LAMU MUNICIPALITY

TENDER DOCUMENT FOR

PROPOSED CONSTRUCTION OF OPEN-AIR MARKET IN MOKOWE-

FINANCED BY

KENYA URBAN SUPPORT PROGRAM

TENDER NO: LAM/ONT/MARKET/002/2020-2021

NEGOTIATION NO: -870824

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3rd May 2021 SECTION I

INVITATION FOR TENDERS

TENDER NO. LAM/ONT/MARKET/002/2020-2021

Tender Name: PROPOSED CONSTRUCTION OF OPEN-AIR MARKET IN MOKOWE

1.1 The (Lamu Municipality) invites sealed tenders for the **PROPOSED CONSTRUCTION OF OPEN-AIR MARKET IN MOKOWE**

1.2 Interested eligible candidates may obtain further information and inspect tender documents from the Supply Chain Management office located at **LAMU MUNICIPALITY LOCATED AT COUNTY TREASURY BUILDING IN LAMU ISLAND**, during normal working hours or visit our website at www.lamu.go.ke**.**

1.3 A complete set of tender documents may be obtained by interested candidates upon payment of a non-refundable fees of **(Kshs. 1,000.00)** in cash or Bankers Cheque payable to cheque payable to **COUNTY GOVERNMENT OF LAMU**, **Kenya Commercial Bank – Lamu Branch, Acc NO. 1140750615 or Equity Bank – Lamu Branch Acc. No. 1590265264918** Complete set of documents can also be downloaded from our website at **www.lamu.go.ke free of charge.**

1.4 Prices quoted should be net inclusive of all taxes, must be in Kenya shillings and shall remain valid for 120 days from the closing date of tender.

1.5 Completed tender documents are to be sealed marked with Tender name and reference number and addressed to **(LAMU MUNICIPALITY- P.O BOX 74- 80500 LAMU and MUST be submitted electronically through IFMIS supplier portal at www.supplier.treasury.go.ke** so as to be received on or before **Monday 17th May 2021 at 11.00 a.m.**

1.5 Tenders will be opened immediately thereafter in the presence of the candidates or their representatives who choose to attend at Lamu County Headquarters building boardroom in Mokowe.

1.6 All bid documents shall be serialized/paginated from the first to the last page.

For (*Accounting Officer/Lamu Municipality*)

SECTION II INSTRUCTIONS TO TENDERERS

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INSTRUCTIONS TO TENDERERS.

1.1 The Lamu Municipality as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The successful Tenderer will be expected to complete the Works by the Intended Completion Date specified in the said Appendix.

1.2 Tenderers shall include the following information and documents with their tenders, unless otherwise stated:

1.3 The Tenderer shall bear all costs associated with the preparation and submission of his tender, and the Lamu Municipality will in no case be responsible or liable for those costs.

1.4 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine the Site of the Works and its surroundings, and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Tenderer's own expense.

1.5 The procurement entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.

1.6 The price to be charged for the tender document shall not exceed Kshs.5,000/=

1.7 The Lamu Municipality shall allow the tenderer to review the tender document free of charge before purchase.

2. Tender Documents

2.1 The complete set of tender documents comprises the documents listed here below and any addenda issued in accordance with clause 2.4 here below: -

(a) These instructions to Tenderers
(b) Form of Tender
(c) Conditions of Contract and Appendix to Conditions of Contract
(d) Specifications
(e) Drawings
(f) Bills of Quantities/Schedule of Rates (whichever is applicable)
(g) Other materials required to be filled and submitted in accordance with these Instructions and Conditions

2.2 The Tenderer shall examine all instructions, forms and specifications in the tender documents. Failure to furnish all information required by the tender documents may result in rejection of his tender.

2.3 A prospective Tenderer making inquiries of the tendering documents may notify the Lamu Municipality in writing or by cable, telex or facsimile at the address indicated in the letter of invitation to tender. The Lamu Municipality will respond to any request for clarification received earlier than seven [7] days prior to the deadline for submission of tenders. Copies of the Lamu Municipality's response will be forwarded to all persons issued with tendering documents, including a description of the inquiry, but without identifying its source.

2.4 Before the deadline for submission of tenders, the Lamu Municipality may modify the tendering documents by issuing addenda. Any addendum thus issued shall be part of the tendering documents and shall be communicated in writing or by cable, telex or facsimile to all Tenderers. Prospective Tenderers shall acknowledge receipt of each addendum in writing to the Lamu Municipality.

2.5 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Lamu Municipality shall extend, as necessary, the deadline for submission of tenders in accordance with clause 4.2 here below.

3. Preparation of Tenders

3.1 All documents relating to the tender and any correspondence shall be in English Language.

3.2 The tender submitted by the Tenderer shall comprise the following: -

(a) The Tender;

(b) Tender Security;

(c) Priced Bill of Quantities/Schedule of Rates for lump-sum Contracts

(d) Any other materials required to be completed and submitted by Tenderers.

3.3 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities/Schedule of Rates. Items for which no rate or price is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities/Schedule of Rates. All duties, taxes and other levies payable by the Contractor under the Contract,

as of 30 days prior to the deadline for submission of tenders, shall be included in the tender price submitted by the Tenderer.

3.4 The rates and prices quoted by the Tenderer shall not be subject to any adjustment in the initial 12 months period during the performance of the Contract.

3.5 The unit rates and prices shall be in Kenya Shillings.

3.6 Tenders shall remain valid for a period of one hundred and twenty (120) days from the date of submission. However, in exceptional circumstances, the Lamu Municipality may request that the Tenderers extend the period of validity for a specified additional period. The request and the Tenderers' responses shall be made in writing.

3.7 The Tenderer shall prepare one original and one copy of the documents comprising the tender documents as described in these Instructions to Tenderers.

3.8 The original shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. All pages of the tender where alterations or additions have been made shall be initialed by the person or persons signing the tender.

3.9 Clarification of tenders shall be requested by the tenderer to be received by the Lamu Municipality not later than 7 days prior to the deadline for submission of tenders.

3.10 The Lamu Municipality shall reply to any clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender.

4. Submission of Tenders

4.1 The tender duly filled and sealed in an envelope shall; -

(a) be addressed to the Lamu Municipality at the address provided in the invitation to tender;

[b] Bear the name and identification number of the Contract/tender number as defined in the invitation to tender; and

[c] Provide a warning not to open before the specified time and date for tender opening.

4.2 Tenders shall be delivered to the Lamu Municipality at the address specified above not later than the time and date specified in the invitation to tender.

4.3 The tenderer shall not submit any alternative offers unless they are specifically required in the tender documents.

Only one tender may be submitted by each tenderer. Any tenderer who fails to comply with this requirement will be disqualified.

4.4 Any tender received after the deadline for opening tenders will be returned to the tenderer un-opened.

4.5 The Lamu Municipality may extend the deadline for submission of tenders by issuing an amendment in accordance with sub-clause 2.5 in which case all rights and obligations of the Lamu Municipality and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

4.6 Tender security SHALL be in the equivalent of 2% of the total tender amount. Any bidder providing a bid bond less than the required amount will be disqualified. And be in cash, banker's cheque, Insurance or any other form easily convertible.

5. Tender Opening and Evaluation

5.1 The tenders will be opened in the presence of the Tenderers' representatives who choose to attend on **Monday 17th May 2021 at 11.00 a.m.**

5.2 The Tenderers' names, the total amount of each tender and such other details as may be considered appropriate, will be announced at the opening by the Lamu Municipality. Minutes of the tender opening, including the information disclosed to those present will also be prepared by the Lamu Municipality.

5.3 Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of the Contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence the Lamu Municipality's officials, processing of tenders or award decisions may result in the rejection of his tender.

5.4 Tenders determined to be substantially responsive will be accepted. As provided under section 82 of the Public Procurement and Asset Disposal Act, 2015, There SHALL be no correction of errors.

5.5 The tender evaluation committee shall evaluate the tender within 30 days of the validity period from the date of opening the tender.

5.6 Contract price variations shall not be allowed for contracts not exceeding one year (12 months)

5.7 Where contract price variation is allowed, the cumulative value for all contract do not result in an increment of the total contract price by more than twenty-five (25%) of the original contract price, and SHALL be considered after 12 months from the date of contract signing, and shall be executed within the period of the contract.

5.8 Price variation requests shall be processed by the Lamu Municipality within 30 days of receiving the request.

5.9 Exclusive Preference SHALL be given to citizens of Kenya where the funding is 100% from the National Government or County Government or a Kenyan Body and the amount prescribed SHALL be above five hundred million.

5.10 To assist in the examination, evaluation, and comparison of tenders, the Lamu Municipality at his discretion, may request [in writing] any Tenderer for clarification of the tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, telex or facsimile but no change in the tender price or substance of the tender shall be sought, offered or permitted.

5.11 The Tenderer shall not influence the Lamu Municipality on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. Any effort by the Tenderer to influence the Lamu Municipality or his employees in his decision on tender evaluation, tender comparison or Contract award may result in the rejection of the tender.

6. Award of Contract

6.1 The award of the Contract will be made to the Tenderer who has offered the lowest evaluated tender price.

6.2 Notwithstanding the provisions of clause 6.1 above, the Municipality reserves the right to accept or reject any tender and to cancel the tendering process and reject all tenders at any time prior to the award of Contract without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the action.

6.3 The Tenderer whose tender has been accepted will be notified of the award prior to expiration of the tender validity period in writing or by cable, telex or facsimile. This notification (hereinafter and in all Contract, documents called the "Letter of Acceptance") will state the sum [hereinafter and in all Contract, documents called the "Contract Price" which the Municipality will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract. The contract shall be formed on the parties signing the contract. At the same time the other tenderers shall be informed that their tenders have not been successful.

6.4 The Contract Agreement will incorporate all agreements between the Lamu Municipality and the successful Tenderer. It will be signed by the Municipality and sent to the successful Tenderer, within 30 days following the notification of award. Within 30 days of receipt, the successful Tenderer will sign the Agreement and return it to the Lamu Municipality.

6.5 Within 14 days after receipt of the Letter of Acceptance, the successful Tenderer shall deliver to the Lamu Municipality a Performance Security equivalent to 10% of the tender amount as stipulated in the Appendix to Conditions of Contract.

6.6 The parties to the contract shall have it signed within 30 days from the date of notification of contract award unless there is an administrative review request.

6.7 The Lamu Municipality may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

6.8 The Lamu Municipality shall give prompt notice of the termination to the tenderers and (on request) shall give its reasons for termination within 14 day of receiving the request from any tenderer.

7. Corrupt and fraudulent practices

7.1 The Lamu Municipality requires that the tenderer observes the highest standard of ethics during the procurement process and execution of the contract. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.

7.2 The Lamu Municipality will reject a tender if it determines that the tenderer recommended for award has engaged in corrupt and fraudulent practices in competing for the contract in question.

7.3 Further a tenderer who is found to have indulged in corrupt and fraudulent practices risks being debarred from participating in public procurement in Kenya.

APPENDIX TO INSTRUCTIONS TO TENDERERS

Instruction to tender reference	***Particulars of Appendix to instructions to tenderers***
1.2	Evaluation Criteria
1.4	Validity of tenders (120 days)
1.5	Place/ venue for tender opening.
1.6	The price to be charged for the tender document shall not exceed Ksh. 1,000.00
4.6 Tender Security	2% of the quoted tender amount
3.7 Number of Tender Copies Required	One (1) original and properly bound and uploaded through the IFMIS Portal. No hard copies SHALL BE ACCEPTED
5.1 State day, date and time of tender closing	**Monday 17th May 2021 at 11.00am**
5.4	No correction of errors
5.9	Preference
Site Visit	**Site Visit – Mandatory on Tuesday 11th May, 2021 from 10.00 am.** (*Meeting point is at Lamu County headquarters mokowe at 10am, the team shall thereafter proceed to proposed site*).

SECTION III CONDITIONS OF CONTRACT

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SECTION III - CONDITIONS OF CONTRACT

1. Definitions

1.1 In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated;

"Bills of Quantities" means the priced and completed Bill of Quantities forming part of the tender [where applicable].

"Schedule of Rates" means the priced Schedule of Rates forming part of the tender [where applicable].

"The Completion Date" means the date of completion of the Works as certified by the Lamu Municipality's Representative.

"The Contract" means the agreement entered into by the Lamu Municipality and the Contractor as recorded in the Agreement Form and signed by the parties.

"The Contractor" refers to the person or corporate body whose tender to carry out the Works has been accepted by the Lamu Municipality.

"The Contractor's Tender" is the completed tendering document submitted by the Contractor to the Lamu Municipality.

"The Contract Price" is the price stated in the Letter of Acceptance.

"Days" are calendar days; **"Months"** are calendar months.

"A Defect" is any part of the Works not completed in accordance with the Contract.

"The Defects Liability Certificate" is the certificate issued by Lamu Municipality's Representative upon correction of defects by the Contractor.

"The Defects Liability Period" is the period named in the Appendix to Conditions of Contract and calculated from the Completion Date.

"Drawings" include calculations and other information provided or approved by the Lamu Municipality's Representative for the execution of the Contract.

"Lamu Municipality" Includes Central or Local Government administration, Universities, Public Institutions and Corporations and is the party who employs the Contractor to carry out the Works.

"Equipment" is the Contractor's machinery and vehicles brought temporarily to the Site for the execution of the Works.

"Site" means the place or places where the permanent Works are to be carried out including workshops where the same is being prepared.

"Materials" are all supplies, including consumables, used by the Contractor for incorporation in the Works.

"Lamu Municipality's Representative" is the person appointed by the Lamu Municipality and notified to the Contractor for the purpose of supervision of the Works.

"Specification" means the Specification of the Works included in the Contract.

"Start Date" is the date when the Contractor shall commence execution of the Works.

"A Subcontractor" is a person or corporate body who has a Contract with the Contractor to carry out a part of the Work in the Contract, which includes Work on the Site.

"Temporary works" are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.

"A Variation" is an instruction given by the Lamu Municipality's Representative which varies the Works.

"The Works" are what the Contract requires the Contractor to construct, install, and turnover to the Lamu Municipality.

2. Contract Documents

2.1 The following documents shall constitute the Contract documents and shall be interpreted in the following order of priority;

(1) Agreement,
(2) Letter of Acceptance,
(3) Contractor's/form of Tender,
(4) Conditions of Contract,

(5) Specifications,
(6) Drawings,
(7) Bills of Quantities or Schedule of Rates [whichever is applicable)
(8) Performance guarantee

3. Lamu Municipality's Representative's Decisions

3.1 Except where otherwise specifically stated, the Lamu Municipality's Representative will decide contractual matters between the Lamu Municipality and the Contractor in the role representing the Lamu Municipality.

4. Works, Language and Law of Contract

4.1 The Contractor shall construct and install the Works in accordance with the Contract documents. The Works may commence on the Start Date and shall be carried out in accordance with the Program submitted by the Contractor, as updated with the approval of the Lamu Municipality's Representative, and complete them by the Intended Completion Date.

4.2 The ruling language of the Contract shall be English language and the law governing the Contract shall be the law of the Republic of Kenya.

5. Safety, Temporary works and Discoveries

5.1 The Contractor shall be responsible for design of temporary works and shall obtain approval of third parties to the design of the temporary works where required.

5.2 The Contractor shall be responsible for the safety of all activities on the Site.

5.3 Anything of historical or other interest or significant value unexpectedly discovered on the Site shall be the property of the Lamu Municipality. The Contractor shall notify the Lamu Municipality's Representative of such discoveries and carry out the Lamu Municipality's Representative's instructions for dealing with them.

6 Work Program and Sub-contracting

6.1 Within seven days after Site possession date, the Contractor shall submit to the Lamu Municipality's Representative for approval a program showing the general methods, arrangements, order and timing for all the activities in the Works.

6.2 The Contractor may sub-contract the Works (but only to a maximum of 25 percent of the Contract Price) with the approval of the Lamu Municipality's Representative. However, he shall not assign the Contract without the approval of the Lamu Municipality in writing. Sub-contracting shall not alter the Contractor's obligations.

7 The site

7.1 The Lamu Municipality shall give possession of all parts of the Site to the Contractor.

7.2 The Contractor shall allow the Lamu Municipality's Representative and any other person authorized by the Lamu Municipality's Representative, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

8 Instructions

8.1 The Contractor shall carry out all instructions of the Lamu Municipality's Representative which are in accordance with the Contract.

9 Extension of Completion Date

9.1 The Lamu Municipality's Representative shall extend the Completion Date if an occurrence arises which makes it impossible for completion to be achieved by the Intended Completion Date. The Lamu Municipality's Representative shall decide whether and by how much to extend the Completion Date.

9.2 For the purposes of this clause, the following occurrences shall be valid for consideration;

Delay by:-

(a) force majeure, or

(b) reason of any exceptionally adverse weather conditions, or

(c) reason of civil commotion, strike or lockout affecting any of the trades employed upon the Works or any of the trades engaged in the preparation, manufacture or transportation of any of the goods or materials required for the Works, or

(d) reason of the Lamu Municipality's Representative's instructions issued under these Conditions, or

(e) reason of the contractor not having received in due time necessary instructions, drawings, details or levels from the Lamu Municipality's Representative for which he specifically applied in writing on a date which having regard to the date for Completion stated in the appendix to these Conditions or to any extension of time then fixed under this clause was neither unreasonably distant from nor unreasonably close to the date on which it was necessary for him to receive the same, or

(f) delay on the part of artists, tradesmen or others engaged by the Lamu Municipality in executing work not forming part of this Contract, or

(g) reason of delay by statutory or other services providers or similar bodies engaged directly by the Lamu Municipality, or

(h) reason of opening up for inspection of any Work covered up or of the testing or any of the Work, materials or goods in accordance with these conditions unless the inspection or test showed that the Work, materials or goods were not in accordance with this Contract, or

(i) reason of delay in appointing a replacement Lamu Municipality's Representative, or

(j) reason of delay caused by the late supply of goods or materials or in executing Work for which the Lamu Municipality or his agents are contractually obliged to supply or to execute as the case may be, or

(k) Delay in receiving possession of or access to the Site.

10 Management Meetings

10.1 A Contract management meeting shall be held regularly and attended by the Lamu Municipality's Representative and the Contractor. Its business shall be to review the plans for the remaining Work. The Lamu Municipality's Representative shall record the business Lamu Municipality's management meetings and provide copies of the record to those attending the meeting and the Lamu Municipality. The responsibility of the parties for actions to be taken shall be decided by the Lamu Municipality's Representative either at the management meeting or after the management meeting and stated in writing to all who attend the meeting.

10.2 Communication between parties shall be effective only when in writing.

11 Defects

11.1 The Lamu Municipality's Representative shall inspect the Contractor's work and notify the Contractor of any defects that are found. Such inspection shall not affect the Contractor's responsibilities. The Municipality's representative may instruct the Contractor to search for a defect and to uncover and test any Work that the Municipality may considers to have a defect. Should the defect be found, the cost of uncovering/ and making well shall be borne by the Contractor. However, if there is no defect found, the cost of uncovering and making good shall be treated as a variation and added to the Contract Price.

11.2 The Lamu Municipality's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the Appendix to Conditions of Contract.

11.3 Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified by the Lamu Municipality's representative's notice. If the Contractor has not corrected a defect within the time specified in the Lamu Municipality's Representative's notice, the Lamu Municipality's representative will assess the cost of having the defect corrected by other parties and such cost shall be treated as a variation and be deducted from the Contract Price.

12 Bills of Quantities/Schedule of Rates

12.1 The Bills of Quantities/Schedule of Rates shall contain items for the construction, installation, testing and commissioning of the Work to be done by the Contractor. The Contractor will be paid for the quantity of the Work done at the rates in the Bills of Quantities/Schedule of Rates for each item. Items against which no rate is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the rates for other items in the Bills of Quantities/Schedule of Rates.

12.2 Where Bills of Quantities do not form part of the Contract, the Contract Price shall be a lump sum (which shall be deemed to have been based on the rates in the Schedule of Rates forming part of the tender) and shall be subject to re-measurement after each stage.

13 Variations

13.1 The Contractor shall provide the Lamu Municipality's representative with a quotation for carrying out the variations when requested to do so. The Lamu Municipality's representative shall assess the quotation and

shall obtain the necessary authority from the Municipality before the variation is ordered.

13.2 If the Work in the variation corresponds with an item description in the Bill of Quantities/Schedule of Rates, the rate in the Bill of Quantities/Schedule of Rates shall be used to calculate the value of the variation. If the nature of the Work in the variation does not correspond with items in the Bill of Quantities/Schedule of Rates, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.

13.3 If the Contractor's quotation is unreasonable, the Count Lamu Municipality's Representative may order the variation and make a change to the Contract Price, which shall be based on the Lamu Municipality's own forecast of the effects of the variation on the Contractor's costs.

14 Payment Certificates and Final Account

14.1 The Contractor shall be paid after each of the following stages of Work listed here below (subject to re-measurement by the Lamu Municipality's Representative of the Work done in each stage before payment is made). In case of lump-sum Contracts, the valuation for each stage shall be based on the quantities so obtained in the re-measurement and the rates in the Schedule of Rates.

(i) Advance payment_____(*percent of Contract Price, to be inserted by the Lamu Municipality).* [after Contract execution]

(ii) First stage (*define stage)* _____

(iii) Second stage *(define stage*)_____

(iv) Third stage (*define stage)* _____

(v) After defects liability period.

14.2 Upon deciding that Works included in a particular stage are complete, the Contractor shall submit to the Lamu Municipality's Representative his application for payment. The Lamu Municipality's representative shall check, adjust if necessary and certify the amount to be paid to the Contractor within 21 days of receipt of the Contractor's application. The Lamu Municipality shall pay the Contractor the amounts so certified within 30 days of the date of issue of each Interim Certificate.

