



SIMLAW SEEDS COMPANY LIMITED

**PROPOSED CONSTRUCTION OF
WAREHOUSES AND OFFICES WITH ASSOCIATED
INFRASTRUCTURE AT KYANG'OMBE, OFF OLD
MOMBASA ROAD, NAIROBI COUNTY**

19TH DECEMBER 2024

TENDER DOCUMENTS

TENDER REF: SSC/ONT/WHSE/09/2024-2025

TENDER CLOSING & OPENING DATE:

21ST JANUARY 2025 AT 11.00 A.M

**SIMLAW SEEDS COMPANY LIMITED
P.O, BOX 40042 – 00100,
NAIROBI
TEL. 020 2215066, 0722 200 545
www.simlaw.co.ke**

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TENDER DOCUMENTS FOR PROCUREMENT OF WORKS (BUILDING AND ASSOCIATED CIVIL ENGINEERING WORKS)

1) NAME AND CONTACT ADDRESSES OF PROCURING ENTITY

**SIMLAW SEEDS COMPANY LIMITED
P.O BOX 40042 – 00100,
NAIROBI**

2) Invitation to Tender (ITT) No.

TENDER REF: SSC/ONT/WHSE/09/2024-2025

3) Tender Name:

PROPOSED CONSTRUCTION OF WAREHOUSES AND OFFICES WITH ASSOCIATED INFRASTRUCTURE AT KYANG'OMBE, OFF OLD MOMBASA ROAD, NAIROBI COUNTY

INVITATION TO TENDER

PROCURING ENTITY: Simlaw Seeds Company Limited

CONTRACT NAME AND DESCRIPTION: Proposed construction of warehouses and offices at Kyang'ombe, off Old Mombasa Road, Nairobi County

1. The **Simlaw Seed Company Limited** invites sealed tenders for the construction of **Proposed construction of warehouses and offices with associated infrastructure at Kyang'ombe, off Old Mombasa Road, Nairobi County.**
2. Tendering will be conducted under open competitive method (National) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours 0800 to 1700 hrs at the address given below.
4. Tender documents may be viewed and downloaded for free from the website <https://tenders.go.ke/tenders> and <https://www.simlaw.co.ke/tenders>. Tenderers who download the tender document **must forward** their particulars immediately to tenders@simlaw.co.ke to facilitate any further clarification or addendum.
5. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for **126 days** from the date of opening of tenders.
6. All Tenders must be accompanied by a **Tender Security** of Kshs **4,000,000 (Kenya Shillings Four Million)** valid for 30 days beyond the tender validity period.
7. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
8. Completed tenders must be delivered to the address below on or before **11.00 AM, 21st January 2025.** Electronic Tenders **will not** be permitted.
9. Tenders will be opened immediately after the deadline date and time specified above or any deadline date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.
10. Late tenders will be rejected.
11. The addresses referred to above are:

A. Address for obtaining further information

Senior Procurement Officer,

Simlaw Seeds Company Limited,

Simlaw House, Kijabe Street, Nairobi

P.O Box 40042-00100, Nairobi,

Email: tenders@simlaw.co.ke

B. Address for Submission of Tenders.

The General Manager,
Simlaw Seeds Company Limited,
P.O Box 40042-00100, Nairobi

C. Address for Opening of Tenders.

Simlaw Seeds Company Limited,
Boardroom, Simlaw House, Kijabe Street, Nairobi

**The General Manager,
Simlaw Seeds Company Limited,
19th December 2024.**

PART1: TENDERING PROCEDURES

SECTION I – INSTRUCTIONS TO TENDERERS A GENERAL PROVISIONS

1.0 Scope of tender

- 1.1** The Procuring Entity as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The name, identification, and number of lots (contracts) of this Tender Document are specified in the TDS.
- 1.2** Throughout this tendering document:
- The term “inwriting” means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the TDS, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;
 - if the context so requires, “singular” means “plural” and vice versa;
 - “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

2.0 Fraud and corruption

- 2.1** The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 2.2** The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.
- 2.3** Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, pre-qualification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.
- 2.4** Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.
- 3.0 Eligible tenderers**
- 3.1** A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agreement with the intent to enter in to such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the **TDS**.
- 3.2** Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 3.3** A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall

be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:

- a) Directly or indirectly controls, is controlled by or is under common control with an other tenderer;
 - b) Receives or has received any director indirect subsidy from another tenderer;
 - c) Has the same legal representative as an other tenderer;
 - d) Has a relationship with an other tenderer, directly or through common third parties, that puts it in a position to influence the tender of an other tenderer, or influence the decisions of the Procuring Entity regarding this tendering process;
 - e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods or works that are the subject of the tender;
 - f) Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation;
 - g) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document;
 - h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:
 - i) Are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
 - ii) May be involved in the implementation or supervision of such Contract unless the conflicts stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.
- 34** A tenderer shall not be involved in corrupt, coercive, obstructive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified
- 35** A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. Members of a joint venture may not also make an individual tender, be a sub-contractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender.
- 36** A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services.
- 37** A Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.ke.
- 38** A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:
 - i) A legal public entity of Government and/or public administration,
 - ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and;
 - iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis.

- 39** Firms and individuals shall be ineligible if their countries of origin are:
- (a) As a matter of law or official regulations, Kenya prohibits commercial relations with that country;
 - (b) By an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

- 3.10** Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, local sub-contracts and labor) from citizen suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided for this purpose in *"SECTION II - EVALUATION AND QUALIFICATION CRITERIA, Item 9"*.
- 3.11** Pursuant to the eligibility requirements of ITT 3.10, a tender is considered a foreign tenderer, If it is registered in Kenya and has less than 51 percent ownership by nationals of Kenya and if it does not subcontract to foreign firms or individuals more than 10 percent of the contract price, excluding provisional sums. JVs are considered as foreign tenderers if the individual member firms registered in Kenya have less 51 percent ownership by nationals of Kenya. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.
- 3.12** The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website www.nca.go.ke.
- 3.13** The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke.
- 4.14 A Kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing valid tax compliance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

40 Eligible goods, equipment, and services

- 41** Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not ineligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.
- 42** Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

50 Tenderer's responsibilities

- 51** The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.
- 52** The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine and inspect 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 bear the tenderer's own expense.

- 53** The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection.
 - 54** The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.
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CONTENTS OF TENDER DOCUMENTS

60 Sections of Tender Document

- 61** The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 10.

PART 1: Tendering Procedures

Section I – Instructions to Tenderers

Section II – Tender Data Sheet (TDS)

Section III- Evaluation and Qualification

Criteria Section IV – Tendering Forms

PART 2: Works'

Requirements Section V -

Bills of Quantities Section VI

- Specifications Section VII -

Drawings

PART 3: Conditions of Contract and Contract Forms

Section VIII - General Conditions (GCC)

Section IX - Special Conditions of Contract

Section X- Contract Forms

- 62** The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents. Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.
- 63** The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

70 Clarification of Tender Document, Site Visit, Pre-tender Meeting

- 71** A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 7.2. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 7.4, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 8 and ITT 22.2.
- 72** The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a tender. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the **TDS** if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 73** The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later

than the period specified in the **TDS** before the meeting.

74 Minutes of a pre-arranged site visit and those of the pre-tender meeting, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents. Minutes shall not identify the source of the questions asked.

75 The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Non-attendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.

80 Amendment of Tender Documents

81 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tender Documents by issuing addenda.

82 Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.

83 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity should extend the dead line for the submission of Tenders, pursuant to ITT 22.2.

B. PREPARATION OF TENDERS

9. Cost of Tendering

The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

10.0 Language of Tender

The Tender, as well as all correspondence and documents relating to the tender exchanged by the tenderer and the Procuring Entity, shall be written in the English Language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate and notarized translation of the relevant passages into the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

11.0 Documents Comprising the Tender

11.1 The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT 12;
- b) Schedules including priced Bill of Quantities, completed in accordance with ITT 12 and ITT 14;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 19.1;
- d) Alternative Tender, if permissible, in accordance with ITT 13;
- e) **Authorization**: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 20.3;
- f) **Qualifications**: documentary evidence in accordance with ITT 17 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;

- g) *Conformity*: a technical proposal in accordance with ITT 16;
- h) Any other document required in the **TDS**.

11.2 In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed JV Agreement. Change of membership and conditions of the JV prior to contract signature will render the tender liable for disqualification.

12.0 Form of Tender and Schedules

12.1 The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed with out any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested. The Tenderer shall chronologically serialize all pages of the tender documents submitted.

12.2 The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

13. Alternative Tenders

13.1 Unless otherwise specified in the TDS, alternative Tenders shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the **TDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

13.4 When specified in the **TDS**, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the **TDS**, as will the method for their evaluating, and described in Section VII, Works' Requirements.

14.0 Tender Prices and Discounts

14.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Bill of Quantities shall conform to the requirements specified below.

14.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.

14.3 The price to be quoted in the Form of Tender, in accordance with ITT 12.1, shall be the total price of the Tender, including any discounts offered.

14.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.

- 145** It will be specified in the **TDS** if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except incases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.
- 146** Where tenders are being invited for individual lots (contracts)or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 14.4, provided the Tenders for all lots (contracts) are opened at the sametime.
- 147** All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

150 Currencies of Tender and Payment

- 151** The currency(ies) of the Tender and the currency(ies) of payments shall be the same.
- 152** Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings.
- a) A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya (referred to as “the foreign currency requirements”) shall (if so allowed in the **TDS**) indicate in the Appendix to Tender the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to no more than two foreign currencies.
- b) The rates of exchange to be used by the Tenderer in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Tenderer in the Appendix to Tender and shall be based on the exchange rate provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening. Such exchange rate shall apply for all foreign payments under the Contract.
- 153** Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed break down of the foreign currency requirements shall be provided by Tenderers.

16.0 Documents Comprising the Technical Proposal

The Tenderer shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Tender Forms, insufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

17.0 Documents Establishing the Eligibility and Qualifications of the Tenderer

- 171** Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.
- 172** In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.
- 173** If a marg in of preference applies as specified in accordance with ITT 33.1, nation al tenderers, individually or in joint ventures, applying for eligibility for national preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.
- 174** Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or

potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.

- 175** The purpose of the information described in ITT 17.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
- 176** The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.4. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 177** All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 178** If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 179** If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
- i) If the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
 - ii) if the contract has been awarded to that tenderer, the contract award will be set aside depending on the outcome of (iii),
 - iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person have committed any criminal offence.
- 17.10** If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

18.0 Period of Validity of Tenders

18.1. Tenders shall remain valid for the Tender Validity period specified in the TDS. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 22). A tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

18.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 19, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender.

