

<u>PRELIMINARIES</u>		Shs.
<u>PRELIMINARY PARTICULARS</u>		
A	<u>NAME OF PARTIES</u>	
	The "Employer" is :	Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00100 <u>NAIROBI</u>
	The term "Employer" and "Kenya Power" and "Kenya Power & Lighting Co. Ltd" wherever	
	The "Project Manager" is :	The Manager, Administration & Property, HR& Administration Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00101 <u>NAIROBI</u>
	The "Project Officer " is :	The Kenya Power Projects Officer Administration & Property, HR& Administration Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00101 <u>NAIROBI</u>
	The "Project Quantity Surveyor" is	The Kenya Power Quantity Surveyor, Administration & Property, HR& Administration Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00101 <u>NAIROBI</u>
B	<u>DESCRIPTION OF SITE</u>	
	The site is located at the Kenya Power 132 Kv Sub station in Laikipia County in Mount Kenya region. The substation lies along the Nyeri - Nanyuki highway, about 1.5 Kilometres to Nanyuki town.	
	The Contractor shall obtain the Project Manager's approval for the siting of all temporary buildings, spoil heaps, temporary paths and storage areas for materials.	
	The Contractor shall visit the Sites to acquaint himself with their respective natures and position, the nature of the ground, substrata and other local conditions, position of power and water supplies, access roads or any other limitations, and no claims for extras will be considered on account of lack of knowledge in this respect.	
	The Contractor must obtain the Project Manager's approval and directions regarding the use of any materials found on the site.	
C	<u>ACCESS TO SITE</u>	
	Access to site shall be as directed by the Project Manager. The Contractor shall strictly observe police & NTSA regulations regarding traffic movement.	
	Preliminaries	Carried to collection
		KShs.

		Shs.
A	<p><u>WORKING AND STORAGE SPACE</u></p> <p>Working and storage space will be confined to the area designated by the Project Manager within the plot boundary.</p>	
B	<p><u>WORKING HOURS</u></p> <p>The Work must be carried out to cause the minimum inconvenience to the occupants of the adjoining premises. In particular, no hammering, mechanical drilling or other unduly noisy work may be commenced before 8.00 a.m. or continued after 6.00 p.m. without prior approval of the Project Manager.</p>	
C	<p><u>DESCRIPTION OF THE WORKS</u></p> <p>The Works comprise;</p> <ul style="list-style-type: none"> a) Establishment of the beacons to ascertain boundary demarcation b) Removal of existing barbed wire fence c) Hoarding the yard to keep off unauthorized access d) Erection of a chain link fence as per the provided specifications in the Bills of Quantities e) Construction of guard house and office block as stipulated in the Bills of Quantities f) Concrete paving, guard house and 3 No. gates as stipulated in the BoQs <p><u>Services</u></p> <ul style="list-style-type: none"> a) The services include repairs to installation of electrical and plumbing works 	
	<p>Preliminaries</p> <p style="text-align: center;">Carried to collection</p> <p style="text-align: right;">KShs.</p>	

		Shs.
<u>GENERAL MATTERS</u>		
<u>SUFFICIENCY OF TENDER</u>		
A	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the Works and of the rates and prices stated in the Priced Bills of Quantities, which rates and prices shall cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.	
<u>B STAMP CHARGES</u>		
	The Contractor shall allow for the payment of all Stamp Charges in connection with the Surety and Contract Agreement.	
<u>C DEFINITIONS AND ABBREVIATIONS</u>		
	Terms used in these Bills of Quantities shall be interpreted as follows:	
"Approved"	Shall mean approved by the Project Manager.	
"as directed"	Shall mean as directed by the Project Manager.	
"B.S."	Shall mean the current British Standard specifications published by the British Standards Institution, 2 Park Street, London W.1., England.	
"CM."	Shall mean Cubic Metres.	
"SM."	Shall mean Square Metres.	
"LM."	Shall mean Linear Metres.	
"MM"	Shall mean Millimetres.	
"KG."	Shall mean Kilogramme.	
"NO."	Shall mean Number.	
"M.S"	Shall mean Measured Separately	
PRS or Prs	Shall mean Pairs	
a.b.d	Shall mean as before described	
Ditto or Do	Shall mean the whole of the preceding description except as qualified in the description in which it occurs.	
NTSA	Shall mean National Transport & Safety Authority	
Preliminaries	Carried to collection	KShs.

		Shs.
A	<p><u>PROGRESS SCHEDULE</u></p> <p>The Contractor shall, upon receiving instructions to proceed with the Work, draw up a time and progress Schedule setting out the order in which the Works are to be carried out with the appropriate dates thereof. This Time and Progress schedule is to be agreed with the Project Manager and no deviation from the order set out in this Schedule will be permitted without the written consent of the Project Manager. The Main Contractor will be responsible for arranging the above programme with all Sub-Contractors including the Nominated Sub-Contractors and Nominated Suppliers.</p>	
B	<p><u>FIGURED DIMENSIONS</u></p> <p>Figured dimensions are to be followed in preference to dimensions scaled from the Drawings; but wherever possible dimensions are to be taken on the Site or from the Buildings. Before any Work is commenced by Sub-Contractors or Specialist Firms, dimensions must be checked on the Site and/or buildings and agreed with the Contractor, irrespective of the comparable dimensions shown on the Drawings. The Contractor shall be responsible for the accuracy of such dimensions.</p>	
C	<p><u>PROVISIONAL WORK</u></p> <p>All "Provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the Quantity Surveyor. Immediately the work is ready for measurement, the Contractor shall give notice to the Quantity Surveyor.</p> <p>If the Contractor makes default in these respects he shall, if the Project Manager so directs, uncover the work at his own expense to enable the measurements to be taken.</p>	
D	<p><u>EXISTING SERVICES</u></p> <p>Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Project Manager and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.</p>	
E	<p><u>TRANSPORT TO AND FROM THE SITE</u></p> <p>The Contractor shall include in his prices for the transport of materials workmen, etc., to and from the Site of the Proposed Works, at such hours and by such routes and vehicles as are permitted by the Authorities and in particular by the Transport Licensing Board and / or the National Transport & Safety Authority ,</p>	
	<p>Preliminaries</p> <p style="text-align: center;">Carried to collection</p> <p style="text-align: right;">KShs.</p>	

		Shs.
A	<p><u>PUBLIC AND PRIVATE ROADS, PAVEMENTS, ETC</u></p> <p>The Contractor will be required to make good, at his own expense any damage he may cause to the present road surfaces and pavements within or beyond the boundary of the Site, during the period of the Works. In particular, all existing trees, shrubs, plants, etc., which may be destroyed or damaged during the progress of the Works are to be made good by the Contractor to the approval of the Project Manager.</p>	
B	<p><u>POLICE REGULATIONS</u></p> <p>The Contractor is to allow for complying with all instructions and regulations of the police Authorities.</p>	
C	<p><u>ENVIRONMENTAL REGULATIONS</u></p> <p>The Contractor shall observe all the requirements of the National Environment Management Authority (NEMA) and especially those conditions given in the Project's Environmental Impact Assessment Report Approved by NEMA. The Contractor shall collaborate with the Environmental Impact Assessment (EIA) expert to ensure that proposed mitigation measures are adhered to during construction phase and where necessary appropriate mending up activities undertaken and the same reported back to NEMA as required.</p> <p>In particular the Contractor shall give special emphasis to control dust. The Contractor shall provide all necessary dust screens to prevent dust from the construction works affecting neighbouring property. The dust screens shall be approved by the Project Manager and be acceptable to NEMA officials. The Contractor shall also control dust on site by appropriate watering of the sources of dust.</p> <p>The Contractor shall put emphasis on controlling noise, vibrations and occupational hazards. The provisions of the Occupational Safety and Health Act No. 15 of 2007 must be strictly observed.</p>	
D	<p><u>CONTRACTORS' SUPERINTENDENCE</u></p> <p>The Contractor shall constantly keep on the Works a literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the Works. Such Agent or Representative shall receive on behalf of the Contractor, directions and instructions from the Project Manager and such directions and instructions shall be deemed given to the Contractor in accordance with the conditions of the Contract. The Agent shall not be replaced without the specific approval of the Project Manager.</p> <p>It is to be a specific condition of this Contract that the successful Tenderer shall provide on Site throughout the period of construction until the Date for Practical completion a suitably qualified, experienced and competent person to ensure that the works are carried out to the standard required by the specification and detailed on the Drawings; and shall ensure that upon any termination of employment a suitable replacement is found.</p>	
<p>Preliminaries</p>		<p>Carried to collection KShs.</p>

			Shs.
<p><u>CONTRACTORS' SUPERINTENDENCE -(CONTINUED)</u></p> <p>Before the Tenderer's offer is accepted the Project Manager may personally interview the Contractor's proposed Representative.</p> <p>A curriculum vitae of past experience and qualifications must be provided for the Project Manager's scrutiny.</p> <p>The Project Manager's decision will be final regarding the suitability of the proposed Representative.</p>			
A	<p><u>WATER</u></p> <p>All water shall be fresh, clean and pure, free from earthy, vegetable or organic mater, acid or alkaline substances in solution or suspension</p> <p>The Contractor shall provide at his own risk and cost all water for use in connection with the Works (including the work of Sub-Contractors). The Contractor shall provide at his own expense all temporary distribution pipes, storage tanks, metres, etc., and he shall clear away same upon completion of the Works.</p>		
B	<p><u>LIGHTING AND POWER</u></p> <p>The Contractor shall provide at his own risk and cost all artificial lighting and power for use on the Works, including all Sub-Contractors' and Specialists' requirements and including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.</p>		
C	<p><u>SAFETY</u></p> <p>The Contractor shall comply at all times with the requirements of the Factory Act (Cap 514), Building Construction Rules, Supplement 18, Legal Notice No.40 dated April, 1984 and ensure that the safety of his workpeople and authorised visitors to the Site is protected at all times. In particular there shall be proper provision of planked footways and guard-rails to scaffolding, etc., protection against falling materials and tools and the Site shall be tidy and clear of dangerous rubbish.</p> <p>The Contractor shall appoint a safety officer as required by the Factory Act and notify the Factory Inspector of his name. the safety Officer shall be on Site at all times and all directions given by the Project Manager to the Safety Officer shall be deemed to be Project Manager's Instructions, and shall be complied with promptly without additional cost to the contract.</p> <p>Occupational Safety and Health Act no. 15 of 2007 must also be complied with</p> <p>The Project Manager shall be empowered to suspend work on the Site should he consider these conditions are not being observed, and no claim arising from such suspension will be allowed.</p>		
	Preliminaries	Carried to collection	KShs.