14.3 The Contractor shall supply the Lamu Municipality's representative with a detailed final account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Lamu Municipality's Representative shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor's account if it is correct and complete. If it is not, the Lamu Municipality's Representative shall issue within 21 days a schedule that states the scope of the corrections or additions that are necessary. If the final account is still unsatisfactory after it has been resubmitted, the Lamu Municipality's Representative shall decide on the amount payable to the Contractor and issue a Final Payment Certificate. The Lamu Municipality shall pay the Contractor the amount so certified within 60 days of the issue of the Final Payment Certificate.

14.4 If the period laid down for payment to the Contractor upon each of the Lamu Municipality's Representative's Certificate by the Lamu Municipality has been exceeded, the Contractor shall be entitled to claim simple interest calculated pro-rata on the basis of the number of days delayed at the

Central Bank of Kenya's average base lending rate prevailing on the first day the payment becomes overdue. The Contractor will be required to notify the Lamu Municipality within 15 days of receipt of delayed payments of his intentions to claim interest.

15. Insurance

15.1 The Contractor shall be responsible for and shall take out appropriate cover against, among other risks, personal injury; loss of or damage to the Works, materials and plant; and loss of or damage to property.

16. Liquidated Damages

16.1 The Contractor shall pay liquidated damages to the Lamu Municipality at the rate of at least 0.03 per cent of the Contract price per day for each day that the actual Completion Date is later than the Intended Completion Date except in the case of any of the occurrences listed under clause 9.2. The Lamu Municipality may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

17. Completion and Taking Over

17.1 Upon deciding that the Work is complete the Contractor shall request the Lamu Municipality's Representative to issue a Certificate of Completion of the Works, upon deciding that the Work is completed.

The Lamu Municipality shall take over the Site and the Works within seven days of the Lamu Municipality's Representative issuing a Certificate of Completion.

18. Termination

18.1 The Lamu Municipality or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. These fundamental breaches of Contract shall include, but shall not be limited to, the following;

(a) the Contractor stops Work for 30 days continuously without reasonable cause or authority from the Lamu Municipality's Representative;

(b) the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(c) A payment certified by the Lamu Municipality's Representative is not paid by the Lamu Municipality to the Contractor within 30 days after the expiry of the payment periods stated in sub clauses 14.2 and 14.3 hereinabove.

(d) The Lamu Municipality's Representative gives notice that failure to correct a particular defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time.

18.2 If the Contract is terminated, the Contractor shall stop Work immediately, and leave the Site as soon as reasonably possible. The Lamu Municipality's Representative shall immediately thereafter arrange for a meeting for the purpose of taking record of the Works executed and materials, goods, equipment and temporary buildings on Site.

19. Payment Upon Termination

19.1 The Lamu Municipality may employ and pay other persons to carry out and complete the Works and to rectify any defects and may enter upon the Works and use all materials on Site, plant, equipment and temporary works.

19.2 The Contractor shall, during the execution or after the completion of the Works under this clause, remove from the Site as and when required within such reasonable time as the Lamu Municipality's Representative may in writing specify, any temporary buildings, plant,

machinery, appliances, goods or materials belonging to him, and in default thereof, the Lamu Municipality may (without being responsible for any loss or damage) remove and sell any such property of the Contractor, holding the proceeds less all costs incurred to the credit of the Contractor.

19.3 Until after completion of the Works under this clause, the Lamu Municipality shall not be bound by any other provision of this Contract to make any payment to the Contractor, but upon such completion as aforesaid and the verification within a reasonable time of the Lamu Municipality's Representative shall certify the amount of expenses properly incurred by the Lamu Municipality and, if such amount added to the money paid to the Contractor before such determination exceeds the total amount which would have been payable on due completion in accordance with this Contract, the difference shall be a debt payable to the Lamu Municipality by the Contractor; and if the said amount added to the said money be less than the said total amount, the difference shall be a debt payable by the Lamu Municipality to the Contractor.

20. Corrupt Gifts and Payments of Commission

20.1 The Contractor shall not;

(a) Offer or give or agree to give to any person in the service of the Lamu Municipality any gifts or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract with the Lamu Municipality or for showing or forbearing to show favour or disfavor to any person in relation to this or any other contract with the Lamu Municipality.

(b) Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the Laws of Kenya.

21. Settlement of Disputes

21.1 Any dispute arising out of the Contract which cannot be amicably settled between the parties shall be referred by either party to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed by the chairman of the Chartered Institute of Arbitrators, Kenya branch, on the request of the applying party.

Evaluation Criteria.

Preliminary Evaluation (Mandatory)

Submission of Tender Security- Checking its validity, whether it is Original; whether it is issued by a local bank/Insurance and located in Kenya; whether it is strictly in the format required in accordance with the sample Tender Security Form(s).		
Submission of Declaration Form(s) duly completed, filled, signed and stamped.		
Submission and considering Tender Form duly completed, signed and stamped.		
Submission of the following: -	***YES***	***NO***
PIN Certificate.		
Company or Firm's Registration Certificate/ Incorporation Certificate		
Valid current Tax Compliance Certificate.		
NCA Certificates category 6 and above. (6-1).		
Submission of the tender document in the required format including technical and financial bid.		
Original copy of filled signed and stamped pre-bid site visit form.		
Confidential Business Questionnaire – Duly Filled, signed and Stamped		
Valid and current Business Permit.		
Copies of audited Accounts for the last immediate three years (certified by a Registered Auditor).		
Declaration stating that the firm has not been debarred by Public Procurement Regulatory Authority (PPRA)		
Anti-corruption declaration commitment		
Recommendation letters of at least three clients with whom you have done similar works.		
Responsive		
Non-responsive		

Technical Capability Assessment

Item	Description	Scores	Marks Earned
I.	**Presentation and response** This included binding the documents, paginated, neat presentation and arrangement of requested information and general purpose to all requirements…. .....3 Bills of Quantities duly completed and signed…..... 2	**5**	
II.	**Evidence of adequacy of working capital for this Contract** Access to line(s) of credit----------3 Availability of other financial resources (cash in hand, overdraft facility etc) .....2 Bank statement for the last one-year 2	**7**	
III.	**Bidder to provide a preliminary description of the proposed work;** Detailed Work Methodology----------5 Detailed Draft program of works ---------- 8 Detailed Draft Schedule of payments---------- 8	**21**	
IV.	**Indicate construction equipment proposed to carry out the Contract and copies of proof of ownership or possession e.g. receipts, lease agreement, logbook** At least 15 No. variety equipment (one mark for every 3-equipment shown to a maximum of the points shown)----------5 Plant ---------- 2 At least 15 No. variety tools (one mark for every 3-equipment shown to a maximum of the points shown) ----------5 Motor Vehicles ..... 2 An undertaking that they will be available for the Contract ------ 3	**17**	
V.	**Qualifications of staff (attach copies of CVs and certificates)** Degree in Architecture/QS/Structural/Civil Engineering ---------- 3 Degree/Diploma in Electrical Eng. with over 5yr experience -------3 Degree/Diploma in Mechanical Eng. with over 5yr experience --- 3 Degree/Diploma in any field on the Built Environment ---------- 3 An undertaking that all relevant staff shall be available for the duration of the contract 3	**15**	

Item	Description	Scores	Marks Earned
VI.	Information regarding any litigation, current or during the last seven years, in which the tenderer is involved, the parties concerned and disputed amount (if any)---------- 5	**5**	
VII.	Details of subcontractors (if any) (attach NCA registration certificate of sub-contractor and sub-contractor agreement as proof) Electrical Works Sub-contractor---------- 5 Mechanical Works Sub-contractor ---------- 5	10	
	TOTAL	**80**	

Bidders scoring 65 marks and above in the technical evaluation will proceed to financial evaluation. The bidder who passes technical evaluation and offers the most competitive lowest bid price will be awarded the contract.

Bidders to **NOTE** that the procuring entity may conduct due diligence to establish the confidential references from persons with whom the tenderer has had prior engagement.

APPENDIX TO CONDITIONS OF CONTRACT

THE LAMU MUNICIPALITY is **the Employer**

Name:

_____

Address:

_____

Name of Lamu Municipality's Representative: Municipal Managers Title;

Telephone: _____

The name (and identification number) of the Contract is **as indicated in the invitation to tenderers**
The Works consist of **as defined in the Contract**

The Start Date shall be **to be communicated upon award**

The Intended Completion Date for the whole of the Works shall be **as stated in the conditions of contract**

The following documents also form part of the Contract: **As stated in conditions of contract**

The Site Possession Date shall be **upon signing the contract**

The Site is located in Mokowe town lamu west and is defined in drawings nos. The Defects

Liability Period is 120 days.

Amount of Tender Security is 2% of the tender amount (Note: This amount should be between one (1) percent and three (3) percent of the value of the Works)

The name and Address of the Lamu Municipality for the purposes of submission of tenders is a**s indicated in the invitation to tenderers**

The tender opening date and time is a**s indicated in the invitation to tenderers**

The amount of performance security is 10% of the contract sum (Note: the Lamu Municipality must select the form of performance security to be accepted. A bank guarantee of between five (5) and ten (10) percent is acceptable. A performance bond on the other hand from an insurance company may be of up to thirty (30) percent of the Contract Price).

The liquidated damages for the whole of the works are **KES 100,000 per week**

NOTE:
Included to this tender document are;

1. **Bills of quantities for the proposed construction of open-air market in mokowe.**

SECTION IV – SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES/SCHEDULE OF RATES

I. SPECIFICATIONS

Notes for preparing Specifications

1.0 Specifications must be drafted to present a clear and precise statement of the required standards of materials and workmanship for tenderers to respond realistically and competitively to the requirements of the Lamu Municipality and ensure responsiveness of tenders. The Specifications should require that all materials, plant, and other supplies to be permanently incorporated in the Works be new, unused, of the most recent or current models and incorporating all recent improvements in designs and materials unless provided otherwise in the Contract.

2.0 Specifications from previous similar projects are useful and it may not be necessary to rewrite specifications for every works contract.

3.0 Care must be taken in drafting Specifications to ensure they are not restrictive. In the specification of standards for materials, plant and workmanship existing Kenya Standards should be used as much as possible otherwise recognized international standards may also be used.

II DRAWINGS

NOTE:1. A list of the Contract Drawings should be inserted here

2. The actual Contract Drawings including Site plans should be annexed in a separate booklet

III BILL OF QUANTITIES/SCHEDULE OF RATES

Notes for preparing Bills of Quantities

1. The objectives of the Bills of Quantities are;

   (a) to provide sufficient information on the quantities of Works to be performed to enable tenders to be prepared efficiently and accurately; and

   (b) when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Notes for preparing Schedule of Rates

Where the time limit or other constraints do not allow the preparation of a Bill of Quantities for the Works, a lump-sum Contract shall be adopted and a Schedule of Rates (in place of a Bills of Quantities) shall be issued as part of the tender documents.

The objectives of the Schedule of Rates are;

(a) to provide sufficient information on the nature of work items to be performed to enable tenders to be prepared efficiently and accurately; and

(b) when a Contract has been entered into, to provide a basis for the pricing of Works executed for interim and final valuations.

In order to attain these objectives, Works should be itemized in the Schedule of Rates in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of Schedule of Rates should be as simple and brief as possible.

Measurement of Work executed after every agreed stage should be done and the quantities so obtained used alongside the rates in the schedule to arrive at interim valuation [for each stage]and the final valuation.

SECTION V STANDARD FORMS

List of Standard Forms

(i) Form of Invitation for Tenders

(ii) Form of Tender

(iii) Letter of Acceptance

(iv) Form of Agreement

(v) Form of Tender Security

(vi) Performance Bank Guarantee

(vii) Performance Bond

(viii) Bank Guarantee for Advance Payment

(ix) Qualification Information

(x) Tender Questionnaire

(xi) Confidential Business Questionnaire

(xii) Details of Sub-Contractors

(xiii) Request for Review Form

FORM OF INVITATION FOR TENDERS

_____*[date]*

To: _____*[name of Contractor]*
_____*[address]*
_____
_____

Dear Sirs:

Reference: _____ *[Contract Name]*

You have been prequalified to tender for the above project.

We hereby invite you and other prequalified tenderers to submit a tender for the execution and completion of the above Contract.

A complete set of tender documents may be purchased by you from

_____
[mailing address, cable/telex/facsimile numbers].

Upon payment of a non-refundable fee of Kshs _____

All tenders must b e accompanied by_____number of copies of the same and a tender security in the form and amount specified in the tendering documents, and must be delivered to

_____
[address and location]

at or before_____*(time and date).* Tenders will be opened immediately thereafter, in the presence of tenderers' representatives who choose to attend.

Please confirm receipt of this letter immediately in writing by cable/facsimile or telex. Yours

faithfully,

_____Authorized Signature

_____ Name and Title

FORM OF TENDER

TO:_____*[Name of Lamu Municipality)*

_____*[Date]*

_____*[Name of Contract]*

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities/Schedule of Rates for the execution of the above-named Works, we, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of Kshs._____*[Amount in figures]* Kenya

Shillings_____

_____*[Amount in words]*

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Lamu Municipality's representative's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.

3. We agree to abide by this tender until_____*[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us.

5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this_____day of_____20_____

Signature_____in the capacity of_____

duly authorized to sign tenders for and on behalf of _____*[Name of Tenderer*] of _____[*Address of Tenderer]*

Witness; Name_____

Address_____

Signature_____

Date_____

(*Amend accordingly if provided by Insurance Company)*

LETTER OF ACCEPTANCE
[Letterhead paper of the Lamu Municipality]

_____ *[date]*

To: _____
[name of the Contractor]

_____
[address of the Contractor]

Dear Sir,

This is to notify you that your Tender dated _____
for the execution of _____
[name of the Contract and identification number, as given in the Tender documents] for the Contract Price of Kshs. _____ *[amount in figures]* [Kenya Shillings_____ *(amount in words)]* in accordance with the Instructions to Tenderers is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

Authorized Signature ……

Name and Title of Signatory ……

Attachment: Agreement

FORM OF AGREEMENT

THIS AGREEMENT, made the _____day of _____ 20 _____

between_____of[or whose registered office is situated at]_____
(hereinafter called "the Lamu Municipality") of the one part AND
_____of[or whose registered office is situated at]_____
(hereinafter called "the Contractor") of the other part.

WHEREAS THE Lamu Municipality is desirous that the Contractor executes

_____
(name and identification number of Contract) (hereinafter called "the Works") located at_____*[Place/location of the Works*]and the Lamu Municipality has accepted the tender submitted by the Contractor for the execution and completion of such Works and the remedying of any defects therein for the Contract Price of Kshs_____[*Amount in figures*],Kenya Shillings_____ _____[*Amount in words].*

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and shall be read and construed as part of this Agreement i.e.

   (i) Letter of Acceptance

   (ii) Form of Tender

   (iii) Conditions of Contract Part I

   (iv) Conditions of Contract Part II and Appendix to Conditions of Contract

   (v) Specifications

   (vi) Drawings

   (vii) Priced Bills of Quantities/Priced Schedule of Rates [whichever is applicable]

3. In consideration of the payments to be made by the Lamu Municipalityto the Contractor as hereinafter mentioned, the Contractor hereby

covenants with the Lamu Municipality to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Lamu Municipality hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The common Seal of _____

Was hereunto affixed in the presence of _____

Signed Sealed, and Delivered by the said _____

_____

Binding Signature of Lamu Municipality

Binding Signature of Contractor _____

In the presence of (i) Name_____

Address_____

Signature_____

[ii] Name _____

Address_____

Signature_____

FORM OF TENDER SECURITY

WHEREAS ……..(hereinafter called "the Tenderer") has submitted his tender dated …… for the construction of …… …… *(name of Contract)*

KNOW ALL PEOPLE by these presents that WE.....having our registered office at …… (hereinafter called "the Bank"), are bound unto …… (hereinafter called "the Lamu Municipality") in the sum of Kshs.…… for which payment well and truly to be made to the said Lamu Municipality, the Bank binds itself, its successors and assigns by these presents sealed with the Common Seal of the said Bank this ……. Day of ……20……

THE CONDITIONS of this obligation are:

1. If after tender opening the tenderer withdraws his tender during the period of tender validity specified in the instructions to tenderers

Or

2. If the tenderer, having been notified of the acceptance of his tender by the Lamu Municipality during the period of tender validity:

   (a) fails or refuses to execute the form of Agreement in accordance with the Instructions to Tenderers, if required; or

   (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Tenderers;

We undertake to pay to the Lamu Municipality up to the above amount upon receipt of his first written demand, without the Lamu Municipality having to substantiate his demand, provided that in his demand the Lamu Municipality will note that the amount claimed by him is due to him, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

[date[_____ _____ *[signature of the Bank]*

[witness] _____ _____ *[seal]*

PERFORMANCE BANK GUARANTEE

To:_____(*Name of Lamu Municipality*)
_____*(Date)*
_____(*Address of Lamu Municipality)*

Dear Sir,

WHEREAS_____(hereinafter called "the Contractor") has undertaken, in pursuance of Contract No._____dated_____to execute _____ (hereinafter called "the Works");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Kshs._____(*amount of Guarantee in figures*) Kenya Shillings_____ (*amount of Guarantee in words*), and we undertake to pay you, upon your first written demand and without civil or argument, any sum or sums within the limits of Kenya Shillings _____ (*amount of Guarantee in words*) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change, addition or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any change, addition, or modification.

This guarantee shall be valid until the date of issue of the Certificate of Completion.

SIGNATURE AND SEAL OF THE GUARANTOR _____

Name of Bank _____

Address _____

Date_____
(Amend accordingly if provided by Insurance Company)

PERFORMANCE BOND

By this Bond, We_____of (or whose registered office is situated at]_____
as Principal (hereinafter called "the Contractor") and _____
_____of [or whose registered office is situated at]
_____
as Surety (hereinafter called "the Surety"), are held and firmly bound unto
_____of[or whose registered office is situated at]_____
as Obligee (hereinafter called "the Lamu Municipality") in the amount of Kshs.____*[amount of Bond in figures]* Kenya Shillings
_____
[amount of Bond in words], for the payment of which sum well and truly, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Contractor has entered into a Contract with the Lamu Municipality dated the____day of_____20_____for the execution of
_____
[name of Contract] in accordance with the Contract documents, Specifications and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the County Government of Lamu to be, in default under the Contract, the Lamu Municipality having performed the Lamu Municipality's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

(1) complete the Contract in accordance with its terms and conditions; or

(2) obtain a tender or tenders from qualified tenderers for submission to the Lamu Municipality for completing the Contract in accordance with its terms and conditions, and upon determination by the Lamu Municipality and the Surety of the lowest responsive tenderer, arrange for a Contract between such tenderer and Lamu Municipality and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof.

The term “Balance of the Contract Price”, as used in this paragraph, shall mean the total amount payable by the Lamu Municipality to the Contractor under the

Contract, less the amount properly paid by the Lamu Municipality to the Contractor; or

(3) pay the Lamu Municipality the amount required by the Lamu Municipality to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of issuance of the Certificate of Completion.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Lamu Municipality named herein or the heirs, executors, administrators, successors and assigns of the Lamu Municipality .

In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day of

_____

_____20_____

SIGNED ON_____SIGNED ON _____

On behalf of_____On behalf of _____
[name of Contractor] *[name of Surety]*

By_____By _____

In the capacity of_____In the capacity of _____

In the presence of;Name_____In the presence of;Name_____

Address_____ Address_____

_____ _____

Signature_____ Signature_____

Date_____ Date_____

BANK GUARANTEE FOR ADVANCE PAYMENT

To: _____*[name of Lamu Municipality]*
_____*(Date)*
_____*[address of Lamu Municipality]*

Gentlemen,

Ref: _____*[name of Contract]*

In accordance with the provisions of the Conditions of Contract of the above-mentioned Contract, We,_____*[name and Address of Contractor]* (hereinafter called "the Contractor") shall deposit with _____*[name of Lamu Municipality]* a bank guarantee to guarantee his proper and faithful performance under the said Contract in an amount of Kshs. _____*[amount of Guarantee in figurers]* Kenya Shillings_____*[amount of Guarantee in words]*.

We,_____[*bank or financial institution*], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to_____[*name of Lamu Municipality*] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding Kshs_____[*amount of Guarantee in figures*] Kenya Shillings _____[*amount of Guarantee in words*], such amount to be reduced periodically by the amounts recovered by you from the proceeds of the Contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between_____[*name of Lamu Municipality*] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

No drawing may be made by you under this guarantee until we have received notice in writing from you that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until

_____(*name of Lamu Municipality*) receives full payment of the same amount from the Contract.

Yours faithfully,

Signature and Seal _____

Name of the Bank or financial institution _____

Address _____

Date _____

Witness: Name: _____

Address: _____

Signature: _____

Date: _____

QUALIFICATION INFORMATION

1. Individual Tenderers or Individual Members of Joint Ventures

1.1 Constitution or legal status of tenderer (attach copy or Incorporation Certificate);
Place of registration: _____

Principal place of business _____

Power of attorney of signatory of tender _____

1.2 Total annual volume of construction work performed in the last five years

Year	Volume	
	Currency	Value

1.3 Work performed as Main Contractor on works of a similar nature and volume over the last five years. Also list details of work under way or committed, including expected completion date.

Project name	Name of clientType and contact person	of work Value of performed and year completion	Contract
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

1.4 Major items of Contractor's Equipment proposed for carrying out the Works. List all information requested below.

Item of Equipment	Description, Make and age (years)	Condition(new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	
(etc.)			

1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data.