19.0 Tender Security

- 19.1** The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the **TDS**, in original form and, in the case of a Tender Security, in the amount and currency **specified** in the **TDS**. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.
- 19.2** If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:
- I) cash;
 - ii) a bank guarantee;
 - iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority;
 - (iv) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.
- 19.3** If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 18.2.
- 19.4** If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.
- 19.5** If a Tender Security is specified pursuant to ITT 19.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.
- 19.6** The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security, and any other documents required in the TDS.
- 19.7** The Tender Security may be forfeited or the Tender-Securing Declaration executed:
- a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension there to provided by the Tenderer; or
 - b) if the successful Tenderer fails to:
 - i) sign the Contract in accordance with ITT 4.7; or
 - ii) furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.
- 19.8** Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA to debar the Tenderer from participating in public procurement as provided in the law.
- 19.9** The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.
- 19.10** A tenderer shall not issue a tender security to guarantee itself.

20.0 Format and Signing of Tender

- 20.1** The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT

11 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the **TDS** and clearly mark them "COPY." In the event of any discrepancy between the origin and the copies, the original shall prevail.

- 202** Tenderers shall mark as "CONFIDENTIAL" all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.
- 203** The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.
- 204** In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
- 205** Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. SUBMISSION AND OPENING OF TENDERS

210 Sealing and Marking of Tenders

- 211** The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:
- a) in an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and
 - b) in an envelope or package or container marked "COPIES", all required copies of the Tender; and
 - c) if alternative Tenders are permitted in accordance with ITT 13, and if relevant:
 - i) in an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and
 - ii) in the envelope or package or container marked "COPIES- ALTERNATIVE TENDER", all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:

- a) bear the name and address of the Procuring Entity,
 - b) bear the name and address of the Tenderer; and
 - c) bear the name and Reference number of the Tender.
- 212** If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.

220 Deadline for Submission of Tenders

- 221** Tenders must be received by the Procuring Entity at the address specified in the **TDS** and no later than the date and time also specified in the **TDS**. When so specified in the **TDS**, tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified in the **TDS**.

- 222** The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of

the Procuring Entity and Tenderers previously subject to the deadline shall there after be subject to the deadline as extended.

23.0 Late Tenders

The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 22. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

240 Withdrawal, Substitution, and Modification of Tenders

241 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

- a) prepared and submitted in accordance with ITT 20 and ITT 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and
- b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

242 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.

243 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

25. Tender Opening

251 Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified **in the TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the **TDS**.

252 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelopes with the corresponding Tender shall not be opened but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

253 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

254 Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

255 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.

256 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening

committee attending the opening.

- 257 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 258 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum: -
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) the Tender Price, per lot (contract) if applicable, including any discounts;
 - c) any alternative Tenders;
 - d) the presence or absence of a Tender Security, if new as required;
 - e) number of pages of each tender document submitted.
- 259 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers.

E. EVALUATION AND COMPARISON OF TENDERS

26. Confidentiality

- 261 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 43.
- 262 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.
- 263 Notwithstanding ITT 26.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any matter related to the tendering process, it shall do so in writing.

27.0 Clarification of Tenders

- 27.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for a response. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 31.
- 27.2 If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

28.0 Deviations, Reservations, and Omissions

- 28.1 During the evaluation of tenders, the following definitions apply: -
- a) "*Deviation*" is a departure from the requirements specified in the tender document;
 - b) "*Reservation*" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
 - c) "*Omission*" is the failure to submit part or all of the information or documentation required in the Tender document.

29.0 Determination of Responsiveness

- 29.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.

- 292** A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:
- Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract;
 - limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract;
 - if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

293 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 16, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

294 If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30.0 Non-material Non-conformities

30.1 Provided that a tender is substantially responsive, the Procuring Entity may waive any non-conformities in the tender.

30.2 Provided that a Tender is substantially responsive, the Procuring Entity may request that the tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities in the tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the tender. Failure of the tenderer to comply with the request may result in the rejection of its tender.

30.3 Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the TDS**.

31.0 Arithmetical Errors

31.1 The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

31.2 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: -

- Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
- Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid prices shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
- if there is a discrepancy between words and figures, the amount in words shall prevail

31.3 Tenderers shall be notified of any error detected in their bid during the notification of award.

32.0 Conversion to Single Currency

For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in to a single currency as specified in the **TDS**.

33.0 Margin of Preference and Reservations

33.1 A margin of preference may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.

- 332** A margin of preference shall not be allowed unless it is specified so in the **TDS**.
- 333** Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.
- 334** Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender. No tender shall be reserved to more than one group. If not so stated in the Invitation to Tender and in the Tender documents, the invitation to tender will be open to all interested tenderers.

34.0 Nominated Subcontractors

- 341** Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. In case the Procuring Entity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and the Procuring Entity. The main contract shall specify the working arrangements between the main contractor and the nominated subcontractor.
- 342** Tenderers may propose sub-contracting up to the percentage of total value of contracts or the volume of works as specified in the **TDS**. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.
- 343** Domestic subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated so by the Procuring Entity in the **TDS** as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

35. Evaluation of Tenders

- 35.1** The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Lowest Evaluated Tender in accordance with ITT 40.
- 35.2** To evaluate a Tender, the Procuring Entity shall consider the following:
- a) price adjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Daywork items, where priced competitively;
 - b) price adjustment due to discounts offered in accordance with ITT 14.4;
 - c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;
 - d) price adjustment due to quantifiable non-material non-conformities in accordance with ITT 30.3; and
 - e) any additional evaluation factors specified in the **TDS** and Section III, Evaluation and Qualification Criteria.
- 35.3** The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.
- 35.4** Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 35.2. The methodology to determine the lowest evaluated tenderer or tenderers base done lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.

36.0 Comparison of tenders

The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.2 to determine the Tender that has the lowest evaluated cost.

37.0 Abnormally low tenders and abnormally high tenders

Abnormally LowTenders

37.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.

37.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

37.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Abnormally high tenders

37.4 An abnormally high tender price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

37.5 In case of an abnormally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

37.6 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

38.0 Unbalanced and/ or front-loaded tenders

38.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

38.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the

Procuring Entity may as appropriate:

- a) accept the Tender;
- b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price;
- c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works;
- d) reject the Tender,

39.0 Qualifications of the tenderer

39.1 The Procuring Entity shall determine to its satisfaction whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

39.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 17. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Sub-contractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

40.0 Lowest evaluated tender

Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Lowest Evaluated Tender. The Lowest Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be:

- a) Most responsive to the Tender document; and
- b) the lowest evaluated price.

41.0 Procuring entity's right to accept any tender, and to reject any or all tenders.

The Procuring Entity reserves the right to accept or reject any Tender and to annul the Tender process and reject all Tenders at any time prior to Contract Award, without there by incurring any liability to Tenderers. In case of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

F. AWARD OF CONTRACT

42.0 Award criteria

The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.

43.0 Notice of Intention to Enter into a Contract/Notification of Award

Upon award of the contract and Prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract/Notification of award to all tenderers which shall contain, at a minimum, the following information:

- a) the name and address of the Tenderer submitting the successful tender;
- b) the Contract price of the successful tender;
- c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the

reason;

- d) the expiry date of the Standstill Period; and
- e) instruction son how to request a debriefing and/ or submit a complaint during the stand still period;

44.0 Stand still Period

44.1 The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

44.2 Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer.

45.0 Debriefing by The Procuring Entity

45.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

45.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

46.0 Letter of Award

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42.1, upon addressing a complaint that has been filed with in the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

47.0 Signing of Contract

47.1 Upon the expiry of the fourteen days of the Notification of Intention to enter in to contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

47.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and returnittotheProcuringEntity.

47.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

48.0 Performance Security

48.1 Within twenty-one (21) days of the receipt of the Letter of Award from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the **TDS**, in accordance with the General Conditions of Contract, subject to ITT 38.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.

48.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and otherdocuments required in the **TDS** or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

483 Performance security shall not be required for contracts estimated to cost less than the amount specified in the Regulations.

490 Publication of Procurement Contract

Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:

- a) name and address of the Procuring Entity;
- b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
- c) the name of the successful Tenderer, the final total contract price, the contract duration;
- d) dates of signature, commencement and completion of contract;
- e) names of all Tenderers that submitted Tenders, and their Tender prices as readout at Tender opening.

50.0 Procurement related Complaints and Administrative Review

50.1 The procedures for making Procurement-related Complaints are as specified in the TDS.

50.2 A request for administrative review shall be made in the form provided under contract forms.

Section II - Tender Data Sheet (TDS)

The following specific data shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
A. General	
ITT 1.1	The name of the contract is Proposed construction of warehouses and offices with associated infrastructure at Kyang'ombe, off Old Mombasa Road, Nairobi County. The reference number of the Contract is TENDER REF: SSC/ONT/WHSE/09/2024-2025 The number and identification of lots (contracts) comprising this Tender are N/A
ITT 2.4	The Information made available on competing firms is as follows: N/A
ITT 2.4	The firms that provided consulting services for the contract being tendered for are: N/A
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: 0.
B. Contents of Tender Document	
ITT 7.1	(i) The Tenderer will submit any request for clarifications in writing at the Address Senior Procurement Officer, Simlaw Seeds Company Limited, P.O Box 40042-00100, Nairobi. Email: tenders@simlaw.co.ke to reach the Procuring Entity not later than 10TH January 2025 at 12.00 pm

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	(ii) The Procuring Entity shall publish its response at the website https://tenders.go.ke/tenders and https://www.simlaw.co.ke/tenders
ITT 7.2	<p>(A) A pre-arranged pretender site visit shall (Mandatory) take place at the following date, time and place:</p> <p>Date: At Bidders Convenience on any working day between 20th December 2024 to 10th January 2025 with prior notice to Simlaw Seed Co. Ltd.</p> <p>Time: 9.00 AM to 12.30 PM</p> <p>Place: Kyangombe, Nairobi County.</p> <p>Email address for correspondence : tenders@simlaw.co.ke</p> <p>(The Contractor shall visit the site and acquaint himself with its nature and location, the nature of the local conditions, positions of existing power, water and other services, access roads or any other limitations that might affect his cost or progress. No claims for extras shall be considered on account of lack of knowledge in this respect.)</p> <p>(B) Pre-Tender meeting shall not take place at the following date, time and place: Date: N/A Time: N/A Place: N/A</p>
ITT 7.3	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than N/A before the meeting.
ITT 7.5	The Procuring Entity's website where Minutes of the pre-Tender meeting and the pre-arranged pretender will be published is <u> N/A </u>
ITT 9.1	<p>For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is:</p> <p>(1) Name of Procuring Entity; Simlaw Seeds Company Limited</p> <p>(2) Physical address for hand Courier Delivery to an office; Simlaw House, Kijabe Street, Nairobi</p> <p>(3) Postal Address P.O Box 40042-00100, Nairobi,</p> <p>(4) Officer to be contacted. Senior Procurement Officer,</p> <p>Email: tenders@simlaw.co.ke</p>
C. Preparation of Tenders	
ITT 11.1 (h)	The Tenderer shall submit the following additional documents in its Tender (In addition to those described under ITT 11.1 (a) to (g))

