H	<u>EARTH SYSTEM & OTHER ITEMS</u>				
	(i) Electrical earthing comprising of 10.0mm ² SC-PVC-CU cable drawn inside 20mm HG pvc conduit,1500mm by 15mm diameter copper electrode c/w clamps,pre cast concrete,inspection pit and covers.	ITEM	ITEM		
	CARRIED TO COLLECTION				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT

	Brought from above			
I	<u>FIRE ALARM POINTS</u>			
	(i)Smoke detector points wired in 3x1.5mm2 SC CU cables drawn inside 25mm HG conduits	13	NO	
	(ii)Break glass points wired in 3x1.5mm2 SC CU cables drawn inside 25mm HG conduits	4	NO	
	(iii)conventional fire alarm smoke detector as Asenware or approved equivalent	13	NO	
	(iii)conventional fire strobe sounder as Asenware or approved equivalent	2	NO	
	(iii)conventional fire alarm control panel as Asenware or approved equivalent	1	NO	
	(iv)Emergency fire alarm break glass	3	NO	
J	Hikvision 5 IP CCTV Cameras 5mp Complete Kit 16-Channel NVR	1	NO	
K	Allow for ELECTRICAL power connection	1	ITEM	
TOTAL GRAND SUMMARY				

ITEM.	DESCRIPTION.	QTY.	UNIT.	RATE	AMOUNT.
	INTERNAL PIPEWORK				
	PPR PN PIPEWORK:				
A.	25mm diameter pipework	20	LM.		
B.	20mm ditto	30	LM.		
	BENDS/ELBOWS:				
C.	20mm diameter	10	NO.		
D.	25mm diameter	10	NO.		
	TEES:				
E.	20mm diameter	10	NO.		
F.	25mm diameter	10	NO.		
	UNIONS:				
G.	20mm diameter	10	NO.		
H.	25mm diameter	10	NO.		
	VALVES:				
J.	Gate valves 20mm diameter Peglar type	3	NO.		
K.	Gate valves 25mm diameter ditto	3	NO.		
	SOCKETS:				
L.	20mm diameter (Male \$ Female \$ Plain)	10	NO.		
M.	25mm diameter (Male \$ Female \$ Plain)	10	NO.		
	NIPPLES:				
N.	25mm diameter	5	NO.		
P.	20mm diameter	5	NO.		
	REDUCING BUSH:				
Q.	25X20mm Ditto	2	NO.		
	CHASING WALL				
R.	Allow for chasing; in wall; for small diameter pipes to be used for internal pipeworks	1	SUM.		
	CUTTING HOLES				
S.	Allow for cutting holes;through walls,for small diameter PPR pipes to be used for internal pipeworks	1	SUM.		
	TOTAL CARRIED TO COLLECTION.				-