Position	Name	Years of experience (general)	Years of experience in proposed position
Project Manager _____ _____ _____ (etc.)	_____ _____ _____	_____ _____ _____	_____ _____ _____

1.6 Financial reports for the last five years: balance sheets, profit and loss statements, auditor's reports, etc. List below and attach copies.

_____
_____

1.7 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of supportive documents.

_____
_____
_____

1.8 Name, address and telephone, telex and facsimile numbers of banks that may provide reference if contacted by the Lamu Municipality.

_____
_____

1.9 Statement of compliance with the requirements of Clause 1.2 of the Instructions to Tenderers.

_____
_____
_____

1.10 Proposed program (work method and schedule) for the whole of the Works.

2 Joint Ventures

2.0 The information listed in 1.1 – 2.0 above shall be provided for each partner of the joint venture.

2.1 The information required in 1.11 above shall be provided for the joint venture.

2.2 Attach the power of attorney of the signatory(ies) of the tender authorizing signature of the tender on behalf of the joint venture

2.3 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that:

a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

b) one of the partners will be nominated as being in charge, authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture; and

c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names of tenderer;

……

2. Full address of tenderer to which tender correspondence is to be sent (unless an agent has been appointed below);

……

3. Telephone number (s) of tenderer;

……

4. Telex of tenderer;

……

5. Name of tenderer's representative to be contacted on matters of the tender during the tender period;

……

6. Details of tenderer's nominated agent (if any) to receive tender notices. This is essential if the tenderer does not have his registered address in Kenya (name, address, telephone, telex);

……

……

Signature of Tenderer _____

Make copy and deliver to:_____(*Name of Lamu Municipality*)

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or whichever applies to your type of business.

You are advised that it is a serious offence to give false information on this Form.

Part 1 – General

Business Name ……

Location of business premises; Country/Town…….

Plot No…… Street/Road ……

Postal Address…… Tel No……..

Nature of Business……..

Current Trade Licencee No…… Expiring date……

Maximum value of business which you can handle at any time: K. pound……..

Name of your bankers……

Branch……

Part 2 (a) – Sole Proprietor

Your name in full…… Age……

Nationality…… Country of Origin……

Citizenship details ……

Part 2 (b) – Partnership

Give details of partners as follows:

Name in full	*Nationality*	*Citizenship Details*	*Shares*
1	……		
2	……		
3	……		

DETAILS OF SUB-CONTRACTORS

If the Tenderer wishes to sublet any portions of the Works under any heading, he must give below details of the sub-contractors he intends to employ for each portion.

Failure to comply with this requirement may invalidate the tender.

(1) Portion of Works to be sublet: ……

[i) Full name of Sub-contractor and address of head office: ……

……

(ii) Sub-contractor's experience of similar works carried out in the last 3 years with Contract value: ……

……

……

(2) Portion of Works to sublet: ……

(i) Full name of sub-contractor and address of head office: ……

……

……

(ii) Sub-contractor's experience of similar works carried out in the last 3 years with contract value: ……

……

_____ _____

[Signature of Tenderer) Date

LETTER OF NOTIFICATION OF AWARD

Address of Lamu Municipality

_____

_____

To:_____

_____

_____

_____

RE: Tender No._____

Tender Name_____

This is to notify that the contract/s stated below under the above-mentioned tender have been awarded to you.

_____

_____

1. Please acknowledge receipt of this letter of notification signifying your acceptance.

2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.

3. You may contact the officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

   *(FULL PARTICULARS)*_____

   _____

FORM RB 1

SIGNED FOR
ACCOUNTING
OFFICER

……RESPONDENT *(Lamu Municipality*)

Request for review of the decision of the…… (*Name of the Lamu Municipality)* of ……dated the…day of ……20…….in the matter of Tender No…..... of ……20…

REQUEST FOR REVIEW

I/We……, the above-named Applicant(s), of address: Physical address……. Fax No……Tel. No……. Email ……, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above-mentioned decision on the following grounds, namely: -

1.

2.

etc.

By this memorandum, the Applicant requests the Board for an order/orders that: - 1.

2.

etc

SIGNED.....(Applicant)

Dated on……. day of ……/…20…

FOR OFFICIAL USE ONLY

Lodged with the Secretary Public Procurement Administrative Review Board on …… day of ……....20…..……

SIGNED
Board Secretary

Appendix

1. Bills of quantities for the proposed construction of open-air Market in Mokowe.

THE COUNTY GOVERNMENT OF LAMU

LAMU MUNICIPALITY

Tender Bills of Quantities

Proposed Construction of Mokowe Open Air Market Mokowe Town, Lamu

LAMU MUNICIPALITY

LAMU COUNTY GOVERNMENT

P.O. BOX 74 - 80500

LAMU

O

QUANTITY SURVEYOR

LAMU COUNTY GOVERNMENT

P.O. BOX 74 – 80500,

LAMU

PROCUREMENT ENTITY

LAMU MUNICIPALITY

P.O. B X 74 – 80500,

LAMU

APRIL 2021

Contents

Project Particulars:

1 Employer

The term "Employer" wherever used in these Bills of Quantities and in all other Contract Documents shall mean THE LAMU MUNICIPALITY; COUNTY GOVERNMENT OF LAMU, P.O. BOX 74-80500, LAMU

2 Architect

The term "Architect" is prescribed and protected by a statute. Where the term "Architect" appears hereinafter and in all other Contract Documents shall be deemed to mean COUNTY ARCHITECT, DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE DEVELOPMENT P.O. BOX 74-80500, LAMU.

3 Quantity Surveyor

The term "the Quantity Surveyor" wherever used hereinafter and in all Contract, Documents shall mean COUNTY QUANTITY SURVEYOR, DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE DEVELOPMENT P.O. BOX 74-80500, LAMU. P.O. BOX 74-80500, LAMU.

4 Structural Engineer

The term "the Structural Engineer" wherever used hereinafter and in all Contract, Documents shall mean SENIOR STRUCTURAL ENGINEER, DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE DEVELOPMENT P.O. BOX 74-80500, LAMU. P.O. BOX 74-80500, LAMU.

5 Employer's Representatives

Wherever the term "Architect, Quantity Surveyor and Engineer" as defined above are used in all Contract Documents they shall be deemed to imply the "Employer's Representatives" and shall include such other persons as they may duly authorize to represent them on behalf of the Employer or the Successor in Office of such persons as may be deputed by such representatives to act on their behalf for the purpose of this Contract.

6 Description of the Works

This project involves construction of two (2) number market sheds; one stall unit and one storage unit; total of 14 stalls, 14 stores and 32 fresh-produce selling stalls. Construction of one (1) number modernized ablution facilities and external works; drainage services for both soil & storm water.

7 Location of Site

The site is located at Mokowe Township, on plot No.______, Lamu County, 500 meters from the County

Headquarters. The tenderer shall be deemed to have visited the site and familiarized himself with all site conditions prior to submission of tenders. The contractor is advised to visit the site and if need be, get assistance from the designer.

8 Specifications

The works shall be executed in accordance with the brief specifications for the works given in the item descriptions in Section 3 of the Bills of Quantities, and the detailed specifications given in Section 2 of the Bills of Quantities. Where trade preambles of an element are not included in the Specifications section, the works shall be executed in accordance with the Standard Specifications of Ministry of Public Works of Kenya.

9 Pricing of Items

i) The rates and prices set down by the Tenderer against the items in the Bills of Quantities are to be the full inclusive value of the finished work described thereunder and are to include for profits, overheads and all obligations and liabilities of every kind which under the contract are to be borne by the Contractor. The Tenderer's attention is particularly drawn to the Preliminaries section, where provision is made for the pricing of the contractor's general obligations. Any item not priced will be deemed to have been allowed for the prices inserted against other items in the Bills of Quantities.

ii) Items described covers the minimum requirements and conditions necessary for the full and proper execution of the contract. The tenderer is required to read and fully understand his obligations under each item and thus asses his costs for complying with the same for the duration of the contract. Should no price be inserted against any item, it shall be assumed that the tenderer has covered any costs associated with that item elsewhere in the Bills of quantities and shall nevertheless be required to comply with such and all items.

10 Instruction to Tenderer

i) The contractor is required to check the numbers of the pages of these Bills of Quantities and should he find any page missing or in duplicate or the figures indistinct, he must inform the Quantity Surveyor at once and have the same rectified.

ii) Should the Contractor be in doubt about the precise meaning of any item or figure, for any reason whatsoever, he must inform the Quantity Surveyor in order that the correct meaning may be decided before the date for submission of tenders.

iii) No liability will be admitted, nor claim allowed in respect of errors in the Contractor's tender due to mistakes in these Specifications and Bills of Quantities, which should have been rectified in the manner described above.

Section 1: *Preliminaries*

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	The Contractor shall allow for whatever costs s/he may consider necessary against each of the items hereunder:				
A	**Definitions of Terms** Approved', or 'Directed' or 'Selected' shall respectively mean approved, directed or selected by the project architect at his absolute discretion 'CM' shall mean cubic metre 'SM' shall mean square metre 'LM' shall mean linear metre 'mm' shall mean linear millimetre 'KG' shall mean Kilogramme 'NO' shall mean Number 'PRS' shall mean Pairs 'B.S.' shall mean British Standard K.S' shall mean current Kenyan standard specifications as per the Kenya Bureau of standards Fix only' shall mean materials by themselves will be provided Girth's depths and sizes grouped together in the Bills of Quantities item descriptions by means of hyphenated upper and lower limits shall be interpreted as 'exceeding' the lower limit and 'not exceeding' the upper limit.				
B	**Plant, Tools and Vehicles** Allow for all plant, tools and vehicles to complete the whole of the works.	Sum			
C	**Labor** Allow for the cost of all labor necessary to complete the whole of the works.	Sum			
D	**Safety and Welfare Measures** Allow for providing full safety precautions and first aid equipment at both site and workshop Provide and maintain all requisite shelter for inclement weather, accommodation, for clothing, for provision of meals, drinking water, washing and first aid facilities etc, for fully complying with the requirements of welfare regulations or other, for clothing, for provision of meals, drinking water, washing and other first aid facilities; statutory obligations notified to the trade at the time of receipt of tenders.	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	**Holidays with Pay and Public Holiday Scheme** Allow for all cost and expenses in connection with holidays with pay scheme and public holidays	Sum			
B	**Social Security** Allow for all cost and expenses in connection with the Government of Kenya Social Security Scheme.	Sum			
C	**Transport of Work People** Allow for all transportation costs for Work People to and from the site.	Sum			
D	**Accommodation of Work People** Allow for accommodation required for work people.	Sum			
E	Safeguarding the Works, Materials and Plants against Damages and Theft Allow for providing by all means necessary (other than watching and lighting) to preserve the site, unused materials and plant, etc, from trespass, damage or theft and to protect all persons from injury or inconvenience due to the operation of this Contract, including temporary fences, screens, etc, all in accordance with the requirements of statutory or other regulations.	Sum			
F	**Watching and Lighting** Allow for all necessary day and night watching and temporary lighting for the protection and execution of the works.	Sum			
G	**Police Regulations** Allow for complying with all police regulations.	Sum			
H	**Use of Site** The Contractor shall not use the site for any purpose other than that of carrying out the Works and he shall inform the project architect of the proposed sitting of all spoil heaps, temporary roads, sleeper tracks , path sheds and any other structure.	Sum			
I	**Use of Explosives** The use of explosives will not be permitted without the prior approval of the Project Manager.	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	**Omitted Works** The employer reserves the right to omit any of the works or sums contained in the contract without liability for payment to the contractor for any loss of prospective profit.	Sum			
B	**Provision by Employer** Where goods, services, equipment, etc., are provided directly by the employer for use in the work, the contractor shall not be entitled to receive any percentage or remuneration in respect of profit on such items.	Sum			
C	**Site Meetings** The Project Manager will conduct site meetings at such intervals as he considers necessary and the contract shall allow for representation and attendance by a representative who shall be authorized to act on behalf on the contractor.	Sum			
D	**Progress Schedule** The Contractor shall, within 7 days of commencement of the works provide the project architect with two copies of a suitable progress schedule indicating all sections of the works and the dates for starting and completing each of them. This schedule shall be revised and updated as necessary as the works proceed and the actual dates for starting and completing each section of the works shall be recorded on the progress schedule.	Sum			
E	**Testing** Allow for testing all materials as and when called upon to do so by the Project Manager or the Engineer. Any materials or work found to be defective or not complying with the test shall be immediately removed from the site or cut out and made good at the contractor's own expense.	Sum			
	Allow for the application of test panels for the approval of the Project Manager with regard to quality, texture and style of the external paint. Any rejected test shall be removed at the Contractor's expense. The accepted test panels shall set the standard to which all the paintwork shall comply.	Sum			
F	**Hoarding** Provide, erect, maintain and remove on completion of the works an approved suitable and sufficient hoarding along perimeter of property or as directed.	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	**Materials** Where reference to a particular national standard is made the reference is intended only as a guide for estimating purposes to the type of materials required and to establish a degree of quality. The contractor may use any article or materials similar or equal to those described by reference to trade names or catalogue numbers of national standard, subject to the specific approval of the project architect being obtained. All manufactured materials, articles and equipment's shall be applied, installed, connected, erected, used, cleaned and conditioned in strict accordance with the manufacturer's printed instructions unless herein specified to the contrary. Where reference is made to manufacturer's directions. The contractor shall submit copies of such directions to the project architect. If the contractor is in doubt of any such instructions, he shall not proceed but shall refer the decision to the project architect for approval.	Sum			
B	**Water for the Works** Allow for providing water for the Works. The Contractor is to include for all works, costs, fees and charges in making all temporary connection from the existing supply, including supplying and fixing all necessary temporary pipes and fittings, excavating in and reinstating roads and footpaths, keeping all temporary systems in good order, paying all charges for consumption and making good all disturbed items.	Sum			
C	**Lighting and Power** Allow for providing electricity for lighting and power necessary to execute and test the works. The Contractor is to include for all works, costs, fees and other charges in making all temporary connections including supplying all necessary leads, paying all charges for consumption, clearing away on completion, and making good all disturbed items.	Sum			
D	**Office for the Project Manager** The site office shall be type "B" as shown on the Ministry of Works Standard Detail. The contractor shall provide day and night security. He shall also provide project management expenses including stationery, printing, transport, airtime etc and maintain adequate access and parking acceptable to the Project Manager	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	**Site Telephone** Allow for the provision of a mobile phone telephone at the site for use by the project architect, Engineer, Quantity Surveyor and Architect as required. The Contractor shall allow for all connection costs, disconnection costs and paying all charges for calls and shall notify the Architect of the telephone number	Sum			
B	**Protection to Existing Services** Allow for locating, marking and protecting all existing services by whatever means necessary, alter and adapt as required, maintain and clear away on completion including making good all disturbed and paying all charges in connection therewith	Sum			
C	**Contractor's Site Office** Allow for providing a Site Office, erect in approved positions, maintain and clear away on completion, including making good all disturbed and paying all charges legally demandable	Sum			
D	**Sheds** Allow providing suitable sheds for the dry storage of materials, erect in approved positions and clear away on completion, including making good all disturbed and paying all charges legally demandable	Sum			
E	**Latrines** Allow for providing properly screened latrine accommodation for the workmen, together with suitable washing facilities. Erect facilities in approved positions and clear away on completion, including maintaining facilities in good, clean sanitary condition	Sum			
F	**Scaffolding** The Contractor shall provide all scaffolding necessary for the execution of the Works, dismantle and clear away when no longer required.	Sum			
G	**Insurances** Allow for the provision of all insurances in accordance with the relevant Clauses of the Conditions of Contract	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	**Cover up and Protect** Allow for covering up and protecting the works from damages likely to result from weather or other causes and making good any damage which may be so caused save as covered by insurance hitherto described. Allow for protecting from trespass, loss or damage arising from the operation of the contract, all existing property, including buildings, temporary fences, walls, trees, grass & other vegetation roads, paths, drains, sewers, water, electric and gas pipes and mains and the like, whether public or private, and both inside and outside the site, and for making good any damage occasioned through the operation of this contract, and pay all the charges in connection. The contractor shall not interfere with any of the foregoing without the consent of the Public Authority or private owner concerned. The contractor shall carefully preserve and protect all trees and shrubs on the site from damage until completion of the work insofar as their removal is not required by reason of the execution of the works. Any such trees, or shrubs injured, damaged or removed without permission of the Architect, shall be replaced with a tree or shrub of similar character at the contractor's own expense. The contractor will not be permitted storage of any kind or allowed vehicular access under the spread of trees which are to be retained.	Sum			
B	**Remove Rubbish and Debris** Allow for keeping the Works clean during the progress of the Contract, clearing away all rubbish and debris as it accumulates and finally cleaning the glass on both sides, scrubbing, or otherwise cleaning out cisterns, and gutters, leaving the site and premises clean and ready after completion of the works, to the satisfaction of the Project Manager.	Sum			
C	**Signboard** Allow for obtaining all statutory approvals, paying all fees and providing and erecting one signboard with lettering displaying the names of all consultants etc. as directed by the Project Manager. Allow for maintaining in good condition for the duration of the contract and clearing away on completion	Sum			
D	**Mobilization of Equipment's & Materials** Allow for mobilization/demobilization of materials and equipments to site	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	AMOUNT
	COLLECTION	
1	From page *Mkw1/1*	
2	From page *Mkw1/2*	
3	From page *Mkw1/3*	
4	From page *Mkw1/4*	
5	From page *Mkw1/5*	
6	From page *Mkw1/6*	
	TOTAL FOR PRELIMINARIES CARRIED TO GRAND SUMMARY	

Section 2: *Specifications*

Excavations and Earthworks

ITEM	DESCRIPTION
	Nature of Excavation
A	The contractor must ascertain for himself the nature of the material to be excavated and price the work accordingly as no allowance will be made beyond the contract sum for any alleged ignorance in this respect.
	Site Clearance
B	The Contractor shall clear the construction areas within the site of all bushes, roots, brush, boulders, natural obstruction, rubbish and any other natural or artificial obstructions which would interfere with construction of buildings, roads, paths and drains.
	Ant/Termite Nests and Rodents
C	Clear away all ant/termite hills and nests over the area of the site, excavate for, locate and destroy queens.
D	Treat the cavity formed by the removal of the nest as described herein under "Soil sterilization" and backfill with approved material well rammed and consolidated in layer not exceeding 300mm thick.
E	All areas of the site must be thoroughly proofed against rodents and special care must be taken to ensure that no unconsolidated areas are left near banks and ditches.
	Commencing levels
F	Unless specifically stated otherwise the commencing levels for excavation shall be deemed to be existing ground level or underside of reduced level excavation.
G	All measurements are based upon reduced level excavation being executed first and no adjustment will be made should a differing sequence of operations be adopted, unless specifically ordered by the Project Manager in writing.
	Excavations
H	Excavations shall be to the width and depths indicated on the drawings or to such lesser or greater depths as the Architect may deem necessary and so instruct the Contractor in order to obtain satisfactory foundations.
I	Any difference in the quantity of work actually executed under such instructions and that provided in the Bills of Quantities shall be measured and valued by the Quantity Surveyor as a variation under the relevant Conditions of Contract.
J	If, however, the Contractor excavates to any greater depths or widths than are shown on the drawings are directed by the Architect then the Contractor shall at his own expenses fill in such extra depths and widths with concrete similar to that described for foundations to the satisfaction of the Project Manager.
K	The contractor shall report to the Project Manager as and when a secure bottom to the excavations has been obtained and the same is ready to receive concrete.
L	Any concrete or other work put in before excavations have been inspected and approved shall, if so directed, be removed and new work substituted after excavations have been approved, all at the contractor's expense.

Excavations and Earthworks (Cont'd)

ITEM	DESCRIPTION
A	If so directed, the contractor shall water and well ram the bottom of excavations to the satisfaction of the Project Manager.
	Measurements of excavation work
B	Excavation work is measured net as before digging and the contractor must allow for increase in bulk after digging.
	Trenches for pipes, cables, kerbs, etc. other than drain pipe
C	Prices for excavation for trenches for pipes, cables, kerbs, etc. shall include for grading and ramming bottoms to the level required, all necessary planking and strutting, carefully returning, filling and ramming selected excavated material and for carting away any surplus materials.
D	Any rock or other hard materials encountered in excavating to the required depths which, in the opinion of the Architect, can only be removed by wedges or compressor plant shall be paid for as an extra and the price shall include for trimming and levelling. No blasting will be allowed. Hard compacted murram which can be removed by pick will not be classed as rock notwithstanding that the Contractor may decide to remove it by wedges or compressor plant.
E	The Contractor must give notification to the Architect or his representative when such material is encountered and its extent must be agreed with the Architect or Quantity Surveyor or their authorized representatives before the work is carried out. No allowance will be made for the rock excavation unless the foregoing procedure has been followed.
	Rates for excavations
F	The rates for excavations shall include for excavating manually or by machine in all types of material except rock, as previously specified.
G	Excavations for all concrete foundations have been measured to netsizes required by concrete dimensions. The contractor shall allow for all necessary working space in the rates for excavations.
H	The rates for excavation must include for such excavating in all types of ground encountered including sand, murram, hard murram, tree roots, and loose boulders
	Levelling
I	No item is measured for leveling and consolidating ground and rates for excavation must include for leveling and preparing the ground for concrete or other works including ramming or rolling.
	Disposal of water
J	The contractor shall keep the excavations free from standing water and silt (or excavated material softened by water) and he shall include for the cost of pumping, construction of temporary drains, soak away pits, etc. as deemed necessary to achieve this. An item has been included for this in the Bills in each relevant section. The cost of pumping to dispose of any spring or running water has been covered by a Provisional sum. If spring or running water is encountered, the cost of any pumping ordered by the Architect will be paid for in accordance with the Dayworks Schedule.