	Shs.
<p>A <u>PROTECTIVE CLOTHING</u> The Contractor shall provide all protective or any other special clothing or equipment for his employees that may be necessary. This shall include, inter-alia, safety helmets, gloves, goggles, earmuffs, gumboots, overalls, etc., according to the type of work. The Contractor shall ensure that safety helmets are worn by all staff at all times. Allow for Covid -19 Government directives</p>	
<p>B <u>PROVISIONAL SUMS</u> The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A Item A7(i) of the Standard Method of measurements Such sums are net and no addition shall be made to them for profit.</p>	
<p>C <u>ADJUSTMENT OF PROVISIONAL SUMS</u> In the final account all provisional sums shall be deducted and the value of the work properly executed in respect of them upon the Project Manager's order added to the contract sum. Such work shall be valued as described for variations in variation clause of the conditions of contract, but should any articles for the work be executed by a Nominated Sub-Contractor, or any articles for the work be supplied by a Nominated Supplier, the Value of such work or articles shall be treated as a P.C. sum and profit and attendance comparable to that contained in the priced Bills of Quantities for similar items added.</p>	
<p>D <u>PRIME COST (OR P.C.) SUMS</u> The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(ii) of the Standard Method of Measurements Persons or firms Nominated to execute the work or to provide and fix materials or goods as stated in the Conditions of Contract are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described as Nominated suppliers.</p>	
<p>E <u>ADJUSTMENT OF P.C. SUMS</u> In the final account all P.C. sums shall be deducted and the amount properly expended upon the Project Manager's order in respect of each of them added to the contract sum. The Contractor shall produce to the Project Manager such quotation, invoices or bills properly receipted as may be necessary to show the actual details of the sums paid by the contractor. Items of profit upon P.C. sums shall be adjusted in the final account prorata to the amount paid. Items of Attendance following P.C. Sums shall be adjusted prorata to the physical extent of the work executed (not prorata to the amount paid) and this shall apply though the Contractor's Bills shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted for any work which a P.C. sum is included in these Bills of Quantities, profit and attendance will be allowed at the same rate as it would if the work were executed by a Nominated Sub-Contractor.</p>	
<p>Preliminaries</p>	<p>Carried to collection. KShs.</p>

			Shs.
<u>MATERIALS AND WORKMANSHIP</u>			
A	<u>GENERALLY</u>	<p>All materials shall be new unless otherwise directed or permitted by the Project Manager and in all cases where the quality of goods or materials is not described or otherwise specified, is to be the best quality obtainable in the ordinary meaning of the word "best" and not merely a trade signification of that word.</p> <p>All materials and workmanship shall, unless otherwise specified or described, conform to the appropriate British Standard Institution specification current at the date of tender.</p> <p>The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that such materials are on Site when required for use in the Works.</p> <p>The Contractor shall be responsible for and shall replace or make good at his own expense any materials lost or damaged.</p> <p>The Works throughout shall be executed by skilled workmen well versed in their respective trades.</p>	
B	<u>REJECTED WORKMANSHIP OR MATERIALS</u>	<p>Any workmanship or materials not complying with the specific requirements or approved samples or which have been damaged, contaminated or have deteriorated, must immediately be removed from the Site and replaced at the Contractor's expense, as required.</p>	
C	<u>PROPRIETARY MATERIALS</u>	<p>Where proprietary materials are specified herein-after the contractor may propose the use of materials of other manufacturer but equal quality for approval by the Project Manager.</p> <p>All materials and goods, where specified to be obtained from a particular manufacturer or supplier are to be used or fixed strictly in accordance with their instructions.</p>	
D	<u>SAMPLES</u>	<p>The Contractor shall furnish at the earliest possible opportunity before work commences and at his own cost, any samples of materials or workmanship that may be called for by the Project Manager for his approval or rejection, and any further samples in case of rejection until such samples are approved by the Project Manager and such samples, when approved, shall be the minimum standard for the work to which they apply.</p>	
	Preliminaries	Carried to collection	KShs.

WBS

Shs.

A CONCRETE TESTS

Concrete test cubes, will not be required under these works; any concrete works Must be done in the presence of the Project Manager or his/her representative

B OTHER MATERIAL TESTS

The Contractor shall allow for providing samples of all other materials such as reinforcement bars, building sand, cement, building stone, concrete blocks, hardcore, etc, that may be requested by the Project Manager or Engineer for testing. He shall allow for the delivery of the same to the testing Laboratory(ies)), pay the testing fees and any other costs that may be required and arrange for test certificates to be sent directly to the Project Manager or Engineer by the testing Laboratory. Under no circumstances will the Contractor be paid for such tests if he does not allow for that here

Preliminaries

Carried to collection

KShs.

			Shs.
<u>TEMPORARY WORKS</u>			
A	<u>OFFICE AND SHEDS</u> The Contractor shall erect and maintain temporary office accommodation for his own use, and ample temporary watertight sheds for the proper storage and protection of materials and for the use of artisans and remove when ordered. Floors of sheds shall be at least 150mm above ground level.		
B	<u>SANITATION</u> The Contractor shall provide the necessary sanitation for his staff and workmen to the requirements and satisfaction of the Health Authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy fees during the period of the Works and remove when no longer required.		
	Preliminaries	Carried to collection	KShs.

		Shs.
A	<u>PLANT, TOOLS AND SCAFFOLDING</u>	
	<p>The Contractor shall provide all necessary hoists, tackle, plant, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove same on completion.</p> <p>The Contractor shall provide, erect and maintain all temporary scaffolding, sufficiently strong and efficient for the due performance of the Works, including Sub-Contract works, provide special scaffolding as and when required during the Works and remove on completion and make good.</p> <p>Such scaffolding shall be constructed of tubular steel or timber of sufficient scantlings and be provided with planked footways and guard-rails to approval.</p> <p>All such plant, tools and scaffolding shall comply with all regulations whether general or local, in force throughout the period of the contract and shall be altered or adapted during the Contract as may be necessary to comply with any amendments in or additions to such regulations.</p> <p>Scaffolding is not measured hereinafter, and the Contractor must allow here</p>	
	<u>EXISTING AND ADJACENT PROPERTY</u>	
	<p>The Contractor must take all steps necessary to safeguard existing and adjacent property, make good at his own expense any damage to persons or property caused thereon, and hold the Employer indemnified against any such claim arising.</p> <p>The Contractor will be held fully responsible for the safety of the existing and adjacent buildings and for any damage caused in consequence of these Works. He must reinstate all damage at his own expense and indemnify the Employer against any loss.</p> <p>The Contractor must take such steps and exercise such care and diligence as to minimise nuisance from dust, noise or any other cause to the occupiers of the existing and adjacent property.</p>	
C	<u>LABOUR CAMPS</u>	
	<p>No labour, with the exception of watchmen may be housed on the site and the Contractor shall allow for all transport and other charges in moving labour to and from site at such hours and by such routes as are permitted by the Authorities. The Contractor shall provide, erect and maintain satisfactory housing for the watchmen and shall remove same on completion of the works.</p>	
Preliminaries		KShs.
Carried to collection		

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			Shs.
A	<p><u>HOARDING</u></p> <p>The Contractor shall enclose the Site with a hoarding 2.40 metres high, with openings and gates as required, constructed of substantial timbers to approval and covered with new Galvanised iron corrugated sheeting painted to approval.</p>		
B	<p><u>TEMPORARY ROADS</u></p> <p>The Contractor shall provide where directed all temporary access roads, tracks and paths necessary for the execution of the Works, including making good when no longer in use.</p>		
C	<p><u>SIGNBOARD</u></p> <p>The Signboard and lettering on same for the display of the General and Sub-Contractor's names shall be of an approved size with the Employer's name painted thereon. The Project Manager's name shall be printed in letters not exceeding 100mm in height all to the Project Manager's design. No other signboard or advertising will be permitted.</p> <p><u>NOMINATED SUB-CONTRACTORS AND SUPPLIERS</u></p>		
D	<p><u>NOMINATED SUB-CONTRACTORS</u></p> <p>The Contractor shall be responsible for Nominated Sub-Contractors in every respect and in particular it shall be the Contractor's responsibility to ensure that each Sub-Contractor commences and completes the work in such manner and is ready on the Site with his materials, labour and special plant at such times so as to conform with the progress Schedule, as specified previously, and so ensure satisfactory progress.</p> <p>The Contractor shall also accept liability for and bear the cost of General Attendance on Nominated Sub-Contractors which shall be deemed to include for:</p>		
	Preliminaries	Carried to collection	KShs.