ITEM	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	ADJOINING SUPPLY PIPE TO PROPOSED PROJECT.				
A.	PPR PN PIPE 25mm diameter	100	LM.		
i.	SOCKETS: 25mm diameter (Male \$ Female \$ Plain sockets) .	10	NO.		
ii.	VALVES: Gate valves 25mm diameter	10	NO.		
iii.	UNIONS: 25mm diameter	10	NO.		
iv.	TEES: 25mm diameter (Male \$ Female \$ Plain Tees)	10	NO.		
v.	BENDS/ELBOWS: 25mm diameter (Male \$ Female \$ Plain Elbows)	10	NO.		
	EXCAVATION OF TRENCH FOR ADJOINING SUPPLY PIPE				
B.	Excavate trench sizes 100m long 300mm wide and 600 wide.Lay supply pipe to the bottom of trench and backfill.	18	CM.		
	TOTAL CARRIED TO COLLECTION.				-
	COLLECTIONS.				
	FROM PAGE 36				-
	FROM ABOVE,				-
	TOTAL FOR INTERNAL PIPEWORK CARRIED TO SUMMARY				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	<u>INTERNAL AND ABOVE DRAINAGE:</u>				
	<u>PURCHASE SUPPLY AND INSTALL CONNECTION OF UPVC PIPE USING CEMENT TANGIT GLUE FOR WATERTIGHT JOINTS.</u>				
	UPVC AND MUPVC PIPE:				
A.	100mm heavy duty Golden brown pipe class D.	5	LM.		
B.	100mm diameter heavy duty grey pipe class D.	5	LM.		
C.	32mm diameter heavy duty class D.	10	LM.		
	Extra overUPVC and m.u.P.V.C pipe work for the following:				
	BENDS:				
D.	100mm diameter Plain bend	5	NO.		
E.	100mm diameter Inspection Bend	5	NO.		
F.	32mm Ditto inspection bend	5	NO.		
G.	32mm Ditto plain bend	5	NO.		
	BOSS CONNECTOR:				
H.	100mmx50mm boss connector.	3	NO.		
	W.C CONNECTORS:				
J.	100mm diameter WC connectors.	3	NO.		
	TEES:				
K.	100mm diameter plain tee.	5	NO.		
L.	Ditto inspection tee .	5	NO.		
M.	32mm diameter inspection tee	5	NO.		
N.	Ditto plain tee .	5	NO.		
	TANGIT:				
P.	Solvent cement (Tangit).	5	NO.		
	TOTAL CARRIED TO COLLECTION.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	INTERNAL AND ABOVE DRAINAGE CONTINUED.				
	DRILLING HOLE IN WALLS.				
A.	Allow for cutting holes;through Walls, for drainage of waste water pvc pipes .	1	SUM.		
	GROOVING IN WALL AND SLAB.				
B.	Allow for chasing; in wall; for small diameter pipes to be used for internal pipeworks	1	SUM.		
	FLOOR TRAPS				
C.	Supply and install from 4 way floor traps in areas like washings areas,,upper floors and kitchen to drain waster floor water connected with 50mm diameter upvc pipe	4	NO.		
	UPVC WASTE PIPE FROM TRAPS				
(i)	32mm diameter upvc pipe from floor trap	5	LM.		
	UPPER FLOOR AND VARENDERS				
	FLOOR TRAPS				
C.	Supply and install from 4 way floor traps in areas like washings areas,,upper floors and kitchen to drain waster floor water connected with 50mm diameter upvc pipe	5	NO.		
	DOWNPIPES.				
(i)	32mm diameter upvc pipe from floor trap	30	LM.		
	TOTAL CARRIED TO COLLECTION.				-
	COLLECTIONS.				
	FROM PAGE 38				-
	FROM ABOVE.				-
	TOTAL FOR INTERNAL AND ABOVE DRAINAGE CARRIED TO SUMMARY.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	<u>REGULATORY COMPLIANCE OF FOUL DRAINAGE SYSTEM BY MINISTRY OF HEALTH AND NEEMA.</u>				
A.	The foul drainage system installed should be verified and approved by mechanical engineer before backfilling to ensure it complies with regulations of MOH and NEMA				-
i	The system is separate from surface rainwater to prevent contaminations				-
ii	The System trenches should have gradient fall to prevent blockage of 20mm per meter testing to be done by use of DUMP LEVEL				-
iii	The system to be ventilated to prevent foul gases in the environment				-
iv	The system should have inspection points for easy maintainance				-
v	The system should not interfere with existing services				-
vi	The system trench depth should not be less than 600mm to prevent brakeage due to loading above				-
vii	The system Joints should be Watertight to prevent leakage Testing to be done by use PRESSURE PUMP		ITEM.		
viii	The sytem soakpit to be 10m away from the buildings and be of required sizes and deepth				-
ix	The system to be connected to the existing sewerline OR If there is no existing sewerline use of septic tank and bio digester is recommended.				-
x	Septic tank and bio digesters sizes to be determined by the number of users				
xi	After completon installation the system should be tested for any blockage may form as result of installation works by use of BLOCKAGE DETECTOR				
	TESTING AND COMMISSIONING				
B.	All internal pipework to be tested for any breakage using PRESSURE PUMP before any plastering works.Excise to be approved by mechanical engineer.				
	TOTAL CARRIED TO COLLECTION.				