Excavations and Earthworks (Cont'd)

ITEM	DESCRIPTION
	Planking and Strutting
A	Sides of all excavations must be supported in order to prevent falls from or collapse of the earth face. The term 'planking and strutting' is deemed to include any method or methods which the Contractor elects to adopt, to uphold, protect and maintain the sides of excavations. The contractor will be responsible for any consequences of his failure in this respect including clearing away fallen material and any extra concrete or other works including formwork ordered by the Architect due to such failure. An item has been included in these bills in each relevant section.
B	Material returned around foundations externally shall be selected hard, dry excavated material arising from the excavations free from vegetable soil, roots and rubbish carefully filled in, spread, watered and compacted in layers not exceeding 200mm thick. Backfilling internally shall be hardcore, or selected hard dry granular materials as above to approval.
C	No excavations or foundation work shall be filled in or covered up until all measurements necessary for the adjustment of variations have been made. Walling shall not be built upon the foundations until four days after depositing of concrete.
	Cart away
D	All surplus excavated material, where so directed, and all rubbish are to be removed from the site and the contractor is to find his own dump and pay all charges
	Approval before filling
E	No fill material shall be placed before approval has been given by the Architect for filling to begin.
	Measurement of filling generally
F	Filling is measured net as after consolidation.
	Earth filling
G	Levels specified to be made up with surplus soil etc., are to be filled in with selected soil free from vegetable growth to the approval of the Architect and is to be laid in layers not exceeding 200mm thick, each layer to be leveled, well rammed and consolidated and water if necessary.
	Hardcore filling
H	Hardcore shall consist of clean hard broken stone or rubble graded to pass in all directions a 100mm ring with sufficient sand added to fill their interstices. The hardcore shall be well packed, rammed and where possible rolled with a heavy roller. Where rolling is impossible compaction shall be by hand or by mechanical tampers. Before any concrete is laid on hardcore, the hardcore shall be levelled and blinded with sand, rolled and well-watered through a sprinkler rose.

Excavations and Earthworks (Cont'd)

ITEM	DESCRIPTION
	Soil Sterilisation
A	Anti-termite treatment is to be carried out using one of the chemicals below and the contractor will be required, upon completion of the soil sterilisation, to furnish a written guarantee certifying the following: (a) That the chemicals applied comply with the requirements specified herein for chemical concentration and rates of application. b) That the treatment will remain effective against termite infestation for a period of ten years. c) The free re-treatment by the contractor of any areas showing signs of infestation before the expiry of the ten year period.
B	The chemicals used shall be one of the following: 1. Aldrion; 0.5% applied in oil solution or water emulsion 2. Benzene hexachloride; 0.8% of gamma applied in oil solution or water emulsion. 3. Chlordane; 1.0% applied in oil solution or water emulsion. 4. Dieldrine; 0.5% applied in oil solution or water emulsion 5. Termicide A; 1 part to 45 part water. 6. Lindane; 0.8% in oil solution or water emulsion 7. Pentachlorophenol; 5% in oil solution. 8. Trichlorobenzene; 1 part to 3 parts oil
C	Some of the chemicals listed above are toxic to animals and plant life and must therefore be applied only with caution by an experienced person. Where individual water supply systems are proposed, precautions must be taken to prevent infiltering and endangering the water supply. Treatment shall not be made when soils or fill is excessively wet or immediately after heavy rains.
D	Precautions must also be taken to prevent disturbance of the treatment by animals or human contact with the treated soil. The treated areas are to be covered as quickly as possible after treatment.
E	The rate of application is to be 7 litres per square metre and the areas measured include those under floor and around wall and column foundations.

Concrete Work

NB: The materials and workmanship clauses which follow in the specification embody the recommendations of BS 8110 (1985 with amendments) for the structural use of Reinforced Concrete in building, unless otherwise specifically stated.

ITEM	DESCRIPTION
	Materials Generally
A	All materials to be used in the works shall conform as to quality and description as specified hereunder and shall be equal to approved samples. In particular, no materials shall be used until approved samples shall be supplied to the Engineer for approval before ordering in bulk and delivery on site. All materials shall be transported, handled and stored on site so as to preclude damage, deterioration or contamination.
	Cement
B	The cement, unless otherwise specified on the drawing, shall be ordinary portland cement of approved manufacture, delivered in the manufacturer's bags and shall comply in all respect with the requirements of the latest British Standard 12. Should the use of special cement be called upon, they shall be of the qualities and kinds as specified by the British Standard Institution.
	Fine Aggregate to B.S. 882
C	Fine aggregate shall be clean, siliceous naturally occurring pit, river or lake sand free from impurities complying in all respects with B.S. 882 and graded within the limits specified in Table 2 of B.S 882.
	Coarse Aggregate
D	Coarse aggregate shall be clean, well graded natural gravel or crushed stone from an approved quarry, and washed if required by the Engineer. The pieces shall be angular and for use in normal concrete, shall be of particle sizes as shown in the table of mixes. The precise grading shall be within the limits or reasonably near to the limits set out in B.S.S. 882 and the approved grading shall be adhered to throughout the course of the work and no variation shall be permitted without the written consent of the Engineer. Flakey, laminated or micaceous pieces shall be present in such quantities only as not to have any adverse effects on the quality of the concrete.
	Water
E	Water used for mixing concrete, washing out of shuttering, concrete and similar purposes, shall be clean, fresh and free from organic impurities in amounts likely to impair the quality of the concrete.
	Reinforcement
F	All reinforcement shall conform with the following British Standards as indicated on the drawings or specified therein: - 1. B.S. 4449 for Round Mild Medium Tensile and High Tensile Steel Bars 2. B.S 4449 for Cold Twisted Bars 3. B.S. 1221 for Hard Drawn Steel Wire Fabric Mesh
G	All reinforcement shall be free from oil, grease, dirt, paint, loose rust, mill scale. Straightening or rebending of inaccurately bent bars shall be carried out in a manner which will not injure the material. Reinforcement schedules supplied to the contractor must check the bending sketches shown before cutting the bars and placing in the works. No responsibility can be accepted by the Engineer for inaccuracies in the bending schedule or the consequence thereof. All bars under 1 ½" diameter shall be bend cold.

Concrete Work (Cont'd)

ITEM	DESCRIPTION
A	Cement shall be measured by weight; each batch of concrete is to use one or more whole bags.
B	The fine aggregate and the coarse aggregate shall be measured separately by weight in an approved weigh batching plant. Volume mixing will not be allowed unless with the express permission of the Engineer.
C	The mixes shall be as follows: 1. Concrete grade "D" – 1:1 ½:3-½:" Aggregate with a strength of 14 N/mm² at 7 days and 25.5 n/mm² at 28 days. 2. Concrete grade "C" – 1:2:4-¾" Aggregate with a strength of 14 N/mm² at 7 days and 21.00 N/mm² at 28 days 3. Concrete grade "B" – 1:3:6 – ¾" Aggregate 4. Concrete grade "A" – 1:4:8 – ¾" Aggregate
D	Note: 1. Preliminary test cubes are to have a strength at least 15% higher than the specified Works Test Values 2. If the strengths required are not attained in any section of the works, the contractor will be required to remove and replace such sections.
E	Concrete shall be mixed in a mechanical weight batching machine. Hand mixing shall only be used upon the approval of the Engineer. All mixing machines shall be of the fixed drum type and shall not be smaller than 14/10 except by the written approval of the Engineer or Architect.
F	Cement and aggregate shall be thoroughly mixed dry and then mixed for at least two minutes after the water has been added. Mixing of each batch shall continue until the concrete is uniform in colour. The entire contents of the drum shall be discharged before the materials for the succeeding batch are fed into the drum. Upon completion of the days mixing, the drum shall be thoroughly cleaned free of adhering concrete or scale.
G	Trial mixes After design of the appropriate mix proportions, the contractor shall prepare 3 trial mixes under the same conditions as the concrete will be mixed at the works. Each trial mix shall be full mix i.e. based on 50 kg. bag of cement.
H	Six cubes shall be prepared of each trial mix by the contractor 3 for testing after 7 days and 3 for testing at 28 days. The contractor shall arrange for package and transportation of all cubes for testing to an approved laboratory. The proposed mix proportions will not be accepted if the average strength of the three trial mixes is less than the specified works cubes strength plus the standard deviation.
I	The surplus concrete produced in the preparation of trial mixes may be used in filling, oversite concrete drains or such other non-structural concrete works as may be approved by the Project Manager.
J	After the results of the Trial Mixes have been approved by the Engineer, and definite weights for batching agreed, these proportions shall be maintained throughout the works, and shall not be varied without the prior instructions of the Engineer.
K	If any change is proposed in the concrete aggregates or their source, a further set of Trial Mixes shall be made, using the new materials and the results shall be submitted to the Engineer for approval.

Concrete Work (Cont'd)

ITEM	DESCRIPTION
	Distribution of Concrete
A	The concrete shall be distributed from the mixer to the position required by the approved means which do not cause segregation or otherwise impair the quality of the concrete. All equipment shall be cleaned prior to mixing and distribution and shall be kept free of set concrete.
	Workmanship
	Reinforcement
B	All steel rods must be cut and bent cold in accordance with B.S. 1478 and to the dimensions shown on the schedules provided. Bars shall be bent by machine or other approved means capable of producing a gradual and even motion. The reinforcement shall be accurately placed in position in accordance with the drawings and to the entire satisfaction of the Engineer or Architect. Bars shall be secured against displacement by tying together at intersections with 1.2 mm annealed binding wire or suitable clips. All binders or clips shall be tightly secured and displacement of bars rectified prior to inspection by the Engineer.
C	Spacer blocks of approved size and shape made of concrete similar to that used in the surrounding construction and fixed to the reinforcement or formwork by approved means shall be introduced where necessary to ensure that the requisite cover is obtained.
D	Mesh reinforcement shall be laid with end and side laps of one full mesh bound with tying wire as previously specified in accordance with the manufacturer's instructions.
	Formwork
E	All shuttering and moulds shall be rigidly constructed to accurate shapes and dimensions as described on drawings and to remain sufficiently rigid during the placing of the concrete. Joints in the formwork shall be carefully made so as to prevent leakage of cement grout and particular care shall be exercised in this respect for moulds in which it is intended to place vibrated concrete.
F	Before concreting, bolts and fixings shall be in position. Cores and other devices used for forming openings, holes, pockets, chases, recesses or other cavities shall be fixed to the shuttering and no subsequent holes shall be cut in any concrete without the Engineer's approval.
G	Where so described or measured, faces of concrete shall be finished fair by means of wrought or lined formwork.
	ProtectionofConcrete
H	Newly placed concrete shall be protected by approved means from rain, sun and dry winds and exposed faces shall be kept moist with hessian coverings or other approved means for at least 7 days.
	Removal of shuttering
I	Unless otherwise instructed by the Project Manager or Engineer, the following minimum period shall elapse after pouring the concrete before the formwork is struck: a) Beam sides, walls and columns ……. 2 days b) Slabs (props left under) …… 4 days c) Beam soffites (props left under) ……...7 days d) Removal of props to slabs …… 10 days e) Removal of props to beams …… 14 days

Concrete Work (Cont'd)

ITEM	DESCRIPTION
A	Compliance with the above requirements shall not relieve the contractor of the obligation to delay removal of the forms if in his opinion or the opinion of the Engineer, the concrete has not set sufficiently hard.
	Sub-contractors' work incorporated in the works
B	It shall be the contractor's responsibility to co-ordinate sub-contractors and other for incorporating any electrical conduit, plumbing fixtures and pipes, bolt holes etc. in the concrete members as required and shown on the drawings.
C	The contractor shall submit details of cable and pipe runs to the Engineer before the work is put in hand and shall have the Engineer's approval of the layout.
	Precast Concrete Work
D	Where precast concrete members are specified, these shall be constructed in moulds of approved design and samples from the moulds be approved before mass production of the members is commenced.
	Tests
E	a) <u>LoadTests</u> Load tests of completed parts of the structures may be called for by the Architect or Engineer at any time. The standards of acceptance for the structural load tests as stipulated in clause 6 OS of B.S.C.P 114 are specifically excluded from this specification. The test procedure and the standard of acceptance will be specified by the Engineer.
F	b) <u>SlumpTest</u> Slump test or compaction factor tests of the mixed concrete shall be carried out at regular intervals and the results recorded and kept on the site. The method of taking these tests shall be as detailed in appendices to B.S. code of practice C.P. 114.
	Setting out walling
G	The contractor shall provide proper setting out rods and set out all work on same for courses, openings, heights, etc, and shall build the walls and piers, etc., to the widths, depths and heights indicated on the drawings and as directed and approved by the Project Manager.
	Cement
H	Cement shall be as described in concrete work.
	Fine aggregate
I	Fine aggregate for concrete blocks shall be as described for fine aggregate in concrete work.
	Coarse aggregate
J	Course aggregate for concrete blocks shall be good, hard, clean aggregate from approved quarries. It shall be free from all decomposed materials and shall be graded up to 10mm and all as described for coarse aggregate in concrete work.

Walling

ITEM	DESCRIPTION
	Concrete blocks
A	Concrete blocks for walling shall be provided by the contractor complying with B.S 2028 Type A, and made in approved block making machine of a composition as follows: 1. Portland cement 1 cubic metre 2. Fine aggregate (graded up to 5mm) 3 cubic metre 3. Coarse aggregate (graded up to 10mm) 6 cubic metre
B	Blocks shall be solid or hollow two-hole type as specified and are to be made under sheds erected by the contractor to the directions and approval of the Project Manager. In hollow blocks the volume of the cavities shall be not less than 45% and not more than 50% of the gross volume, and the dimensions of the cavities arranged so that each cavity is vertically continuous when the blocks are bonded. Samples shall be approved by the Project Manager before any walling work is commenced.
C	The compressive strength Type A blocks shall be not less than: - i) Average of 13 hollow blocks 5.75 N/mm2 gross area ii) Lowest individual hollow block 4.0 n/mm2 gross area
	Concrete blocks
D	The concrete is to be put into the machine's moulds in thin layers and all properly tamped therein. On removal from the machines the blocks are to be carefully deposited on racks under sheds erected by the contractor to the direction and approval of the Architect and left there for three days and kept thoroughly wet and the whole time, after which they shall be put out in the open on racks and protected with the approved matting, sacking or straw and kept wet for a further five days, then kept in the same position and under same mat cover, but without wetting for a further seven days to season. All blocks must be left with good sharp edges. The blocks for use in the works shall be 190mm high and may vary in length from 300mm to 400mm and no variation above or below these lengths will be allowed except where required to form proper bonding at corners, round openings, sills, lintels, beams, etc., and the like positions and the contractor must make or cut blocks to all the varying sizes required for these purposes and include this in his price.
	Bonding walling
E	The blocks shall be properly bonded together in such manner that no vertical joint in any one course shall be within 100mm of a similar joint in the course immediately above or below. Sufficient through bonders shall be provided as directed by the Architect. Alternate courses of walling at all angles and intersections shall be carried through the full thickness of the adjoining walls. All walling shall be built up entirely solid in blocks, without voids, allowance being made for joints 10mm thick only. All perpends, reveals and other angles of the walling shall be built strictly true and square.
	Wall reinforcement
F	Where so specified hollow block walls shall be reinforced vertically with 10mm diameter mild steel bars built into the cavities of the blocks at 40mm centres, unless otherwise specified. All bars in walls to have a minimum lap of 350mm.
G	Prices for walling described as reinforced must include for all extra costs involved in slotting blocks over the vertical reinforcement.

Walling (Cont'd)

ITEM	DESCRIPTION
	Filling of hollow blockwork
A	All cavities where specified and shown above ground and all cavities below ground level shall be filled in solid with concrete of the mix described and placed and consolidated in sections not exceeding 1190mmm in height.
B	In reinforced walls the filling shall be carefully compacted around the reinforcement.
	Blocks to be wetted
C	All concrete blocks and stone walling shall be well wetted before being laid and the top of walling where left off shall be wetted before re-commencing building. Walls to be kept wet three days after building.
	Mortar
D	Mortar to be used for all walling work shall be composed of 1 part of Portland Cement to 1 part lime to six parts of fine aggregate measured by volume in specially prepared gauge boxes and thoroughly mixed dry on clean and water tight mixing platforms, with water added afterwards from a can with a fine rose until all parts are completely incorporated and brought to a proper consistency and then used within thirty minutes of mixing.
E	No partially or wholly set mortar will be allowed to be used or re-mixed.
	Fair face walling
F	Where walling is to be finished with a fair face, the concrete blocks are to be selected for freedom form defects and the joints raked out as the work proceed and flush pointed with a neat joint in cement mortar.
	Joints for walling
G	The blocks shall be bedded and jointed in cement mortar as described with beds and joints 10mm thick, fully flushed up and grouted solid as the work proceeds. Joints shall be ranked out where the surfaces of walling are to be plastered.
H	All walling shall be properly protected while mortar is setting as the Project Manager shall direct.
	Building walling
I	All walls throughout the works shall be carried up evenly in 200mm courses, no part being allowed to be carried up more than 800mm higher at one time than any other part and in such cases the jointing shall be made in long steps so as to prevent cracks arising and all walls shall be levelled around at each floor.
	Putlog holes
J	Putlog holes shall be carefully, properly and completely filled up on completion of walling work.
	Rough cutting, etc
K	The contractor shall allow in his prices for the walling which is measured net herein, for all ordinary rough cutting, bonding, plumbing angles, forming reveals and fitting up to underside of concrete beams slabs and lintels etc.

Walling (Cont'd)

ITEM	DESCRIPTION
	Stone Pitching
A	The ground to receive pitching shall be well compacted and the stones, which shall be flat bedded and not less than 230mm either way along the bearing surface, shall be punned to the required falls and inclinations so that neither wedges or spalls are required to keep the pitching rigidly in place. The joints shall be more than 13mm thick and shall be solidly filled with 1:3 cement mortar.
B	Stone for pitching shall be obtained from approved quarries. It shall be hard, sound, durable and clean.
	Stone for walling
C	Stone for walling shall be from an approved quarry, roughly square and built random and uncoursed in mortar as described. The stone shall be well bonded with a minimum of one good bond or through stone evenly spaced to each square metre. All cavities and joints in stone work are to be filled in and flushed up solid with mortar.
D	Jointing and pointing is as detailed or instructed by the Project Manager or Architect.
	Precast screen and Louvre Block Walling
E	Precast concrete screen blocks shall be manufactured in concrete of 30.0N/mm2 strength using 10mm aggregate, the blocks shall be 390 and 190mm long x 190mm high and 150mm bed in accordance with detail drawing and finished fair on all surfaces and bedded, jointed and pointed in cement mortar with a neat flush joint.
F	Precast concrete louvre blocks shall be similar concrete, similarly jointed and pointed and constructed to detail drawing.
	Damp proof course
G	Damp proof course shall be hessian based bituminous felt to B.S. 743 type 5A laid on including a levelling screed of cement and sand lapped 230mm at joints.

Roofing

ITEM	DESCRIPTION
	Built-up Felt Roofing
A	The sub-base shall be thoroughly cleaned to remove all dirt, dust, loose material and grease and oil if any.
B	Cracks and depressions in the sub-base shall be filled with a mix consisting of one part Bitumen Emulsion Type 3 (As manufactured by Colas East Africa Limited or similar approved) and four parts of clean fine sand. The filling shall be allowed to thoroughly dry before the application of the roofing.
	Three Layer Roofing
C	The three layer roofing shall comprise two layers of self-finished glass fiber based felt to BS747:1977 Class 3B weighing not less than 2.8 kg per square metre laid with 50mm side and 75mm end laps, staggered, the layers bonded together with hot bitumen bonding compound as described in CP144: Part 3L1978 laid on and bonded as before to sub-base.
D	The horizontal surface of the roof shall be finished with 19mm grey granite chips laid shoulder to shoulder in hot bitumen dressing compound. The chippings are to be omitted in gutters and stopped short of edges and 300mm clear of rainwater outlets and at the bottom of angles fillets. No cutting back of the dressing compound will be permitted on site.
E	Vertical surfaces shall be finished with aluminum sun reflective paint applied strictly in accordance with the manufacturer's instructions
	Concrete Roofing Tiles
F	Concrete roof tiles and fittings shall be in accordance with BS 473, 550 Group B of an approved manufacturer.
G	Before delivering up the works, examine the roof coverings and leave the roofs clean and water tight and clean out all gutters and down pipes.
	<u>TiledRoof</u>
	Softwood Battens
H	Softwood battens shall be 50x38mm sawn cypress treated with preservative as specified under carpentry. Moisture content must not be more than 20% at the time of fixing. The battens to be set out to the gauge recommended by the tile manufacturer
	Polythene Underlay
I	Polythene underlay shall be to BS 3012 500 gauge of approved manufacture.
	Concrete Tiles
J	Concrete single-lap tiles and fittings shall be to BS 473 and 550: Part 2, Group B. The architectural design shows concrete tiles and the contractor shall endeavor to obtain tiles of good quality either from his manufacturer or other equal and approved. The colour and finish are to be given by the Architect before ordering. Tiles and fittings must be true to shape and when fractured the inside must show a uniform structure. A full range of fittings must be available from the manufacturer and must match the tiles with which they are laid.