			Shs.
<p><u>NOMINATED SUB-CONTRACTORS - CONTINUED</u></p> <p>Allowing the use of standing scaffolding, maintenance and alteration of all scaffolding, retention of all scaffolding until such time as all relevant Sub-Contractors' works are complete and removal of all scaffolding on completion. Providing space for office accommodation, and for storage of plant and materials; allowing use of sanitary accommodation; the supply of all necessary water, and lighting; and clearing away all rubbish.</p> <p>The items for "General Attendance" given herein-after following P.C. Sums in respect of Sub-Contractors' work shall be deemed to include all the above.</p> <p>The Contractor shall also accept liability for and bear the cost of Special Attendance on Nominated Sub-Contractors which shall include for one or more of the following:</p> <p>Unloading, storing, hoisting, placing in position, providing power, provision of special scaffolding.</p> <p>The items of "Special Attendance" given herein-after following P.C. Sums shall include any one or more of the above items as set out in the particular reference.</p> <p>Cutting away for and making good after the work of Sub-Contractors as may be required will be measured and valued separately by the Surveyor.</p>			
A	<p><u>NOMINATED SUPPLIERS</u></p> <p>The cost of "Fix only" materials to be obtained from Nominated Suppliers which are covered by prime Cost or Provisional Sums shall include for taking delivery where directed, checking with invoices or indents, reporting and claiming damages for shortages and damaged goods, defraying demurrage signing for as having been received in good order, transporting, unloading, storing, covering and protecting until the time of fixing, unpacking, replacing anything lost or damaged, sorting, assembling, hoisting to required levels and fixing as described.</p> <p>Before placing any orders with Nominated Sub-Contractors or Nominated Suppliers the Contractors must ascertain that the terms and conditions of the quotations and the dates of delivery of materials or execution of works comply with the terms of Contract and the Progress Schedule.</p>		
B	<p><u>PRIME COST RATES</u></p> <p>Where description of items include a P.C. rate per unit this rate is to cover the nett supply of the unit only. The Contractor's price must include for the cost of the unit at the rate stated, plus waste, taking delivery, storage, fixing in position, profit and overheads.</p> <p>The actual nett cost per unit will be adjusted within the Final Account against the P.C. rate stated.</p>		
	Preliminaries	Carried to collection	KShs.

MBX

		Shs.			
A	<p><u>PROTECTION</u></p> <p>The Contractor shall cover up and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Project Manager until the completion of the Contract, and carefully preserve all trees or bushes on or near the Site.</p>				
B	<p><u>CLEANING</u></p> <p>The Contractor shall, upon completing of the Works, at his own expense, remove and clear away all surplus excavated materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Project Manager, including clearing away and making good all traces of temporary access roads, offices, sheds camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all rubbish and dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection therewith.</p>				
C	<p><u>TRAINING LEVY</u></p> <p>The Contractor's attention is drawn to legal Notice No. 237 of October, 1971, which requires payment by the Contractor of Training Levy on all Contracts of more than 50,000/- in value and his Tender must include for all costs arising therefrom.</p>				
D	<p><u>STANDARD LEVY (STANDARDS ACT- CAP 496)</u></p> <p>The Contractor's attention is drawn to legal Notice No. 267 of 2nd June, 1990 which requires payment by the Contractor of the Standards Levy at a rate of 0.2% of the contract sum less allocation for prime cost sums and provisional sums, subject to a ceiling of KShs. 400,000.00 per annum. The Contractor must therefore include for all costs (if any) arising or resulting therefrom.</p>				
E	<p><u>NATIONAL CONSTRUCTION AUTHORITY LEVY (NCA)</u></p> <p>NCA levy, where applicable shall be paid by Kenya Power directly to the Authority and contractors SHOULD NOT price for this.</p>				
E	<p><u>DEVELOPMENT APPROVALS</u></p> <p>The contractor shall allow for all necessary National construction Authority (NCA), county government permits & approvals with regard to these works. No claim for failure to comply with county governments requirements shall be entertained Allow for all necessary permits/approvals by National construction Authority (NCA the County Government of (Nyeri)</p>				
F	<p><u>VALUE ADDED TAX</u></p> <p>The Contractor's attention is drawn to the Finance Act 1993 and subsequent amendments thereof which requires payment by the Contractor of Value Added Tax (VAT) on construction services rendered. Whether VAT is added at the grand summary</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; border: none;">Preliminaries</td> <td style="width: 33%; border: none;">Carried to collection</td> <td style="width: 33%; border: none;">KShs.</td> </tr> </table>	Preliminaries	Carried to collection	KShs.	
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COLLECTION

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PRELIMINARIES

TO GRAND SUMMARY
AT END OF BILLS

KSHS.

Preliminaries



ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	BILL NO. III <u>COMMERCIAL OFFICE - NANYUKI</u> <u>ELEMENT NO. 1</u> <u>SUBSTRUCTURES (ALL PROVISIONAL)</u> <u>Site clearance</u>				
A	Clear the site off grass, shrubs and all vegetation; cart away as directed <u>Excavation</u>	360	Sm		
	<u>Over-site excavations: 100-200mm Depth, load and deposit as instructed by the project manager</u>				
B	Reducing levels; 200 mm	360	Sm		
C	Excavate for strip footing trenches n.e. 1.5 m deep	18	Cm		
D	Excavate mechanically in black cotton soil averaging 1.2m deep and cart away from site	9	Cm		
E	Extra-over all excavation for excavating rock irrespective of class.	5	Cm		
F	Level bottom of foundations to receive blinding	12	Sm		
G	Return, fill-in and rum selected imported materials around foundations	12	Cm		
H	Remove and cart away surplus excavated	21	Cm		
	<u>Diposal of water</u>				
J	Keeping all excavations free from all water including spring or running water	1	Item		
	<u>Planking and strutting</u>				
K	Uphold the sides of all excavations	1	Item		
	<u>Filling</u>				
L	Hardcore filling in making up levels, hand packed, 300mm thick in layers of 150mm maximum thickness	78	Cm		
M	50mm (average) thick quarry dust blinding to surfaces of hardcore	242	Sm		
	<i>Carried to Collection</i>				

CBS

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<u>Antitermite Treatment</u> Premise 200 SC' or other equal and approved anti-termite insecticide treatment with ten years guarantee, applied strictly in accordance with manufacturer's instructions, to tops of fill and foundation walls	242	Sm		
B	<u>Concrete</u> <u>Insitu concrete; reinforced; class 20 / (20mm); vibrated</u> Strip footing	16	Cm		
C	150mm thick bed	242	Sm		
D	<u>Reinforcement</u> <u>Supply and fix bars Reinforcement including bending, hooks, tying wire, cutting spacers and supporting all in position as described</u> In assorted reinforcement of various sizes	480	Kg		
E	<u>Fabric; B.S. 4483</u> Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	242	Sm		
F	<u>Walling</u> 200 mm thick natural stone foundation walling bedded in c/s mortar <u>Sawn formwork to insitu concrete as described:-</u>	36	Sm		
G	To sides; vertical or battering of foundations, ground beams or the like	15	Sm		
H	Edges of ground floor slab; 75 to 150mm wide	36	Lm		
I	<u>Damp proofing</u> Polythene sheet; 1000 gauge, 200mm welted laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding	242	Sm		
<i>Carried to Collection</i>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	200mm wide; B.S. 743 Type A bitumen hessian base 150 mm laps (no allowance made for laps); horizontal, 1 no. layer, bedded in cement sand (1:3) mortar <u>In situ Finishings</u>	140	Lm		
B	14mm thick 2 No. coatwork cement sand (1:3) render; wood floated to concrete or blockwork base to walls; external <u>Painting and Decorations</u> <u>Prepare and apply three coats bituminous paint to:</u>	78	Sm		
C	Wood floated rendered plinths over 300mm girth	76	Sm		
D	600x600x50mm Pcc paving blocks laid in compacted and blinded hardcore with and including keying and jointing in c/s mortar all to the satisfaction of the PM; to falls	296	Sm		
<i>Carried to Collection</i>					

MBG

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>COLLECTION</u>				
	From page BW/1				
	From page BW/2				
	From page above				
	TOTAL FOR SUBSTRUCTURES CARRIED TO SUMMARY				



ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 2</u>				
	<u>RC SUPERSTRUCTURE</u>				
	<u>In situ concrete; reinforced; class 20 / (20mm); vibrated</u>				
A	Beams	10	Cm		
	<u>Reinforcement</u>				
	<u>Bars; high yield steel; cold worked to B.S. 4461 and hot rolled to B.S. 4449 including bends, hooks, tying wire and distance blocks</u>				
B	In assorted reinforcement of various sizes	450	Kg		
	<u>Sawn formwork to insitu concrete as described:-</u>				
C	To sides and soffits of ring beam	96	Sm		
TOTAL FOR RC SUPERSTRUCTURE CARRIED TO SUMMARY					

MB

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 3</u>				
	<u>WALLING</u>				
	<u>Precast concrete grade 20(12mm aggregate) including formwork, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in cement and sand (1:3) mortar</u>				
A	WINDOW CILLS; 250 x 50 mm extreme height; once weathered; once throated; reinforced as necessary for handling; surface fair finish 275 mm girth; bedding, jointing and pointing in cement sand (1:3) mortar	38	Lm		
	<u>NATURAL STONE WALLING</u>				
B	150 mm thick approved local; chisel dressed both sides; bedding, jointing and pointing in cement sand (1:3) mortar reinforced with hoop iron at every alternate courses	360	Sm		
C	100mm ditto with and including hoop iron reinforcement in every course	18	Sm		
D	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand (1:3) mortar; one coat of bituminous paint.	296	Sm		
TOTAL FOR WALLING CARRIED TO SUMMARY					

C.B.S.