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<ol style="list-style-type: none"> 1. Copy of Company Registration / Incorporation Certificates and certified by commissioner for oaths. 2. Copy of Valid Tax Compliance Certificate. 3. A copy of company's list of directors, beneficial owners, name of proprietor or names of partners (Copy of CR12 / CR13) issued within the last one year. 4. Copy of Registration certificate from National Construction Authority, Category NCA 3 and above in Building works (General Building Contractor), and the valid Practising License 5. Copies of audited accounts for the years 2021, 2022 and 2023 signed and stamped by the Auditor. Auditors Practising Current Certificate to be attached. 6. Bank statements for the last twelve months to be provided. Statements to be certified by the bank. 7. Duly filled, stamped and signed; <ol style="list-style-type: none"> a. Confidential business questionnaire b. Certificate of independent tender determination c. Declaration of non - debarment – Form SD1 d. Declaration not to engage in corruption or fraudulent practice – Form SD2 e. Declaration and commitment to the code of ethics <p>The Bidder is required to be registered by the authorities as listed below and provide the relevant documentation. If not, the bidder shall provide the listed Domestic Sub-Contractors and provide the relevant applicable documents showing their qualification:</p> <ol style="list-style-type: none"> 1. Electrical Installations, ICT Installations and Sub-contractor <ol style="list-style-type: none"> a. Copy of Company Registration / Incorporation Certificates and certified by commissioner for oaths. b. Copy of Valid Tax Compliance Certificate. c. A copy of company's list of directors, beneficial owners, name of proprietor or names of partners (Copy of CR12 / CR13) issued within the last one year. d. Copy of Registration certificate from National Construction Authority, Category NCA 5 and above in Electrical Installation Works. e. Copy of valid EPRA Licenses in Electrical installation works - Class B and above f. Domestic sub-contractors must sign and stamp the summary page of their respective specialist works on the tender document.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<p>2. Mechanical Installations Sub-contractor (Plumbing, Drainage, Fire Protection, Wastewater treatment, Compressed Air, Air Conditioning & Mechanical Ventilation)</p> <p>a. Copy of Company Registration / Incorporation Certificates and certified by commissioner for oaths.</p> <p>b. Copy of Valid Tax Compliance Certificate.</p> <p>c. A copy of company's list of directors, beneficial owners, name of proprietor or names of partners (Copy of CR12 / CR13) issued within the last one year.</p> <p>d. Copy of Registration certificate from National Construction Authority, Category NCA 5 and above in Plumbing, Drainage & Fire Protection Installation Works.</p> <p>e. Domestic sub-contractors must sign and stamp the summary page of their respective specialist works on the tender document.</p>
ITT 13.1	Alternative Tenders shall not be considered.
ITT 13.2	Alternative times for completion shall not be permitted.
ITT 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: N/A
ITT 14.5	The prices quoted by the Tenderer shall be: Fixed
ITT 15.2 (a)	Foreign currency requirements are not allowed .
ITT 18.1	The Tender validity period shall be 126 days.
ITT 18.3	<p>(a) The Number of days beyond the expiry of the initial tender validity period will be 30 days.</p> <p>(b) The Tender price shall be adjusted by the following percentages of the tender price:</p> <p>(i) By <u> N/A </u>% of the local currency portion of the Contract price adjusted to reflect local inflation during the period of extension, and</p> <p>(ii) By <u> N/A </u>% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension.</p>
ITT 19.1	<p>Tenderer shall provide a Tender Security</p> <p>The type of Tender security shall be in the form of a bank guarantee from a commercial bank approved and licensed by the Central Bank of Kenya or a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority in the amount of Kenya shillings Four Million.</p> <p>The Tender Security shall be valid for a period of 156 days from the tender opening date. The format to match the provided Form; "FORM OF TENDER SECURITY [Option 1–Demand Bank Guarantee] or FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]</p>
ITT 20.1	In addition to the original of the Tender, the number of copies is: 1
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: Notarized or Certified Power of Attorney allowing the signatory to submit the

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	bid, negotiate, and possibly execute the Project Agreement on behalf of the Bidder's company
D. Submission and Opening of Tenders	
ITT 22.1	(A) For <u>Tender submission purposes</u> only, the Procuring Entity's address is: <ul style="list-style-type: none"> (1) Name of Procuring Entity; Simlaw Seeds Company Limited (2) Postal Address (include name of Officer to be attentional); The General Manager, Simlaw Seeds Company Limited, P.O Box 40042-00100, Nairobi, (3) Physical address for hand Courier Delivery to an office or Tender Box; Simlaw House, Kijabe Street, Nairobi (4) Date and time for submission of Tenders; 21st January 2024 at 11.00 AM. (5) Tenderers shall not submit tenders electronically.
ITT 25.1	The Tender opening shall take place at the time and the address for Opening of Tenders provided below: <ul style="list-style-type: none"> (1) Name of Procuring Entity Simlaw Seeds Company Limited (2) Physical address for the location (City, Street, Building, Floor Number and Room) Boardroom, Simlaw House, Kijabe Street, Nairobi (3) State date and time of tender opening. 21st January 2024 at 11.00 AM.
ITT 25.1	If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures specified below : <p style="text-align: center;">N/A</p>
E. Evaluation, and Comparison of Tenders	
ITT 30.3	The adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
TT 32.1	The currency that shall be used for Tender evaluation and comparison purposes only to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: Kenya Shilling The source of exchange rate shall be: The Central bank of Kenya (mean rate) The date for the exchange rate shall be: the deadline date for Submission of the Tenders.
ITT 33.2	A margin of preference shall not apply.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 33.4	The invitation to tender is extended to the following group that qualify for Reservations <u>N/A</u>
ITT 34.1	At this time, the Procuring Entity intends to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 34.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: <i>20 % of the total contract amount</i> . Tenderers planning to subcontract more than 10% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
ITT 34.3	The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: <ul style="list-style-type: none"> a) Plumbing, drainage and fire protection works. b) Compressed air, air conditioning & mechanical ventilation works. c) Waste water treatment plant d) Electrical installation works. e) ICT Installation works. f) Landscaping works. For the above-designated parts of the Works that may require Specialized Subcontractors, the relevant qualifications of the proposed Specialized Subcontractors will be added to the qualifications of the Tenderer for the purpose of evaluation.
ITT 35.2 (e)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 48.1	Other documents required in addition to the Performance Security are 1) Works Programme 2) Cash Flow Projections
ITT 50.1	The procedures for making a Procurement-related Complaint are detailed in the "Notice of Intention to Award the Contract" herein and are also available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke . If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to: For the attention: <p style="text-align: center;">The General Manager, Simlaw Seeds Company Limited, P.O Box 40042-00100, Nairobi,</p> Title/position: <p style="text-align: center;">The General Manager,</p> Procuring Entity: <p style="text-align: center;">Simlaw Seeds Company Limited</p> Email address: <p style="text-align: center;">info@simlaw.co.ke</p> In summary, a Procurement-related Complaint may challenge any of the following (among others):

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	(i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

10 GENERAL PROVISIONS

- 11 This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity shall use **the Standard Tender Evaluation Document for Goods and Works** for evaluating Tenders.
- 12 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:
- For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.
 - Value of single contract - Exchange rate prevailing on the date of the contract signature.
 - Exchange rates shall be taken from the publicly available source identified in the ITT 14.3. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

13 EVALUATION AND CONTRACT AWARD CRITERIA

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that (i) meets the qualification criteria, (ii) has been determined to be substantially responsive to the Tender Documents, and (iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF RESPONSIVENESS.

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered non-responsive and will not be considered further.

Stage 1. Preliminary and Mandatory Requirements Checklist

The following mandatory requirements shall be used for determination of Responsiveness at the preliminary evaluation.

S/No	PRELIMINARY EVALUATION CRITERIA / MANDATORY REQUIREMENTS
MR 1	Original Tender document must be Tape bound / Permanently bound (Such binding shall permanently hold together all pages along the long edge of the tender document) and submitted alongside 1 copy as per TDS 20.1. Tender documents submitted as spiral bound or in a box file shall automatically be disqualified. In addition, the documents must be chronologically paginated on all pages and attachments.
MR 2	Form of Tender in the company Letter head duly Completed, Signed and Stamped by the Tenderer in the format provided, and prepared in accordance with ITT 12 and ITT 14
MR 3	Tender security as specified in the TDS

MR 4	Copy of Registration certificate and valid practicing license from National Construction Authority, Category NCA 3 and above in Building works (General Building Contractor).
MR 5	Copy of registration certificate and Valid Annual Practicing Certificate Category NCA 5 and above in Electrical Installation Works (For Main Contractor or domestic subcontractor, whichever is applicable).
MR 6	Copy of registration certificate and Valid Annual Practicing Certificate Category NCA 5 and above in Plumbing, Drainage & Fire Protection Installation Works. (For Main Contractor or domestic subcontractor, whichever is applicable).
MR 7	Copy of current EPRA Licenses in Electrical installation works - Class B and above. (For Main Contractor or domestic subcontractor, whichever is applicable).
MR 8	Provide Written Form of Power of Attorney for authorizing signatory of the bidder, signed by Commissioner for Oaths.
MR 9	Certified Copy of Company Registration/Incorporation Certificates certified by Commissioner of oaths (For Main Contractor & domestic subcontractors).
MR 10	Certified copy of Valid Tax Compliance Certificate (For Main Contractor & domestic subcontractors).
MR 11	Copies of audited accounts for the years 2021, 2022 and 2023 signed and stamped by the Auditor. Auditor's Current practicing certificate to be attached. (Main Contractor Only)
MR 12	Duly filled, signed and stamped Confidential Business Questionnaire as per enclosed format. (Main Contractor Only)
MR 13	A copy of company's list of directors, beneficial owners, National Identity Card(s) for Sole Proprietorship/Partnership; (Copy of CR12 / CR13) issued within the last 12 months and showing the list of directors certified by commissioner for oaths. (For Main Contractor, & domestic subcontractors).
MR 14	Duly filled, stamped and signed confidential business questionnaire. (Main Contractor Only)
MR 15	Duly filled, stamped and signed certificate of independent tender determination. (Main Contractor Only)
MR 16	Duly filled, stamped and signed Declaration of non - debarment – Form SD1 (Main Contractor Only)
MR 17	Duly filled, stamped and signed Declaration not to engage in corruption or fraudulent practice – Form SD2 (Main Contractor Only)
MR18	Duly filled, stamped and signed Declaration and commitment to the code of ethics (Main Contractor Only)
MR 19	Site Visit Certificate (Main Contractor Only)
MR 20	Copy of valid Trade Licence (For Main Contractor, & domestic subcontractors).

N/B:

Tender documents that do not conform to these requirements shall automatically be disqualified and not considered for further evaluation.

