

ITEM	DESCRIPTION	KSHS
	<p><u>BILL NO. 1; PARTICULAR PRELIMINARIES</u></p> <p><u>Definition of Terms</u></p> <p>PRICING ITEMS OF PRELIMINARIES</p> <p>A 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.</p> <p>EMPLOYER</p> <p>B The "Employer" is MINISTRY OF AGRICULTURE, LIVESTOCK, FISHERIES AND IRRIGATION; STATE DEPARTMENT OF FISHERIES, AQUACULTURE & THE BLUE ECONOMY, Represented by the THE PRINCIPAL</p> <p>The term "Employer" and "Government" wherever used in the contract document shall be synonymous</p> <p>PROJECT MANAGER</p> <p>C The term "P.M." wherever used in these Bills of Quantities shall be deemed to imply the Project Manager as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p> <p>ARCHITECT</p> <p>D The term "Architect" shall be deemed to mean "The P.M." as defined above whose address unless otherwise notified is State Department of Public Works, P.O. Box 30743-00100, NAIROBI.</p> <p>QUANTITY SURVEYOR</p> <p>E The term "Quantity Surveyor" shall be deemed to mean "The P.M." as defined above whose address unless otherwise notified is State Department of Public Works, P,O Box 30743-00100, NAIROBI.</p> <p>ELECTRICAL ENGINEER</p> <p>F The term "Electrical Engineer" shall be deemed to mean "The P.M." as defined above whose address unless otherwise notified is State Department of Public Works, P.O. Box 30743-00100, NAIROBI.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p> <p>G</p>	<p>MECHANICAL ENGINEER</p> <p>The term "Mechanical Engineer" shall be deemed to mean "The P.M." as defined above whose address unless otherwise notified is State Department of Public Works, P.O. Box 30743-00100, NAIROBI.</p> <p>STRUCTURAL ENGINEER</p> <p>The term "Structural Engineer" shall be deemed to mean "The P.M." as defined above whose address unless otherwise notified is State Department of Public Works, P.O. Box 30743-00100, NAIROBI.</p> <p>SCOPE OF THE CONTRACT</p> <p>The works to be carried out under this contract comprise of Erection of a Laboratory Building, Equipping, Civil Works and Associated Electrical & Mechanical Works</p> <p>DESCRIPTION OF THE WORKS</p> <p>The works comprise of erection to completion of a Laboratory Building, Equipping, Civil Works and Associated Electrical & Mechanical Works</p> <p>MEASUREMENTS</p> <p>In the event of any discrepancies arising between the Bills 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.</p> <p>LOCATION OF SITE</p> <p>The site for works is located at, SHIMONI, KWALE COUNTY. The Tenderer shall be deemed to have visited the site and familiarised himself with all site conditions prior to submission of tenders. No claims arising from tenderer's failure to do so will be entertained.</p> <p>SIGNING OF THE TENDER DOCUMENTS</p> <p>The bidder shall append his / her signature and / or company's rubber stamp on the form of tender and grand summary pages of tender document.</p>	
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	<p>DEMOLITIONS AND ALTERATIONS</p> <p>A 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 necessary making good consequent upon this is to be executed to the satisfaction of the Project Manager</p> <p>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.</p> <p>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.</p> <p>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</p> <p>CLEARING AWAY</p> <p>B 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.</p> <p>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.</p> <p>CLAIMS</p> <p>C 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.</p>	
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ITEM	DESCRIPTION	KSHS
	<p>PAYMENTS</p> <p>A The tenderer's attention is drawn to the fact that the Government shall 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 said elements</p> <p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>B The Contractor is notified that these works are to be carried out on a restricted site where the client is going on with other normal activities. The Contractor is thus 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 deemed necessary by taking such care within the site.</p> <p>WORKING CONDITIONS</p> <p>C 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 facility will be operating as usual during the course of the contract.</p> <p>SIGNBOARD</p> <p>D 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.</p> <p>LABOUR CAMPS</p> <p>E The Contractor shall NOT be allowed to house labour on site. To allow for transporting workers to and from the site during the tenure of the contract.</p> <p>MATERIALS FROM DEMOLITIONS</p> <p>F Any reusable materials arising from demolitions and not re-used in this contract shall become the property of the Client. The Contractor shall allow in his rates the cost of transporting the such materials to the Client's stores</p>	
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ITEM	DESCRIPTION	KSHS
	<p>PRICING RATES</p> <p>A 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.</p> <p>URGENCY OF THE WORKS</p> <p>B 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.</p> <p>PAYMENT FOR MATERIALS ON SITE</p> <p>C 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.</p> <p>EXISTING SERVICES</p> <p>D 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.</p> <p>BID SECURITY</p> <p>E The Bidder shall furnish, as part of his bid, a security as specified in the tender advertisement.</p> <p>The bid security shall, at the bidder’s option, be in the form of a certified cheque, bank draft, standby letter of credit or guarantee from a reputable bank located in Kenya or insurance firm approved by the Government. The format of the bank guarantee shall be in accordance with the sample forms of bid security included in the post qualification forms, other formats may be permitted, subject to the prior approval of the Government. Letters of credit, Bank Guarantees issued as surety shall be valid for a period of One Hundred and Fifty (150) days from the date of Tender Opening</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
A	<p>PERFORMANCE BOND</p> <p>A performance bond equivalent to 5% of the contract sum will be required in accordance with clause 6.00 of the Instructions to Tenderer's. No payment under the contract shall be made before the contractor submits a bond acceptable to the employer.</p> <p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderers</p> <p>DELIVERY OF TENDER</p> <p>The Tender documents above shall be delivered in one sealed and properly addressed envelope as specified in these Tender Documents and in the 'Tender Invitation Advertisement' and deposited at the address and time specified thereof.</p> <p>Tenders will be opened in the manner specified similarly. Tenders delivered/received later than the specified time will not be opened.</p> <p>VALUE ADDED TAX</p> <p>The Contractor's attention is drawn to the Legal Notice in the Finance Act part 3 Section 21(b) operative from 1st September, 1993 which requires payment of VAT on all contracts. The Tenderer is required to allow for VAT for all items in the Bills of Quantities and no claim for VAT shall otherwise be entertained.</p> <p>INSURANCE</p> <p>The Contractor shall insure as required in Clause 30 of the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the PROJECT MANAGER either by production of an Insurance Policy or and Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the PROJECT MANAGER shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the PROJECT MANAGER's inspection.</p>	
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ITEM	DESCRIPTION	KSHS