Carpentry

ITEM	DESCRIPTION
	Terminology
A	All technical terms shall be in accordance with the Grading Rules as set out in legal Notice No. 358. The Export of Timber Rules 1964, operative from 1st April, 1965. Softwood grades refer to the Third Schedule and Hardwood grades to the Second Schedule.
	Timber generally
B	The timber for carpentry and joinery shall be as specified and obtained from an approved sawmill
C	The timber for carpentry shall be Second or Select Grade for Strength.
D	The timber shall be reasonably straight grained
E	All timber for the works is to be purchased immediately the Contract is signed and is to be opened stacked for as long as possible before use of kiln drying.
F	All timber as it arrives on the Site shall be inspected by the Architect, and any timber brought on to the Site and not approved must be removed forthwith
G	All timber and assembled woodwork shall be protected from the weather and stored in such a way as to prevent attack by termites, insects or fungi
	Species of Timber for Structural Work
H	The following softwoods shall be used for structural work; StandardCommonName — BotanicalName Pod — Podocarpus Cypress — Cuppressus Lasitanica
I	Both to be second strength grade P5 or equivalent. Whilst either timber is suitable, intermixing of species will not be accepted
J	The Contractor is permitted to propose substitute species but these shall not be used without the written approval of the Architect and no adjustment shall be made to the basic rates for softwood trusses in the event of a substitute species being accepted.
	Insect Damage
K	All timber shall be free from live borer beettle or other insect attack when brought upon the site. The Contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack of timber which becomes evident, including the replacement of timber attached or suspected of being attacked, notwithstanding that the timber concerned may have already been inspected and passed as fit for use.
	Seasoning of Timber
L	All timber shall be seasoned to a moisture content of not more than 18% of carpentry and 15% for joinery. The Contractor's price must include for any kiln drying that may be necessary to achieve these figures.

Carpentry

Carpentry (cont'd)

ITEM	DESCRIPTION
	Pressure Impregnation
A	The softwood described as pressure impregnated shall be treated with the 'Celcure A' or 'Tanlith C' full cell process. Timber must be seasoned to a moisture content not exceeding 25% before being treated. The treatment shall be to the minimum standard of: Solution concentration - 2% Absorption of preservative - 520 litres per cubic metre Net dry salt retention - 10.4kg per cubic metre.
B	Cut ends and faces of timber sawn, drilled and cut after treatment are to be swabbed liberally with approved preservatives until saturated, allowed to dry and then treated with a second coat and rates for timber must include for this. Approved preservatives are Atlas A, Brunophen No.2, Cuprinol Clear or Water Repellant Clear, Ensele Woodtreat 55.
	Inspection and Testing
C	The Architect shall be given facilities for inspection of all works in progress whether in workshops or on site. All timber as it arrives on the Site must be inspected by the Architect and any timber brought on to the Site and not approved by him must be removed forthwith, failing which he may arrange for the removal of the rejects and dispose of them as he may consider advisable at the Contractor's expense.
D	Notwithstanding approval having been given as above, any timber incorporated in the works found to be in any way defective before the expiry of the maintenance period shall be removed and renewed at the Contractor's expense. The Contractor is to allow for testing of prototypes of special construction units and the Architect shall be at liberty to select any samples he may require for the purpose of testing, i.e. for moisture content, or identification of species, strengths, etc
	Inspection and Testing
E	Where timbers need to be extended into a wall, they shall be thoroughly "brush treated" with Ensele in addition to preservative treatment as already described above, and as much clear air space maintained around the timber where it adjoins the wall as possible.
	Clearing Up
F	The Contractor is to clear out and destroy or remove all cut ends, shavings and other wood waste from all parts of the buildings and the site generally, as the work progresses and at the conclusion of the work.
	Workmanship
G	All carpentry shall be executed with workmanship of the best quality. Scantlings and boarding's shall be accurately sawn and shall be of uniform width and thickness throughout. All carpenter's work shall be left with sawn surfaces except where particularly specified to be wrought.
H	All carpentry shall be accurately set out in strict accordance with the drawings.
I	All structural timbers shall be framed or jointed together as is most appropriate in the circumstances in accordance with the rules of good practice. Joints must be executed in strict conformity with the drawings.

Carpentry (cont'd)

ITEM	DESCRIPTION
A	All joints shall be secured with a sufficient number of nails disposed as shown on the drawings and rates must include for the jointing of timber. Surfaces must be in good contact over the whole area of the joint before securing. Holes for nails must be pre-drilled undersize; holes for bolts must be bored slightly oversize from both sides of the timber and washers must be used under the nut which must be tightened sufficiently to permanently secure the joint but not to crush the timber.
B	Actual dimensions of scantlings for carpentry shall not vary from the specified dimensions by more than 3mm deficiency or excess, but must be uniform throughout. Boards 25mm thick or less shall hold up to the specified size. All timbers shall be as long as possible and practicable, in order to eliminate joints.
	Joints
C	All nails, screws, bolts, connectors etc. are to be as specified under "Metalwork" and as shown on the drawings.

Joinery

ITEM	DESCRIPTION
	General
A	The provisions contained in the Carpentry Section shall apply also to the Joinery Section where applicable.
	Species of Timber
B	The following timber of First or Prime Grade for appearance shall be used for Joinery Work in conjunction with the term "hard wood" or "approved hardwood":-
	StandardCommonName — BotanicalName
	Podo (for grounds, etc. only) — Podocarpus spp.
	African Mahogany — Khaya nyasica
	Generally
C	All joinery work shall be accurately set out on boards to full size for the information and guidance of the artisans before commencing the respective works, with all joints, iron work and other work connected therewith fully delineated. Such setting out must be submitted to the Architect and approved before such respective works are commenced.
D	All joinery work shall be cut and framed together as soon after the commencement of the building as is practicable, but not to be wedged up or glued until the building is ready for fixing same. Any portions that warp, wind or develop shakes or other defects within six months after completion of the works shall be removed and new fixed in their place together with all other work which may be affected thereby, all at the Contractor's own expense.
E	All work shall be properly morticed, tenoned, housed, shouldered, dovetailed, notched, wedged, pinned, bradded, etc., as directed and to the satisfaction of the Architect and all properly glued up with the best quality approved glue.
F	Joints in joinery must be as specified or detailed, and so designed and secured so as to resist or compensate for any stresses to which they may be subjected. All nails, springs, etc., are to be punched and puttied. Loose joints are to be made where provision must be made for shrinkage, with glued joints where shrinkage need not be considered and where sealed joints or where dry conditions may be guaranteed cassin or organic glues may be used. All exposed surfaces of joinery work shall be wrought and all arises "eased-off" by planning and sand papering to an approved finish suitable to the specified treatment.
	Dimensions
G	3mm reduction off specified sizes will be allowed for each wrought face except where described as (f) i.e. finished sizes in which case joinery shall hold up to the full dimensions. Dimensions of 25mm or less shall hold up to the specified sizes.
	Fixing Joinery
H	All beads, fillets and small members shall be fixed with round or oval brads or nails well punched in and stopped. All large members shall be fixed with brass screws, the heads let in and pellated to match the grain where natural finish timber is specified.

Joinery (cont'd)

ITEM	DESCRIPTION
	Mastic
A	Mastic where specified for bedding joinery, sills, water bars, etc., is to be approved non-hardening plastic, polysulphide synthetic rubber or butyl composition filler or sealer.
	Fibre-board
B	Fiberboard shall be "Celotex" or equal and approved.
	Plywood
C	Plywood shall be from an approved source and comply with B.S. 1455, first or second grade quality as required and unless otherwise stated shall be "interior" quality. Where veneered plywood is specified, samples must be submitted for prior approval. Where stated to be "exterior" quality, this shall be water proof (Bonding W.B.P).
D	Routine tests will be required from time to time to check the quality of manufacture. Plywood used in structural members shall be bonded with a suitable adhesive.
	Wood Veneer
E	Wood veneer for purpose veneered sheets is to be of the species and variety specified or shown on the drawings, not less than 1 mm thick and carefully matched for colour and grain to the approval of the Architect. Veneer is to be free from knots, pinholes, splits and other defects.
	Standard Hardboard
F	Standard hardboard shall be to B.S 1142: Part 2, Types of approved manufacture.
	Medium Board
G	Medium board shall be to B.S. 1142: Part 2 Type LM (Low density) of approved manufacture.
	Insulating Board
H	Insulating board shall be to B.S. 1142: Part 3 of approved manufacture.
	Chipboard
I	Chipboard shall be approved medium density resin bonded wood chipboard equivalent to B.S 2604 with sanded finish of thickness stated. Where faced with plastic sheeting the chipboard shall be counter balanced.
	Blockboard and Laminated Board
J	Blockboard shall be laminated board to B.S. 3444. Where faced with plastic sheeting the blockboard shall be counter balanced.
	Flush Doors
K	Flush doors shall be from an approved source and manufacturer, be solid core constructed generally in accordance with B.S. 459 finished with 6mm veneer plywood (to Architects approval) and lipped all round with hardwood 12mm thick. The thickness stated is the overall finished thickness.

Joinery (cont'd)

ITEM	DESCRIPTION
	Plastic Sheeting
A	Plastic sheeting shall be Formica or equal and approved laminated sheeting 1.5mm thick fixed with an approved adhensive. All colours are to be selected by the Architect.
	Plugging walls
B	All work described as plugged shall be fixed with brass screws to plugs formed by drilling concrete walls, etc., with a proper tool of suitable size at 500mm spacings and filling the holes completely with an approved proprietary plugging compound used in accordance with the manufacturer's instructions.
	Protect Joinery
C	All fixed joinery which, in the opinion of the Architect is liable to become bruised or damaged in any way shall be completely cased and protected by the Contractor until the completion of the works.
	Bottom Edges
D	Bottom edges of doors shall be painted one coat of approved primer before fixing.
	Mosquito Screening
E	Mosquito screening shall be "Alcad" or equal and approved aluminum fine wire mesh screening.
	Bird Screening
F	Bird screening shall be approved galvanized coffee tray wire.
	Softboard
G	Soft board shall be to B.S. 1142: Part 3.

Ironmongery

ITEM	DESCRIPTION
A	All ironmongery shall be fixed with screws to match. Before the woodwork is painted, handles shall be removed, carefully stored and refixed after completion of painting, and locks oiled and left in perfect working order. Prices for fixing locks must include for organizing master keying system if required and all keys shall be labelled with door references marked on approved labels before handing to the Project Manager on completion.

Metal Work

ITEM	DESCRIPTION
	Mild steel
A	Mild steel shall comply with B.S 4 3 6 0 , Grade 1 and the sizes of all small sections shall be in accordance with B.S 4 and 4A.
	Galvanised Work
B	Iron and steel, where galvanised, shall comply with B.S. 729, Part 1, entirely coated with zinc after fabrication by complete immersion in a zinc bath in one operation and all excess carefully removed. The finished surface shall be clean and uniform.
	Aluminium
C	Aluminium shall be of the alloys described in and shall comply with B.S 1470. Aluminium sheet for flashings shall be soft-temper, super purity (SI or S1A) and not less than 20 S.W.G. (0.9mm) in thickness.
	Smithying, Shearing and Cutting
D	All smithying, welding, cutting and bending shall be soundly and neatly executed, care being taken not to overheat. All flame cut edges and welds shall be neatly ground off on completion.
	Bolts
E	Mild steel bolts, nut and washers shall comply with B.S 916 for black bolts with hexagonal heads and nuts. High tensile steel bolts and nuts shall be in accordance with B.S. 3139, Part II.
	Anchor Bolts
F	Anchor bolts in concrete for steelwork, etc., are to be self-drilling anchor bolts of one of the following types:- i. Phillips's redhead concrete anchors ii. Rawlplug super drilanchor iii. Spit self-drilling anchors
G	Rates are to include for fixing complete with washer. Mortices in concrete have not been measured for this item.
	Aluminium Windows and Doors
H	Materials, fabrication and detailed design to B.S. 4873 and of approved manufacture.

Metal Work - Standard Units

ITEM	DESCRIPTION
	Materials and Sundries Generally
A	Materials and sundries generally are specified in metalwork.
	Components
B	Do not deliver to site any components which cannot be unloaded immediately into suitable storage conditions.
	Unload and Handle
C	Unload and handle components in accordance with manufacturer's recommendations. Do not damage or distort.
	Fireproof Doors and Shutters
D	Provide evidence that doors and shutters specified as fireproof or fire resisting met the specified standard of fire resistance.
	Steel Casement Windows and Doors
E	Steel casement doors and windows to B.S. 990: part 2, but with red oxide dipped finish unless galvanising is specified. Obtain from an approved manufacturer. Windows and doors have to be complete with lugs, fixing screws, hinges and brass handles. Windows are to be fitted with stays and doors with bolts, turnbuckles and mortice locks. Provide glazing cleats or clips.
	Shop Inspection
F	The Project Manager shall be granted full facilities and any necessary assistance for inspection of materials and assembled parts in the Contractor's (or his sub-contractor's) workshops. At least two weeks' notice shall be given to the Architect in writing prior to the despatch of finished components to the site to enable the Architect to inspect and approve the materials and workmanship at the workshops. Approval of work at the workshop does not relieve the contractor of his obligations to carry out the work complete at the site to the Architect's satisfaction in accordance with the contract.
	Marking
G	All components delivered to the site are to be marked in paint with the mark number in accordance with any shop and erection drawings.
	Storage
H	All components are to be stored at site on proper racks provided for the purpose which provide full support to each member and to obviate any deflection and distortion. Steelwork is to be stored at least 25cm clear of ground and temporary protection is to be provided for protection against water and damage from any other source.
	Erection
I	Rates for all metal work are to include for the complete erection including any temporary supports required and any necessary templates and wedges.
	Painting
J	All steel is to be thoroughly de-rusted and de-greased prior to dispatch to the size and is to be given one coat zinc chromate primer at the works. Further painting treatment will be carried out at the site. Painting is measured separately and the cost thereof is not to be included in the rates for metal work.

Plumbing and Engineering Installation

ITEM	DESCRIPTION
A	Execution of the Works The work shall be carried out strictly in accordance with: - a) 'British Standard Code of Practice' C.P. 310:1965: Water supply b) 'British Standard Code of Practice' C.P. 1968: Sanitary Pipework above the ground. c) All other relevant British Standard Specifications and Codes of Practice. d) By-Laws of the Local Authority e) The working drawings.
B	Extent of Work The contractor will be responsible for all below ground plumbing and drainage work, the installation of sanitary fittings, waste soil and vent pipes and hot and cold-water pipes as detailed on the Services Engineers drawings.
C	Quality of Materials and Workmanship All materials, equipment and accessories are to be new and in accordance with the requirements of the current rules and regulations where such exist, or in their absence with the relevant British Standard Specification.
D	Uniformity of type and manufacture of equipment or accessories is to be preserved as far as practicable throughout the whole work.
E	The contractor shall, if required by the Architect, submit samples of materials to the Architect for his approval before placing an order
F	If in these Preambles the practice is adopted of specifying a particular item is "similar" to that of a particular firm's product, it is to be clearly understood that this is to indicate the type and quality of the equipment required. No attempt is being made to give preference to the equipment supplied by the Firm whose name or products is quoted.
G	Where particular manufacturers are specified herein, no alternative makes will be considered, and the Architect shall be allowed to reject any other makes.
H	The contractor will be entirely responsible for all materials, apparatus, equipment, etc., furnish by him in connection with his work, and shall take all special care to protect all parts of finished work from damage until handed over.
I	The work shall be carried out by competent workmen under skilled supervision. The Architect shall have the authority to have any of the work taken down or changed which is executed in an unsatisfactory manner.
J	Galvanized Steel Tubes and Fittings Galvanized steel tubing shall comply with B.S. 1387 with plain galvanized malleable fittings complying with B.S 143/1256.
K	Tubes and fittings shall be joined by means of screwed threads to B.S. 21, by means of P.T.F.E. tape or hemp and "Boss white". All joints shall be perfectly smooth inside without excrescences.

Plumbing and Engineering Installation (cont'd)

ITEM	DESCRIPTION
A	Galvanized water mains below ground level or below slabs shall be double wrapped in "Denso" tape.
	Brass work
B	Stop valves shall comply with B.S 1010 and shall be with crutch handles or loose keys were described on the drawings. Draincocks shall comply with B.S. 2879.
	Testing
C	Upon completion the whole of the water main shall be tested to a pressure not less than twice the working pressure for a period of thirty minutes.
	Notwithstanding the foregoing clauses, all water mains and fittings and installation thereof shall be complete with the requirements of the Water Supply Authority.
	Sanitary and other Appliances
D	The appliances shall be fixed in the positions shown on the drawings or as described by the Architect.
	The Contractor shall include in his rates for providing all necessary screws, bolts, etc., together with all jointing material required and also for temporarily erecting and securing fittings in the required position of service and discharge pipes, taking down, storing and fixing after completion of wall finishings permanently fixing and connecting to service and discharge.
E	Care shall be taken at all times and particularly after fixing, to protect appliances from damage.
	Upon completion of the work, all appliances shall be cleaned of plaster, paint, etc., and carefully examined for defects.
	Fire Fighting Equipment
F	The specified firefighting equipment shall be supplied and installed by the Contractor in the positions shown on the drawings.
	Portable fire extinguishers shall comply with the following British Standards:
	a) Water type (soda acid): B.S. 138:1948
	b) Foam type (Chemicals): B.S. 740: Part 1:1948
	c) Foam type (gas pressure): B.S. 740: Part 2: 1952
	d) Water type (gas pressure): B.S 1382: 1948
	e) Carbon tetrachloride and Chloromethane: B.S. 1721: 1960 f)
	Carbon Dioxide type: B.S 3326:1960
	g) Dry powder type: B.S. 3465: 1962
	h) Water type (stored pressured): B.S. 3709: 1964 h)
G	Fire hose couplings and ancillary equipment shall comply with B.S. 336: 1965 rubber reel hose shall comply with B.S. 3169:1965.
H	Underground fire hydrants and surface box openings for same shall comply with B.S. 750: 1964.
I	The installation of hydrants and fire extinguishers shall be in accordance with C.P. 402:101:1952 and C.P. 402: Part 3: 1964 respectively.
J	If nothing else is specified, fire extinguishers and hose reels shall be supplied in the colour "fire red" and be similar to manufacture "ANGUS".

Floor, Wall and Ceiling Finishes

ITEM	DESCRIPTION
	Sand
A	Sand for backings, floor and wall finishes is to comply with B.S. 1199, Table 1.
	Cement
B	Cement is to be as described for "Concrete Work"
	Lime
C	Lime is to be non-hydraulic hydrated lime to B.S. 890 Class "A" obtained from an approved source and run into putty at least 24 hours before use.
	Workmanship
D	All concrete beds or slabs shall be thoroughly brushed clean, hacked if necessary and well wetted and flushed over with a cement and sand (1:1) grout immediately before screeds or pavings are laid.
E	Screeds and cement pavings shall be laid in accordance with the relevant B.S Code of Practice. Working joints between bays of the floor finish should be placed in accordance with the Architect's instructions and will be plain butt joints placed over joints in the concrete bed under. Paving should be damp cured with sand or sawdust and kept damp for at least 7 days after laying.
F	All surfaces to be plastered or rendered must be brushed clean and well wetted before plaster is applied. Joints of walling shall be raked out and concrete hacked to form a key. Care shall be taken to see that paving and plastering do not dry out prematurely.
G	Adequate time intervals must be left between successive coats in two-coat work in order that the drying shrinkage of the undercoat may be substantially complete. All internal and external angles shall be pencil rounded.
	In-Situ Pavings Generally
H	Before laying in-situ floor finishes, the concrete beds are to be thoroughly hacked for key, cleaned off, thoroughly wetted with clean water and coated with stiff cement slurry and rates for screed, granolithic and terrazzo paving are to include for this. They are also to include for all necessary curing and protecting until the building is handed over.
	Cement and Sand Paving
I	The cement and sand paving shall be in the proportions of 1:4 by volume and incorporating or treated with an approved hardener.
	Polished granolithic paving
J	The aggregate for granolithic paving will be in accordance with B.S 1201 and shall be mixed in the proportions of 1:1:11/2 cement, fine and coarse aggregate respectively. The mix shall incorporate an approved hardener suitable for incorporation and not for surface treatment. The water cement ratio shall be kept as low as possible and shall not in any case exceed 0.45. The paving is to be laid to the full thickness described and to be finished with a wood float and with no extra cement trowelled into the surface which is to be laid true and level. The paving is to be thoroughly cured after laying by covering with polythene sheeting and periodically watered to keep it moist for at least one week after laying. The surface is to be polished with approved rotary carborundum discs mechanically operated coarse and fine grain and with cement and sand slurry to produce a blemishfree surface.