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 4</u>				
	<u>ROOFING CONSTRUCTION, COVERING AND RAIN WATER DISPOSAL</u>				
	<u>Roof covering.</u>				
	<u>Box profile sheets; 28 gauge; prepainted</u>				
A	Roof covering; 150mm laps on one end and one and a half box profiles side lap; and nailing to 100x50 mm celcured sawn cypress purlins (m/s) on timber trusses (m/s) at 1200mm c/c all laid to fall at 22.5 ⁰	291	sm		
	<u>Accessories, fixing as necessary to roof sheets</u>				
B	150mm dia. Half round ridge sheet	20	Lm		
C	Ditto; hips ditto	40	Lm		
	<u>CARPENTRY</u>				
	The following in sawn celcured cypress timber trusses, bolted connections, to detail; hoisting approx. 3.0m above ground				
D	100 x 75mm rafters at 1200mm c/c	420	Lm		
E	100 x 75mm ceiling joist	160	Lm		
F	75 x 75mm struts and ties	420	Lm		
G	100 x 75mm king post	66	Lm		
	The following in sawn celcured cypress				
H	100 x 100mm wall plate rag-bolted at 1200mm centres with 12mm diameter bolts (m/s)	160	Lm		
I	100 x 75mm ridge and hip boards	160	Lm		
J	100 x 75mm common rafters	92	Lm		
K	100 x 50mm purlins	240	Lm		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	The following in wrot cypress				
A	200 x 25mm thick fascia	98	Lm		
B	Approved T&G eaves boarding secret fixed to and including approved 50 x 50mm celcured wrot cypress bearers or brandering at 600mm centres; all necessary priming and 2 coats clear varnish all to approval	59	sm		
	<u>Labour and material (Provisional)</u>				
C	12mm diameter rag bolt, 200mm long complete with and including head, nut and two washers; cast into and including mortice in stone or concrete and run with cement and sand (1:3) mortar	167	No		
D	Drill 50mm thick timber to receive 12mm dia. Bolt (m/s)	167	No.		
	Carried to Collection				

MB

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Painting and Decorations</u> <u>On Woodwork</u>				
	<u>Prepare and apply one zinc plumbate primer and three coats of 'CROWN SOLO' or other equal and approved super gloss oil paint to:-</u>				
A	Fascias 200 to 300mm girth; external	98	Lm		
	<u>Rain Water Goods</u>				
B	24G x 150mm prepainted GCI box gutters to match	91	Lm		
C	Extra over for stopped ends	8	No		
D	Ditto for nozzle outlets	20	No		
E	140mm diameter (heavy gauge) gutter support brackets spaced at 200mm c/c	56	No		
F	24G x100 dia GCI box rain water downpipes with clips on masonry wall at 900mm centres	2	No		
G	Extra over ditto for swan neck	2	No		
H	Supply heavy gauge 10000 litre plastic water tank as "ROTO" or equal and approved and mount on plinth and test as directed on site	2	No		
Total carried to collection					
	<u>COLLECTION</u>				
	From page BW/7				
	From page BW/8				
	From page Above				
TOTAL FOR ROOFING CONSTRUCTION, COVERING CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 5</u> <u>DOORS</u> <u>METAL WORK - PURPOSE - MADE UNITS</u>				
	<u>Mild steel casement doors; 100 x 50 x 3mm thick frame plugged to concrete or blockwork with 100mm long fishtailed 25 x 25 x 2mm thick angle section, 50 x 50 x 3mm thick angle section frames at 300mm centres both sides, angles cut, mitred and welded; panels infilled with glazing (m/s), one coat manufacturer's primer, complete with all necessary ironmongery; all welding ground to smooth finish</u>				
A	Double door; 1500x2400mm high, complete; including 150mm long purpose made hinges	2	No.		
B	Single door; 900 x 2100mm high, complete; including 150mm long purpose made hinges; ditto	3	No.		
C	Gates; 6000mmx2400mm high grill gate; with and including 900mmx2100mm high pedestrian gate, ms metal grills comprising of 25 x 25mm RHS horizontal (500mmc/c) & vertical members at 300mm c/c in approved design and including fixing into masonry wall (m/s) or concrete columns(m/s) ; one coat primer before fixing; all to the satisfaction of the p.m complete; including 150mm long purpose made hinges; all necessary iron mongery	3	No.		
	<u>TIMBER DOORS</u> <u>framed frames and framings ; hardwood</u>				
D	150 x 50 mm; 4 No. labours; plugged door frame	31	Lm		
E	100 x 25mm architraves with 4 No. labours	31	Lm		
F	38 x 38mm quadrants with 3 No. labours	31	Lm		
	<u>45mm Thick semi-solid core flush pannel doors to B.S 459: part 2 mahogany veneered both sides with internal quality plywood and lipped on all edges in approved hardwood</u>				
G	Door; overall size 900 x2100 mm high	7	No.		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Iron mongery</u> Supply and fix the following to UNION catalogue or other equal and approved <i>To softwood, hardwood or the like fixing with screws</i>				
A	Two lever ditto	7	No.		
B	100mm steel butt hinges <i>To concrete or blockwork; fixing with bolts; plugging</i>	11	Prs		
C	Rubber door stop complete with 38 mm rawl bolt <u>Painting and Decorations</u> <u>On wood</u> <u>Aluminium primer or other equal and approved wood primer before fixing: -</u>	7	No.		
D	Backs of frame, board, etc over 100mm but not exceeding 200mm girth	31	Lm		
E	Ditto n.e 100mm girth <u>Knot, prime and stop; prepare and apply one undercoat and two coats of mahogany stain varnish</u>	62	Lm		
F	General surfaces of timber doors over 300mm girth; external	31	Sm		
G	Frames; over 100mm but not exceeding 200mm girth; internal	31	Lm		
H	Frames not exceeding 100mm girth; internal	62	Lm		
J	Prepare and apply one undercoat and two final coats of gloss oil paint to;	87	Sm		
K	Metal gates	42	Sm		
L	Ditto but grill doors	87	Sm		
	<i>Carried to Collection</i>				
	<u>COLLECTION</u> From page BW / 10 From above				
	TOTAL FOR DOORS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 6</u> <u>WINDOWS</u>				
	<u>Hard Wood</u>				
A	150 x 25 mm thick window boards including bull-nosed edges and 25 x 25 mm bearer; plugged, counter sinking and flush pelleting.	30	Lm		
	<u>Pelmet box</u>				
B	Comprising 150 x 25mm wide fascia, 2 No. 150 x 25mm ends 100mm long; 100 x 25mm blockboard top; and 50 x 25mm wrot cypress bearer; plugged; (11 No. Windows)	30	Lm		
	<u>METAL WORK</u> <u>PURPOSE - MADE UNITS</u>				
	<u>Supply, assemble and fix the following purpose-made mild steel casement windows; standard metal section from approved manufacturer complete with frames, transomes, mullions and with and including permanent ventilators comprising "T" bar, gauze and 16 gauge sheet metal hood 50mm high x 50mm projection to full width of window, coupling mullions, approved ironmongery and one coat manufacturer's primer; all welding ground to smooth finish.</u>				
	<i>Steel; for glazing with putty, lugs to two jambs, cutting and pinning to concrete or blockwork, fixing to head and sill with screws; plugging</i>				
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Metal work cont'd</u>				
A	Window, overall size 2400 x 1500mm high with openable lights high to detail	13	No		
B	Ditto but 1200x1500mm high	1	No		
C	Ditto 900x 1200mm high	2	No		
D	Ditto 900x 1500mm high	2	No		
	<u>Grills</u>				
	<u>High tensile steel burglar proof bars at 300mm cross centres horizontal and vertical; ends lugged in masonry.</u>				
E	25x6mm flats welded and ground smooth to approval.	54	Sm		
F	Ditto Obscure	5	Sm		
	<u>Glazing</u>				
G	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with putty	58	Sm		
	<u>Painting and Decorations</u>				
	<u>On Metal work</u>				
	<u>Prepare and apply three coats oil paint full gloss to Crown Solo or other equal and approved to: -</u>				
H	General window surfaces; over 300mm girth internal	54	Sm		
G	Surfaces of metal over 300mm girth (burglar proofing grills)	54	Sm		
	<u>On wood</u>				
	<u>Aluminium primer or other equal and approved wood primer before fixing: -</u>				
H	Backs of frame, board, etc over 100mm but not exceeding 200mm girth	60	Lm		
	<u>Prepare and apply three coats polyurethane clear varnish on woodwork internally</u>				
I	Frames; 100 to 200mm girth	60	Lm		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<p><u>COLLECTION</u></p> <p>From page BW / 12</p> <p>From page BW / 13</p>				
	<p>TOTAL FOR WINDOWS CARRIED TO SUMMARY</p>				