Stage 2. Detailed Technical Evaluation Criteria for the Bidders

After the Preliminary Examination, the Procuring Entity shall conduct a Detailed Technical Evaluation on the responsive tenders to ensure they meet the technical requirements provided for in the Detailed Technical Evaluation criteria outlined below. Points shall be awarded as follows: -

S/No.	Description	Max. Points
T1	<p>Key Personnel The Bidder shall provide details of the proposed personnel (Form PER 1), signed CVs (Form PER 2), academic certificates, professional certificates & licences. Day time contacts for these personnel shall be included in the bid. The bidder shall not be allowed to replace personnel whose CV has been submitted without the approval of the employer.</p> <p>Project Manager for the firm (6mks)</p> <ul style="list-style-type: none"> • With relevant qualifications; qualification(1mk) and registration(1mk) Total (2mks) Minimum: Bachelor's degree in Architecture OR Quantity Surveying OR Structural Engineering OR Civil Engineering OR Construction Management OR Building Technology. • With over 5 years' experience in similar works (2mks) Successfully completed Workshop/warehouse project of value 150 million and above • With over 10 years' general experience (2mks) Successfully Completed at least two Building works each of Value 150 million and above • With experience below the requirements (Prorated) <p>Builders Work Site Agent (2mks)</p> <ul style="list-style-type: none"> • With relevant qualifications (1mk) Minimum: Diploma in Architecture OR Quantity Surveying OR Structural Engineering or Civil Engineering OR Construction Management, OR Building Technology. • With general experience (1mk) 5 years and above • With experience below the requirements (Prorated) <p>Electrical Work Site Agent (2mks)</p> <ul style="list-style-type: none"> • With relevant qualifications (1mk) Minimum: Diploma in Electrical Engineering • With general experience (1mk) 5 years and above • With experience below the requirements (Prorated) <p>Mechanical Work Site Agent (2mks)</p> <ul style="list-style-type: none"> • With relevant qualifications (1mk) Minimum: Diploma in Mechanical Engineering • With general experience (1mk) 5 years and above • With experience below the requirements (Prorated) 	14

	<p>Landscape Work Site Agent (2mks)</p> <ul style="list-style-type: none"> • With relevant qualifications (1mk) Minimum: Diploma in landscaping, horticulture or ornamental landscaping • With general experience (1mk) 5 years and above • With experience below the requirements (Prorated) 	
T2	<p>Main Contractors Experience</p> <p>The bidder shall be required to provide duly filled Form EXP 4.1, Form EXP 4.2 A and 4.2B, contract agreements, reference letters (on company letterhead) and copies of Interim Payment Certificate or Practical Completion Certificates. Day time contacts of the referees for such jobs shall be clearly indicated with the bid. The employer may conduct due diligence on such works.</p>	26
	<p>General Experience</p> <ul style="list-style-type: none"> • Has been practicing as a General Building Contractor for the last 10 years. (6mks) <p>Specific Experience in Construction of Warehouses/Godowns</p> <ul style="list-style-type: none"> • Successfully Completed at least 5 No. Projects each of Value of Kshs. 150 Million and above (4mks per project) • Project Value of below Kshs 150 Million (Prorated) 	
T3	<p>Electrical Sub Contractors Experience</p> <p>The bidder shall be required to provide duly filled Form EXP 4.1, Form EXP 4.2 A and 4.2B, contract agreements, reference letters (on company letterhead) and copies of Interim Payment Certificate or Practical Completion Certificates. Day time contacts of the referees for such jobs shall be clearly indicated with the bid. The employer may conduct due diligence on such works.</p>	8
	<p>General Experience</p> <ul style="list-style-type: none"> • Has been practicing as an Electrical Works Sub Contractor for the last 10 years. (2 Mks) <p>Specific Experience in Construction of Warehouses/Godowns</p> <ul style="list-style-type: none"> • Successfully completed at least 3 No. projects each of Value of Kshs. 30 million and above. (2mks per project) • Project Value of below Kshs 30 Million (Prorated) 	
T4	<p>Mechanical Sub Contractors Experience</p> <p>The bidder shall be required to provide duly filled Form EXP 4.1, Form EXP 4.2 A and 4.2B, contract agreements, reference letters (on company letterhead) and copies of Interim Payment Certificate or Practical Completion Certificates. Day time contacts of the referees for such jobs shall be clearly indicated with the bid. The employer may conduct due diligence on such works.</p>	8
	<p>General Experience</p> <ul style="list-style-type: none"> • Has been practicing as a Mechanical Works Sub Contractor for the last 10 years. (2 Mks) <p>Specific Experience in Constuction of Warehouses/Godowns</p> <ul style="list-style-type: none"> • Successfully completed at least 3 No. projects each of Value of Kshs. 30 million and above. (2mks per project) • Project Value of below Kshs 30 Million (Prorated) 	
T5	<p>Landscape Work Sub Contractors Experience</p> <p>The bidder shall be required to provide duly filled Form EXP 4.1, Form EXP 4.2</p>	5

	A and 4.2B, contract agreements, reference letters (on company letterhead) and copies of Interim Payment Certificate or Practical Completion Certificates. Day time contacts of the referees for such jobs shall be clearly indicated with the bid. The employer may conduct due diligence on such works.	
	<p>General Experience</p> <ul style="list-style-type: none"> Has been practicing as a Landscape WorkContractor/ Sub Contractor for the last 5 years. (1 Mk) <p>Specific Experience</p> <ul style="list-style-type: none"> Successfully completed at least 2 No. projects each of Value of Kshs. 10 million and above. (2mks per project) <p>Project Value of below Kshs 10 Million (Prorated)</p>	
T6	Schedules of Contractor's equipment	5
	<p>The bidder shall be required to provide a list of major items of construction plant, tools and essential equipment to be made available during execution of this Contract in conformity with FORMEQU: Equipment. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer. For each specific equipment required in the construction work being tendered for, the awarding of marks will be as follows:</p> <ul style="list-style-type: none"> Concrete Mixer 2No – (1mk) Excavator 2 No - (1mk) Tipper Truck 15 ton 5No - (1mk) 10- ton Roller 1No- (1mk) 20- ton Roller 1No – (1mk) <p>Less than required Number (Prorated)</p>	
T7	Audited financial report for the last Three [3] years (2021, 2022 and 2023)	9
	<ul style="list-style-type: none"> Annual Turnover greater or equal to Kshs. 500 Million. (3mks per financial yr) Annual Turnover below Kshs 500 Million.(Prorated) 	
T8	Evidence of financial resources	5
	<p>The bidder shall be required to provide relevant information using Form Fin 3.1, Form Fin 3.2,Form Fin 3.3,Form Fin 3.4.</p> <p>Cash in hand, Lines of Credit, overdraft facility, e.t.c (attach evidence)</p> <ul style="list-style-type: none"> Has financial resources equal or above Kshs 25,000,000 (5mks) Has financial resources below Kshs 25,000,000 (Prorated) Has not demonstrated/given evidence for the financial resources (0 Mks) 	
T9	Detailed works program and Methodology	20
	<p>The bidder shall be required to provide a summary outlining the scheduling and methodology of implementing the project to completion including the defects liability period.</p> <p>Adequacy of the works program</p> <ul style="list-style-type: none"> Has attached a clear and legible Works Program (1mks) Program captures all elements specific to the proposed works (4mks) Program covers the required timeline and all elements are reasonably scheduled. (4mks) <p>Adequacy of the proposed methodology:</p> <ul style="list-style-type: none"> Captures the Contractor's Organization structure. (1mks) Captures all elements specific to the proposed works. (7 mks) Captures the inclusion of all statutory requirements specific to the works (OSHA, NCA, NEMA, Stakeholder engagement, e.t.c.) (3mks) 	

	TOTAL POINTS	100
	MINIMUM POINTS	75

NB: Tenders that do not meet the minimum required mark of 75 points in the Detailed Technical Evaluation will not be considered for further evaluation.

Stage 3. Financial Evaluation

Financial Evaluation shall comprise of the following:

a) Completeness of the Bills of Quantities:

The Bills of Quantities section of the submitted Tender Document must be complete as issued, with no alteration, addition or qualification of any kind whatsoever made by the Tenderer to the text of the document. Any alterations, additions or qualifications shall be considered as material deviations as per ITT 29.2 and shall lead to Disqualification.

b) Examination of unit rates:

Each bid shall be subjected to an evaluation of unit rates for similar items. Bids shall be assessed to confirm uniformity and consistency in rates of similar individual line items across the bills of quantities and any findings noted.

c) Error checks:

The bids from the examination of unit rates shall be evaluated for arithmetic errors.

Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive in line with Clause 31.2 (b) of the Standard Document for Procurement of Works (Building and Associated Civil Engineering Works.

The amount stated in words shall prevail in the event any discrepancy arises between words and figures in line with clause 31.2 (c) of the Standard Document for Procurement of Works (Building and Associated Civil Engineering Works.

d) Ranking of the bids:

Ranking of the bids using their Evaluated Tender Sums shall be undertaken. The ranking shall be used to determine the bid with the Lowest Evaluated Tender sum, which shall be considered for award.

Stage 4. Due Diligence

Simlaw Seed Company Limited may, prior to award of the tender, determine to its satisfaction whether the selected bidders will qualify to perform the contract satisfactorily by carrying out a due diligence visit to confirm authenticity/compliance of any condition of the tender/qualifications of the tenderer in line with Section 83 (1) of the Public Procurement and Asset Disposal Act,2015(Revised Edition 2022)

Stage 5. Recommendation for Award

The firm achieving the lowest evaluated price will be awarded the contract in line with Section 86(1) of the Public Procurement and Disposal Act,2015(Revised Edition 2022)

30 TENDER EVALUATION (ITT 35)

Price evaluation: in addition to the criteria listed in ITT 35.2 (a) – (d) the following criteria shall apply:

- (i) Alternative Completion Times, if permitted under ITT13.2, will be evaluated as follows:
.....N/A.....
- (ii) Alternative Technical Solutions for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows:N/A
- (iii) Other Criteria; if permitted under ITT 35.2(j):.....N/A

40 MULTIPLE CONTRACTS

41 Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and a lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

OPTION 1

- (i) If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.
- (ii) If a tenderer wins more than one Lot, the tender will be awarded a contract for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots. The tenderer will be awarded only the combinations for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combination with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combination provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

5.0 ALTERNATIVE TENDERS (ITT 13.1)

Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 3.1, will be evaluated as follows:

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2 - Works requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

60 MARGIN OF PREFERENCE

- 61** If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of share holding of Kenyan citizens is less than fifty- one percent (51%).
- 62** Contractors shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference.

63 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be

assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:

- i) *Group A*: tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty one percent (51%).
- ii) *Group B*: tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).

64 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award of contract. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 6.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected forward. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.