	<p>FIRM PRICE CONTRACT</p> <p>A. Unless otherwise specifically stated, this is a firm price contract and the Contractor must allow in his tender rates for any increase in the cost of labour and/or materials during the currency of the contract.</p> <p>B. Allow a Provisional Sum of Kenya Shillings Ten Million Eight Hundred Thousand only for Project Management Expenses including subsistence allowances (Per Diem) for Project Management officers. (Headquarters Team)</p> <p>C. Add contractor's profits ... %</p> <p>D. Allow a Provisional Sum of Kenya Shillings Four Million only for Project Management Expenses. (County Team)</p> <p>E. Add contractor's profits ... %</p> <p>F. Allow a Provisional Sum of Kenya Shillings Five Hundred Thousand only for the Clerk of Works.</p> <p>G. Add contractor's profits ... %</p> <p>H. Allow a Provisional Sum of Kenya Shillings One Million Five Hundred Thousand only for Stationery</p> <p>J. Add contractor's profits ... %</p>	<p></p> <p>10,800,000.00</p> <p></p> <p>4,000,000.00</p> <p></p> <p>500,000.00</p> <p></p> <p>1,500,000.00</p>
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
A	<p data-bbox="240 184 1133 254"><u>PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT</u></p> <p data-bbox="240 306 1076 380">The following are the insertions to be made in the appendix to the Contract Agreement: -</p> <p data-bbox="240 422 1036 457">Period of Final Measurement 3 Months From Practical</p> <p data-bbox="240 499 1024 535">Defects Liability Period 6 Months from Practical</p> <p data-bbox="240 577 1068 613">Date for Possession To be agreed with the Project</p> <p data-bbox="240 655 1144 690">Date for Completion 78 Weeks from date of Possession</p> <p data-bbox="240 732 1133 806">Liquidated and Ascertained At the rate of Kshs.. 100,000.00.. per week or part thereof</p> <p data-bbox="240 848 1003 884">Period of Interim Certificates Monthly</p> <p data-bbox="240 926 998 961">Period of Honouring Certificates 30 days</p> <p data-bbox="240 1003 959 1039">Percentage of Certified Value Retained 10%</p> <p data-bbox="240 1081 932 1117">Limit of Retention 5%</p> <p data-bbox="240 1159 1057 1194">Advance payment Not applicable</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
A	<p>TRANSPORT <u>Flight Arrangements</u> The contractor shall facilitate flight booking (Return ticket) from Nairobi to Mombasa and back as and when required for 8No. Officers from State Department of Public Works Head Office</p> <p>Allow for Air Travel by Kenya Airways or equal & approved as above described 8 No. persons @ Kshs. Per person X 45No. Trips</p> <p><u>PROJECT VEHICLE</u></p> <p>The contractor shall provide a Four wheel drive (4WD) vehicle (specifications attached in Annex A) for local running including maintaining licences and insurances, competent driver: all to the satisfaction of the Project Manager. The vehicle should be in perfect mechanical condition at all times.</p> <p>Thereafter, the Contractor for the duration of the contract or for such other period as may be directed shall maintain the vehicle and provide a driver for use exclusively by the P.M. and others authorized by the P.M. in writing. The vehicle shall only be driven by aforementioned driver during normal working hours and outside these hours when specifically required by the P.M. and for official purpose only. The Government shall not be bound to accept the services of driver after expiry of this contract.</p> <p>The Contractor shall ensure that the vehicle is serviced regularly in accordance with the manufacturer's instructions and maintained in good condition to the satisfaction of the P.M. and shall have the vehicle available to him for use in good serviceable condition at all times. In the event of the vehicle being unserviceable when required the contractor shall provide an alternative vehicle and suitable qualified driver; in compliance with the provisions of this section to the satisfaction of the P.M. In the event of the driver being unavailable for whatever reason the Contractor shall provide an alternative and suitable qualified driver.</p> <p>Reimbursement to the Contractor for providing the services of the driver shall be on monthly basis during the currency of the contract at a rate as here below to be inserted. Reimbursement on the Contractor providing regular servicing, fuel, oil, lubricants and tyres shall be on a monthly basis on the actual kilometres travelled at a rate as here below</p>	
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ITEM	DESCRIPTION	KSHS
	<p>The vehicle shall be privately registered including all necessary insurances and to the satisfaction of the P.M. After the contract is over the ownership of the vehicle shall revert to the Government.</p> <p>Prior to handing over the vehicle to the Government at the end of the contract the engine, chassis and body work of the vehicle shall be re-conditioned to as new as no excessive wear of use will be obvious. The vehicle shall be given a final check by the Ministry of Roads Mechanical and Transport Department Nairobi and a certificate of road worthiness given prior to acceptance of the vehicle by the Government. The vehicle will be fitted at the end of the contract with new tvres.</p> <p>Reimbursement to the Contractor for providing regular servicing fuels,oils lubricants and tyres will be monthly based on actual kilometers traveled at a rate here below to be inserted.</p> <p>A Lump sum for providing 1 No. new Four wheel drive (4WD) vehicle (specifications attached in Annex A) including charges thereof in connection with registration.</p> <p>B Allow for providing comprehensive insurance as below described per year. 2No.Year @ Kshs.....per year</p> <p>C Allow for providing a competent driver as here below described per calendar month. 18No. calendar months @ Kshs.....per month</p> <p>D Allow for providing regular maintenance,lubricants,spare and tyres for the first 100,000 km @Kshs.....per km</p> <p>E Extra over rate (D) above fo distance travelled in excess of 100,000 km @ Kshs.....per km for 50,000 km.</p> <p>F Provide for reverting vehicles to the Government including servicing, change or registration for G.K. etc.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p style="text-align: center;"><u>COLLECTION</u></p> <p>Brought forward from page PP/1</p> <p>Brought forward from page PP/2</p> <p>Brought forward from page PP/3</p> <p>Brought forward from page PP/4</p> <p>Brought forward from page PP/5</p> <p>Brought forward from page PP/6</p> <p>Brought forward from page PP/7</p> <p>Brought forward from page PP/8</p> <p>Brought forward from page PP/9</p> <p>Brought forward from page PP/10</p>	
	TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO GRAND SUMMARY	

ITEM	DESCRIPTION	KSHS
	<p>BILL NO. 2; GENERAL PRELIMINARIES</p> <p>PRICING ITEMS OF PRELIMINARIES AND PREAMBLES</p> <p>A Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.</p> <p>The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.</p> <p>ABBREVIATIONS</p> <p>B Throughout these Bills, units of measurement and terms are abbreviated and shall be all the requirements for the proper execution of the whole of the works in the Contract.</p> <p><i>C.M.</i> Shall mean cubic metre</p> <p><i>S.M.</i> Shall mean square metre</p> <p><i>L.M.</i> Shall mean linear metre</p> <p><i>MM</i> Shall mean Millimetre</p> <p><i>Kg.</i> Shall mean Kilogramme</p> <p><i>No.</i> Shall mean Number</p> <p><i>Prs.</i> Shall mean Pairs</p> <p><i>B.S.</i> - Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.</p> <p><i>Ditto</i> - Shall mean the whole of the preceding description except as qualified in the description in which it occurs.</p> <p><i>m.s.</i> Shall mean measured separately.</p> <p><i>a.b.d</i> Shall mean as before described.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