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	<u>FOUL DRAINAGE</u> <u>INSTALL FOUL DRAINAGE</u> <u>FOLLOWING GIVEN SIZES OF</u> <u>INSPECTION CHAMBERS SEPTIC</u> <u>TANK BIO DIGESTER AND</u> <u>SOAKPITS IF ANY APPLIES AND</u> <u>MINIMUM DEPTH OF TRENCHES TO</u> <u>BE 600mm</u> UPVC PIPE TO THE BIO DIGESTER. A. 100mm diameter upvc heavy duty Golden brown pipe class D. EXCAVATION OF TRENCH FOR UPVC PIPE TO SEPTIC TANK B. Excavate trench starting from grond level sizes 20m long by 300mm wide and 600 deep.lay pvc pipe to the bottom of excavation and backfill. PIPE CONCRETE ENCASEMENT B. Concrete thickness 50mm Protective barrier around pipe in the trench to provide structural support from water pressures,,prevent breakage of pipe due to loading above and prevent pipe movements	20	LM.		-
		4	CM.		
		6	SM.		
	TOTAL CARRIED TO COLLECTION.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	FOUL DRAINAGE - CONTINUED.				
	INSPECTION CHAMBER.				
	Construct to completion standard manhole 800x800mm Externally and 1000mm average depth . 600x450mm medium duty				
A.	COMPOSITE FIBRE manhole cover and frame to BS497(grade B) include bending frame fixed in cement and sand (1;3) mortal and smooth finish internally.	10	NO.		
	TANGIT GLUE:				
B.	PVC solvent cement glue watertight.	2	NO.		
C.	SOAKPIT.				
	2M LONG BY 2M WIDE BY 3M DEEP.				
	EXCAVATION.				
i	Excavate Soakpit 0-1.5M	6	CM.		
ii	Excavate 1.5 -3.0m	6	CM.		
	DOWNPIPE				
iii	100mm upvc Perforated downpipe inside the pit	3	LM.		
	HARDCORE				
iv	Hardcore filling 300mm thick	12	CM.		
	D.PM.				
v	DPM Cover on top of hardcore	4	SM.		
	CONCRETE.				
vi	concrete cover 100mm thickness ratio 1.2.4.	4	SM.		
	FLOOR FINISH.				
vii	sacred floor finish ration 1.2. on top of concrete cover	4	SM.		
	TOTAL CARRIED TO COLLECTION.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
A.	BIO DIGESTER. 2M BY 2M BY 1M. 4M³ 2M BY 2M BY 1M. CAPACITY 4M³ FOR 30 USERS. EXCAVATION.				-
i.	Excavate starting from ground level to 1m deep.	4	CM.		
	BLINDING				
ii.	Blindilng on bottom of exvaton 50mm thick	4	SM.		
	WALLING.				
iii.	Walling using natural stone size 200mm thick	8	SM.		
	FORMWORK				
iv.	Sawn formwork	4	SM.		
	D.P.M.				
v.	D.P.M water prove	4	SM.		
	FABRIC B.S 4483				
vi.	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter	4	SM.		
	CONCRETE.				
vii.	Concrete ratio 1.2.4. 100mm thickness.	4	SM.		
	EXTERNAL PLASTER.				
viii.	External Plastering ratio 1.3. 15mm thickness	8	SM.		
	INTERNAL PLASTER.				
ix.	Internal plastering. Ratio 1.2. 15mm thickness.	8	SM.		
	TOP FLOOR FINISH.				
x.	Sacred floor finish on top ratio of 1.3 and 15mm thicknes	4	SM.		
	TOTAL CARRIED TO COLLECTION.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	BIO DIGESTER CONTINUED.				
	BOTTOM FLOOR FINISH.				
xi.	Sacred floor finish on bottom of internal surface.	4	SM.		
	PIPES.				
xii.	Outlet and inlet pipes 100mm diameter.	2	LM.		
	VENT.				
xiii	Vent pipes and vent Cap 100mm diameter.	2	LM.		
	TOTAL CARRIED TO COLLECTION				-
	COLLECTIONS.				
	FROM PAGE 40				
	FROM PAGE 41				
	FROM PAGE 42				
	FROM PAGE 43				
	FROM ABOVE.				
	TOTAL FOR FOUL DRAINAGE CARRIED TO SUMMARY.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	SANITARY FITTINGS: <u>Supply,deliver,install and fix the following sanitary fittings including all materials and jointing to supply,waste/soil and overflow pipes.Twyfords Ltd products are specified only as an indication of quality.Equal approved appliances may be supplied.Where trade name are mentioned,the Ref.No. is intended only as a guide to the type and quality of fittings.</u> WATER CLOSET CLOSE COUPLE TYPE. Close couple Low level wash down Wc suit as Twyfords "CLASSIC" comprising of the following:- WC bowl bottom outlet ref. No.CC1138WH. Low level 7.5 litres cistern and fittings.Side inlet and overflow Ref. No.CC284WH. A Heavy duty black seat and cover. 