7. Post qualification and Contract ward (ITT 39), more specifically,

- a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.
- b) In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.
 - i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of **Kenya Shillings 25,000,000**.
 - ii) Minimum average annual construction turnover of **Kenya Shillings 500,000,000** equivalent calculated as total certified payments received for contracts in progress and/or completed within the **last 3 years**.
 - iii) Atleast **5 No.** of contract(s) of a similar nature executed within Kenya, or the East African Community or a broad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value **Kenya shillings 150,000,000** equivalent.
 - iv) Contractor's Representative and Key Personnel as specified
 - iv) Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed
 - v) Other conditions depending on their seriousness.
 - vi) Tenders that do not meet the minimum required points of **70 points** in the Detailed Technical Evaluation will be considered non- responsive and will not be considered further.

a) **History of non-performing contracts:**

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last 5 years. The required information shall be furnished in the appropriate form.

b) **Pending Litigation**

Financial position and prospective long-term profit ability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above if all pending litigation will be resolved

against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

c) LitigationHistory

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last **5 years**. All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or on going underrits execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

QUALIFICATION FORM*

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by Kenya Revenue Authority in accordance with ITT 3.14.	Attachment	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.8	Forms ELI – 1.1 and 1.2, with attachments	
6	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 4.1	Forms ELI – 1.1 and 1.2, with attachments	
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since 1 st January [.....].	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 19.9	Form of Tender	
9	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON – 2	
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since 1 st January [insert year].	Form CON – 2	
11	Financial Capabilities	(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings [insert amount] equivalent for the subject contract(s) net of	Form FIN – 3.1, with attachments	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		<p>the Tenderer's other commitments.</p> <p>(ii) The Tenderers shall also demonstrate, to the satisfaction of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.</p> <p>(iii) The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last <i>[insert number of years]</i> years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.</p>		
12	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings <i>[insert amount]</i> , equivalent calculated as total certified payments received for contracts in progress and/or completed within the last <i>[insert of year]</i> years, divided by <i>[insert number of years]</i> years	Form FIN – 3.2	
13	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last <i>[insert number of years]</i> years, starting 1 st January <i>[insert year]</i> .	Form EXP – 4.1	
14	Specific Construction & Contract Management Experience	<p>A minimum number of <i>[state the number]</i> similar contracts specified below that have been satisfactorily and substantially completed as a prime contractor, joint venture member, management contractor or sub-contractor between 1st January <i>[insert year]</i> and tender submission deadline i.e. (number) contracts, each of minimum value Kenya shillings..... equivalent.</p> <p><i>[In case the Works are to be tender as individual contracts under multiple contract procedure, the minimum number of contracts required for purposes of evaluating qualification shall be selected from the options mentioned in ITT 35.4]</i></p>	Form EXP 4.2(a)	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	<i>Document To be Completed by Tenderer</i>	<i>For Procuring Entity's Use (Qualification met or Not Met)</i>
		<p>The similarity of the contracts shall be based on the following: <i>[Based on Section VII, Scope of Works, specify the minimum key requirements in terms of physical size, complexity, construction method, technology and/or other characteristics including part of the requirements that may be met by specialized subcontractors, if permitted in accordance with ITT 34.3]</i></p>		

SECTION IV - TENDERING FORMS

QUALIFICATION FORMS

1. FOREIGN TENDERERS 40%RULE

Pursuant to ITT 3.9, a foreign tenderer must complete this form to demonstrate that the tender fulfils this condition.

ITEM	Description of Work Item	Describe location of Source	COST in K. shillings	Comments, if any
A	Local Labor			
1				
2				
3				
4				
5				
B	Sub contracts from Local sources			
1				
2				
3				
4				
5				
C	Local materials			
1				
2				
3				
4				
5				
D	Use of Local Plant and Equipment			
1				
2				
3				
4				
5				
E	Add any other items			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXX	
	PERCENTAGE OF CONTRACT PRICE			

2. FORMEQU: EQUIPMENT

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

3. FORM PER -1

Contractor's Representative and Key Personnel Schedule

Tenderers should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	Title of position: Contractor's Representative	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart]</i>
2.	Title of position: [_____]	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart]</i>
3.	Title of position: [_____]	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart]</i>
4.	Title of position: [_____]	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart]</i>
5.	Title of position: <i>[insert title]</i>	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart]</i>

4. FORM PER - 2:

Resume and Declaration - Contractor's Representative and Key Personnel.

Name of Tenderer

Position [#1]: <i>[title of position from Form PER-1]</i>		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Details	Address of Procuring Entity:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Procuring Entity:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned [*insert either "Contractor's Representative" or "Key Personnel" as applicable*], certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Tender evaluation;
- (b) result in my disqualification from participating in the Tender;
- (c) result in my dismissal from the contract.

Name of Contractor's Representative or Key Personnel: [*insert name*]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

5. TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

5.1 FORM ELI -1.1

Tenderer

Information Form

Date: _____

ITT No. and title: _____

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.6 <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5 <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing: <ul style="list-style-type: none">• Legal and financial autonomy• Operation under commercial law <ol style="list-style-type: none">1. Establishing that the Tenderer is not under the supervision of the Procuring Entity2. Included are the organizational chart and a list of Board of Directors

**Tenderer's JV Information Form
(to be completed for each member of Tenderer's JV)**

Date: _____

ITT No. and title: _____

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
<p>1. Attached are copies of original documents of</p> <p><input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 3.6.</p> <p><input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 3.5.</p> <p>2. Included are the organizational chart and a list of Board of Directors.</p>

Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's Name: _____
 Date: _____
 JV Member's Name _____
 ITT No. and title: _____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January [<i>insert year</i>] specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January [<i>insert year</i>] specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
<input type="checkbox"/> Contract(s) withdrawn since 1 st January [<i>insert year</i>] specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
[<i>insert year</i>]	[<i>insert amount and percentage</i>]	Contract Identification: [<i>indicate complete contract name/ number, and any other identification</i>] Name of Procuring Entity: [<i>insert full name</i>] Address of Procuring Entity: [<i>insert street/city/country</i>] Reason(s) for nonperformance: [<i>indicate main reason(s)</i>]	[<i>insert amount</i>]
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: Name of Procuring Entity: Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Entity" or "Contractor"]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Include details relating to potential bid-rigging practices such as previous occasions where tenders were withdrawn, joint bids with competitors, subcontracting work to unsuccessful tenderers, etc.

5.4 FORM FIN – 3.1:

Financial Situation and Performance

Tenderer’s Name: _____

Date: _____

JV Member’s Name _____

ITT No. and title: _____

5.4.1. Financial Data

Type of Financial information in _____ (currency)	Historic information for previous _____ years, _____				
	(amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

*Refer to ITT 15 for the exchange rate

5.4.2 Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

5.4.3 Financial documents

The Tenderer and its parties shall provide copies of financial statements for _____ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

- (a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
- (b) be independently audited or certified in accordance with local legislation.
- (c) be complete, including all notes to the financial statements.
- (d) correspond to accounting periods already completed and audited.

Attached are copies of financial statements¹ for the _____ years required above; and complying with the requirements

¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of Tender, the reason for this should be justified.

5.5 FORM FIN – 3.2:

Average Annual Construction Turnover

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Annual turnover data (construction only)			
Year	Amount Currency	Exchange rate	Kenya Shilling equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

5.6 FORM FIN – 3.3:

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria

Financial Resources		
No.	Source of financing	Amount (Kenya Shilling equivalent)
1		
2		
3		

5.7 FORM FIN – 3.4:

Current Contract Commitments / Works in Progress

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments

No.	Name of Contract	Procuring Entity's Contact Address, Tel,	Value of Outstanding Work [Current Kenya Shilling /month Equivalent]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]
1					
2					
3					
4					
5					

5.8 FORM EXP - 4.1

General Construction Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

5.9 FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount				Kenya Shilling
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address:				
Telephone/fax number				
E-mail:				

5.9 FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount				Kenya Shilling
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address:				
Telephone/fax number				
E-mail:				



5.9 FORM EXP - 4.2 (a) (cont.)

Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

5.10 FORM EXP - 4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____

Date: _____

Tenderer's JV Member Name: _____

Sub-contractor's Name² (as per ITT 34): _____

ITT No. and title: _____

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1. Key Activity No One: _

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Kenya Shilling			
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

² If applicable

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

2. Activity No. Two

3.

OTHER FORMS

6. FORM OF TENDER

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS

- i) *All italicized text is to help the Tenderer in preparing this form.*
- ii) *The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.*
- iii) *Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (xxii) below.*

Date of this Tender submission:.....[insert date (as day, month and year) of Tender submission]

Tender Name and Identification:.....[insert identification]

Alternative No.:.....[insert identification No if this is a Tender for an alternative]

To: [Insert complete name of Procuring Entity]

Date of this Tender submission: [insert date (as day, month and year) of Tender submission]

Request for Tender No.: [insert identification] **Name and description of Tender** [Insert as per ITT] **Alternative No.:** [insert identification No if this is a Tender for an alternative]

To: [insert complete name of Procuring Entity]

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum³ of Kenya Shillings [[Amount in figures] _____ Kenya Shillings [amount in words] _____]

The above amount includes foreign currency⁴ amount (s) of [state figure or a percentage and currency] [figures] _____ [words] _____

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.
3. We agree to adhere by this tender until _____ [Insert date], and it shall remain binding upon us and may be accepted at any time before that date.
4. We understand that you are not bound to accept the lowest or any tender you may receive.
5. We, the under signed, further declare that:
 - i) No reservations: We have examined and have no reservations to the tender document, including

³ This sum should be carried forward from the Summary of the Bills of Quantities.

⁴ The percentage quoted above should not include provisional sums, and not more than two foreign currencies are allowed.

Addenda issued in accordance with ITT 28;

- ii) Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;
- iii) Tender - Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;
- iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;
- v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*
- vi) Option 1, in case of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies]*; or
Option 2, in case of multiple lots:
 - (a) Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and
 - (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
- vii) Discounts: The discounts offered and the methodology for their application are:
- viii) The discounts offered are: *[Specify in detail each discount offered.]*
- ix) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
- x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
- xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;
- xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.
- xiv) State-owned enterprise or institution: *[select the appropriate option and delete the other]* *[We are not a state-owned enterprise or institution]*/*[We are a state-owned enterprise or institution but meet the requirements of ITT 3.8]*;
- xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and*

the amount and currency of each such commission or gratuity].

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

- xvi) **Binding Contract:** We understand that this Tender, together with your written acceptance there of included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- xvii) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;
- xviii) **Fraud and Corruption:** We here by certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption; and
- xix) **Collusive practices:** We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the “Certificate of Independent Tender Determination” attached below.
- xx) We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from____(specify website) during the procurement process and the execution of any resulting contract.
- xxi) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.
- xxii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:
 - a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are no tin any conflict to interest.
 - (b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.
 - (a) Self-Declarationo f the Tenderer - to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.
 - (d) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in “**Appendix 1 - Fraud and Corruption**” attached to the Form of Tender.