<p data-bbox="175 247 207 279">A</p>	<p data-bbox="240 170 1211 201">EXCEPTION TO THE STANDARD METHOD OF MEASUREMENT</p> <p data-bbox="240 247 1162 321"><i>Attendance</i> ; Clause B19 (a) of the Standard Method of Measurement is deleted and the following clause is substituted:-</p> <p data-bbox="240 363 1190 768">Attendance on nominated Sub-Contractors shall be given as an item in each case shall be deemed to include: allowing use of standing scaffolding, mess rooms, sanitary accommodation and welfare facilities; provision of special scaffolding where necessary; providing space for office accommodation and for storage of plant and materials; providing light and water for their work: clearing away rubbish; unloading checking and hoisting: providing electric power and removing and replacing duct covers, pipe casings and the like necessary for the execution and testing of Sub- Contractors' work and being responsible for the accuracy of the same.</p> <p data-bbox="240 814 375 846"><i>Fix Only</i>:-</p> <p data-bbox="240 892 1162 1045">"Fix Only" shall mean take delivery at nearest railway station (Unless otherwise stated),pay all demurrage charges, load and transport to site where necessary, unload, store,unpack, assemble as necessary, distribute to position, hoist and fix only.</p> <p data-bbox="240 1087 581 1119">FORM OF CONTRACT</p> <p data-bbox="175 1161 1136 1276">B The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein</p> <p data-bbox="240 1318 1182 1434">Particulars of insertions to be made in the Appendix to the Contract Agreement will be found in the Particular Preliminaries part of these Bills of Quantities</p>	
	<p data-bbox="581 1913 849 1944"><i>Carried to collection</i></p>	

ITEM	DESCRIPTION	KSHS
	<p>PLANT, TOOLS AND VEHICLES</p> <p>A Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated Sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.</p> <p>TRANSPORT</p> <p>B Contractor to allow for transport of workmen, materials, etc., to and from the site at such hours and by such routes as may be permitted by the competent authorities.</p> <p>MATERIALS AND WORKMANSHIP</p> <p>C All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also ensure they are onsite when required for use in the works. The Bills of Quantities shall not be used for the purpose of ordering materials.</p> <p>SIGN FOR MATERIALS SUPPLIED</p> <p>D The Contractor will be required to sign a receipt for all articles and materials supplied by the PROJECT MANAGER at the time of taking deliver thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacements of any such loss or damage with articles and/or materials which will be supplied by the PROJECT MANAGER at the current market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the PROJECT MANAGER</p> <p>STORAGE OF MATERIALS</p> <p>E The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER. Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.</p>	
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ITEM	DESCRIPTION	KSHS
A	<p>SAMPLES</p> <p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Roads, Housing and Public Works.</p> <p>The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work.</p> <p>GOVERNMENT ACTS REGARDING WORKPEOPLE, ETC</p> <p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople.</p> <p>The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p>SECURITY OF WORKS, ETC</p> <p>A The Contractor shall be entirely responsible for the security of all the works stores, materials, plant, personnel, etc., both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public.</p> <p>PUBLIC AND PRIVATE ROADS</p> <p>B Maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local and other competent authority and the PROJECT MANAGER</p> <p>EXISTING PROPERTY</p> <p>C The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the PROJECT MANAGER</p> <p>VISIT SITE AND EXAMINE DRAWINGS.</p> <p>D The Contractor is recommended to examine the drawings and visit the site the location of which is described in the Particular Preliminaries hereof. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which, may affect his tender. No claim arising from his failure to comply with this recommendation will be considered.</p> <p>ACCESS TO SITE AND TEMPORARY ROADS</p> <p>E Means of access to the Site shall be agreed with the PROJECT MANAGER prior to commencement of the work and Contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges, or any other means of gaining access to the Site. Upon completion of the works, the Contractor shall remove such temporary access roads; temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the PROJECT MANAGER The Contractor should also allow for relocating existing fence (approx. 30 metres long).</p>	
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ITEM	DESCRIPTION	KSHS
	<p>AREA TO BE OCCUPIED BY THE CONTRACTOR</p> <p>A The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the PROJECT MANAGER</p> <p>OFFICE FOR THE PROJECT MANAGER</p> <p>B The Contractor shall provide, erect and maintain where directed on site and afterwards dismantle the site office of the Ministry of Works standard type B, complete with furniture. He shall also provide a strong metal trunk complete with strong hasp and staple fastening and two keys. He shall provide, erect and maintain a lock-up type water or bucket closet for the sole use of the PROJECT MANAGER including making temporary connections to the drain where applicable to the satisfaction of Government and Medical Officer of Health and shall provide services of cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the "PROJECT MANAGER" a modern and accurate level together with levelling staff, ranginor.and control of labour, etc., and allow a</p> <p>WATER AND ELECTRICITY SUPPLY FOR THE WORKS</p> <p>C The Contractor shall provide at his own risk and cost all necessary water, electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER . The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub-contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use.</p> <p>SANITATION FOR THE WORKS</p> <p>D The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and/or Local Authorities, Labour Department and the PROJECT MANAGER</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p>SUPERVISION AND WORKING HOURS</p> <p>A The works shall be executed under the direction and to the entire satisfaction in all respects of the PROJECT MANAGER who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and sub-Contractors or other places where work is being prepared for the contract.</p> <p>PROVISIONAL SUMS</p> <p>B 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 Measurement. Such sums are net and no addition shall be made to them for profit.</p> <p>PRIME COST (OR P.C.) SUMS</p> <p>C 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 Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.</p> <p>PROGRESS CHART</p> <p>D The Contractor shall provide within two weeks of Possession of Site and in agreement with the PROJECT MANAGER a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors ; one copy to be handed to the PROJECT MANAGER and a further copy to be retained on Site. Progress to be recorded and chart to be amended as necessary as the work proceeds.