MB

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 7</u> <u>FINISHES</u>				
	<u>Wall finishes</u>				
	<u>Insitu finishes</u>				
	<u>Render; 15mm thick, 1 No. coatwork of cement and sand (1:3); wood floated to concrete or blockwork base generally to: -</u>				
A	Beams and walls; external	27	Sm		
	<u>Plaster; 18mm thick, 2 No. coatwork, 15mm first coat of cement sand (1:3); 3mm second coat of cement and lime putty (1:9); steel trowelled to concrete or blockwork base generally to: -</u>				
B	Walls, beams; internal	392	Sm		
	<u>Painting and decorations</u>				
	<u>Prepare and apply one undercoat and three coats of first quality silk vinyl paint to: -</u>				
C	Plastered surfaces	392	Sm		
	Beams and walls; external	37	Sm		
	<u>Approved ceramic tiles to B.S. 1281; local; coloured wall tiles to regular or approved other pattern; bedding and jointing in cement sand (1:4) mortar, grouting with white cement</u>				
D	White glazed wall tiles size 250x300mm x 8mm thick with approved tile adhesive or equal and approved	113	Sm		
	<u>Render; cement and sand (1:3)</u>				
E	12mm thick one coat backings; wood floated to receive ceramic tiles (m/s) to concrete or blockwork base; to walls internal	113	Sm		
<i>Carried to Collection</i>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Floor finishes</u>				
	<u>Cement sand backing to receive terrazzo</u>				
A	Lay 20mm thick cement sand (1:3) screed backing to receive terrazzo floor finish	242	Sm		
	<u>In situ Polished Terrazzo concrete paving (1:2:4) in dividing strips @ 2m c/c bothways</u>				
C	20mm thick paving	242	Sm		
D	20x100mm skirting	102	Lm		
<i>Carried to Collection</i>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Ceiling finishes</u>				
	<u>Wrot cypress</u>				
A	75 x 25mm moulded cornice	156	Lm		
	<u>Approved sawn softwood; second grade; pressure impregnated.</u>				
B	50 x 50mm brandering	542	Lm		
C	50 x 50mm ditto; plugged	472	Lm		
	<u>PLAIN SHEET FINISHINGS</u>				
	<u>Chip board</u>				
D	12mm thick plain chip-board ceiling board nailed to timber brandering (m/s); nails punched and puttied	272	Sm		
	<u>Painting and Decorations</u>				
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
	<u>To wood surfaces</u>				
E	Chip-board ceiling boards	272	Sm		
F	Moulded cornice not exceeding 100mm girth	156	Lm		
	<i>Carried to Collection</i>				
	<u>COLLECTION</u>				
	From page BW / 15				
	From page BW / 16				
	From page Above				
	TOTAL FOR FINISHES CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	PLUMBING AND DRAINAGE INSTALLATIONS				
	SANITARY FITTINGS				
	Supply, deliver, install, test and commission the following sanitary appliances complete with all the accessories including all connections to the services, waste, jointing to water supply overflows, supports and all plugging and screwing to walls and floors. Note:				
	(i) All sanitary fittings shall be in approved colour.				
	(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.				
	(iii) Equivalent and Approved models may be acceptable.				
A	S- Trap type ceramic water closet suite complete with high level cistern, flush pipe comprising ceramic cistern, with valve fittings including siphon, side overflow inlet connection, ball valve and reversible chrome plated flushing lever.	2	No		
B	PWD WC Suit complete with and including grab bars, Arabic shower, WHB, all to approval	1	No		
C	Urinal - Bowl Twyford clifon urinal range of 2 consisting of, pipework for range of 2, urinal bowl, Twyford dome shape waste, twyford urinal dividers.	2	No		
D	Asian type ceramic water closet suite complete with ceramic high level cistern, flush pipe comprising squatting pan, ceramic cistern, with valve fittings including siphon, side overflow, inlet connection, ball valve and reversible chrome plated flushing lever.	2	No		
E	Wash hand basin Wash hand basin as Twyford "Advent 565 Countertop" size 565 x 425mm with one central tap hole Cat. No. AD4531 WH complete with 32mm diameter lift-up waste (No. WF9365CP) and 32mm plastic bottle trap (No. WF8482XX)	4	No		
F	Self-closing pillar tap , 15mm C.P., non concussive type pegler-Prestex Cat. No.877	4	No		
G	Toilet bip tap as Cobra No. 206-CP, heavy duty with star handle.	3	No		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<p>Toilet Roll Holder Semi recessed toilet roll holder in Vitreous China of size 165 x 165mm in approved colour as Twyford's 9806WH or equal and approved.</p>	4	No		
B	<p>Hand drier compatible with 240V/1 phase/50 Hz power supply. To be complete with mounting plate, centrifugal fan, thermal overload 2400watts by spirally wound element, automatic resetting and thermal cutout. As Heatrae sadia or equal and approved.</p>	3	No		
C	<p>Mirrors 5mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.</p>	3	No		
	<p>Flexible Tubing 15mm diameter x 300mm long flexible connectors complete with integral chrome plated angle valve for connecting the sanitary fitting to water supply. To be as Cobra or equal and approved.</p>	11	No		
D	<p>Soap Dispenser Soap Dispenser, capacity 1.136 litres complete with plastic rawl plugs, fixing screws, lock and key complete with initial fill of soap gel. The soap dispenser to be as ZALPON'S MARK 7 model, size 125 x 100 x 290mm high or approved equivalent</p>	3	No		
	<i>Carried to Collection</i>				
	From page BW / 18				
	From page Above				
	TOTAL FOR SANITARY FITTINGS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	INTERNAL PLUMBING.				
	PPR Pipes				
	Supply, deliver and install Polypropylene Random (PP-R) 20 pipework to DIN 8077 with joints, couplings, reducers, tees, adaptors, pipe fixing clips etc all to DIN 16962 and DIN 16928 .Pipe jointing shall be by polyfusion or use of electric coupling. Where pipework is not chased proper anchoring using approved fixtures shall be done. No pipework shall be left exposed to the sun. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers, couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.				
A					
	PPR PIPEWORK				
B	12mm dia pipe	20	Lm		
C	25mm -ditto-	60	Lm		
	Extra-over PPR pipework for the following:-				
	Bends				
D	12mm -ditto-	25	No		
E	25mm -ditto-	12	No		
	Threaded bend				
F	25mmx1/2' threaded bend	10	No		
	Equal Tees				
G	25mm dia tee	8	No		
H	12mm dia tee	12	No		
I	25mmx1/2' threaded tee	26	No		
J	12mmx1/2' threaded tee	26	No		
	Unions				
K	25mm	5	No		
L	12mm	5	No		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT		
	Reducers				
A	25x12mm reducer	5	No		
	Gate valves 25mm diameter approved medium pressure screw down full way non-rising stem wedge gate valve to BS 5154 PN 20 for series B rating, with wheel and head joints to steel tubing and complete with round male threaded transition fittings. The gate valve to be as PEGLER or approved equivalent.				
B	32mm -ditto-	3	No		
C	12mm -ditto-	6	No		
	Roof Water Storage Tank Supply, deliver and install vertical close end plastic moulded tank of capacity 1000 litres (293gallons) and diameter 1210x 1380mm high. The tank to be assembled complete with cover and having screwed connections for inlet, outlet, overflow, 50mm medium pressure ball valve, drain pipes and any other necessary item for its proper functioning. The tank shall be mounted on a platform at the ceiling. or equal & approved				
D		2	No		
	<i>Carried to Collection</i>				
	From page BW / 20 From page Above				
	TOTAL FOR INTERNAL PLUMBING CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>INTERNAL DRAINAGE</u> Supply, deliver and install the following uPVC and muPVC soil and waste pipework. Bidders must allow in their prices for all the various sizes of connectors, adaptors etc required for the satisfactory functioning of the drainage system				
	<u>uPVC and muPVC pipes</u>				
A	100mm diameter heavy gauge golden brown mUPVC pipe	70	Lm		
B	32mm -ditto-	8	Lm		
	<u>Extra-over uPVC and muPVC pipework for the following:-</u>				
	Traps				
C	100x50mm dia floor trap	4	No		
D	Standard 300 x 300 x 450mm masonry gully trap complete with 125mm thick reinforced concrete cover.	6	No		
	Bends				
E	100mm bend	4	No		
F	32mm bend	4	No		
	Sweep tees				
G	100mm dia sweep tee	1	No		
	Boss connectors				
H	32x12mm boss connector	6	No		
I	100x50mm bosss connector	2	No		
	Wc connectors				
J	100mm WC connector	4	No		
K	Allow for excavation and backfilling of 60m trench	1	Item		
	TOTAL FOR INTERNAL DRAINAGE CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	Supply, install, test and commission the following :-				
	<u>LIGHTING POINTS</u>				
A	Lighting points wired in 3x 1.5 mm ² SC CU cables drawn in 20mm diameter concealed HG P.V.C conduits for one way switching.	4	No		
B	Lighting points wired in 3x 1.5 mm ² SC CU cables drawn in 20mm diameter concealed HG P.V.C conduits for two way switching	16	No		
	Piloted Flush mounted 10Amps wide rocker , switch plate as CLIPSAL MEGA 200 or approved equivalent as for				
C	a) one gang one way	6	No		
D	b) two gang two way	6	No		
	<u>LIGHTING FITTINGS</u>				
	Lighting fittings complete with electronic ballasts and tubes/lamps as follows:-				
E	2x36W high frequency surface mounted slim section fluorescent light fitting with high performance optical system , white finished steel body and ABS plastic end caps as Thorn Modulight or approved equivalent	12	No		
F	1)Enclosed IP65 vandal resistant wall mounting luminaire for 26WTC-DEL, compact fluorescent lamps. With polycarbonate body, small: smooth opal, large: prismatic smooth opal diffuser and electronic/E3 emergency control gear.As Thorn Piazza II.	10	No		
G	28W energy saver lamp c/w Straight batten lamp holder and ceiling rose mounted using 300mm flexible 3x1.5mm ² copper cable	18	No		
	<u>POWER DISTRIBUTIONS</u>				
	TP&N, flush mounted distribution board complete with integral isolator as HAGER or approved equivalent complete with all accessories but excluding MCBs. As				
H	8way C/w 125A integral isolator	2	No		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	Supply, install, test and commission the following :- SP&N, flush mounted consumer unit complete 100A integral isolator as HAGER or approved equivalent complete with all accessories but excluding MCBs. As				
A	4way c/w 100A integral isolator	1	No		
	MCB's/RCBOS for item above				
B	(i) 10A SP MCB	2	No		
C	(iii) 30A SP MCB	2	No		
D	Power points wired in 3x2.5 mm ² SC CU cables for double flush wall mounted socket outlets drawn in 25mm Ø HG PVC conduit	18	No		
E	13A flush mounted single piloted white enamel moulded type socket outlet faceplate as MK or approved equivalent	12	No		
	<u>SUB-MAIN CABLES(c/w glands, lugs etc)</u>				
F	4x10 mm ² SC Copper cables + 10mm ² SC PVC CU ECC drawn in 32mmØ concealed HG PVC conduits to Consumer unit	40	Lm		
	Earthing, for items 10.1.05 above, comprising of the following and any other necessary accessories:-				
G	a) 12.5 mm x 1200 mm earth rod as FURSE cat. No. RB 105.	2	No.		
H	b) 12.5 mm dia. Driving stud as FURSE cat.No. ST100.	2	No.		
I	c) Rod to cable clamp as FURSE cat. No. CR510.	1	No.		
J	Earthing of the entire installation to KEBS approved standards	2	Lot		
	From page BW / 20				
	From page Above				
	TOTAL FOR ELECTRICAL WORKS CARRIED TO SUMMARY				