Floor, Wall and Ceiling Finishes (cont'd)

ITEM	DESCRIPTION
A	The granolithic shall be laid in bays not exceeding 3.50 square metres with ebonite dividing strips for the full depth of the paving and shall be executed by specialists who have a thorough knowledge of the work.
	Polished terrazo paving
B	The in-situ terrazzo shall consider of white or coloured and marble aggregate the colours of the cement and aggregate shall be selected by the Architect. The mix shall comprise three parts of 6mm nominal aggregate to one part coloured cement by volume. The aggregate shall be clean and granular and shall not contain flakey particles of dust. The underbed shall be cement and sand 1:4 by volume.
	The terrazzo shall be laid in bays not exceeding 3.50 square metres with ebonite dividing strips for the full depth of the terrazzo and underbed, and shall be executed by specialists who have a thorough knowledge of the work.
C	The terrazzo topping shall be laid to a minimum of 12mm thickness in a plastic condition while the underbed is still green and this should be watered to minimise absorption from the topping. The terrazzo must be well tamped into position and rolled with a suitable hand roller. The topping should be allowed to take an initial set and then any surface voids must be grouted up with neat cement of the same colour used in the mix. The surface should be cured by keeping moist by covering with damp sacking for at least 72 hours. When dry and hard, the surface shall be machine polished by grinding with carborundum or other stone disc of suitable grade and with rotary polishing pads.
D	Rates must include for all necessary protection until the building is handed over to the architect. The depths sated are for the full depths including topping and underbed.
	P.V.C Flooring and Skirting
E	P.C.V floor tiles shall comply with B.S 3260. The tiles and accessories shall be supplied in the sizes and thickness specified in colours selected by the architect and are to be fixed to the screed base with a suitable adhesive supplied or recommended by the manufacturer and used in accordance with his instructions. Rates for floor tiles shall include for thorough washing and cleaning on completion and for the application of one coat of water-based wax polish.
	Brushed terrazo rendering
F	Brushed terrazzo rendering is to comprise two coats as described. The under coat shall consist of cement and sand mixed in the proportion of 1:4 by volume and applied to a minimum thickness of
	10mm finished with a wood float and scratched to provide key for two coats. The finishing coat shall consist of one-part white cement to two parts marble chippings. Of approved size applied to a minimum thickness of 10mm and the final surface wet brushed to expose the aggregate.
G	The contractor will be required to produce a sample panel of rendering onsite for the approval of the architect.
	Internal plaster
H	Internal plaster shall be applied in two coats and adequate time intervals must be allowed between successive coats in order that the drying shrinkage of the undercoat may be substantially complete. The first coat must be well scratched, keyed ad wetted to receive the finishing coat. The finished coat shall be finished smooth with a steel float but care must be taken not to overwork the surface in order to minimize the incidence of shrinkage cracks. All internal and external angles shall be pencil rounded.
	Internal plaster, unless otherwise decribed, shall be lime plaster of 12mm minimum overall finished thickness applied in two coats, the first coat consisting of cement. Lime putty and sand mixed in the proportion of 1:2:9. the finishing coat shall be a skin coat comprising cement and lime putty in the proportion of 1:1

Floor, Wall and Ceiling Finishes (cont'd)

ITEM	DESCRIPTION
A	Cement plaster is to be employed where specified on the drawings and is to be applied in two coats of approximately equal thickness to a total of 12mm minimum overall finished thickness. The composition of both coats shall be the same and shall comprise cement and sand 1:3 but a small percentage addition not more than 10% lime putty may be permitted if the architect considers that this will reduce the incidence of shrinkage cracks.
B	The contractor shall cut out and make good all cracks, blisters and other defects and leave the whole of the plastering and rendering perfect at completion. When making good defects the plaster shall be cut out to a rectangular shape with edges undercut to form dovetailed key, and all finished flush with the face of surrounding plaster.
	Wall tiles
C	Glazed wall tiles shall be from an approved manufacturer and shall conform to the requirements of B.S 1281. Tiles shall be white with slightly rounded or cushion edges and unless otherwise specifically described shall be size 150x150x6cm thick. Tiles shall be laid with continuous straight joints and internal angles shall be butt jointed. Rounded on edge tiles shall be used at all external angles and at edges of panels. Tiles shall be bedded in approved tile adhesive and pointed in white cement.
D	Backing to tiles is to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 12mm trowelled smooth. Backings have been measured separately.
	Concrete Tiles
E	Concrete tiles for finishing the roofs shall be 25mm thick of natural colour with bevelled top or rised on all sides and shall comply with B.S1197. The tiles shall be laid to regular pattern with open joints. Care shall be taken to ensure that the surface levels is even and follows accurately the levels of the roof finish. All cement stains shall be carefully removed.
	Precast Concrete Paving Slabs and Kerbs
F	Precast concrete paving slabs shall comply with B.S 368. Precast concrete kerbs shall comply with B.S 340 figures 5 and shall be finished true and smooth on all exposed faces.
G	Precast pavings shall be bedded on a compacted sand bed with 6mm wide joints filled and pointed with cement mortar colored to match the color of the slabs. The paving's shall be finished true and even and to the falls shown with no surface irregularities.
	Dividing Strips
H	Dividing strips shall be plastic or aluminum size 20x30mm.
	Parquet Floor
I	Parquet floor shall be in paper backed hardwood blocks of narrow strips of approved hardwood size 150x150x10mm. A sample must be submitted and approved by the architect. The adhesive used in fixing must be of the type and KSHS recommended by the manufacturer. Parquet floor tiles must be laid in pattern by the architect.
J	The tiles must be properly sanded and finished with three coats of two pack polyurethane of approved manufacture carefully applied to thoroughly prepared and perfectly clean surfaces. The surface shall be protected from all traffic dust until dry.

Floor, Wall and Ceiling Finishes (cont'd)

ITEM	DESCRIPTION
	Tyrolean Rendering
A	The whole of the tyrolean rendering finish shall be executed strictly in accordance with the spraying machine manufacturer's printed instructions.
B	Tyrolean rendering shall be in three coats. The first coat shall be 10mm thick and consist of a mixture of one part of cement with 10% lime added by volume of four parts sharp sand applied direct by means of a trowel and brought to a level surface with a straight board or rule.
C	The two finishing coats shall be applied with tyrolean spraying machine and shall consist of white 'colourcrete' or other equal and approved and sand, the proportions of which vary with the fineness of the sand and shall be ascertained by trial. Only sufficient shall be mixed as can be used in an hour.
D	The finish shall be built up in three layers to a total thickness of 15-20mm to give the approved honeycomb texture.
	Glazing
E	Glass generally shall comply with the requirements of B.S 952 and shall be free from bubbles, specks, waves, flows or any other defects.
F	Clear sheet glass shall be 24 or 32 or 3or 4mm nominal thickness flat drawn sheet of ordinary glazing KSHS.
G	Glass for louvre blades shall be clear sheet flat drawn or rough cast obscured rolled glass 3/16 5mm thickness with all exposed edges ground and polished.
H	Wired wrought cast glass unless otherwise specified to be 12.5mm square pattern, 6mm thick, with wires straight one way to approval. Glass for mirrors shall be 1/4 6mm clear plate glass, silvering KSHS.
	Putty
I	The putty shall be hard setting tropical putty to B.S 544 except where otherwise specified.
	Workmanship
J	All glass is to be accurately cut to fit easily into rebates with a tolerance of 2 mm all round. It is to be well puttied at the back and to be prigged with non-ferrous pins. The putty is to be neatly trimmed and cleaned off and care must be taken that it does not show beyond the sight lines of the slashes. All rebates must be treated with one coat of lacquer prior to glazing.
	Cleaning and protection
K	The contractor must allow in his rates for the protection of all work in this section and for replacing any cracked, scratched, broken or defective glass prior to handing over. He must also allow for cleaning all the windows inside and out and other glass on completion with an approved window cleaner and wash later and for removal of all paint splashes.

Painting

ITEM	DESCRIPTION
	Generally
A	The contractor shall so arrange his programme of work that all other trades are completed and away from the area to be painted when painting begins. Before painting, the contractor shall remove all concrete mortar droppings and the like from all work to be decorated and remove all stains therefrom and obtain uniform colour to work be oiled and polished.
B	All plaster, metal, wood and other surfaces which are to receive finishes of paint, stain, distemper or paintwork of any description are to be carefully inspected by the contractor before allowing any of his painters to commence work.
C	The contractor shall be solely responsible for all defective work commenced as a result of his painter's failure to insist on receiving from other trades surfaces in the proper condition to allow first class finishes of the various kinds specified being applied to them.
	Materials
D	All materials shall be the best of their respective kinds and shall be of an approved proprietary brand. Materials to be applied externally shall be of exterior KSHS and /or recommended by the manufacturers for external use.
	Approved paints.
E	All paints shall be obtained from the same manufacturer, and may be one of the approved paints listed in the following schedules or other such paints and manufacturer approved by the Project Manager.
	EnamelPaints
	Name — Manufacturer
	Lilac superfine — Leyland paint Varnish Co. E.A Ltd.
	Robbialac coloriser enamel — Robbialac Ltd
	Sadolux synthetic enamel — Sadolins Paints K Ltd
F	All the above are to be used in conjunction with the manufacturer's approved undercoats.

Drainage

ITEM	DESCRIPTION
	Cast Iron Drains
A	Cast iron drains fixed to walls or beams shall be supported on brackets at 1350mm centres.
B	Gullies, outlets, etc., or drains under concrete floors shall be set in position at correct levels before the floors are laid.
	Concrete Drains
C	Concrete drains shall be jointed with one turn of tarred gaskin, well caulked and the remainder of the socket filled with cement and sand (1:3), finished with an angle fillet around the pipe. All surplus mortar shall be removed from the inside of the pipe with a badger. Where pipes are sulphate resisting, the jointing mortar shall contain sulphate resisting cement.
	Concrete Drains
D	Where specified or shown on drawings, drains shall be laid on concrete, (Grade D-40mm aggregate), beds 100mm thick, 400mm wide for 100mm diameter drains and 450mm wide for 150mm diameter drains. The concrete shall be haunched up both sides of the barrel to give lateral support.
E	Where drains, other than cast iron drains, are laid under buildings or pavings carrying vehicular traffic, they shall be completely surrounded in concrete, (Grade D – 40mm aggregate), 150mm thick, (i.e. 400mm x 400mm overall for 100mm pipes and 450mmx450mm overall for 150mm pipes). Where directed, drain beds shall be reinforced.
F	Gullies shall be bedded and surrounded in concrete Grade D – 40 mm aggregate minimum 150mm thick all round.
	Sleeves
G	All drains passing through walls foundations shall have sleeves of cast iron pipe of sufficient size to allow a clearance round the drain.
	Benching
H	Benching in bottom of manholes shall be concrete Grade C- 40mm aggregate) to falls of not less than 10° to channels finished with cement and sand (1:2), 25mm thick, troweled hard and smooth with all angles rounded
	Bedding and sealing covers and frames
I	Frames to manhole cover shall be bedded in cement mortar (1:3), and the covers in grease and sand.
	Testing
J	All drains and manholes shall be tested for water-tightness and straightness to the satisfaction, and in the presence, of the Architect, and the Local Authority. Drains shall be filled with water to a head of 1.50 metres and to be tested in sections agreed with the Architect: - i) after jointing ii) after haunching and backfilling iii) after completion of the works

Drainage (cont'd)

ITEM	DESCRIPTION
	Clean and Flush all drains
A	All drains, gullies, manhole, etc., shall be cored, cleaned and flushed on completion.
B	The Contractor shall provide all necessary testing apparatus and shall carry out such other tests as are required by the Architect and the Local Authority.
	Method of Measurement
C	Where not otherwise stated, the starting level for trench and manhole excavation shall be:- i) the formation level in areas where the site is excavated to reduce levels. ii) existing ground level in areas where no excavation is required, or where filling is required.
D	The depths of the trenches in the following description lie within the same 1.50 metre stages as the average depths stated.
E	Prices for excavating pipe trenches shall be deemed to include keeping them free from general water (i.e. all water except spring or running water.)
F	Notwithstanding the provision of SMM Clause V.7 (a) to (c) the descriptions of excavating manholes, yard gullies, septic tanks and soak pits shall be deemed to include grading bottoms, planking and strutting, return filling and compacting, disposal of surplus soil and keeping excavation free from water.
G	Prices for building pipes into manholes shall include for building-in on rake where necessary.
H	Prices for concrete beds, benching and coverings for pipes laid in trenches, shall be deemed to include for any necessary formwork. Formwork required for beds, etc., for pipes above ground, and for casing to vertical pipes, is referred to in the descriptions of such items.
I	Prices for all gullies shall be deemed to include for all necessary excavation, return filling, disposal of surplus excavated material, planking and strutting, and trimming and ramming bottoms.

External Works

ITEM	DESCRIPTION
	Preambles to other Bills
A	The preambles contained in other sections of this document shall apply equally to this section so far as is consistent with the following clauses.
	Materials
	Soil for Planted Areas
B	Soil for planted areas shall be vegetable soil free from roots and rubbish and treated with weed killer to prevent the growth of weeds.
	Sand for Filling under Footpaths
C	Sand for filling under footpaths shall be clean, dry, pit or river sand, free from vegetable soil, roots and rubbish.
	Crusher Dust for Sub-base Course for Macadam Paving
D	Crusher dust shall be from an approved source and be free from clay or other deleterious matter.
	Stone for Base Course to Macadam Paving
E	Stone for base course to macadam paving shall be 40mm gauge, clean and hard, and free from clay or other deleterious matter.
	Blinding for Stone Base Course
F	Blinding for stone base course shall be 4mm gauge hard stone chippings, free from clay, dust or other deleterious matter.
	Precast Paving Slabs
G	Precast paving slabs shall comply with B.S 368 except for sizes.
	Kerbs
H	Precast concrete kerbs shall comply with B.S 340, and shall be finished true and smooth on all exposed faces.
	Prime Coat for Macadam Paving
I	The prime cost for macadam paving shall be bitumen grade M.C.I.
	Bitumen for Surfacing
J	The bitumen for surfacing shall be made 500/700 grade bitumen.
	Generally
K	The sub-grade, sub-base and base courses for roads and parking area shall be prepared and laid at a convenient time before completion of the contract, as shall be agreed between the Architect and the Contractor, together with their kerbs and foundations.
L	The wearing course shall be applied at a later date, and prior to laying, the base course shall be made good in accordance with the requirements specified herein. The contractor shall make good at his own expense any damage to kerbs.

External Works (cont'd)

ITEM	DESCRIPTION
	Surveying
A	The Contractor shall verify all dimensions and levels prior to the commencement of the work.
B	All surveying necessary for the accomplishment of the work shall be done by the Contractor at his own expense, and he shall give notice of his intention to carry out such work in order that arrangements can be made for supervision and checking. The Contractor shall also provide, without extra charge, all necessary instruments, appliances, labour and any other materials required for checking the survey work.
C	The Contractor shall make all necessary surveys using given bench marks as reference points. These bench marks he shall carefully preserve.
D	The Contractor shall draft, in accordance with these surveys, all plans and drawings which are necessary for the completion of the work, and submit these plans and drawings to the Architect for approval in writing.
	Levels, Falls, Crossfalls and Cambers
E	The works shall be executed to the levels, falls, crossfalls and cambers shown on the drawings.
	Accuracy
F	The Contractor shall be responsible for ensuring that the works are carried out to the lines, levels and dimensions shown on the drawings, and shall provide camber gauges and straight edges for checking to ensure that the surfaces are within the following tolerances: - a) Sub-grade – The camber or crossfall shall not vary more than 20mm from shown on the drawings. In the longitudinal direction the variations from a 3 metre straight edge placed parallel to the centre line of the road shall not exceed 12mm. b) Base - The camber or crossfall shall not vary more than 12mm from that shown on the drawings. The variation on the longitudinal section shall be as above for sub-grade.
	Sub-grade
G	The sub-grade shall be shaped to the required falls and cambers and any depressions filled with approved materials having a minimum C.B.R. of 8 percent. This value shall be obtained at optimum moisture content and compacted to 100 percent of the maximum dry density as determined by B.S 1377. The Contractor shall carry out standard compacting tests on the sub-grade in accordance with Test No. 10 of B.S. 1377. Such tests shall be taken at 30 metre intervals. The standard of compaction required shall be 98 percent of the maximum dry density as determined by Test No.9 of B.S. 1377.
H	The sub-grade shall be approved by the Architect before any materials to be used in construction of the carriageway are deposited or laid.
	Sub-base course
I	The sub-base shall consist of a layer of stone in which the interstices shall be filled by the application of crusher fines after the stone is in place, to finish to the thickness specified after compaction. The base course shall not be blinded with crusher fines, but with 4mm gauge stone chippings to provide a clean hard surface. If any irregularities develop, they should be corrected by loosening the material at these places and adding or removing material and re-compaction until the surface is smooth and uniform with no irregularities.

External Works (cont'd)

ITEM	DESCRIPTION
	Application of Bitumen
A	The plant used by the contractor for transporting, heating, and spraying bitumen shall be in suitable rubber-tyred units and shall ensure adequate and uniform heating without the introduction of steam or moisture, and giving rise to the coking or burning of the bitumen, and shall be fitted with a thermometer and heating control. Distributors shall be equipped to provide a constant rate of application per square metre of surface and there shall be visible speedometer indicating the speed of the vehicle in metre per minute.
	Spray bars shall be capable of spreading the bitumen evenly to the full width of the work. The bitumen shall be heated to the temperature specified below and sprayed on the clean surfaces of the base at the rates specified.
B	Application temperatures shall be in accordance with those recommended by the manufacturer, or where this information is not available, they shall be as follows: - BitumenGrade — SprayingTemperature;oC M.C.I — 54-80 500/700 — 124-149
	Prime Coat
C	Prior to the application of the prime coat, the surface of the base shall be swept clean of dust and foreign materials to the satisfaction of the Architect. Approximately 30 minutes before applying the bitumen the surface of he base shall be lightly sprayed with water.
D	The prime coat shall be applied at the rate of 0.70 litres per square metre.
	Wearing Course
E	After application of the priming coat, and were directed and approved by the Architect, the Contractor shall lay bitumen type 500/700 spread at the rate of 3 square metres per 5 liters immediately followed by spreading dry, clean approved 12 mm chippings at the rate of 130 square metres per cubic metre, rolled six to eight passes of a six to eight tonne roller. A second and similar surfacing layer shall be laid at the end of the defect's liability period.
F	Alternatively, where specified, the wearing course shall consist of a premix macadam carpet of 500/700 grade bitumen and approved quality aggregate graded and mixed together prior to laying in the proportions and by the methods given in B.S 1621 table 4, laid to finish to the thicknesses shown after compaction. The compaction shall be achieved with six to eight passes of a six to eight tone roller
	Wet Weather
G	No bitumen spraying shall be carried out when either the carriageway surface or the aggregate are wet, without the prior approval, in writing of the Architect who may allow such work to proceed by the use of an approved adhesive agent at the Contractor's expense.
	Murram Roads
H	Murram roads shall be laid in layers not exceeding 150mm compacted thickness, to finish compacted to the thicknesses shown on the drawings.
I	Each layer shall be watered, rolled and compacted as previously described herein to produce a smooth dense surface free of all irregularities.

External Works (cont'd)

ITEM	DESCRIPTION
	Laying Precast Paving Slabs
A	Precast paving slabs shall be bedded on a sand bed compacted to the thickness specified with 6m wide joints, filled and pointed with cement mortar colored to match the color of the slabs and recessed 5mm deep. The paving shall finish true and even to the falls shown on the drawings with no surface irregularities.
	Grassing
B	Grassing shall be carried out by a specialist using approved local grass, Prices for grass shall include for tending, watering, cutting and keeping weed free for a period of twelve months, to produce a dense and healthy weed free grass carpet.
	Concrete Posts and Struts
C	Concrete posts and struts shall be to B.S. 1722 Part 1 Appendix manufactured generally as specified in Precast Concrete Units. Concrete posts and struts for chain link fences shall be to B.S. 1722 Part 1 Table 3.
	Wires
D	Galvanised line wire and tying wire for chainlink fencing shall be to B.S 4102.
	Galvanized Chainlink
E	Galvanised chain link shall be to B.S. 4102 Table 6 of the pattern specified and of 50mm mesh.