</p> <p>ADJUSTMENT OF P.C. SUMS</p> <p>E 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 quotations, 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 pro-rata to the amount paid. Items of "attendance"</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p>ADJUSTMENT OF P.C. SUMS. Ctd.....</p> <p>A Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p> <p>ADJUSTMENT OF PROVISIONAL SUMS</p> <p>B 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, but should any part of the work be executed by a Nominated Sub-Contractor, the value of such work or articles for the work to 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>NOMINATED SUB-CONTRACTORS</p> <p>C When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance".</p> <p>DIRECT CONTRACTS</p> <p>D Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p>ATTENDANCE UPON OTHER TRADESMEN, ETC</p> <p>A The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in this Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.</p> <p>PROVISIONAL WORK</p> <p>B All work described as "Provisional" in these Bills of Quantities is subject to remeasurement in order to ascertain the actual quantity executed for which payment will be made. All "Provisional" and other work liable to adjustment under this Contract shall left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER Immediately the work is ready for measuring, the Contractor shall give notice to the PROJECT MANAGER. If the Contractor makes default in these respects he shall if the PROJECT MANAGER so directs uncover the work to enable all measurements to be taken and afterwards reinstate at his own expense.</p> <p>ALTERATIONS TO BILLS, PRICING, ETC</p> <p>C Any unauthorised alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
A	<p>BLASTING OPERATIONS</p> <p>Blasting will only be allowed with the express permission of the PROJECT MANAGER in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the PROJECT MANAGER governing the use and storage of explosives.</p> <p>MATERIALS ARISING FROM EXCAVATIONS</p> <p>Materials of any kind obtained from the excavations shall be the property of the Government. Unless the PROJECT MANAGER directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the PROJECT MANAGER Should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.</p> <p>PROTECTION OF THE WORKS</p> <p>Provide protection of the whole of the works contained in the Bills of Quantities, including casing , casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Government.</p> <p>REMOVAL OF RUBBISH, ETC</p> <p>Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.</p> <p>WORKS TO BE DELIVERED UP CLEAN</p> <p>Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p>GENERAL SPECIFICATION</p> <p>A For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the Ministry of Roads, Public Works and Housing General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries, Trade Preambles or other items in these Bills of Quantities.</p> <p>MATERIALS ON SITE</p> <p>B All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected unless specifically exempted by the PROJECT MANAGER. This includes the materials of the Main Contractor, Nominated Sub-Contractors and Nominated Suppliers.</p> <p>HOARDING</p> <p>C The Contractor shall enclose all the site under construction with a hoarding 2400 mm high consisting of iron sheets gauge 30 on 100 x 50 mm 2nd grade treated sawn cypress timber posts firmly secured at 1800 mm centres with two 75 x 50 mm 2nd grade treated sawn cypress timber.</p> <p>CONTRACTOR'S SUPERINTENDENT/SITE AGENT</p> <p>D 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 be fully engaged to the superintendence of the works for the duration of the contract. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Project Manager and such directions and instructions shall be deemed to have been issued to the Contractor in accordance with the Conditions of Contract</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	KSHS
	<p style="text-align: center;"><u>COLLECTION</u></p> <p>Brought Forward From Page GP/ 1</p> <p>Brought Forward From Page GP/ 2</p> <p>Brought Forward From Page GP/ 3</p> <p>Brought Forward From Page GP/ 4</p> <p>Brought Forward From Page GP/ 5</p> <p>Brought Forward From Page GP/ 6</p> <p>Brought Forward From Page GP/ 7</p> <p>Brought Forward From Page GP/ 8</p> <p>Brought Forward From Page GP/ 9</p> <p>Brought Forward From Page GP/ 10</p> <p>Brought Forward From Page GP/ 11</p>	
	<p>TOTAL FOR GENERAL PRELIMINARIES CARRIED TO GRAND SUMMARY</p>	

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>BUILDERS WORKS</u> <u>ELEMENT NO. 1</u>				
	<u>SUBSTRUCTURES (ALL PROVISIONAL)</u> <u>NOTE; (I) All work measured under this element is up to and including the floor slab but excluding the finishes</u>				
	<u>Site Clearance</u>				
A	Clear the site of all bush shrub undergrowth and small trees grub up roots and cart away or burn all arising	1800	SM		
B	Cut down trees of girth 300 - 600 mm; grub up roots; cut into logs and revert arisings to client	25	NO		
C	Ditto girth 600 - 900 mm ditto	18	NO		
D	Ditto girth 900 - 1200 mm ditto	15	NO		
E	Ditto girth 1200 - 1500 mm ditto	10	NO		
	<u>Excavations and earthworks</u>				
F	Reduce level to remove top vegetable soil average 200mm deep and spread as directed on site	1800	SM		
G	Excavate for strip foundation trenches not exceeding 1.5 metres deep commencing from stripped level	735	CM		
H	Ditto column bases ditto	645	CM		
J	Ditto lift shaft base	21	CM		
K	Excavate for column bases exceeding 1.5 metres but not exceeding 3.0 metres deep	128	CM		
L	Ditto lift shaft base	4	CM		
M	Extra over excavations for excavating in rock IRRESPECTIVE OF CLASS	1533	CM		
N	Allow for keeping excavations free from mud and all water including spring and running water by pumping pailing or other approved means.		ITEM		
P	Allow for planking and strutting to sides of excavations		ITEM		
	<u>Disposal</u>				
Q	Load surplus excavated material and cart away	613	CM		
	<u>Filling</u>				
R	Return fill and ram selected excavated material around foundations.	920	CM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>Hardcore as described</u> 300mm Thick layer approved hardcore filling including levelling and consolidating in 150mm layers	1230	SM		
B	<u>Blinding</u> 50mm Thick quarry dust blinding on surfaces of hardcore	1230	SM		
C	<u>Insecticide treatment</u> "TERMIDOL" or other equal and approved chemical insecticide treatment prepared and applied according to the manufacturer's printed instructions.	1230	SM		
D	1000 gauge polythene sheeting laid under concrete floor bed.	1230	SM		
E	<u>In-situ concrete work</u> <u>Mass concrete (1:3:6/15-38mm aggregate)</u> 50mm thick blinding under strip foundation	490	SM		
F	Ditto column bases	430	SM		
G	Ditto lift shaft base	15	SM		
H	<u>Vibrated reinforced concrete (1:1¹/₂:3/25-20mm aggregate) as described in:</u> Column bases	215	CM		
J	Ditto lift bases	7	CM		
K	Strip footing	98	CM		
L	Ground beam	70	CM		
M	Columns	18	CM		
N	250mm thick lift shaft walls	25	SM		
P	Mass concrete in steps	5	CM		
Q	Mass concrete in ramps	10	CM		
R	150mm Thick ground floor slab	1230	SM		
S	<u>Expansion joint</u> 25mm thick Aeroflex filler	71	SM		
T	25x25mm "Expendite" sealer	37	LM		
U	<u>Steel reinforcement</u> <u>Mesh reinforcement</u> B.R.C A142, steel mesh fabric reinforcement weighing 2.22 kg/m ² , measured nett including end and side laps	1230	SM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Supply and fix steel bars reinforcement including bending, hooks, tying wire, cutting, spacer blocks and supporting all in position as described.</u>				
	<u>High tensile ribbed bars (Provisional)</u>				
A	Assorted rebars (8 - 20mm diameter)	57995	KG.		