<u>SUMMARY PAGE</u>				
ITEM	DESCRIPTION			AMOUNT (Kshs)
A	TOTAL FOR SUBSTRUCTURES CARRIED TO SUMMARY			
B	TOTAL FOR RC SUPERSTRUCTURE CARRIED TO SUMMARY			
C	TOTAL FOR WALLING CARRIED TO SUMMARY			
D	TOTAL FOR ROOFING CONSTRUCTION, COVERING CARRIED TO SUMMARY			
E	TOTAL FOR DOORS CARRIED TO SUMMARY			
F	TOTAL FOR WINDOWS CARRIED TO SUMMARY			
G	TOTAL FOR FINISHES CARRIED TO SUMMARY			
H	TOTAL CARRIED TO SUMMARY			
I	TOTAL FOR INTERNAL PLUMBING CARRIED TO SUMMARY			
J	TOTAL FOR INTERNAL DRAINAGE CARRIED TO SUMMARY			
	TOTAL FOR INTERNAL ELECTRICAL WORKS CARRIED TO SUMMARY			
TOTAL WORKS CARRIED TO SUMMARY				

MB

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	BILL NO. IV <u>1 NO. GUARD HOUSE</u> <u>ELEMENT NO. 1</u> <u>SUBSTRUCTURES (ALL PROVISIONAL)</u> <u>Excavation</u> <u>Over-site excavations: 100-200mm Depth, load and deposit as instructed by the project manager</u>				
A	Reducing levels; 200 mm	8	sm		
B	Excavate for strip footing trenches n.e. 1.5 m deep	5	cm		
C	Extra-over all excavation for excavating rock irrespective of class.	1	cm		
D	Level bottom of foundations to receive blinding	5	sm		
E	Return, fill-in and rum selected imported materials around foundations	1	cm		
F	Remove and cart away surplus excavated materials. <u>Diposal of water</u>	4	cm		
G	Keeping all excavations free from all water including spring or running water <u>Planking and strutting</u>		Item		
H	Uphold the sides of all excavations <u>Filling</u>		Item		
J	Hardcore filling in making up levels, hand packed, 300mm thick in layers of 150mm maximum thickness	3	cm		
K	25mm (average) thick quarry dust blinding to surfaces of hardcore	8	sm		
	<i>Carried to Collection</i>				

\$

MB

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<u>Antitermite treatment</u> Premise 200 SC' or other equal and approved anti-termite insecticide treatment with ten years guarantee, applied strictly in accordance with manufacturer's instructions, to tops of fill and foundation walls	8	sm		
	<u>Concrete</u> <u>Insitu concrete; reinforced; class 20 / (20mm); vibrated</u>				
B	Strip footing	1	cm		
C	100mm thick bed	8	sm		
	<u>Reinforcement</u> <u>Bars; high yield steel; cold worked to B.S. 4461 and hot rolled to B.S. 4449 including bends, hooks, tying wire and distance blocks</u>				
D	In assorted reinforcement of various sizes	50	kg		
	<u>Fabric; B.S. 4483</u>				
E	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	8	sm		
	<u>Walling</u>				
F	200 mm thick natural stone foundation walling bedded in c/s mortar	4	sm		
	<u>Sawn formwork to insitu concrete as described:-</u>				
G	To sides; vertical or battering of foundations, ground beams or the like	4	sm		
H	Edges of ground floor slab; 75 to 150mm wide	9	lm		
	<u>Damp proofing</u>				
J	Polythene sheet; 1000 gauge, 200mm welted laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding	8	sm		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	200mm wide; B.S. 743 Type A bitumen hessian base 150 mm laps (no allowance made for laps); horizontal, 1 no. layer, bedded in cement sand (1:3) mortar <u>In situ Finishings</u>	9	lm		
B	14mm thick 2 No. coatwork cement sand (1:3) render; wood floated to concrete or blockwork base to walls; external <u>Painting and Decorations</u> <u>Prepare and apply three coats bituminous paint to:</u>	4	sm		
C	Wood floated rendered plinths over 300mm girth <u>Paving</u>	4	sm		
D	Excavate and lay 600x600mm pcc paving slabs on murram bed including jointing and pointing in cement sand mortar mix (1:4) all round the building.	14	sm		
<i>Carried to Collection</i>					
<u>COLLECTION</u>					
From page BW/1					
From page BW/2					
From page above					
TOTAL FOR SUBSTRUCTURES CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 2</u>				
	<u>RC SUPERSTRUCTURE</u>				
	<u>In situ concrete; reinforced; class 20 / (20mm); vibrated</u>				
A	Beams	1	cm		
B	100mm thick suspended roof slab including overhangs twice throated standard	9	sm		
	<u>Reinforcement</u>				
	<u>Bars; high yield steel; cold worked to B.S. 4461 and hot rolled to B.S. 4449 including bends, hooks, tying wire and distance blocks</u>				
C	In assorted reinforcement of various sizes	200	kg		
	<u>Sawn formwork to insitu concrete as described:-</u>				
D	To sides and soffits of ring beam	21	sm		
E	Soffits of suspended roof slab	9	SM		
	<i>Carried to Collection</i>				
	<u>COLLECTION</u>				
	From page Above				
	TOTAL FOR RC SUPERSTRUCTURE CARRIED TO SUMMARY				