1 NO. The suit to be supplied complete with valveless cistern fittings including pressing flush valve connected with cable to overflow. (i) 300 long x 15 mm diameter flexible including brass backnuts and jointing GMS tubing 1 NO. (ii) Floor supports Ref. No. SR 1319XX as twyfords " 2 NO. LAVATORY WITH PEDESTIAL STAND Wash hand basin,size 590x440mm wide in hole B Ref. No. WB 2535 WH complete with pedestal ceramic stand 2 NO. (i) Chrome plated Aztec bib taps ½" Ref. No. AZ 5200 CP. 2 NO (ii) SOLA 590 bottle trap 2 NO (iii) Wall supports Ref. No. SR 1319XX as twyfords " 4 NO. (iv) 300 long x 15 mm diameter flexible including brass backnuts and jointing GMS tubing 2 NO.				
	TOTAL CARRIED TO COLLECTION.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	SANITARY FITTINGS - CONTINUED				
A.	TOILET ROLL HOLDER: Toilet roll holder in stainless or equal and approved equivalent	3	NO.		
B.	TOILET BRUSH AND HOLDER: Toilet brush and holder in vitreous china or equal and approved equivalent.	3	NO.		
C.	WASTE BIN PEDAL operated waste bins blue in colour capacity 20 litres	2	NO.		
D.	WATER CLOSET SQUITTING TYPE. Water closet " Pan squiting water closet ". The suit to be supplied complete with wall valveless 7.5litres cistern fittings including siphon,Pressing valve connected with cable to overflow,plastic flush bend inlet connection and reversible chrome plated cistern lever and cistern supports.as twyfords or equal approved	2	NO.		
	TOTAL CARRIED TO COLLECTION.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	SANITARY FITTINGS - CONTINUED.				
	URINAL BOWLS WITH PRESS FLUSH VALVE				
A.	Supply and install ceramic Urinal. Bowl as twyford with top inlet of flushing water and waste outlet wall hug kit	4	NO.		
i	Low pressure urinal Chrome flush valve 20mm diameter cp docol or equal approved	4	NO		
ii	Waste bottle P Trap as CP DOCOL or equal approved	4	NO		
iii	Wall supports Ref. No. SR 1319XX as twyford's "	8	NO.		
B.	CHEVAL GLASS: 6mm thick polished plate glass,silver backed mirror with beveled edges,size 610x497mm plugged and screwed to wall with 4 No. chrome plated chrome capped screws	2	NO.		
	TOTAL CARRIED TO COLLECTION				-
	COLLECTIONS.				
	FROM PAGE 8				-
	FROM PAGE 9				-
	FROM ABOVE.				-
	TOTAL FOR SANITARY FITTINGS CARRIED TO SUMMARY.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	WATER CONSERVATON. <u>PURCHASE,SUPPLY AND INSTALL THE FOLLOWING WATER CONSERVATION CONTAINERS AS PER DESCRIPTION.</u> STORAGE TANKS: Supply and Install plastic water tank of capacity 10,000Litres as kentank or equal approved equivalent placed on tank base to collect storm water. TANK BASE. Contruct tank bases using natural stones size 200mm, size 2m diameter and 600mm above ground level complete with plasteing smooth surface on external sizes and sacred floor surface on top. ROOF STORAGE TANK Supply and Install plastic water tank of capacity 2,000Litres as kentank or equal approved equivalent placed on roof tie bean timber members. i. Brass ABS thread size 25mm with ballcock to be fitted inside the tank to prevent tank overflow after filled with water ii. Bulkhead size 25mm diameter ROOF TANK PLATFORM. SHS. iii. 4mm thickness square hollow section steel . DECKING SHEET. iv. 4mm thickness steel gauge sheet	2	NO.		
		2	NO.		
		1	NO.		
		1	NO.		
		20	LM.		
		4	SM.		
	TOTAL FOR WATER CONSEVATION CARRIED TO SUMMARY.				-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	FIRE FIGHTING EQUIPMENTS				
	<u>PURCHASE ,SUPPLY AND INSTALL FIRE FIGHTING EQUIPMENTS AS PER DESCRIPTION GIVEN SUITABLE FOR CLASSES OF FIRE A,B,C,DAND K</u>				
	DRY POWDER				
A.	9Kg dry powder fire extinguisher with normal charge and with mounting brackets.	3	NO.		
	FOAM				
B.	9 litres AFFF muilt purpose foam spray FE c/w cartridge and wall fixing blackets	3	NO.		
	CO2				
C.	9 KG carbon dioxide extinguisher to BS 1382 and BS 5423 and with normal charge and wall mounting brackets.	3	NO.		
TOTAL FOR FIRE FIGHTING ELEMENT CARRIED TO SUMMARY					-