	<u>Sawn formwork as described to:</u>				
B	Vertical sides of column bases	410	SM		
C	Vertical sides of lift shaft base	8	SM		
D	Vertical sides of strip footing	270	SM		
E	Ditto curved to a radius	55	SM		
F	Vertical sides of ground beam	580	SM		
G	Ditto curved to a radius	120	SM		
H	Vertical sides of columns	170	SM		
J	Ditto curved to a radius	13	SM		
K	Vertical sides of lift walls	50	SM		
L	Edges of slab 75 - 150mm girth high	210	LM		
M	Ditto curved to a radius	110	LM		
	<u>Foundation walling</u>				
	<u>Approved load bearing medium chiseled dressed natural stone walling bedded and jointed in cement sand (1:3)</u>				
N	250mm thick reinforced with and including 20swg x 25mm wide hoop iron in every alternate course	740	SM		
P	Ditto curved to a radius	155	SM		
	<u>Horizontal damp proof course; one layer of 3 - ply bituminous felt or other equal and approved (measured nett - allow for lans)</u>				
Q	200mm wide levelled and bedded in cement and sand (1:3) mortar under walls	380	LM		
R	Ditto 150mm wide	30	LM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Plinth area finishes</u>				
A	12mm thick cement and sand (1:3) wood float render to plinth	95	SM		
B	Prepare and apply three coats black bitumastic paint to rendered area	95	SM		
	<u>Precast paving slabs (Around the building & court yard)</u>				
C	Excavate on normal soil not exceeding 300mm deep; backfill with murrum to form base to receive PCC paving slabs (m/s) and cart away arisings	620	SM		
D	Approved weed killer applied according to manufacturer's instructions	620	SM		
E	"Premise 200" Anti-termite treatment to murrum	620	SM		
F	600 x 600 x 50mm thick PCC slabs on and including 50mm sand bed jointed and pointed in cement sand 1:3 mortar	620	SM		
G	Excavate trench for 200mm internal diameter shallow drain to detail detail depth to invert not exceeding 1.5m and cart away surplus excavted material	320	LM		
H	Provide, lay and joint 175 x 800mm diameter precast concrete shallow invert block drain(600mm overall) and including 75mm thick concrete bed to detail	320	LM		
	Carried to Collections				
	<u>COLLECTION</u>				
	Brought Forward from Page No. LB		1		
	Brought Forward from Page No. LB		2		
	Brought Forward from Page No. LB		3		
	Brought Down from Above				
	<u>TOTAL FOR ELEMENT NO. 1</u> <u>SUBSTRUCTURES</u> <u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.2</u>				
	<u>REINFORCED CONCRETE FRAME</u>				
	<u>Vibrated reinforced concrete (1:1¹/₂:3/25-20mm aggregate) as described in:</u>				
A	Columns	212	CM		
B	Gutters	68	CM		
C	Sun breakers	120	CM		
D	Beams	600	CM		
E	Staircase	4	CM		
F	250 mm thick vertical lift walls	155	SM		
G	175 mm thick suspended slab	3220	SM		
H	Ditto roof slab	1030	SM		
J	Ditto above stairwell & ramp	111	SM		
K	150 mm thick landing	21	SM		
L	150 mm thick sloping waists	71	SM		
M	150 mm thick suspended sloping ramp	230	SM		
N	Extra over for ribbed concrete finish (water tank area)	185	SM		
	<u>Supply and fix steel bars reinforcement including bending, hooks, tying wire, cutting, spacer blocks and supporting all in position as described.</u>				
	<u>High tensile ribbed bars (Provisional)</u>				
P	Assorted rebars (8 - 20mm diameter)	250320	KG.		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Formwork as described to;</u> <u>(NB: Rate should be inclusive of a fair face finish to concrete surfaces)</u>				
A	Sides of columns	2112	SM		
B	Ditto curved to a radius	110	SM		
C	Sides and soffits of gutters	426	SM		
D	Ditto curved to a radius	180	SM		
E	Sides and soffits of sun breakers	770	SM		
F	Ditto curved to a radius	312	SM		
G	Sides and soffits of beams	4130	SM		
H	Ditto curved to a radius	870	SM		
J	Sides of vertical lift walls	310	SM		
K	Soffites of suspended floor slabs	3220	SM		
L	Soffites of suspended roof slabs	1141	SM		
M	Soffites of suspended ramp	230	SM		
N	Soffites of suspended landing	21	SM		
P	Soffites of sloping staircase	71	SM		
Q	Edges of risers 75 - 150mm girth high	231	LM		
R	Edges of ramp 75 - 150mm girth high	85	LM		
S	Edges of slab 75 - 150mm girth high	755	LM		
T	Ditto curved to a radius	205	LM		
U	Edges of extreme sides of staircase; 300mm girth	48	LM		
	<i>Carried to collection below</i>				
	<u>COLLECTION</u>				
	Brought Forward from Page No. LB		5		
	Brought Down from Above				
	<u>TOTAL FOR ELEMENT NO. 2</u> <u>R.C. SUPERSTRUCTURE</u> <u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 3</u>				
	<u>WALLING</u>				
	External walls				
	<u>Approved load bearing machine cut coral natural stone walling bedded and jointed in cement sand (1:3) mortar with 20 mm wide hoop irons in every alternate course.</u>				
A	200mm thick wall	1550	SM		
B	Ditto curved to a radius	950	SM		
C	200mm thick parapet wall	260	SM		
D	Ditto curved to a radius	160	SM		
	<u>Precast concrete units class 25 (20mm aggregate) reinforced with 2No. 12 mm diameter bars</u>				
E	350 x 75 mm thick Coping: weathered: throated	217	LM		
F	Ditto curved to a radius	125	LM		
	Internal walls				
	<u>Machine cut natural coral stone walling bedded and jointed in cement and sand (1:3) mortar and reinforced with and including 20swg x 25mm wide hoop iron; internally left plain ready for plaster (m.s)</u>				
G	200mm thick reinforced in every alternate course	995	SM		
H	150mm thick ditto	290	SM		
	<u>Expansion joint</u>				
J	25mm thick Aeroflex filler	454	SM		
K	25x25mm "Expendite" sealer	224	LM		