Pricing of Preambles Clauses

ITEM	DESCRIPTION	AMOUNT (KES)
	Pricing of Preambles Clauses	
A	If, in the opinion of the Tenderer, any clause in the foregoing Preambles has a monetary value requiring pricing then he is required to list all such items below using the page and item reference and insert the price in the money column, carrying the total amount for the section to the Main Summary	
	TOTAL FOR SPECIFICATIONS CARRIED TO GRAND SUMMARY	

Bill 1: *Market Sheds*

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMNT01-SUBSTRUCTURE (ALL PROVISIONAL) Works up to and including the ground floor slab;				
	Site clearance				
A	Clear the site of all bushes, grass, shrubs, undergrowth and small trees not exceeding 600mm girth and burn arising.	SM	404		
B	Cut down trees; 600-900mm girth, including cutting of trunks, branches, grubbing roots and remove stumps and burn arising	No	9		
	Excavation				
	Excavation including maintaining and supporting sides and keeping free from water, mud and falling materials; No allowance is made in the excavations for working space; contractor to factor in working space in his rates.				
C	Excavating oversite to remove top vegetable soil average 150mm deep; disposing off site average 50m away from excavations	SM	404		
D	Excavate trenches for strip foundations; not exceeding 1.5m deep from reduced level	CM	124		
E	Excavate pits for column bases; not exceeding 1.5m deep from reduced level	CM	42		
	Dewatering				
F	Allow for keeping the excavations free f r o m all w a t e r including spring and running water	Item			
	Planking & Strutting				
G	Allow for planking and strutting sides of excavations and keeping excavations clear of all fallen material, rubbish, etc	Item			
	Disposal				
H	Return, fill-in and rum selected excavated material.	CM	100		
I	Load and cart away from site surplus excavated material as directed.	CM	66		
	Imported Fill				
J	300mm thick hardcore fill in making up levels, deposit and compacting in layers of 150mm maximum thickness	SM	358		
K	50mm thick stone dust blinding to surfaces of hardcore fill	SM	358		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK				
	ELEMNT 01 - SUBSTRUCTURE (cont'd)				
	Waterproofing				
A	1000-gauge polythene laid on murram blinding	SM	404		
	Anti-termite treatment				
B	TERMIDOR' or other equal and approved insecticide with a ten-year guarantee to surfaces of fill, top of walls & excavated surfaces	SM	570		
	Insitu Concrete				
	Mass concrete class Q (1:3:6):				
C	50mm thick blinding mass concrete to bottoms of foundations & column bases	SM	166		
	Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-				
D	Foundation strips	CM	28		
E	Column bases & sub-columns	CM	10		
F	Ground beam	CM	16		
G	150mm thick floor base slab	SM	404		
	Reinforcements				
	High yield deformed steel bars; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks - *Reinforcements allowed for as 100kgs/CM of concrete*				
H	12mm diameter bars	Kg	1444		
I	10mm diameter bars	Kg	1050		
J	8mm diameter bars	Kg	508		
	Steel mesh fabric reinforcement to B.S. 4483				
K	Reference A142 mesh 200 x 200 mm, weighing not less than 2.22 kgs per square metre (measured net - no allowance made for laps) including tying wire and distance blocks	SM	404		
	Sawn formwork to insitu concrete as described: -				
L	To sides of strip foundations, column bases, sub-columns & ground beam	SM	316		
M	Edges of ground floor slab; 75-150mm high	LM	228		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMNT 01 - SUBSTRUCTURE (cont'd)				
	Walling *Natural stone wall; jointed and bedded in cement:sand (1:3) mortar; with and including 20swg hoop iron in every alternate course:*				
A	200mm thick; foundation walling below floor slab (m.s.)	SM	304		
	Plinth finish				
B	Cement:sand (1:4) render; 15mm thick	SM	102		
C	Black bituminous paint to rendered surfaces; two coats	SM	102		
	Expansion Joints				
D	20mm thick expansion joint with "bituminious" joint filler or equally approved; including approved sealant; at 3.0m intervals; including all necessary formwork; hack surface for adhesion; all to Engineer's satisfaction	LM	150		
	Carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw3/1*				
2	Total brought down from page *Mkw3/2*				
3	Total brought down from above				
	TOTAL FOR SUBSTRUCTURE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 02-RCSUPERSTRUCTURE				
	Insitu Concrete				
	Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-				
A	Beams	CM	2		
	Reinforcements				
	High yield deformed steel bars; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks - *Reinforcements allowed for as 100kgs/CM of concrete*				
B	12mm Diameter bars	Kg	118		
C	8mm Diameter bars	Kg	68		
	Sawn formwork to insitu concrete as described:-				
D	Sides of beams	SM	20		
	TOTAL FOR RC SUPERSTRUCTURE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 03-GOODSDISPLAYCOUNTERTOPS				
	Walling *Concrete blockwork, bedded and jointed in cement:sand (1:3) mortar with 20gauge; 25mm wide hoop irons in alternate courses;*				
A	100mm thick walling	SM	64		
	Precast concrete louvre blocks *Suppy, assemble and fix purpose-made 225x150mm precast concrete louvre blocks with top lintel; laid in cement:sand (1:3) mortar as per Architect's detail and approved sample*				
B	Opening size; 1800 x 650mm high	No	32		
C	Opening size; 900 x 650mm high	No	32		
	Insitu Concrete *Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-*				
D	75mm thick slanting countertops	SM	64		
E	Reference A142 mesh 200 x 200 mm , weighing not less than 2.22 kgs per square meter (measured net - no allowance made for laps) including tying wire and distance blocks	SM	64		
	Sawn formwork to insitu concrete as described: -				
F	Slanting soffits of countertops	SM	64		
G	Edges of suspended slabs 75-150mm high	LM	160		
	Finishes				
H	12mm thick 2 coats cement: sand (1:4) plaster to walls	SM	128		
I	Ditto to concrete slab	SM	64		
	Prepare and apply three coats of approved external plastic emulsion paint to:				
J	Plastered surfaces and vent blocks	SM	248		
	Blockbboard door				
K	Supply and fix 1000 x 550mm high 40mm thick blockboard double leave door with hardwood lipping all round; including hardwood frames (wrot hardwood; prime grade), all necessary ironmongery and painting to Architect approval	No	32		
	TOTAL FOR GOODS DISPLAY TOPS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 04-STRUCTURAL STEELWORK				
	Steel Columns *75mm diametre x 3mm CHS steel column with 200x200x12mm thick steel connection plate; 4no 18mm holes drilled into the plate; bolted to steel stud column (m.s); all as per Engineer's specifications*				
A	Columns	Kg	704		
	Fittings				
B	200x200x6mm stiffener gusset plate on stanchion column with 4no holes to receive bolts (m.s)	No	28		
C	M16; 18mm diameter; 300mm long bolts with head, nut and washer	No	112		
	Painting *Prepare and apply two coats of approved colour oxide metal primer on steel surfaces;*				
D	General surfaces of metal	SM	24		
	Prepare and apply two coats of approved gloss oil paint;				
E	General surfaces of metal	SM	24		
	TOTAL FOR STRUCTURAL STEELWORK; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 05-WALLING				
	Natural Stone Walling *Natural stone with a crushing strength of 7.5 N/mm², bedded and jointed in cement and sand mortar (1:3) with 20gauge; 25mm wide hoop irons in alternate courses cast into concrete one end and built into mortar joints of walling;*				
A	200mm thick walling	SM	270		
	Damp proofing				
B	225mm wide 'Cabrodamp' damp proofing course including levelling bed	LM	162		
	TOTAL FOR WALLING; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 06 - ROOF CONSTRUCTION & RAINWATER GOODS				
	Steel Trusses *18 No. truss T1 welded onto 100x50x4mm thick wall plate (m.s); consisting of 50 x 50 x 3mm SHS rafter curved to 7.50m; welded into 50 x 50 x 3mm tie-beam and 50 x 25 x 3mm struts and ties; all welded joint connection to smooth finish; including hoisting and fixing in position; height 3.65metres from ground floor level; all as per Engineer's specifications*				
A	Curved trusses 8.10 x 1.10m high	Kg	2208		
B	75 x 50 x 3.0mm thick wall plate/ ring beam welded onto CHS column to receive trusses (m.s)	Kg	534		
	Purlins				
C	150 x 50 x 2mm thick steel Z-purlin; 14 gauge	LM	388		
	Ant-sag rods				
D	25 x 25 x 2.0mm angle bars	Kg	192		
	Rafter bracing				
E	50 x 50 x 6.0mm angle bars	Kg	714		
	Roof covering				
F	IT5 gauge 28 resin cot pre-painted galvanized corrugated crimped iron sheets 7.50 metres radius fixed with J-bolts, cups and washers on steel purlins (m.s)	SM	422		
G	10mm diameter J-bolts 75mm long one end cast into Z-Purlins and the other bolted to roof covering sheathing	No	416		
	Painting *Prepare and apply two coats of approved color oxide metal primer on steel surfaces;*				
H	General surfaces of metal	SM	174		
	Prepare and apply two coats of gloss oil paint;				
I	General surfaces of metal	SM	174		
	Total carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 06 - ROOF CONSTRUCTION & RAINWATER GOODS				
	Rainwater Goods *The following in G28 G.I mild steel*				
A	100x75mm box gutter fixed with and including 30x2mm flat gutter strips at 600mm centres	LM	96		
B	Extra over gutter for stopped end piece with 200x200mm square outlet.	NO	8		
C	75mm diameter plastic down pipe fixed to steel column with and including mild steel straps at 600mm centres.	LM	28		
D	Extra over down pipe for swan neck	NO	8		
E	Extra over down pipe for water shoe.	NO	8		
	Painting *Prepare and apply one coat of calcium plumbate and two coats of gloss oil paint to:-*				
F	General surfaces of metal gutters	SM	24		
G	Ditto down pipes	LM	28		
	Total carried to Collection				
	BUILDER'S WORK ELEMENT 06-ROOF CONSTRUCTION&RAINWATER GOODS COLLECTIONPAGE				
1	Total brought down from page *Mkw3/8*				
2	Total brought down from above				
	TOTAL FOR ROOF; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK				
	ELEMENT 07 - FINISHES				
	Wall Finishes				
A	12mm thick, 2 coats cement and sand (1:3) plaster; steel troweled to walls surfaces	SM	540		
	Floor Finishes				
B	40mm thick cement: sand (1:4) colored screed finished smooth with steel trowel to Architect approval	SM	364		
	Painting and Decoration				
	Prepare and apply one undercoat and two finishing coats of external first quality plastic emulsion paint to:				
C	Plastered surfaces	SM	1080		
	TOTAL FOR FINISHES; CARRIED TO SUMMARY				

CONSTRUCTION OF MARKET SHED WITH GOODS DISPLAY COUNTERTOP

BUILDER'S WORK

SUMMARY

ELEMENT	DESCRIPTION	page	%	AMOUNT
1	SUBSTRUCTURE	*Mkw3/3*		
2	R.C. SUPERSTRUCTURE	*Mkw3/4*		
3	GOODS DISPLAY COUNTERTOPS	*Mkw3/5*		
4	STRUCTURAL STEELWORK	*Mkw3/6*		
5	WALLING	*Mkw3/7*		
6	ROOF CONSTRUCTION & RAINWATER DISPOSAL	*Mkw3/9*		
7	FINISHES	*Mkw3/10*		
	TOTAL FOR MARKET SHED; CARRIED TO MAIN SUMMARY			

Bill 2: *Stalls/ Storage*

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMNT01-SUBSTRUCTURE (ALL PROVISIONAL) Works uptoand including theground floorslab;				
	Site clearance				
A	Clear the site of all bushes, grass, shrubs, undergrowth and small trees not exceeding 600mm girth and burn arising.	SM	638		
B	Cut down trees; 600-900mm girth, including cutting of trunks, branches, grubbing roots and remove stumps and burn arising	No	6		
	Excavation				
	Excavation including maintaining and supporting sides and keeping free from water, mud and falling materials; No allowance is made in the excavations for working space; contractor to factor in working space in his rates.				
C	Excavate oversite to remove top vegetable soil average 150mm deep; disposing off site average 50m away from excavations	SM	638		
D	Excavate trenches for strip foundations; not exceeding 1.5m deep from reduced level	CM	284		
E	Excavate pits for column bases; not exceeding 1.5m deep from reduced level	CM	64		
	Dewatering				
F	Allow for keeping the excavations free f r o m all w a t e r including spring and running water	Item			
	Planking & Strutting				
G	Allow for planking and strutting sides of excavations and keeping excavations clear of all fallen material, rubbish, etc	Item			
	Disposal				
H	Return, fill-in and rum selected excavated material.	CM	208		
I	Load and cart away from site surplus excavated material as directed.	CM	140		
	Imported Fill				
J	300mm thick hardcore fill in making up levels, deposit and compacting in layers of 150mm maximum thickness	SM	546		
K	50mm thick stone dust blinding to surfaces of hardcore fill	SM	546		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK				
	ELEMNT 01 - SUBSTRUCTURE (cont'd)				
	Waterproofing				
A	1000-gauge polythene laid on stone dust blinding	SM	610		
	Anti-termite treatment				
B	TERMIDOR' or other equal and approved insecticide with a ten-year guarantee to surfaces of fill, top of walls & excavated surfaces	SM	870		
	Insitu Concrete				
	Mass concrete class Q (1:3:6)				
C	50mm thick blinding mass concrete to bottoms of foundations & column bases	SM	260		
	Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-				
D	Foundation strips	CM	44		
E	Column bases & sub-columns	CM	16		
F	Ground beam	CM	24		
G	150mm thick floor base slab	SM	610		
	Reinforcements				
	High yield deformed steel bars; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks - *Reinforcements allowed for as 100kgs/CM of concrete*				
H	16mm diameter bars	Kg	886		
I	12mm diameter bars	Kg	548		
J	10mm diameter bars	Kg	3528		
K	8mm diameter bars	Kg	1210		
	Steel mesh fabric reinforcement to B.S. 4483				
L	Reference A142 mesh 200 x 200 mm, weighing not less than 2.22 kgs per square metre (measured net - no allowance made for laps) including tying wire and distance blocks	SM	610		
	Sawn formwork to insitu concrete as described: -				
M	To sides of strip foundations, column bases, sub-columns and ground beam	SM	526		
N	Edges of ground floor slab; 75-150mm high	LM	234		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMNT 01 - SUBSTRUCTURE (cont'd)				
	Walling *Natural stone wall; jointed and bedded in cement:sand (1:3) mortar; with and including 20swg hoop iron in every alternate course*				
A	200mm thick; foundation walling below floor slab (m.s.)	SM	618		
	Plinth finish				
B	Cement: sand (1:4) render; 15mm thick	SM	36		
C	Black bituminous paint to rendered surfaces; two coats	SM	36		
	Carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw4/1*				
2	Total brought down from page *Mkw4/2*				
3	Total brought down from above				
	TOTAL FOR SUBSTRUCTURE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 02-RCSUPERSTRUCTURE				
	Insitu Concrete				
	Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-				
A	Columns	CM	14		
B	Beams	CM	22		
	Reinforcements				
	High yield deformed steel bars; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks - *Reinforcements allowed for as 100kgs/CM of concrete*				
C	16mm Diameter bars	Kg	1084		
D	12mm Diameter bars	Kg	1250		
E	8mm Diameter bars	Kg	1128		
	Sawn formwork to insitu concrete as described: -				
F	Sides and soffits of beams	SM	228		
G	Sides of columns	SM	172		
	TOTAL FOR RC SUPERSTRUCTURE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 05-WALLING				
	Natural Stone Walling *Natural stone with a crushing strength of 7.5 N/mm², bedded and jointed in cement and sand mortar (1:3) with 20gauge; 25mm wide hoop irons in alternate courses cast into concrete one end and built into mortar joints of walling;*				
A	200mm thick walling; externally	SM	382		
B	200mm thick ditto; internally	SM	622		
	Damp proofing				
C	225mm wide 'Cabrodamp' damp proofing course including levelling bed	LM	210		
	Precast concrete louvre blocks *Suppy, assemble and fix purpose-made 225x150mm precast concrete louvre blocks; laid in cement:sand (1:3) mortar as per Architect's detail and approved sample*				
D	Opening size 3000 x 600mm high	No	42		
	TOTAL FOR WALLING; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 06 - ROOF CONSTRUCTION & RAINWATER GOODS				
	Steel Trusses *16 No. truss T2 welded onto 100x50x4mm thick wall plate (m.s); consisting of 50 x 50 x 3mm SHS rafter curved to 7.50m; welded into 50 x 50 x 3mm tie-beam and 50 x 25 x 3mm struts and ties; all welded joint connection to smooth finish; including hoisting and fixing in position; height 4.0metres from ground floor level; all as per Engineer's specifications*				
A	Curved trusses 14.60 x 1.50m high	Kg	4838		
	Purlins				
B	150 x 50 x 2mm thick steel Z-purlin; 14 gauge	LM	362		
	Ant-sag rods				
C	25 x 25 x 2.0mm angle bars	Kg	148		
	Roof covering				
D	IT5 gauge 28 resin cot pre-painted galvanized corrugated crimped iron sheets 7.50 meters radius fixed with J-bolts, cups and washers on steel purlins (m.s)	SM	678		
E	10mm diameter J-bolts 75mm long one end cast into Z-Purlins and the other bolted to roof covering sheathing	No	400		
	Painting *Prepare and apply two coats of approved colour oxide metal primer on steel surfaces;*				
F	General surfaces of metal	SM	224		
	Prepare and apply two coats of gloss oil paint;				
G	General surfaces of metal	SM	224		
	Total carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 06 - ROOF CONSTRUCTION & RAINWATER GOODS				
	Rainwater Goods *The following in G28 G.I mild steel*				
A	100x75mm box gutter fixed with and including 30x2mm flat gutter strips at 600mm centres	LM	90		
B	Extra over gutter for stopped end piece with 200x200mm square outlet.	NO	8		
C	75mm diameter plastic down pipe fixed to wall surface with and including mild steel straps at 600mm centres.	LM	38		
D	Extra over down pipe for swan neck	NO	8		
E	Extra over down pipe for water shoe.	NO	8		
	Painting *Prepare and apply one coat of calcium plumbate and two coats of gloss oil paint to:-*				
F	General surfaces of metal gutters	SM	28		
G	Ditto down pipes	LM	38		
	Total carried to Collection				
	BUILDER'S WORK ELEMENT 06-ROOF CONSTRUCTION&RAINWATER GOODS COLLECTIONPAGE				
1	Total brought down from page *Mkw4/6*				
2	Total brought down from above				
	TOTAL FOR ROOF; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 07-DOORS **Roller Shutter Door** *Stainless steel; high speed roll up door with and including all necessary ironmongery and painting to the Architect approval*				
A	Door size; 3000 x 2600mm high	No.	28		
	TOTAL FOR DOORS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK				
	ELEMENT 09 - FINISHES				
	Ceiling Finishes				
	Burglar proofing grilles				
A	Mild steel decorated burglar-proofing grilles consisting of 8mm diameter bars; with one coat manufacturer primer; all welded ground to smooth finish to Architect approval	SM	420		
	Wall Finishes				
B	15mm thick cement and sand (1:3) plaster; steel troweled to walls and concrete surfaces; internally	SM	1626		
	15mm thick cement/sand (1:4) render to:				
C	Concrete work and walls; externally	SM	382		
	Floor Finishes				
D	40mm thick cement: sand (1:4) colored screed finished smooth with steel trowel to Architect approval	SM	556		
E	Ditto; 20 x 100mm high skirting	LM	364		
	Painting and Decoration				
	Prepare and apply one undercoat and two finishing coats of first quality plastic emulsion paint to:				
F	Plastered surfaces; internally	SM	3252		
G	Concrete grille vent blocks; internally	SM	100		
	Prepare and apply three coats of approved external first quality plastic emulsion paint to:				
H	Rendered surfaces; externally	SM	764		
I	Concrete grille vent blocks; externally	SM	50		
	Touching up manufacturer's priming coat, two undercoats and one finishing coat of gloss paint to metal surfaces; measured both sides				
J	To burglar proof grilling; over 300mm wide	SM	840		
	TOTAL FOR FINISHES; CARRIED TO SUMMARY				

CONSTRUCTION OF MARKET STALL/ STORAGE UNITS

BUILDER'S WORK

SUMMARY

ELEMENT	DESCRIPTION	page	%	AMOUNT
1	SUBSTRUCTURE	*Mkw4/3*		
2	R.C. SUPERSTRUCTURE	*Mkw4/4*		
3	WALLING	*Mkw4/5*		
4	ROOF CONSTRUCTION & RAINWATER DISPOSAL	*Mkw4/7*		
5	DOORS	*Mkw4/8*		
6	FINISHES	*Mkw4/9*		
	TOTAL FOR MARKET STALL/ STORAGE UNITS; CARRIED TO MAIN SUMMARY			