MBS

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 3</u>				
	<u>WALLING</u>				
	<u>Precast concrete grade 20(12mm aggregate) including formwork, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in cement and sand (1:3) mortar</u>				
A	WINDOW CILL; 250 x 50 mm extreme height; once weathered; once throated; reinforced as necessary for handling; surface fair finish 275 mm girth; bedding, jointing and pointing in cement sand (1:3) mortar	4	lm		
	<u>NATURAL STONE WALLING</u>				
B	150 mm thick approved machine cut natural stone; bedding, jointing and pointing in cement sand (1:3) mortar	20	sm		
C	Extra over recessed horizontal and vertical flush pointing in 10mm thick rod in cement and sand (1:3) mortar; one coat of bituminous paint.	20	sm		
<i>Carried to Collection</i>					
	<u>COLLECTION</u>				
	From page Above				
TOTAL FOR WALLING CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 5</u>				
	<u>DOORS</u>				
	<u>Wrot hardwood framed frames and framings</u>				
A	100 x 50 mm; 2 No. labours; plugged door frame	11	LM		
B	100 x 50 mm; 4 No. labours; door transome	11	LM		
C	50 x 20mm architraves with 8 No. labours	11	LM		
D	25 x 25mm quadrants with 3 No. labours	11	LM		
	<u>45mm Thick flush pannel doors to B.S 459: part 2</u> <u>mahogany veneered both sides and lipped on all edges in</u> <u>approved hardwood</u>				
E	Door size 900 x 2100 mm high	2	NO		
	<u>Iron mongery</u>				
	<u>Supply and fix the following to UNION catalogue or other</u> <u>equal and approved</u>				
	To softwood, hardwood or the like fixing with screws				
F	Two lever ditto	2	NO		
G	100mm brass butt hinges	12	PRS		
H	Rubber door stop complete with 38 mm rawl bolt	2	NO		
J	100mm night latch	2	NO		
K	100x25mm x 20G.m.s cramps twice bent & built into wall	12	NO		
	<u>Painting and Decorations</u>				
	<u>On wood</u>				
	<u>Aluminium primer or other equal and approved wood primer</u> <u>before fixing: -</u>				
L	Backs of frame, board, etc n.e 100mm	11	LM		
	<u>Prepare and apply three coats silk vinyl paint on woodwork</u>				
M	General surfaces of timber doors over 300mm girth;	8	SM		
N	Frames not exceeding 100mm girth;	11	LM		
	<i>Carried to Collection</i>				
	<u>COLLECTION</u>				
	From page Above				
	TOTAL FOR DOORS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<p><u>ELEMENT NO. 6</u> <u>WINDOWS</u> <u>METAL WORK PURPOSE - MADE UNITS</u> <u>Supply, assemble and fix the following purpose-made mild steel casement windows; standard metal section from approved manufacturer complete with frames, transomes, mullions and with and including permanent ventilators comprising "T" bar, gauze and 16 gauge sheet metal hood 50mm high x 50mm projection to full width of window, coupling mullions, kenya power corporate grillwork, approved ironmongery and one coat manufacturer's primer; all welding ground to smooth finish.</u></p> <p>Steel; for glazing with putty, lugs to two jambs, cutting and pinning to concrete or blockwork, fixing to head and sill with screws; plugging</p>				
A	Window, overall size 1000 x 1200mm high; heavy duty; all to detail	1	NO		
B	Ditto; 500x1200mm high; ditto	2	NO		
C	Ditto; 450x600mm high; ditto	1	NO		
	<u>Glazing</u>				
D	5mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with putty	2	SM		
E	Ditto; obscure	1	SM		
	<u>Painting and Decorations</u> <u>On Metal work</u> <u>Prepare and apply three coats oil paint full gloss to Crown Solo or other equal and approved to: -</u>				
F	General window surfaces; over 300mm girth	2	SM		
	<i>Carried to Collection</i>				
	<u>COLLECTION</u>				
	From page BW/1				
	TOTAL FOR WINDOWS CARRIED TO SUMMARY				

WBS

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>ELEMENT NO. 7</u> <u>FINISHES</u> <u>Wall finishes</u> <u>External wall finishes</u> <u>Plaster; 12mm thick 2 No. coatwork, 9mm first coat of cement sand (1:6); 3mm second coat of cement and lime putty (1:10); steel trowelled to concrete or blockwork base generally to: -</u>				
A	Walls, beams; External <u>Internal wall finishes</u> <u>Plaster; 12mm thick 2 No. coatwork, 9mm first coat of cement sand (1:6); 3mm second coat of cement and lime putty (1:10); steel trowelled to concrete or blockwork base generally to: -</u>	4	SM		
B	Walls, internal <u>Tile, Slab or Block Finishings</u> <u>Approved ceramic tiles to B.S. 1281; local; coloured glazed wall tiles to regular or approved other pattern; bedding and jointing in cement sand (1:4) mortar, grouting with white cement</u>	25	SM		
C	8mm thick; butt joints straight both ways; to cement sand base (m/s) to walls internal	7	SM		
D	Plastic edging (Provisional) <u>Beds or Backings</u> <u>Render; cement and sand (1:3)</u>	9	LM		
E	14mm thick one coat backings; wood floated to receive ceramic tiles (m/s) to concrete or blockwork base; to walls internal <u>Painting and decorations</u> <u>Prepare and apply three coats of silk vinyl paint to the following surfaces</u>	7	SM		
F	Plastered surfaces; internal <u>Prepare and apply three coats of wall master</u>	18	SM		
G	Medium textured wall master byramix coating on and including 12mm thick render; applied as per the manufacturer's instructions	4	SM		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<p>Prepare and apply three coats of bacteria & fungal resistant P.E matt wall paint to: -</p> <p>Plastered surfaces; internal (wet area)</p> <p><u>Floor finishes</u></p> <p>The contractor shall supply samples of all finishes for approval by the client before application</p> <p>Tile, Slab or Block Finishings</p> <p><u>Approved ceramic tiles; local; non slip floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement</u></p>	7	SM		
B	<p>10mm thick; butt joints both ways; to cement sand base (m/s); to floors level; internal</p>	9	SM		
C	<p>100 mm thick skirting; straight junction with wall and floor finish.</p> <p><u>Beds or Backings</u></p> <p>Screed; cement and sand (1:3)</p>	8	LM		
D	<p>30mm thick one coat backings; wood floated to receive ceramic tiles (m/s) to concrete or blockwork base; to floors level; internal</p> <p><u>Ceiling finishes</u></p> <p><u>12mm (minimum) two-coat plaster; 9mm first coat of cement sand (1:6), 3mm second coat of cement and lime putty (1:9); steel trowelled to: -</u></p>	9	SM		
E	<p>Concrete soffits</p> <p><u>Painting and Decorations</u></p> <p>On steel trowelled plastered surfaces</p> <p><u>Prepare and apply three coats of silk vinyl paint to the following surfaces</u></p>	9	SM		
F	<p>Concrete soffits</p>	9	SM		
	<i>Carried to Collection</i>				
	<p><u>COLLECTION</u></p> <p>From page BW/8</p> <p>From page Above</p>				
	TOTAL FOR FINISHES CARRIED TO SUMMARY				

BS

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	ELEMENT NO. 8 JOINNERY, FIXTURES & FITTINGS <u>Wardrobe</u> <u>Inbuilt wardrobe complete with iron mongery, painting & decorations</u>				
A	Inbuilt wardrobe size 800mm long x 400mm deep x 1800mm high comprising 25mm thick mdf doortops on 40x30mm bearers; 25mm thick mdf sliding double door pannel, varnished; 20mm dia chrome cloth hanging rail; stainless steel door handle; 100x30mm skirting; sloping shoe rack; 15x8mm mdf beading; with and including 100mm high 1:3:6 concrete plinth; all to approval; overall depth 600mm	1	LM		
	<u>Worktops</u>				
B	1800 x 300 x 900 mm suspended worktop comprising 100 mm thick mass concrete 1:3:6 plinth steel trowelled screed, 100mm R.c class 20 worktop, 20 mm thick ceramic tiles top; including fabric mesh reinforcement as necessary	1	NO		
	<u>Mirrors</u>				
C	6mm thick polished plate glass, silver backed mirror with bevelled edges, size 610x497mm, plugged and screwed to wall with 4No. Capped screws and 5mm thick foam rest	1	NO		
<i>Carried to Collection</i>					
	<u>COLLECTION</u> From page Above				
TOTAL FOR JOINNERY, FIXTURES & FITTINGS CARRIED TO SUMMARY					

NANYUKI GUARD HOUSE

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>SUMMARY PAGE</u>				
1	SUBSTRUCTURE (ALL PROVISIONAL)			GH / 3	
2	RC SUPERSTRUCTURE			GH / 4	
3	WALLING			GH / 5	
4	DOORS			GH / 6	
5	WINDOWS			GH / 7	
6	FINISHES			GH / 10	
7	JOINNERY, FIXTURES & FITTINGS			GH / 11	
	TOTAL FOR GUARD HOUSES CARRIED TO GRAND SUMMARY				

(Handwritten signature)

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	(BILL. NO.V) EXTERNAL CONCRETE PAVING WORKS (ALL PROVISIONAL)				
	<u>GENERAL YARD PAVING</u> Allow for survey & levelling works including measurements before site clearance, during excavations, grading and during levelling.				
	<u>EARTH WORKS</u> Over-site excavations: 100-200mm Depth, load and deposit as instructed by the project manager				
A	Clear site including removal of vegetation and any other unwanted materials as shall be directed on site and cart away	650	sm		
B	Mechanically excavate ALL black cotton oversite to reduce levels commencing at existing ground level but not exceeding 1.50 metres deep. Load and cart away from site excavated spoil to designated County dumping sites.	925	cm		
C	Level and compact the bottom of the excavated site to receive hard core fill	650	Sm		
D	Return, Fill and Ram with imported red soil compacting in layets n.e 150mm thick	300	Cm		
E	Fill up excavation with handpacked approved hardcore to make up levels mechanically compacted in individual layers not exceeding 300mm thick	650	Cm		
F	125 x 250mm Precast concrete (class 20) kerb straight with one chamfered edge laid on and including 450 x 100mm plain concrete (1:3:6) foundation haunched up on one side including all necessary excavations formwork etc	310	Lm		
G	Ditto but curved 125x100mm PC	30	Lm		
H	Channels (Straight)	30	Lm		
J	Ditto but curved	20	Lm		
K	Supply and lay heavy duty 80mm thick interlocking concrete paving blocks to client's approval and satisfaction and including 50mm sand bed	985	Sm		
L	175 x 800mm precast shallow invert block drain (600mm overall) class 20 laid on and including plain concrete (1:3:6) foundation; haunching up; including all necessary excavations and formwork.	150	Lm		
M	150 x 305mm ditto (450mm overall) ditto	25	sm		
	<u>ACCESS ROAD WORKS</u>				
N	Create road by reducing the level to fall of 2.5% (300mm) including cutting to fill in soft material, including slopes and side ditches	60	sm		
P	Supply, handpack and compact mechanically approved hardcore material	140	cm		
	<i>Carried to Collection</i>				