L	Extra over for a rounded cement sand (1:3) mortar groove along the expansion joint	224	LM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><u>Dry wall partitioning</u> <u>Aluminium curtain walling</u></p> <p>Powder coated bronze anodized aluminium curtain walling approx. 3000mm high overall comprising of 100 x 50mm extruded aluminium frame sections at 1200mm vertical centers and horizontal section member at 1200mm from the floor, top and bottom naggings resulting bottom panel infilled with 20mm thick birch laminated MDF veneered on both sides and top panel infilled with 8mm thick clear sheet glass</p>	30	LM		
B	<p>Aluminium sections 2mm thick 50 x 50mm extrusions in top, bottom and stiles and 100 x 50mm middle rail resulting panels infilled with and including glazed with 8mm thick tinted and toughened glass in door overall size 900 x 3000mm high comprising 900 x 900mm high top louvred fanlight, comprising of anodized adjustable aluminium louvre frames, carriers and handle with 150mm wide fixing clips, and 900 x 2100mm operable leaf complete with and including locking</p>	4	NO		
	<p><u>Glazing</u></p>				
C	<p>8mm thick clear sheet glass and glazing with aluminium glazing beads and tack on rubber wash leather in panes 1.0 - 1.5 square metres</p>	36	SM		
	<p><i>Carried to collection below</i></p>				
	<p><u>COLLECTION</u></p>				
	<p>Brought Forward from Page No. LB</p>		7		
	<p>Brought Down from Above</p>				
	<p>TOTAL FOR ELEMENT NO.3 <u>WALLING</u> <i>CARRIED TO SUMMARY</i></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO 4</u>				
	<u>ROOFING AND RAIN WATER DISPOSAL</u>				
	<u>Sawn cypress treated with a moisture content not exceeding 12%</u>				
A	200x 25mm ridge board	60	LM		
B	150 x 50 mm purlins	1050	LM		
C	150 x 50 mm jack and intermediate rafters.	1750	LM		
D	150 x 50 mm hip rafters.	82	LM		
E	150 x 50 mm valley rafters.	22	LM		
F	100 x 50 mm wall plate.	315	LM		
G	Ditto curved to a radius	110	LM		
	<u>The following in trusses with nailed connections including templates, fillets, straps, splices and hoisting approx. 13200-16500mm above ground level</u>				
H	150 x 50 mm rafters.	450	LM		
J	150 x 50 mm tie beams.	395	LM		
K	150 x 50 mm ties and struts.	652	LM		
	<u>ROOF COVERING.</u>				
L	Approved Gauge 24 Aluminium 'Roman tile coloured' roofing sheets as 'Kaluworks' or other equal and approved including fixing to purlins to Architect's approval	1050	SM		
M	Ditto; ridge capping to match - 600mm girth	60	LM		
N	Ditto; hip capping to match - 600mm girth	41	LM		
P	Ditto; valley sheeting 900mm girth	22	LM		
Q	Extra over raking in roofing sheets	126	LM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Roof finishes</u>				
	<u>Sundries</u>				
A	Form or leave hole through 175mm concrete slab for and build in large rainwater pipe outlet	25	NO		
B	Form groove in concrete for edge of felt roofing and grout in cement sand mortar (1:4) including forming bell mouth joint	890	LM		
	<u>Cabro Shield SBS modified bitumen roofing membrane as manufactured by Messrs. Cabro Limited or other equal and approved roofing felt fully bonded to screed by blow-torch method laid in accordance with the manufacture's printed instructions to approval:</u>				
C	Roof covering laid to falls and cross falls on screed	1141	SM		
	Ditto; gutters	512	SM		
D	Edge 300mm high with top edge dressed into groove (m/s) and bottom edge jointed to felt	890	LM		
E	Dress felt around 100mm rainwater outlet	25	NO		
	<u>Light weight roof screeds consisting of waterproof cement, sand and pumice (1:3:7) with 6mm layer of cement and sand topping laid to falls and crossfalls</u>				
F	50mm screed on concrete gutters	512	SM		
G	50mm screed on concrete to receive water proofing treatment sloping < 45 degrees from horizontal	1141	SM		
H	50x50mm triangular fillet	890	LM		
J	Work screed around 110mm rainwater outlet	25	NO		
K	110mm Cast iron coated "Fulbora " rainwater outlet complete with grating, setting in concrete and jointing to uPVC pipe	25	NO		
L	Apply master seal as per the Manufacturer's instructions to Engineer's approval	1653	SM		
M	Ditto Sika 1 ditto	1653	SM		
	<u>Prepare and apply two coat acrylic emulsion textured coating as 'Ruff N Tuff' or equal and approved to: complete with one undercoat and two finishing coats of nermacote exterior emulsion naint</u>				
N	Rendered surfaces of gutters externally	512	SM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Concrete tiles</u>				
A	20mm Thick "MANSON HART" Concrete interlocking paving tiles or other equal and approved tiles size 225 x 225mm bedded and pointed in hot bitumen compound to	250	SM		
	<u>RAIN WATER DISPOSAL.</u>				
	uPVC rainwater pipes and fittings				
B	110mm diameter down pipes; fixing with holderbats at 1500mm centres	285	LM		
C	Extra-over down pipe bend, 100mm diameter	25	NO		
D	Ditto, but shoe.	25	NO		
	<i>Carried to collection below</i>				
	<u>COLLECTION</u>				
	Brought Forward from Page No. LB		9		
	Brought Forward from Page No. LB		10		
	Brought Down from Above				
	<u>TOTAL FOR ELEMENT NO. 4</u>				
	<u>ROOFING AND RAINWATER DISPOSAL</u>				
	<u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 5</u>				
	<u>EXTERNAL FINISHES</u>				
	<u>Wall finishes</u>				
	<u>12mm thick cement and sand (1:3) wood float finish, as described to:-</u>				
B	Wall surfaces	1550	SM		
C	Parappet wall (b.s.m)	840	SM		
D	Concrete surfaces of beams	810	SM		
E	Concrete surfaces of columns	654	SM		
F	Concrete surfaces of sunbreakers	1350	SM		
	<u>Prepare and apply two coat acrylic emulsion textured coating as 'Ruff N Tuff' or equal and approved to; complete with one undercoat and two finishing coats of nermacote exterior emulsion naint to:</u>				
G	Wall surfaces	1550	SM		
H	Parappet wall	840	SM		
J	Concrete surfaces of beams	810	SM		
K	Concrete surfaces of columns	654	SM		
L	Concrete surfaces of sunbreakers	1350	SM		