ITEM.	DESCRIPTION.	QTY.	UNIT	RATE.	AMOUNT
	MECHANICAL WORKS SUMMARY.				
A.	INTERNAL PIPEWORK				
B.	INTERNAL AND ABOVE DRAINAGE				
C.	FOUL DRAINAGE.				
D.	SANITARY FITTINGS.				
E.	WATER CONSERVATION.				
F.	FIRE FIGHTING ELEMENTS.				
	SMMARY.				

PROPOSED ICT JITUME HUB AT MWIRERI, UMANDE WARD

GRAND SUMMARY			
ITEM	DESCRIPTION	TENDERERS AMOUNT	OFFICIAL USE ONLY
1	PARTICULAR PRELIMINARIES FROM PAGE 8		
2	GROUND FLOOR FROM PAGE 22		
3	FIRST FLOOR FROM PAGE 32		
4	ELECTRICAL WORKS FROM PAGE 35		
5	MECHANICAL WORKS FROM PAGE 50		
	SUB-TOTAL		
6	V.A.T 16%		
TOTAL CARRIED TO FORM OF TENDER			

Amount of tender in words: Kenya

Shillings.....
.....

Tenderer's signature and stamp.....

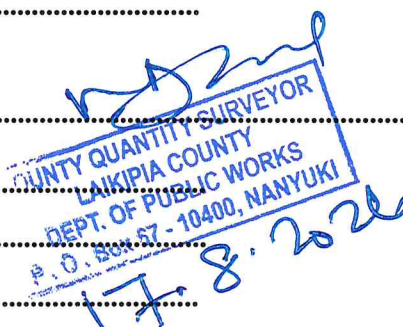
Date.....

Witness: Name and
signature.....

Description.....

Address.....

Date.....



1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