Name of the Tenderer: *[insert complete name of person signing the Tender]

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: **[insert complete name of person duly authorized to sign the Tender]

Title of the person signing the Tender: [insert complete title of the person signing the Tender]

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* day of *[insert month]*, *[insert year]*

Datesigned _____ dayof _____.

Notes

** In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer.*

***Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender.*

(a) TENDERER'S ELIGIBILITY-CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

Tender is instructed to complete the particulars required in this Form, *one form for each entity if Tender is a JV*. Tenderer is further reminded that it is an offence to give false information on this Form.

(a) Tenderer's details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	
2	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address (<i>postal and physical addresses, email, and telephone number</i>) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address (<i>postal and physical addresses, email, and telephone number</i>) of state which stock exchange	

General and Specific Details

(b) Sole Proprietor, provide the following details.

Name in full _____ Age _____
Nationality _____ Country of Origin _____
Citizenship _____

(c) Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

(d) **Registered Company**, provide the following details.

- i) Private or public Company _____
- ii) State the nominal and issued capital of the Company _____

Nominal Kenya Shillings (Equivalent).....
 Issued Kenya Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

(e) **DISCLOSURE OF INTEREST - Interest of the Firm in the Procuring Entity.**

- i) Are there any person/persons in..... (*Name of Procuring Entity*) who has/have an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

(iii) **Conflict of interest disclosure**

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the such Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.		

Certification

On behalf of the Tenderer, I certify that the information given above is complete, current and accurate as at the date of submission.

Full Name _____

Title or Designation _____

(Signature)

(Date)

b) CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the _____
_____ [Name of Procuring Entity] for:
_____ [Name and number of tender] in
response to the request for tenders made by: _____ [Name of Tenderer] do
hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of _____ [Name of Tenderer] that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the Tender on behalf of the Tenderer;
4. For the purposes of this Certificate and the Tender, I understand that the word "competitor" shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) Has been requested to submit a Tender in response to this request for tenders;
 - b) could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;
5. The Tenderer discloses that [check one of the following, as applicable]:
 - a) The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
 - b) the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
6. In particular, without limiting the generality of paragraphs (5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) methods, factors or formulas used to calculate prices;
 - c) the intention or decision to submit, or not to submit, a tender; or
 - d) the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5)(b) above;
7. In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above;
8. The terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name _____
Title _____
Date _____

[Name, title and signature of authorized agent of Tenderer and Date]

(c) **SELF- DECLARATION FORMS**

FORM SD1

SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.

I,, of Post Office Box being a resident of..... in the Republic of do hereby make a statement as follows: -

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Direct or of (*insert name of the Company*) who is a Bidder in respect of **Tender No.** for (*insert tender title/description*) for (*insert name of the Procuring entity*) and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.
3. THAT what is deponed to here in above is true to the best of my knowledge, information and belief.

.....
..... (Date) (Title) (Signature)

Bidder Official Stamp

FORM SD2

SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE.

I,of P.O. Box being a resident of in the Republic of do hereby make a statement as follows:

1. THAT I am the Chief Executive/Managing Director/Principal Officer/Director of (insert name of the Company) who is a Bidder in respect of **Tender No.**..... for (insert tender title/description) for (insert name of the Procuring entity) and duly authorized and competent to make this statement.
2. THAT theafore said Bidder, its servants and/oragents/subcontractorswillnotengageinanycorruptorfraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of (insert name of the Procuring entity) which is the procuring entity.
3. THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of (name of the procuring entity).
4. THAT the aforesaid Bidder will not engage /has not engaged in any corrosive practice with other bidders participating in the subject tender
5. THAT what is deponed to here in above is true to the best of my knowledge information and belief.

.....
..... (Title) (Signature)
(Date)

Bidder's Official Stamp

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I (person) on behalf of (*Name of the Business/ Company/Firm*)
.....

..... declare that I have read and fully understood the contents of the Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

I do here by commit to abide by the provisions of the Code of Ethics for persons participating in Public Procurement and Asset Disposal.

Name of Authorized signatory.....

Sign.....

Position.....

Office address.....

Telephone..... E-mail.....

Name of the Firm/Company.....

Date.....

(Company Seal/ Rubber Stamp where applicable)

Witness

Name.....

.....

Sign.....

.

Date.....

.

(d) APPENDIX 1 - FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

1.1 The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (*no. 33 of 2015*) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.

2. Requirements

2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Sub-contractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.

2.2 Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:

- 1) A person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or as set disposal proceeding;
- 2) A person referred to under subsection (1) who contravenes the provisions of that sub-section commits an offence;
- 3) Without limiting the generality of the subsection (1) and (2), the person shall be: -
 - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
 - b) if a contract has already been entered into with the person, the contract shall be voidable;
- 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
- 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement: -
 - a) Shall not take part in the procurement proceedings;
 - b) shall not, after a procurement contract has been entered in to, take part in any decision relating to the procurement or contract; and
 - c) shall not be a subcontractor or for the tender to whom was awarded contract, or a member of the group of tenderers to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.
- 6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;

- 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.
3. In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:
- a) Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:
 - i) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii) "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party; "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - iv) "obstructive practice" is:
 - Deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.
 - b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
 - c) Rejects a proposal for award¹ of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
 - d) Pursuant to the Kenya's above stated Acts and Regulations, may recommend to appropriate authority(ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
 - e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect² all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
 - f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a "Self-Declaration Form" as included in the procurement

document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

¹For the avoidance of doubt, a party's in eligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and tendering, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Investigating Authority or persons appointed by the Procuring Entity to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

FORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee]

Beneficiary: _____

Request for Tenders No:

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

1. We have been informed that _____ (here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of _____ under Request for Tenders No. ("the ITT").
2. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
3. At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:
 - (a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or
 - b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.
4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above onor before that date.

[signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

1. Whereas [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated [*Date of submission of tender*] for the [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of _____ under Request for Tenders No. _____ (“the ITT”).
2. KNOW ALL PEOPLE by these presents that WE of [**Name of Insurance Company**] having our registered office at (hereinafter called “the Guarantor”), are bound unto [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

Sealed with the Common Seal of the said Guarantor this ____ day of _____ 20 ____.

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:
 - a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
 - b) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document.

then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[Date]

[Witness]

[Signature of the Guarantor]

[Seal]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

FORM OF TENDER - SECURING DECLARATION

[The Bidder shall complete this Form in accordance with the instructions indicated]

Date: *[insert date (as day, month and year) of Tender Submission]*

Tender No.: *[insert number of tendering process]*

To: *[insert complete name of Purchaser]* I/We, the undersigned,

declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.
2. I/We accept that I/we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of *[insert number of months or years]* starting on *[insert date]*, if we are in breach of our obligation(s) under the bid conditions, because we—(a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the instructions to tenders.
3. I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:
 - a) Our receipt of a copy of your notification of the name of the successful Tenderer; or
 - b) thirty days after the expiration of our Tender.
4. I/We understand that if I am /we are/ in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:..... Capacity/title (director or partner or sole proprietor, etc.)

Name:..... Duly authorized

to sign the bid for and on behalf of: *[insert complete name of Tenderer]*

Dated on day of, *[Insert date of signing]* Seal or stamp

Appendix to Tender

Schedule of Currency requirements

Summary of currencies of the Tender for _____ *[insert name of Section of the Works]*

<i>Name of currency</i>	<i>Amounts payable</i>
Local currency: _____	
Foreign currency #1: _____	
Foreign currency #2: _____	
Foreign currency #3: _____	
Provisional sums expressed in local currency _____	<i>[To be entered by the Procuring Entity]</i>

PART II - WORKS REQUIREMENTS

SECTION V - BILLS OF QUANTITIES

A. Notes and Sample Items for Preparing a Bill of Quantities

1. These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Tender Documents. Priced Bills of Quantities shall be part and parcel of the Contract Documents.
2. The objectives and purpose of the Bills of Quantities are to provide sufficient information on the specifications, descriptions and quantities of Works to be performed to enable tenders to be prepared efficiently and accurately and 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 insufficient 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 clear as possible.
3. The Bills of Quantities should be divided generally into the following sections:
 - a) Preambles
 - b) Preliminary items
 - c) Work Items
 - c) Daywork Schedule; and
 - d) Provisional items
 - e) Summary.

4. NOTES TO PREPARING PREAMBLES

- 4.1 The Preambles should include only those items that constitute the cost of the works but would not be priced separately as they are expected to be included in the unit prices. Care should be taken to ensure that these items are not a part of the conditions of contract. The Preambles should indicate the inclusiveness of the unit prices and should state the methods of measurement that have been adopted in the preparation of the Bill of Quantities, that are to be used for the measurement of any part of the Works. The units of measurement and abbreviations should be defined and any mandatory national units defined and described. The methods of and procedure for re-measurement should be described in the Preambles.
- 4.2 Units of Measurement - The following units of measurement and abbreviations shall be used, unless other national units are mandatory in Kenya.

Unit	Abbreviation	Unit	Abbreviation
cubic meter	m ³ or cu m	millimetre	mm
hectare	ha	month	mon
hour	h	number	nr
kilogram	kg	square meter	m ² or sq m
lump sum	ls	square millimeter	mm ² or sq mm
meter	m	week	wk
metric ton	t		

- 4.3 The Bills of Quantities shall be read in conjunction with the Instructions to Tenders, General and Special Conditions of Contract, Technical Specifications, and Drawings.
- 4.4 The quantities given in the Bills of Quantities are estimated and partly provisional and are given to

provide a common basis for tendering. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Architect and valued at the rates and prices tender in the priced Bills of Quantities, where applicable, and otherwise at such rates and prices as the Architect may fix within the terms of the Contract.

45. The rates and prices tender in the priced Bills of Quantities shall, except in so far as it is otherwise provided under the Contract, include all Constructional Plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
46. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
47. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bills of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
48. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bills of Quantities. References to the relevant sections of the Contract documents shall be made before entering prices against each item in the priced Bills of Quantities.
49. Provisional Sums and contingency sums included and so designated in the Bills of Quantities shall be expended in whole or in part at the direction and discretion of the Architect in accordance with Sub-Clause 13.5 and Clause 13.6 of the General Conditions of contract.
410. In preparing the Bills of Quantities, notes should be removed as they are intended to guide the person preparing the Tender Documents. The Contractor must allow in his rates for any costs associated with and complying with the requirements in the Preambles.
411. Should a tenderer/contractor not price any item in any section of the Bills of Quantities including Preliminary items, it will be assumed that he/she has spread its cost in other areas that he/she will have priced. Therefore, the item or items will be executed without any additional costs or without being treated like variations.