(Bill No. V)

Civil Works

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	DRAINAGE CULVERTS AND HEAD WALLS				
A	Excavate pit in normal soil for headwall starting from ground level to a depth n.e 1.50 m deep	15	cm		
B	Provide all materials, mix and place 50mm thick concrete class P as blinding for headwall base (Mix 1:4:8)	6	Sm		
C	Provide and place in trench 150mm thick concrete grade Q (1:3:6 Mix) as foundation for headwalls.	10	Cm		
D	Provide materials for and erect 200mm thick Natual quarry;hand chiselled masonry walling for headwalls ; in c/s mortar	50	sm		
E	Provide, mix and place 12mm thick cement and sand rendering to both sides of the walls	100	sm		
F	Excavate trench in normal soils for culvert starting from ground level to a depth not exceeding 1.0m deep	38	sm		
G	450mm dia culvert	24	lm		
H	Stone pitching in approved hardcore including cutting and compacting , sloping, falls; jointing in c/s mortar 1:2mix all to approval	120	Sm		
	<i>Carried to Collection</i>				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>COLLECTION</u> From page PCW/1 From page PCW/2				
	TOTAL FOR CONCRETE PAVING AND ASSOCIATED CIVIL WORKS				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
BILL NO. VI					
CHAIN LINK FENCING ON WOODEN					
POLES					
A	Uproot and clear all existing live fence, bushes and the like load cart away to county approved dumping site	120	SM		
B	Excavate holes in black cotton soil averaging 0.65m deep x 400mm diameter	18	CM		
C	Allow for preparation and erecting of wooden poles provided by the client averaging 3m high, fitted to receive approved heavy guage barbed wire (m/s) and mortised in mass concrete (m/s)	210	NO		
D	Extra over ditto for 1.8m long struts also supplied by client after every 15m and corner post supports.	70	NO		
E	Mass concrete on excavated holes in 1:3:6 (class Q) including waterproofing additives	15	CM		
F	12.5g high tensile galvanized wire 50kg per roll	650	LM		
G	12.5 G x 6 strand galvanized barbed wired fencing with 1.8 metre high 125 x 150mm cranked precast concrete posts @ 3000mm centers mortised in mass concrete surround	4456	LM		
H	Supply and fix heavy gauge (14) chain link to a height of 2400mm all to project manager's approval	1578	SM		
<i>Carried to Collection</i>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	Fabricate away from site, supply and fix size 6000 long x 2400mm high double opening steel casement gates allowing for provision of a 900x2100mm high smaller opening alongside for human access all branded in Kenya Power corporate colours	3	No		
B	Ditto for a 900 x 2100mm high wicket gate hung @ 3 points	2	No		
<u>CHAIN LINK FENCING ON CONCRETE POLES</u>					
C	Excavate in black cotton soil averaging 1.5m deep x 400mm diameter	25	Cm		
D	Supply and erect 125 x 150mm averaging 3metres high cranked on one side precast concrete posts, fitted to receive straining wire (m/s)and mortised in mass concrete (m/s)	95	No		
E	Extra over ditto for 1.8m long struts every 8 metres and at the corner post supports	35	No		
F	Mass concrete in excavated holes in (1:3:6) class Q including waterproofing additives	20	Cm		
G	12.5 high tensile galvanized wire 50kg per roll	1750	Lm		
H	20kg x 12.5 heavy gauge galvanized barbed wire to concrete posts or any other equal and approved	8000	Lm		
J	Supply and fix heavy gauge (14) chain link to a height of 2400mm all to project manager's approval and satisfaction	960	Sm		
Total to Collection					
<u>COLLECTION</u>					
1	From page 1				
2	From page 2				
Total to Grand Summary					

(Bill No. VI)

Chain Link Fencing

NBS

BILL NO VII

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>100PAX CAPACITY BIO DIGESTER</u> <u>SUBSTRUCTURES (ALL PROVISIONAL)</u> <u>Supply and install biodigester waste treatment system complete with the following items to the satisfaction of the Engineer. The system is expected to treat approximately 13,300 gallons per day (50 cubic metres per day) or 200 persons whichever is higher. The tenderer to submit the technical brochures and working calculation together with the tender for evaluation. Alternative and approved systems utilising packaged systems may be provided</u>				
	<u>Excavation</u>				
A	Excavate pit exceeding 1.50m deep starting from ground level	50	Cm		
B	Excavate pit exceeding 1.50m deep but not exceeding 3.0m deep starting from reduced level	50	Cm		
C	Extra over excavations for excavating in hardrock	55	Cm		
D	Return fill and ram approved excavated material around foundations	40	Cm		
E	Load and cart away surplus excavated material	60	Cm		
F	Allow for keeping the whole excavation free from all water including spring and running water		Item		
G	Allow for plunking and strutting the whole excavation		Item		
H	<u>Mass concrete class 'P' in:</u> 50mm thick blinding under foundations	25	Sm		
	<i>Carried to Collection</i>				

MBS

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Reinforced insitu concrete class 25/(20mm aggregates)</u>				
A	200mm thick floor bed	25	Sm		
B	200mm thick wall	62	Sm		
C	200mm thick suspended slab	25	Sm		
D	Strip foundation	1	Cm		
	<u>Assorted reinforcement</u>				
E	Fabric mesh reinforcement to B.S. 4483 ref A142 weighing 2.22kg/m ² (measured net-no allowance made for laps)	2000	Kg		
	<u>Sawn formwork to:</u>				
F	Soffites of suspended slab, Sides walls and Edge of bed between 150 - 225mm wide	25	Sm		
	<u>Water proof cement/sand (1:3) in:</u>				
G	20mm thick screed to sloping floor bed cross falls	25	Sm		
H	20mm thick screed trowelled hard and smooth	120	Sm		
J	20mm thick render to walls	27	Sm		
K	20mm thick render to soffites	25			
	<u>Sundries</u>				
L	Form or leave 100mm diameter hole in 200mm thick reinforced concrete wall and slab	10	No		
M	Form or leave 600 x 600mm hole in 200mm thick reinforced concrete suspended slab	5	No		
N	600 x 600mm heavy duty double manhole cover and frame including setting cover in concrete opening and forming rebate	5	No		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	20mm diameter galvanised mild steel step iron 450mm long twice bent and with both ends built 75mm deep into concrete wall	10	No		
B	200mm galvanised mild steel water bar on construction joints	26	No		
	<u>Approved filling</u>				
C	Rock and gravel backfill	10	Cm		
D	Blind surfaces of hardcore with 50mm thick well watered fine murrum or crushed stone	4	Sm		
E	Insecticide treatment on blinded surfaces with "Termidor" termicide or other equal and approved at the rate of fipromil (250gm/ litre) after dilution with water (1:100) at the rate of 5litres per square metre all in accordance with Manufacturer's Specifications	25	Sm		
F	Single layer 1000 gauge polythene sheeting with minimum 300mm side and end laps	4	Sm		
	<u>Natural natural stone block walling jointed in cement/sand (1:3) mortar in</u>				
G	200mm thick wall	7	Sm		
H	Machine dressed natural stone block walling jointed in cement/sand (1:3) mortar in				
J	200mm thick wall	7	Sm		
	<u>Precast concrete class 20(20mm) in</u>				
K	200mm thick louvred vent block walling	6	Sm		
	<u>Roof covering</u>				
L	26 gauge prepainted I.T.5 sheets or other equal and approved and fixing to including timber bearers with and including nails	10	Sm		
	<i>Carried to Collection</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<p><u>Louvred door :</u> 1300 x 2100mm high louvred mild steel double door comprising 50 x 50 x 4mm thick L- frame to sides and top and plugged to wall each leaf consisting of 50 x 50 x 3mm thick square hollow section frame all round divided horizontally at the middle into two equal portions with and including 50 x 50 x 3mm thick square hollow section transome with the two portions infilled with and including 20No. 1.2mm thick mild steel sheet louvres 100mm wide, twice bent and welded both sides to the frame, complete with necessary iron mongery and paint work</p>	1	No		
B	<p><u>Cement/sand (1:3) in:</u> 25mm thick plaster to walls trowelled smooth</p>	14	Sm	14	
C	<p><u>Paint work</u> Prepare and apply one undercoat and two finishing coats of permaplast paint</p>	30	Sm	30	
	Carried to Collection				
	COLLECTION				
	From page BD/1				
	From page BD/2				
	From page BD/3				
	From page BD/4				
	TOTAL FOR BIO DIGESTER CARRIED TO SUMMARY				

CBT

**PROPOSED COMMERCIAL OFFICE, CHAIN LINK FENCING &
ASSOCIATED CIVIL WORKS AT NANYUKI 132KV SUBSTATION**

BILL NO.	DESCRIPTION	Page No.	CONTRACTOR'S USE	
			AMOUNT	CTS.
1	PRELIMINARIES	Page 15		
2	COMMERCIAL OFFICE	Page 25		
3	GUARD HOUSE	Page 11		
4	CIVIL WORKS	Page 2		
5	CHAIN LINK FENCING	Page 2		
6	BIO DIGESTER	Page 4		
	TOTAL			
	ADD: 16% VAT			
TOTAL COST		K.SHS.		

Amount in words.....

Contractor's Name and Address.....

Contractors' Stamp, Signature and Date.....