	<u>Pebble cladding to approval</u>				
M	15mm thick cement sand (1:4) screed backing to receive wall facing; stone pebbles	950	SM		
N	Supply and fix stone pebbles finish (average 50 - 75mm) externally on prepared backing (m.s) built against and tied to backing with and including galvanised wire ties	950	SM		
	Carried to Collections				

PROPOSED LABORATORY AT KMFRI IN SHIMONI

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Floor finishes</u> <u>Mazeras floor finish</u>				
A	Paving under floors finished with a wood float, thickness 20mm to receive mazeras (m.s)	85	SM		
B	20mm thick mazeras floor finish jointed and pointed in cement sand 1:3 mortar (entrance)	60	SM		
C	Ditto to ramp ditto (entrances)	15	SM		
	<i>Carried to collection below</i>				
	<u>COLLECTION</u>				
	Brought Forward from Page No. LB		12		
	Brought Down from Above				
	<u>TOTAL FOR ELEMENT NO. 5</u> <u>EXTERNAL WALL FINISHES</u> <u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6</u>				
	<u>INTERNAL WALL FINISHES</u>				
	<u>Internal wall finishes</u>				
A	Hack out joints and apply 12mm thick gauged lime plaster (1:2:9) in two coats finished with steel trowel on natural stone walling, columns and beams	6510	SM		
B	Ditto lift walls	155	SM		
C	10mm Thick cement and sand (1:4) screed finished to receive glazed tiling	901	SM		
	<u>200 x 250 x 6mm thick coloured glazed wall tiles jointed and pointed with matching grout</u>				
D	Tiling on walls	901	SM		
E	Cill 150mm wide with rounded edge tiles	46	LM		
F	Approved border tile	430	LM		
G	Extra for tiles rounded one edge	455	LM		
H	Extra for tiles rounded two edges	45	LM		
	<u>Painting and decorations</u>				
	<u>Prepare and apply one undercoat and two finishing coats gloss paint on:-</u>				
J	Plastered surfaces	3659	SM		
	<u>Prepare and apply one undercoat and two finishing coats epoxy paint on:-</u>				
K	Plastered surfaces	1219	SM		
	<u>Prepare and apply one undercoat and two finishing coats anti-bacterial washable emulsion paint on:-</u>				
L	Plastered surfaces	1632	SM		
	<u>TOTAL FOR ELEMENT NO. 6</u>				
	<u>INTERNAL WALL FINISHES</u>				
	<u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 7</u>				
	<u>FLOOR FINISHES</u>				
	<u>Insitu cement and sand (1:3) screeded beds ,with wood trowelled finish, on concrete</u>				
A	30mm screed finished to receive porcelain floor tiles	910	SM		
	<u>Coloured approved porcelain tiles</u>				
B	400 x 400 x 10mm non-slip porcelain (matt) floor tiling laid to screed bed (m.s) and pointed in coloured grout	910	SM		
C	100 x 10mm skirting ditto	130	LM		
	Terrazzo finish				
D	40mm thick terrazzo finish comprising 20mm thick cement and sand (1:3) ground and 20mm thick terrazzo paving ground smooth and polished	3510	SM		
E	32x3mm plastic dividing strips	5265	LM		
F	100x20mm terrazzo skirting.	2068	LM		
	<u>Staircase finishes</u>				
G	40mm thick terrazzo finish (a.b.d) to landing	21	SM		
H	40mm thick terrazzo to treads; approx. 300mm wide	210	LM		
J	Ditto to face of risers; approx. 150mm high	231	LM		
K	Extra over for 20mm wide carborandum non-slip inserts	210	LM		
L	100x20mm terrazzo skirting to profile of staircase & landing	137	LM		
	Ramp finishes				
M	40mm thick terrazzo finish (a.b.d) to landing	230	SM		
N	32x3mm plastic dividing strips	345	LM		
P	100x20mm terrazzo skirting.	265	LM		
	<u>TOTAL FOR ELEMENT NO. 7</u>				
	<u>FLOOR FINISHES</u>				
	<u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 8</u>				
	<u>CEILING FINISHES</u>				
	<u>In situ cement sand lime (1:1:6) plaster, with steel trowelled finish, on concrete</u>				
A	Soffites of horizontal suspended slabs	4250	SM		
B	Soffites of horizontal suspended roof slabs stairwell & ramp	111	SM		
C	Sloping soffites of stairs.	71	SM		
D	Sloping soffites of suspended ramp	230	SM		
E	Edges of ramp	51	SM		
F	600 x 600 x 16mm "Armstrong fissured minaboard" or other equal and approved accoustic tiles fixed with and including metal suspended hangers as specified by manufacturer	170	SM		
G	12mm decorative moulded gypsum board in suspended dropped bulkhead ceilings complete with vertical fascia fixed with and including steel hangers, all in accordance with architect's details and manufacturers printed instructions	140	SM		
H	150 x 25mm gypsum/stryopor decorative cornice with three labours plugged.	70	SM		
	<u>Knot prime and stop and prepare and apply three coats first quality emulsion paint</u>				
J	Soffites of horizontal suspended slabs	4250	SM		
K	Soffites of horizontal suspended roof slabs stairwell & ramp	111	SM		
L	Sloping soffites of stairs.	71	SM		
M	Sloping soffites of suspended ramp	230	SM		
N	Edges of ramp	51	SM		
P	Ditto, soffites of gypsum board.	140	SM		
	<u>TOTAL FOR ELEMENT NO. 8</u>				
	<u>CEILING FINISHES</u>				
	<u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO. 9</u></p> <p><u>BALUSTRADING</u></p> <p><u>Wrought mahogany</u></p> <p>A 100 x 50mm hand rail</p> <p>3mm thick stainless steel circular hollow extrusion tubes</p> <p><u>Composite balustrading comprising 50mm diameter x 3mm thick top rail welded onto 25mm x 3mm secondary balusters 200mm long at 450mm long; 50mm diameter primary balusters at 900mm centres and 30mm diameter x 2mm horizontal braces at 250mm centres to detail including grinding welds smooth fixing to concrete plinth and back end and to walling overall 1200mm high</u></p> <p>B Circulation space railing</p> <p>C Ditto; staircase railing</p> <p>D Ditto; ramp railing</p> <p>Painting</p> <p>E Prepare and apply three coats of clear varnish to timber hand rail surfaces 200 - 300mm girth</p>	<p>695</p> <p>290</p> <p>140</p> <p>265</p> <p>695</p>	<p>LM</p> <p>LM</p> <p>LM</p> <p>LM</p> <p>LM</p>		