5. NOTES ON PREPARING BILLS OF QUANTITIES

51. The Preliminary Items should be limited to tangible items that should be priced by the tenderer, are identifiable and can be priced separately and included in the interim valuations precisely. Such items may include such items as site office, notice boards, and other temporary works, otherwise items such as security for the Works which are primarily part of the Contractor's obligations should be included in the Contractor's rates.
52. The work items in the Bills of Quantities should be grouped into sections to distinguish between those parts of the Works which by nature, location, access, timing, or any other special characteristics may give rise to different methods of construction, or phasing of the Works, or considerations of cost. Such groups could be ground excavations, structures, external works, services, etc. General items common to all parts of the Works may be grouped as a separate section in the Bill of Quantities.
53. Quantities should be computed net from the Drawings, unless directed otherwise in the Contract, and no allowance should be made for bulking, shrinkage or waste. Quantities should be rounded up where appropriate.
54. Where the measured items are deemed not to be exact because of the likelihood that the scope can change during the execution of the works, such items could be subject to re-measurement, the word "**provisional**" should be used to identify such cases. Where whole sections of the work items fall in this class, for example foundations, they should be labelled "Provisional Quantities" or "Provisional Items" so that the Tenderer/Contractor is advised up front that such items are subject to re-measurement to be done before such work is covered-up.
55. All items that have not been measured and therefore not subject to tender pricing should be listed in the Bills of Quantities as **Provisional Sums** for particular item or class of Work, which may be subject to a nominated subcontract or separate measurements at a later date during the execution of the works.

For example, if it is deemed not possible to measure electrical works before going to tender because detail designs are not ready, a provisional sum can be allowed in the Bills of Quantities for “Installation of Electrical Works” to be executed later when actual design details are completed. To the extent not covered above, there should be in the Bills of Quantities a general provision for physical and financial contingencies made as a “Provisional Sum for Contingencies” and “Provisional Sum for Fluctuations”. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises.

- 5.6 Provisional sums to cover specialized works normally carried out by Nominated Sub Contractors should be avoided and instead Bills of Quantities of the specialized Works should be included as a section of the main Bills of Quantities to be priced by the Main Contractor. The Main Contractor should be required to indicate the name(s) of the specialized firms he proposes to engage to carry out the specialized Works as his approved domestic sub-contractors. Only provisional sums to cover specialized Works by statutory authorities should be included in the Bills of Quantities.
- 5.7 A Daywork Schedule should be included if the probability of unforeseen work, outside the items included in the Bill of Quantities, is relatively high. To facilitate checking by the Procuring Entity of the realism of rates quoted by the tenderers, the Daywork Schedule should normally comprise:
 - i) A list of the various classes of labor, and materials for which basic.
 - ii) Daywork rates and prices for various categories of labor are to be inserted by the tenderer, together with a statement of the conditions under which the Contractor will be paid for Work executed on a Daywork basis.
 - iii) A percent a get o be entered by the tenderer agains teach basic Day work item.
 - iv) Subtotal amount for labor, materials and plant representing the Contractor's profit, overheads, supervision and other charges.
- 5.8 The Summary should contain a tabulation of the separate parts of the Bills of Quantities carried forward, with provisional sums for Daywork, Provisional sums and Contingencies, and provision for Total Costing. The last line should allow for tenderer to indicate any discounts before arriving at a total cost carried forward to the Form of Tender.

BILLS OF QUANTITIES

(a) Preambles

1. The method of measurement of completed work for payment shall be in accordance with [*insert the name of a standard reference guide, or full details of the methods to be used*].
2. The Site is situated in (*provide full description where the site is situated, coordinates from the nearest known landmark like a town and its size*)_____It is approximately_____Kilometers from Nairobi. Access to the site shall be through_____,

Which is an existing public road. Any damage caused to the surfaces of this road shall be made good at the Contractor's expense. The Contractor shall visit the site and acquaint itself with its nature and position, the nature of the ground, substrata and other local conditions, positions of existing power, water and other services, access roads or any other limitations that might affect his cost or progress. No claim for extras shall be considered on account of lack of knowledge in this respect.
3. The Contractor shall obtain the Architect's approval on the siting of all temporary buildings, spoil heaps, temporary access path, and storage of materials. The Contractor shall also obtain the Architect approval and direction regarding the use of any materials found on the Site.
4. The drawings used in the preparation of these Bills of Quantities can be inspected at the offices of the Procuring Entity or Procuring Entity's Representative during normal working hours. Two sets of the Working Drawings shall be provided to the contractor but additional copies shall be provided at a cost to be determined by the Engineer.
5. The Contractor shall allow for the payment of all bank charges in connection with the procurement of Bank Guarantees and stamp charges in connection with this contract Agreement.
6. The Contractor shall carry out the various sections of the Works in such an order as the Architect May direct. The Procuring Entity reserves the right to occupy the Works by sections on completion provided that such occupation is considered to be both practical and reasonable and will not interfere with the Works. The Contractor shall allow any costs associated with such occupation.
7. The main Contractor will be fully responsible for paying his Sub-Contractor but the Procuring Entity reserves the right in very exceptional circumstances to make such payments direct in the interests of the project where the completion thereof might be jeopardized by any dispute or vicariousness between the Contractor and the Sub- Contractor involve.
8. The Contractor shall complete and deliver the Works in the period inserted in the Form of Tender as his time for completion of the Works from the date for Possession, to be agreed with the Engineer. The Contract Period is presumed to have been calculated making due allowance for seasonal inclement weather conditions. No claim for extension of time due to the normal inclement weather for this area shall be entertained.
9. The Contractor shall, upon receiving instructions to proceed with the Works, draw up a Programme and Progress Chart setting out the order in which the Works are to be carried out, with the appropriate dates there of. This Chart shall be agreed with the Architect and no deviation from the order set out in it will be permitted without the written consent of the Engineer. The Contractor will be responsible for arranging the above programme with all his sub-Contractors and Specialties. The Contractor shall allow in his rates for carrying out this exercise, and for updating it as required.
10. The Contractor shall submit to the Architect on the first day of each week or such longer period as the Architect from time to time direct, a Progress Report and any information for the preceding period, showing the progress during the period and the up-to-date cumulative progress on all important items of each section or portion of the Works.
11. The Contractor shall arrange for photographs of the Site to be taken by a professional photographer approved by the Engineer. The Photographs shall provide a record of the Site and adjacent areas as prior to the commencement of the Works and shall cover such portion of the works in progress and

completion as the Architect shall direct. All prints shall be full plate size, unmounted, and marked on the reverse side with the date of exposure, identification reference and brief description. The copyright of all photographs shall be vested in the Procuring Entity. The negatives and four prints from each negative shall be delivered to the Architect within two weeks of exposure.

12. Figured dimensions are to be followed in preference to dimensions scaled from the Drawings, but whenever possible dimensions are to be taken on the Site or from the buildings. Before any work is commenced by Sub- Contractors or Specialist Firms, dimensions must be checked on the site comparable dimensions shown on the drawings. The Contractor shall be responsible for the accuracy of such dimensions.
13. Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, waterpipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Architect and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense. Where appropriate the Contractor shall open up the ground in advance of the main work by hand digging if necessary, to locate precisely the position and details of the services which are likely to affect his operations.
14. The Contractor shall include in his prices for the transport of materials, workmen, etc./, to and from the site of the proposed works, at such hours and by such route as are permitted by the Authorities.
15. The Contractor will be required to make good, at his own expense and damage he may cause to the present road surface and pavements within or beyond the boundary of the Site, during the period of the works. All existing paths, storm water channels, etc., that may be destroyed or damaged during the progress of the Works shall be reinstated by the Contractor to the satisfaction of the Engineer.
16. The Contractor is to allow for complying with all instructions and regulations of the Police Authorities.
17. All water shall be fresh, clean and pure, free from earthly, vegetable or organic matter, acid or alkaline substance in solution. The Contractor shall provide at his own risk and cost all water for use in connection with the Works, (including works of sub-contractors). If need be, he shall make arrangements with the Local Water Authority for the installation of a separate meter for all water used by him throughout the Contract and pay all cost and fees in connection therewith. He shall also provide temporary storage tanks and tubing, etc., as may be necessary, and clear away at completion.
18. The Contractor shall provide all artificial lighting and power for his own use on the Works, (including Sub – Contractor's) including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.
19. The Contractor shall constantly keep on the Works a Literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the works. (Including works of sub – contractors). Such Agent or Representative shall receive on behalf of the Contractor directions and instruction from the Engineer, and such directions and instructions shall be deemed to be given to the contractor in accordance with the Conditions of Contract. The Agent shall not be replaced without the specific approval of the Engineer.
20. The Contractor shall ensure that the safety of his work people and all authorized visitors to the site are protected at all times. In particular, there shall be the proper provision of guard-rails to scaffolding, protection against falling materials, tools on site, dust, nail and other sharp objects. The site shall be kept tidy and clear of dangerous rubbish. The Architect shall be empowered to suspend work on site should it be considered this condition is not being observed and no claim arising from such suspension will be allowed.
21. The area as available to the Contractor for workyards, offices and other facilities shall be directed by the Architect and any existing features to remain shall be protected from damage throughout the Contract Period and handed back in good condition when they are vacated at the end of the Contract. If additional areas are required, the contractor shall source them at own cost.

22. The Contractor shall give the Architect reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Architect shall not relieve the Contractor of his duties or responsibilities under the Contract.
23. The Contractor must take steps necessary to safe guard and shall beheld fully responsible for any damage caused to existing and adjacent property, including buildings that are not a subject of demolition. He shall make good at his own cost damage to persons and property caused there on, and he shall indemnify the Procuring Entity against any loss or claim that may arise.
24. The Contractor shall take such steps and exercise such care and diligence as to minimize nuisance arising from dust, noise or any other cause to the occupiers of the existing and adjacent property. He must provide such temporary and special screens and tarpaulins or gummy bags, hoarding, barriers, warning signs etc. as he considers necessary and sufficient for the protection of the existing and adjacent property and or prevention of nuisance etc. as directed by Engineer.
25. The Contractors attention is drawn to the standards levy order which was amended on 15th October 1998. Legal notice No.154 of 1998. The Contractor is required to pay a monthly level of 0.2% of his factory price of construction works with effect from January 1999. Tenderer shall allow for this in the build-up of his rates.
26. The Contractor shall provide temporary sheds, offices meshrooms, sanitary, accommodation and other temporary buildings for the use of the contractor and sub-contractors, including lighting furniture equipment and attendance.
27. Contractor shall provide/build labor camp sat areas to be agreed with the Engineer. Labor camps shall be complete with sanitary accommodation and fencing gates.
28. The Contractor must provide the necessary toilet facilities to the requirement and satisfaction of the Health Authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy fees during the period of the Works and remove when no longer required.
29. The Contractor shall provide at his own risk and cost all watching and lighting as necessary to safeguard the Works, Plant and materials against damage and theft.
30. The Contractor shall provide all necessary hoists, tackle, plant, equipment, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove the same on completion. All such plant, tools and equipment shall comply with all regulations in force throughout the period of the Contract and shall be altered or adopted during the Contract period as may be necessary to comply with any amendments in or additions to such regulations.
31. Provide, erect and maintain all necessary scaffolding, sufficiently strong and efficient for the due performance of the works, including Sub-Contract Works, provide special scaffolding as required by Sub-Contractors, alter and adopt all scaffolding as and when required during the Works, and remove on completion. No scaffolding is measured here in after and the Contractor must allow in his rates for this.
32. The Contractor shall take all necessary precautions such as temporary fencing, hoarding fans, planked footways, guard-rails gantries screen, etc., for the safe custody of the Works, materials and public protection and adjacent properties.
33. Cover up all and protect from damage, including damage from in clement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Architect until the completion of the Contract.
34. The Contractor shall, after completion of the works, at his own expense, remove and clear away all surplus excavated demolition materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Engineer, sheds, camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all paint and cement

all rubbish and dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection therewith.