Bill 3: *Ablution Facilities*

(Washrooms)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMNT01-SUBSTRUCTURE (ALL PROVISIONAL) Works up to and including the ground floor slab;				
	Site clearance				
A	Clear the site of all bushes, grass, shrubs, undergrowth and small trees not exceeding 600mm girth and burn arising.	SM	82		
B	Cut down trees; 600-900mm girth, including cutting of trunks, branches, grubbing roots and remove stumps and burn arising	No	2		
	Excavation				
	Excavation including maintaining and supporting sides and keeping free from water, mud and falling materials; No allowance is made in the excavations for working space; contractor to factor in working space in his rates.				
C	Excavate oversite to remove top vegetable soil average 150mm deep; disposing off site average 50m away from excavations	SM	82		
D	Excavate trenches for strip foundations; not exceeding 1.5m deep from reduced level	CM	41		
	Dewatering				
F	Allow for keeping the excavations free f r o m all w a t e r including spring and running water	Item			
	Planking & Strutting				
G	Allow for planking and strutting sides of excavations and keeping excavations clear of all fallen material, rubbish, etc	Item			
	Disposal				
H	Return, fill-in and rum selected excavated material.	CM	25		
I	Load and cart away from site surplus excavated material as directed.	CM	16		
	Imported Fill				
J	300mm thick hardcore fill in making up levels, deposit and compacting in layers of 150mm maximum thickness	SM	74		
K	50mm thick stone dust blinding to surfaces of hardcore fill	SM	74		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK				
	ELEMNT 01 - SUBSTRUCTURE (cont'd)				
	Waterproofing				
A	1000-gauge polythene laid on stone dust blinding	SM	82		
	Anti-termite treatment				
B	TERMIDOR' or other equal and approved insecticide with a ten-year guarantee to surfaces of fill, top of walls & excavated surfaces	SM	99		
	Insitu Concrete				
	Mass concrete class Q (1:3:6)				
C	50mm thick blinding mass concrete to bottoms of foundations	SM	27		
	Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-				
D	Foundation strips	CM	13		
E	Ground beam	CM	3		
	Reinforcements				
	High yield deformed steel bars; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks - *Reinforcements allowed for as 100kgs/CM of concrete*				
F	8mm diameter bars	Kg	113		
G	10mm diameter bars	Kg	196		
H	12mm diameter bars	Kg	156		
	Steel mesh fabric reinforcement to B.S. 4483				
I	Reference A142 mesh 200 x 200 mm , weighing not less than 2.22 kgs per square metre (measured net - no allowance made for laps) including tying wire and distance blocks	SM	82		
	Sawn formwork to insitu concrete as described:-				
J	To sides of strip foundations and ground beams	SM	33		
K	Edges of ground floor slab & ramp; 75-150mm high	LM	36		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMNT 01 - SUBSTRUCTURE (cont'd)				
	Walling *Natural stone wall; jointed and bedded in cement: sand (1:3) mortar:*				
A	200 mm thick; foundation walling below floor slab (m.s.)	SM	73		
	Plinth finish				
B	Cement: sand render (1:4) render; 15 mm thick	SM	11		
C	Black bituminous paint to rendered surfaces; two coats	SM	11		
	Carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw5/1*				
2	Total brought down from page *Mkw5/2*				
3	Total brought down from above				
	TOTAL FOR SUBSTRUCTURE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 02-RCSUPERSTRUCTURE				
	Insitu Concrete				
	Reinforced vibrated insitu concrete; class 20/20mm (1:2:4) to;-				
A	Beams	CM	3		
B	150mm thick horizontal suspended slab	SM	68		
C	75mm thick counter tops; with and including BRC mesh	SM	4		
	Reinforcements				
	High yield deformed steel bars; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks - *Reinforcements allowed for as 100kgs/CM of concrete*				
D	8mm Diameter bars	Kg	700		
E	10mm Diameter bars	Kg	608		
F	12mm Diameter bars	Kg	161		
	Sawn formwork to insitu concrete as described: -				
G	Sides and soffits of beams	SM	68		
H	Soffits of suspended slabs	SM	61		
I	Soffits of countertops	SM	4		
J	Edges of suspended slabs 75-150mm high	LM	36		
K	Edges of countertops not exceeding 75mm high	LM	6		
	TOTAL FOR RC SUPERSTRUCTURE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 04-WALLING				
	Natural Stone Walling *Natural stone with a crushing strength of 7.5 N/mm², bedded and jointed in cement and sand mortar (1:3) with 20gauge; 25mm wide hoop irons in alternate courses cast into concrete one end and built into mortar joints of walling;*				
A	200mm thick walling; externally	SM	92		
B	200mm thick ditto; internally	SM	47		
	Damp proofing				
C	225mm wide 'Cabro damp' damp proofing course including levelling bed	LM	50		
	Plinth Wall *Lightweight concrete blockwork, bedded and jointed in cement and sand (1:3) mortar;*				
D	100mm thick walling; internally	SM	4		
	Precast vent blocks *Suppy, assemble and fix purpose-made 225x150mm precast concrete vent blocks; laid in cement: sand (1:3) mortar as per Architect's detail and approved sample*				
E	Opening size 1500 x 1500mm high	No	2		
	TOTAL FOR WALLING; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 06-WINDOWS				
	Window Cill				
	Precast or insitu concrete (1:2:4); complete with reinforcement, formwork, hoisting and bedding in cement:sand (1:4) mortar				
A	Window cill; 250 x 50 mm thick; weathered and throated; fairfaced	LM	12		
	Hardwood Windows				
	Wrot Hardwood; camphor; or equal and approved				
B	75x50mm; frame plugged	LM	30		
C	Bore 50mm to timber frames for 16mm diameter bars	No	60		
D	16mm diameter mild steel horizontal burglar proofing bars cut and fitted into timber frame (m.s)	LM	29		
E	PVC sheething to 16mm bars (m.s)	LM	29		
	Louvres *Supply and fix the following adjustable anodized alluminium louvre jambs as "NACO" complete with 150mm clips and fixing:-*				
F	Set of eight (8) blade jambs	No	10		
	Glazing				
G	5mm clear glass louvre blade size 150mm wide with ground set in clips (m.s)	LM	36		
	Mesh Wire				
H	12gauge mesh wire on plastic mosquito proofing nailed to window frame (m.s)	SM	10		
I	15mm x 45mm hardwood timber beading to mesh wire.	LM	42		
	Total carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 06 - WINDOWS (cont'd)				
	Painting *Prepare and apply one coat of wood primer to back of frames prior to fixing;*				
A	100-200mm girth frame	LM	30		
	Prepare and apply one coat pinotex stain and two coats polyurethane clear matt varnish to woodwork				
B	200 - 300mm girth; frames	LM	30		
	Total carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw5/6*				
2	Total brought down from above				
	TOTAL FOR WINDOWS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 07-DOORS				
	Panelled doors *50mm thick Wrot mahogany; prime grade door; with and including six number equal panels; 250 x 250mm;*				
A	Door size; 900 x 2050mm high	No.	2		
	Flush doors				
B	Solid core flush door; 900 x 2100 mm x 50 mm thick; hardwood lipping; mahogany veneered both sides	No.	6		
	Wrot hardwood; prime grade				
C	Frame; 150 x 50 mm; rebated	LM	46		
D	Ditto; mullion	LM	2		
E	Architrave; 45 x 25mm	LM	42		
F	25mm quadrant	LM	42		
	Ironmongery *As per "UNION" Catalogue; Supply and Fix;*				
G	Mild steel cramp one end split and build to door jambs and the other fixed at the back of the frame	No.	36		
H	Pressed steel butt hinges; heavy duty; 100mm	PRS	12		
I	2-lever; Mortice lock; complete with classic solid metallic handles	No.	8		
J	200mm long aldrop bolt; including medium size padlock	No.	2		
K	Rubber door stop; 38mm diameter fixed to floors	No.	8		
L	Hat and Coat hook; 75mm	No.	6		
	Door jambs				
M	Cement and sand plaster (mix 1:4) to door jambs	LM	42		
N	Paint to plastered door jambs not exceeding 300mm girth	LM	42		
	Total carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 07 - DOORS (cont'd)				
	Painting and Decoration *Prepare and Apply one coat of wood primer to back of frames prior to fixing;*				
A	100-200mm girth frame	LM	42		
	Prepare and apply one coat pinotex stain and two coats polyurethane clear matt varnish to woodwork;				
B	Surfaces of timber; over 300mm girth; doors	SM	30		
C	Ditto; 200 - 300mm girth; frames	LM	42		
D	Ditto; 100 - 200mm girth; Architrave	LM	42		
E	Ditto; not exceeding 100mm girth; quadrant	LM	42		
	Total carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw5/8*				
2	Total as above				
	TOTAL FOR DOORS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK				
	ELEMENT 08 - FINISHES				
	Ceiling Finishes				
	Plaster; 9mm first coat of cement and sand (1:3) and 3mm second coat of cement and lime putty (1:5) as described in:-				
A	12mm thick plaster to soffits of slabs; steel trowelled	SM	68		
	Wall Finishes				
B	15mm thick cement and sand (1:3) plaster; steel trowelled to walls and concrete surfaces; internally	SM	91		
C	Ditto; wood floated backing to receive wall tiles	SM	48		
	Ceramicwalltiles				
D	200 x 250 x 8mm thick coloured glazed wall tiles; "SAJ" or equal and approved; fixed with cement slurry and pointed in coloured slurry to match	SM	48		
	15mm thick cement/sand (1:4) render to:				
E	Plastered surfaces; externally	SM	92		
	Floor Finishes				
F	40mm thick cement: sand (1:4) coloured screed finished smooth with steel trowel to Architect approval	SM	69		
G	Ditto; 20 x 100mm high skirting	LM	18		
H	30mm thick cement and sand (1:4) screed; wood floated backing to receive tiles	SM	13		
I	300 x 300 x 8mm thick local coloured non-slip ceramic tiles to the Architect's approval	SM	13		
J	Ditto; 20 x 100mm high skirting	LM	30		
	Roof Finishes				
	Sika 1 waterproofed cement and sand (1:3) screeds, backings etc				
K	38mm bed finished smooth with steel trowel	SM	68		
	Total carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BUILDER'S WORK ELEMENT 08 - FINISHES (cont'd)				
	Painting & Decoration *Prepare and apply one undercoat and two finishing coats of first quality plastic emulsion paint to:*				
A	Plastered soffits of slab	SM	68		
B	Plastered surfaces; internally	SM	91		
	Prepare and apply three coats of approved external first quality plastic emulsion paint to:				
C	Rendered surfaces; externally	SM	92		
D	Surfaces of precast vent blocks	SM	6		
	Total carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw5/10*				
2	Total as above				
	TOTAL FOR FINISHES; CARRIED TO SUMMARY				

ABLUTION FACILITIES
BUILDER'S WORK

SUMMARY

ITEM	DESCRIPTION	page	%	AMOUNT
1	SUBSTRUCTURE	*Mkw5/3*		
2	R.C. SUPERSTRUCTURE	*Mkw5/4*		
3	WALLING	*Mkw5/5*		
4	WINDOWS	*Mkw5/7*		
5	DOORS	*Mkw5/9*		
6	FINISHES	*Mkw5/11*		
	TOTAL FOR ABLUTION; CARRIED TO MAIN SUMMARY			

Bill 4: *External Works*

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	EXTERNAL WORKS (All Provisional)				
	Parking's & Paving's				
A	60 mm thick interlocking precast concrete paving blocks, on 40 mm thick sand laying course a n d 150 mm t h i c k hand packed stone base; on and including 150 mm thick compacted murram sub-base; with all necessary PC Kerbs, channels etc; including all necessary excavations and earthworks	SM	300		
	Storm Water Drainage				
B	Storm water drain; 600 x 300 x 400 mm deep (average internal dimensions); 100 mm thick concrete block sides; 800 x 100 mm mass concrete class 20 bottom; cement: sand (1:4) plaster to inner surfaces; all necessary excavations & earthworks, culverts and steel grilles	LM	60		
	Soil Water Drainage				
C	Soil water drain; 160 mm diameter uPVC pipe laid in trenches; including concrete (1:2:4) surround; all necessary excavations and earthworks	LM	100		
D	Manhole; 600 x 450 x 1500 mm (average) deep; 100 mm thick concrete black walls; plaster to bottom and inner surfaces of walls; including cast iron cover.	No	10		
E	Septic tank; overall size 2.50 x 1.30 x 2.00 meters deep; complete with associated manholes, all necessary excavations and earthworks	Item			
F	Soak pit; 6.00 meters deep; complete with necessary excavations and earthworks	Item			
G	Underground water tank; overall size 2.80x1.50x2.50 meters deep; complete with all necessary excavations and earthworks	Item			
h	Dustbin Cubicle; overall size 3.00 x 2.00 x 1.50 meters	Item			
	TOTAL FOR EXTERNAL WORKS; CARRIED TO MAIN SUMMARY				

Bill 5: *Electrical Connection & Installations*

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION ELEMENT 01 - MAINS INTAKE				
A	200A TP Free Standing Type Tested, Modular, IP 44, Form 2B, Low Voltage main Switchboard, 125A TPN MCCB incomer with shunt trip and 6No. 60A TP outgoing feeders, 200A busbars, Instrumentation, earthing, labels. To be fabricated and assembled to IEC 60439-1 Standards from Heavy Gauge steel, powder coated finish in approved color, floor mounted with entry cable provisions, lockable and fitted with a view glass for the meter position and space to accommodate 28 KPLC prepaid meters and all Electrical components detailed and specified in the main schematic diagram.	Item			
B	150A TPN MCCB Main incomer c/w shunt trip for incorporation in the Low Voltage Switchboard (LVSB) as MERLIN GERIN or equal and approved.	No	1		
	Outgoing feeders for incorporation in the LVSB As MERLIN GERIN or equal and approved as follows:				
C	100A DP MCB	No	30		
D	100A TPN MCCB - for the service turret	No	1		
E	30A TPN MCCB at the intake of the Main Incomer MCCB - for Hose reel pump set	No	1		
F	10A SP MCCB at the shunt of the Main Incomer MCCB - for Fireman's switch	No	1		
G	Allow for earthing of the LV Switchboard	Item			
	XLPE/SWA/PVC cable complete with cable glands, lugs and laid with saddles, in a Performa Mesh Tray/ in concealed conduit as appropriate from the LV Switch Board as follows:				
H	6.0mm² 4 core, XLPE/SWA/PVC copper cable to Hose reel Pump set	LM	70		
I	2.5mm² 2 core, XLPE/SWA/PVC copper cable from the shunt trip main Incomer MCCB to the 2No. Fireman's Switches.	LM	100		
J	Allow for earthing for the LVDB above.	Item			
	Total carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION ELEMENT 01 - MAINS INTAKE				
A	Allow for any other item necessary to complete the installation in this section as specified. (Provide Details below)	Item			
B	Allow for carrying out comprehensive testing of the installation as per IEE Wiring Regulation, 17th Edition.	Item	1		
	Total carried to Collection				
	COLLECTIONPAGE				
1	Total brought down from page *Mkw7/1*				
2	Total as above				
	TOTAL FOR MAINS INTAKE; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION ELEMENT 02 - POWER DISTRIBUTION				
A	6-way TP/N power distribution service turret complete with 100A TP/N integral isolator and all accessories including lockable cover. The Turret to be as Melin Gerlin, or approved equivalent. To supply all sheds and toilets Consumer units.	No	1		
B	4C 16mm^2) PVC/SWA/PVC cable, copper for the above turret	LM	54		
C	Cable glands for the above cable	No	8		
D	Cable lugs for the above complete with hydraulic crimping	No	32		
	SP MCB in the above board as follows;				
E	63Amps	No	6		
F	Earthing for the board above.	Item			
G	Carry out concise permanent labelling for all sub-circuits in boards (A) above.	Item			
H	100mm diameter HG PVC ducts for external power distribution	LM	150		
I	Excavate trenches for the above duct's average depth 700mm, remove soft earth, lay duct, cover with "DANGER – HATARI" tiles, back-fill with soil and compact to natural ground level.	LM	150		
J	Build 600 x 600 x 700mm deep power manhole complete with internal plaster and heavy duty EAFW steel cover.	No	11		
K	Ditto, but earthing manhole, with cover marked "EARTH"	No	1		
L	300 x 300 x 150 mm fully recessed 14-gauge galvanized steel draw box	No	1		
M	2C 10mm^2 PVC/SWA/PVC copper cables	LM	30		
N	Cable glands for the cables above	No	2		
O	Cable lugs for the cables above	No	6		
P	Allow for carrying out comprehensive testing of the installation as per IEE Wiring Regulation, 17th Edition.	Item			
	TOTAL FOR POWER DISTRIBUTION; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION ELEMENT 03 - STALL UNIT *Supply, install, test, commission and set to work the following. All lighting fittings to be wired in 3 x 1.5mm² PVC cu cables in 20mm diameter PVC conduit complete with lamp control gear etc as applicable.*				
	Lighting				
A	Lighting point 1-way switched.	No	14		
	5 A white moulded switch plates as Clipsal E 1000 Logic Plus or equivalent and approved: -				
B	2-gang 1-way	No	14		
	Supply, fix into position and test the following light fittings;				
C	9" Ceiling rose complete with heat resistant lamp holder and 22W Energy Saving "Daylight" Lamp as Clipsal Wilco Cat No. W93PS9 or equivalently approved	No	14		
D	2D poly-carbonate black body bulk head outdoor security lights as Pierlite cat No. 2624 or approved equivalent.	No	5		
	Power Supply				
E	2-way SPN Consumer Unit as Havells, or approved equivalent complete with 100A SPN integral isolator Mccb units ,blanking plates for unused spare ways and all accessories including lockable cover.	No	14		
F	Allow for labeling of all the final sub-circuits in above.	Item			
G	Outlet for 13A twin switched socket outlet complete with concealed conduit, box wiring in 6 x 2.5 mm² SC-PVC-CU cables and 13A twin switched socket outlet plate as Clipsal E 1000 or approved equivalent	No	14		
	TOTAL FOR STALL UNITS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION ELEMENT 04 - SHED UNITS *Supply, install, test, commission and set to work the following. All lighting fittings to be wired in 3 x 1.5mm² PVC cu cables in 20mm diameterHG PVC conduit complete with lamp control gear etc as applicable.*				
	Lighting				
A	Lighting point 2-way switched.	No	16		
	5 A white moulded switch plates as Clipsal E 1000 Logic Plus or equivalent and approved: -				
B	2-gang 2-way	No	4		
	Supply, fix into position and test the following light fittings;				
C	1500mm 2 X 58W twin batten fluorescent fitting complete with Electronic choke and anti-glare louvre as THORN or approved equivalent and suspended 1m below the central roof purlin using stainless steel chain	No	16		
	Power Supply				
D	4-way SPN Consumer Unit as Havells, or approved equivalent complete with 100A SPN integral isolator Mccb units, blanking plates for unused spareways and all accessories including lockable cover.	No	2		
E	Allow for labeling of all the final sub-circuits in above.	Item	2		
F	Outlet for 13A twin switched socket outlet complete with concealed conduit, box wiring in 6 x 2.5 mm² SC-PVC-CU cables and 13A twin switched socket outlet plate as Clipsal E 1000 or approved eqiuvalent	No	8		
	TOTAL FOR SHED UNITS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION ELEMENT 05 - STORAGE UNIT *Supply, install, test, commission and set to work the following. All lighting fittings to be wired in 3 x 1.5mm² PVC cu cables in 20mm diameter PVC conduit completes with lamp control gear etc as applicable.*				
	Lighting				
A	Lighting point 1-way switched.	No	14		
	5 A white moulded switch plates as Clipsal E 1000 Logic Plus or equivalent and approved: -				
B	1-gang 1-way	No	14		
	Supply, fix into position and test the following light fittings;				
C	a)1200mm 36W ELECTRONIC BALLAST louvred fluorescent fitting as Perlite or equal and approved equivalent	No	14		
	Power Supply				
D	4-way SPN Consumer Unit as Havells, or approved equivalent complete with 100A SPN integral isolator Mccb units, blanking plates for unused spare ways and all accessories including lockable cover.	No	1		
E	Allow for labeling of all the final sub-circuits in above.	Item	1		
F	Outlet for 13A twin switched socket outlet complete with concealed conduit, box wiring in 6 x 2.5 mm² SC-PVC-CU cables and 13A twin switched socket outlet plate as Clipsal E 1000 or approved equivalent	No	10		
	TOTAL FOR STORAGE UNITS; CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATION **ELEMENT 06 - TOILETS** *Supply, install, test, commission and set to work the following. All lighting fittings to be wired in 3 x 1.5mm² PVC cu cables in 20mm diameter PVC conduit complete with lamp control gear etc as applicable.*				
	Lighting				
A	Lighting point 1-way switched.	No	16		
	5 A white moulded switch plates as Clipsal E 1000 Logic Plus or equivalent and approved: -				
B	3-gang 1-way	No	1		
	Supply, fix into position and test the following light fittings;				
C	15W waterproof IP54 flush LED ceiling light fitting as Perlite or equal and approved equivalent	No	13		
	2D poly-carbonate black body bulk head outdoor security lights as Pierlite cat No. 2624 or approved equivalent.	No	9		
	Power Supply				
D	4-way SPN Consumer Unit as Havells, or approved equivalent complete with 100A SPN integral isolator Mccb units, blanking plates for unused spare ways and all accessories including lockable cover.	No	1		
E	Allow for labeling of all the final sub-circuits in above.	Item			
F	20A DP cooker connector unit with wiring in 3 x 4.0mm^2 SC-PVC-CU cables, and Dia. 25mm HG conduit for automatic hand drier, AC units.	No	5		
	TOTAL FOR MARKET TOILETS; CARRIED TO SUMMARY				

ELECTRICAL CONNECTION AND INSTALLATIONS
MAINWORKS

SUMMARY

ITEM	DESCRIPTION	page	AMOUNT
1	MAINS INTAKE	Mkw7/2	
2	POWER DISTRIBUTION	Mkw7/3	
3	STALL UNITS	Mkw7/4	
4	SHED UNITS	Mkw7/5	
5	STORAGE UNITS	Mkw7/6	
6	MARKET TOILETS	Mkw7/7	
7	Allow a Prime Cost Sum (P.C) of KSh. 300,000.00 as Capital Contribution towards Kenya Power for Electricity supply line, Metering Channel and Additional load Connection Charges. *Allow for attendance to Kenya Power (KP) with respect to the following: -* i) Application for Additional Electricity loading ii) Attendance and Follow up with KPLC on Quotation/Authorization iii) Liaising between the employer and KPLC with regards to signing of relevant contract documents and payment of requisite amounts for additional loads. iv) Any other item necessary to complete the installation in this section as specified. (Provide Details below)		
	TOTAL FOR ELECTRICAL INSTALLATION; CARRIED TO MAIN SUMMARY		

MAIN BUILDER'S WORK
(MEASURED WORK)

MAINSUMMARY

BILL	DESCRIPTION	page	AMOUNT
1	MARKET SHEDS	*Mkw3/11*	
2	STALLS/ STORAGE	*Mkw4/10*	
3	ABLUTION FACILITY (TOILETS)	*Mkw5/12*	
4	EXTERNAL WORKS	*Mkw6/1*	
5	ELECTRICAL INSTALLATION	*Mkw7/8*	
	TOTAL FOR MAIN BUILDER'S WORK; CARRIED TO GRAND SUMMARY		

Section 4: *Prime Cost & Provisional Sums*

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PRIME COSTS & PROVISIONAL SUMS				
	Prime Cost Sums				
A	Provide a PC Sum of KES. 0.85 Million for Mechanical Installations and works; to be executed by a Nominated Sub-Contractor	SUM			
i	*Allow for Profit*	%			
ii	*Allow for Attendance*	%			
iii	*Allow for builder's work in connection with Mechanical Installation & works*	SUM			
	Provisional Sums; *to be expended as directed by the Architect:*				
	The following provisional sums are to be measured on completion and priced in accordance with the rates contained in these bills of quantities or prorate thereto or deducted in whole if not required				
B	Provide a provisional sum of KES. 1.50 Million for contingencies; to be expended as whole or part with the authority of the client/financier	SUM			
	TOTAL FOR PC & PROVISIONAL SUMS; CARRIED TO GRAND SUMMARY				

PROPOSEDCONSTRUCTIONOFMOKOWEOPEN-AIR MARKET
BILLS *of* QUANTITIES

GRAND SUMMARY

SECTION	DESCRIPTION	PAGE	AMOUNT
1	PRELIMINARIES	*Mkw1/7*	
2	SPECIFICATIONS	*Mkw2/35*	
3	MAIN BUILDER'S WORK	*M/S 1*	
4	PRIME COST & PROVISIONAL SUMS	*Mkw8/1*	
	Sub-Total		
5	Add 16% V.A. T		
	TOTAL TENDER SUM CARRIED TO FORM OF TENDER		

Tender Sum in Words:

_____

_____

Full Name of Tenderer **(BLOCK LETTERS)**:

_____

Signature of person duly authorized to sign tenders for and on behalf of tenderer:

_____

Date _____

Appendix 1: *Drawings*

For all relevant drawings and additional specifications/ clarifications tenderer is advised to converse with the office of the County Architect and the County Senior Structural Engineer through the office of CHIEF OFFICER, INFRASTRUCTURE DEVELOPMENT, Lamu County Headquarters, P.O. Box 74 - 80500, Lamu.