	<p><u>TOTAL FOR ELEMENT NO. 9</u></p> <p><u>BALUSTRADING</u></p> <p><u>CARRIED TO SUMMARY</u></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 10</u>				
	<u>WINDOWS</u>				
A	175 x 75mm thick precast concrete window; weathered and throated	410	LM		
B	Ditto but curved to a radius	147	LM		
	Wrot mahogany				
C	125 x 25mm window board with one labour.	410	LM		
D	Ditto but curved to a radius	101	LM		
E	25mm quadrant bead	511	LM		
	Venetian Blinds				
F	Supply and Fix' vertical venetain blinds complete with all accessories to approval	811	SM		
	Painting				
G	Prepare and apply three coats of clear varnish to timber window board surfaces 100 - 200mm girth	511	LM		
H	Ditto; not exceeding 100mm girth	511	LM		
	Glazing				
J	6mm thick clear sheet glass and glazing to metal with aluminium glazing beads and tack-on rubber wash leather in panes not exceeding 0.1 square metre	811	SM		
K	Ditto obscure ditto	68	SM		
	Carried to Collections				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p>Aluminium Casement Windows</p> <p><u>Supply, assemble and and fix the following purpose-made coloured powder coated Aluminium sliding windows complete with all opening accessories, 50x50mm thick frame units; including "snap on' 30mm wide permanent vent; building in lugs to jambs; plugging and screwing head and cill; bedding frames in waterproof cement mortar and pointing in approved mastic externally; fixing 6mm thick clear glass (m.s); oiling, easing and adjusting as described in the following schedule:</u></p> <p>A 3500 x 1500mm high (W1)</p> <p>B 2550 x 1500mm ditto (W2)</p> <p>C 1200 x 1800mm ditto (W3)</p> <p>D 1500 x 1800mm ditto (W4)</p> <p>E 1200 x 1500mm ditto (W5)</p> <p style="text-align: center;"><i>Carried to collection below</i></p> <p style="text-align: center;"><u>COLLECTION</u></p> <p style="text-align: center;">Brought Forward from Page No. LB 18</p> <p style="text-align: center;">Brought Down from Above</p>	<p>68</p> <p>48</p> <p>26</p> <p>78</p> <p>40</p>	<p>NO</p> <p>NO</p> <p>NO</p> <p>NO</p> <p>NO</p>		
	<p><u>TOTAL FOR ELEMENT NO. 10 WINDOWS</u> <i>CARRIED TO SUMMARY</i></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 11</u>				
	<u>DOORS</u>				
	Panelled Doors				
A	50mm thick mahogany double leaf panel door in two equal leafs overall size 1800x2700mm high with 1800x600mm fan lights at top left open for glazing fixed with mahogany beads (both sides m/s) ;each leaf comprising of 150x50mm top rail and stiles, 200x50 middle and bottom rail resulting top and bottom panels opening infilled with bevel raised and fielded	2	NO		
B	Ditto overall size 1500x2700mm high with 1500x600mm fan lights at top left open for glazing ditto (D3, D4)	37	NO		
C	Ditto overall size 1000x1500mm high ditto (D8)	1	NO		
D	Ditto single leaf overall size 1000x2700mm high with 1000x600mm fan lights at top left open for glazing ditto (D5)	22	NO		
E	Ditto single leaf overall size 900x2700mm high with 900x600mm fan lights at top left open for glazing ditto (D2,	70	NO		
	<u>Flush doors:</u>				
F	50mm thick semi solid core flush door size 900 x 2100mm high faced with interior 4mm thick mahogany veneer both sides hardwood lipped all round in mahoganv. (D9)	21	NO		
	<u>Wrot mahogany backs primed before fixing in aluminium wood primer:</u>				
G	200 x 50 mm frame primed back once rebated	306	LM		
H	Ditto transome	68	LM		
J	150 x 50 mm frame ditto	586	LM		
K	Ditto transome	46	LM		
L	100 x 50 mm frame primed back once rebated	105	LM		
M	45 x 25 mm architrave with one labour	997	LM		
N	25mm quadrant	997	LM		
	Carried to Collection				

PROPOSED LABORATORY AT KMFRI IN SHIMONI

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Ironmongery as per Union Catalogue				
A	Double cylinder lock set for double door with satin anodised aluminium set of lever furniture. Ref. Elegance LS-C85-306	44	NO		
B	Double cylinder lock set with handle on plate complete with lever furniture ditto. Ref Elegance LS-C85-306 SN	92	NO		
C	Indicator bolt	21	NO		
D	38mm rubber door stop fixed with rawl bolt	183	NO		
E	100 mm stainless steel bearing butt hinges. Ref. BB-403030-	268.5	Prs		
F	Ditto; double action heavy duty hinges	12	Prs		
G	Automatic heavy duty overhead door closer: 'LEB-241'	162	NO		
H	Kicking plate size 800 x 200mm	21	NO		
J	Hat and coat hook	21	NO		
K	Aluminium 'Gents/Ladies/Staff/Disabled' plate name	18	NO		
L	Panic bolt, double door	4	NO		
	Prepare and apply three coats varnish to:-				
M	Timber door general surfaces	718	SM		
N	Ditto 200 to 300mm girth.	892	LM		
P	Ditto 100 to 200mm girth.	105	LM		
Q	Ditto; not exceeding 100mm girth	1994	LM		
	Glazing				
R	6mm thick Georgian wired obscured glass in panes exceeding 0.5 but not exceeding 1.0 sm.	5	SM		
S	5mm thick clear sheet glass in panes not exceeding 0.5 sm.	87	SM		
T	20 x 20mm wrot mahogany glazing bead.	940	LM		
	Carried to Collection				

PROPOSED LABORATORY AT KMFRI IN SHIMONI

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>COLLECTION</u>				
	Brought Forward from Page No. LB	20			
	Brought Forward from Page No. LB	21			
	<u>TOTAL FOR ELEMENT NO. 11</u>				
	<u>DOORS</u>				
	<i>CARRIED TO SUMMARY</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>BUILDERS WORKS SUMMARY</u>				
		<u>PAGE</u>	<u>NO</u>		
1	SUBSTRUCTURES	LB	4		
2	R.C SUPERSTRUCTURES	LB	6		
3	WALLING	LB	8		
4	ROOFING AND RAIN WATER DISPOSAL	LB	11		
5	EXTERNAL WALL FINISHES	LB	13		
6	INTERNAL WALL FINISHES	LB	14		
7	FLOOR FINISHES	LB	15		
8	CEILING FINISHES	LB	16		
9	BALUSTRADING	LB	17		
10	WINDOWS	LB	19		
11	DOORS	LB	22		
	TOTAL FOR BUILDERS WORKS				