35. Concrete test cubes shall be prepared in a set of three, as described including testing fees, labor and materials, making molds, transport, handling, etc. Allow in your rates for making at least four cubes on each occasion, from different batches; the concrete being taken from the point of deposit.
36. The Contractor shall furnish at the earliest possible opportunity before work commences, and at his own cost, any samples of materials and workmanship that may be called for by the Architect for the approval or rejection, and any further samples in the case of rejection, until such samples are approved by the Engineer. Such samples, when approved, shall be the minimum standard for the work to which they apply. The procedure for submitting samples of materials for testing or approval and the method of marking for identification shall be as laid down by the Engineer. The Contractor shall allow in his Tender for such samples and tests, including those in connection with his Sub-Contractors work.
37. The Contractor's attention is drawn to the Finance Bill of the year 2000/2001 on withholding tax on contractual payment section 35(7)(i)(ii) which became effective on 1st July 2000. A 3% withholding tax will be applicable to all interim payments exceeding Kshs..... for work done in respect of building or civil works. The contractor shall allow for any costs arising resulting therefrom in the build-up of rates.
38. Blasting will only be allowed with the express permission of the Architect in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost, in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Architect governing the use and storage of explosives.
39. The National Construction Authority is a state corporation established under the national construction authority Act No.14 of 2011. The broad Mandate of the Authority is to oversee the construction industry and coordinate its development. The National Construction Authority Regulations 2014 with an effective date of 6th June 2014, regulation 25, - Allow 0.5% of the tender sum/contract sum for construction levy.
40. The Contractor's attention is drawn to Finance Bill of 1993 where VAT was introduced in all contracts for construction services. The tenderer is also drawn to VAT Act Cap 476 clause 19(9). The tenderer must allow for VAT 1.19 as instructed elsewhere.
41. The contractor shall allow and pay for all insurance to cover risks and indemnities required Items 17 and 18 of the Conditions of contract and also specified in the Special Conditions of Contract.

BILL NO. 1 - PRELIMINARY ITEMS

ITEM No.	DESCRIPTION	AMOUNT
1.	<p>The Contractor shall provide, or erect and maintain an approved lock-up office for the sole use of the Architect and his own site staff. The office, which will have a total floor area of not less than -----square metres, will be divided into two separate interconnected offices. Services to be provided shall include a telephone, water sanitary and electrical supply and drainage. The offices shall be supplied with furniture and equipment that shall include:</p> <p>4 No. desks with chairs; 1 No. large table with sufficient number of chairs; drawing table along the full length of one side with plan drawers and drawing stools: 4 No. waste paper baskets: sufficient number of pin boards: and any additional furniture and fittings as may reasonably be required during the Contract period. The Contractor shall provide the Architect and site staff with computer sets or laptops, printers and telephones all that are necessary for project use.</p> <p>The office furniture and equipment shall all be to the approval of the Engineer. The Contractor shall also provide all labor, equipment and consumable stores equipment throughout the currency of the contract.</p>	
2	<p>[OPTIONAL] Contractor shall provide a house for Engineers site agent, which shall be one bedroomed temporary house with a sitting room, toilet, bathroom and a kitchen complete with electrical and sanitary installations and provide maintenance and paying of bills of water and electricity up to and including end of the contract period.</p>	
3	<p>Provide a signboard not less than _____ square meters in size of a design type, and with lettering and coloring and in a position approved by the Engineer. The signboard shall be for the display of the Main Contractor's name and the names of all his Sub-Contractors, with the Procuring Entity's name painted thereon. All Consultants names be printed in letters not exceeding 50 mm high. No other signboard or advertising shall be allowed. The signboard shall be fully maintained during the Contract Period and shall be pulled down and removed at the end of the contract.</p>	
4	Add others (if any)	
5		
6		
TOTAL CARRIED TO GRAND SUMMARY		

BILL NO. 2: WORK ITEMS

(organized appropriately into work sections, such as foundations, walls/structure, finishes, doors and windows, mechanical installations. etc.

Bill No 2 - *(Name of Section e.g. Foundations).*

<i>Item no.</i>	<i>Description</i>	<i>Unit</i>	<i>Quantity</i>	<i>Rate</i>	<i>Amount</i>
Total for Bill No. 2 (carried forward to Summary, p. _____)					_____

Bill No. 3: Schedule of Daywork Rates - Labor

Item no.	Description	Unit	Nominal quantity	Rate	Amount
	Subtotal				
	Allow ___ percent ^a of Subtotal for Contractor's overhead, profit, etc., in accordance with paragraph 3 (b) above.				
	Total for Daywork (carried forward to Daywork Summary, p. ____)				

a. To be entered by the Tenderer.

Bill No. 4: Schedule of Daywork Rates - Materials

Item no.	Description	Unit	Nominal quantity	Rate	Extended amount
	Subtotal				
	Allow ___ percent a. of Subtotal for Contractor's overhead, profit, etc., in accordance with paragraph 4 (b) above.				
	Total for Daywork: Materials (carried forward to Daywork Summary, p. _____)				

a. To be entered by theTenderer.

Bill No. 5: Schedule of Daywork Rates - Contractor's Equipment

Item no.	Description	Nominal quantity (hours)	Basic hourly rental rate	Extended amount
	Allow _ percent ^a of Subtotal for Contractor's overhead, profit, etc., in accordance with paragraph 5 above.			
	Total for Daywork: Contractor's Equipment (carried forward to Daywork Summary, p. ____)			

a. To be entered by theTenderer.

Bill No. 6: Daywork Summary

	Amount ^a	% Foreign	Currency

1. Total for Daywork: Labor			
2. Total for Daywork: Materials			
3. Total for Daywork: Contractor's Equipment			
Total for Daywork (Provisional Sum) (carried forward to Summary of Bills of Quantities, p. __)			

Bill No. 7: Provisional Sums

<i>Bill no.</i>	<i>Item no.</i>	<i>Description</i>	<i>Amount</i>
1			
2			
3			
4			
etc.			
Total for Specified Provisional Sums (carried forward to Grand Summary			

GRAND SUMMARY

SUMMARY ITEMS	<i>Page</i>	<i>Amount</i>
Bill No. 1: Preliminary Items		
Bill No. 2: Work Items		
Bill No 3: Daywork Summary		
Bill No 4: Provisional Sums		
Subtotal of Bills No 1-4		
Allow for any Discounts ⁱ		
TOTAL TENDER PRICE Carried forward to Form of Tender		

(i) If a percentage used, it should be indicated on which Bill No. items but on Bill No.4 – Provisional Sums.

SECTION VI - SPECIFICATIONS

Notes for preparing Specifications

1. 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 Procuring Entity 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 design and materials unless provided otherwise in the Contract. Where the Contractor is responsible for the design of any part of the permanent Works, the extent of his obligations must be stated.
2. Specifications from previous similar projects are useful and may not be necessary to re-write specifications for every Works Contract.
3. There are considerable advantages in standardizing **General Specifications** for repetitive Works in recognized public sectors, such as high ways, urban housing, irrigation and water supply. The General Specifications should cover all classes of workmanship, materials and equipment commonly involved in constructions, although not necessarily to be used in a particular works contract. Deletions or addenda should then adapt the General Specifications to the particular Works.
4. Care must be taken in drafting Specifications to ensure they are not restrictive. In the Specifications 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.
5. The Procuring Entity should decide whether technical solutions to specified parts of the Works are to be permitted. Alternatives are appropriate in cases where obvious (and potentially less costly) alternatives are possible to the technical solutions indicated in tender documents for certain elements of the Works, taking into consideration the comparative specialized advantage of potential tenderers.
6. The Procuring Entity should provide a description of the selected parts of the Works with appropriate reference to Drawings, Specifications, Bills of Quantities, and Design or Performance criteria, stating that the alternative solutions shall be at least structurally and functionally equivalent to the basic design parameters and Specifications.
7. Such alternative solutions shall be accompanied by all information necessary for a complete evaluation by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, proposed construction methodology, and other relevant details. Technical alternatives permitted in this manner shall be considered by the Procuring Entity each on its own merits and independently of whether the tenderer has priced the item as described in the Procuring Entity's design included with the tender documents.

SECTION VII - DRAWINGS

Note A list of drawings should be inserted here. The actual drawings including Site plans should be annexed in a separate booklet.

PART III - THE CONDITIONS OF CONTRACT AND CONTRACT

SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

[Name of Procuring Entity]

[Name of Contract]

[Architect Name and Address]

General Conditions of Contract

1. GENERAL PROVISIONS

1.1 Definitions

In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated below. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

“Accepted Contract Amount” means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

“Base Date” means a date 30 day prior to the submission of tenders.

“Bill of Quantities” means the priced and completed Bill of Quantities forming part of the

tender. **“Completion Date”** means the date of completion of the Works as certified by the Engineer.

“Contract Price” means the price defined in the contract and there after as adjusted in accordance with the provisions of the Contract.

“Contract” means the agreement entered into between the Procuring Entity and the Contractor as recorded in the Agreement Form and signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein to execute, complete, and maintain the Works.

“Contractor's Documents” means the calculations, computer programs and other software, progress reports, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

“Contractor's Equipment” means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor's Equipment excludes Temporary Works, Procuring Entity's Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

“Contractor's Personnel” means the Contractor's Representative and all personnel whom the Contractor utilizes on Site, who may include the staff, labor and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

“Contractor's Representative” means the person named by the Contractor in the Contractor appointed from time to time by the Contractor who acts on behalf of the Contractor.

“Contractor” means the person(s) named as contractor in the Form of Tender accepted by the Procuring Entity.

“Cost” means expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

“Day” means a calendar day and **“year”** means 365 days.

“Dayworks” means Work inputs subject to payment on a time basis for labour and the associated materials and plant.

“Defect” means any part of the Works not completed in accordance with the Contract.

“Defects Liability Certificate” means the certificate issued by Architect upon correction of defects by the Contractor.

“Defects Liability Period” means the period named in the Special Conditions of Contract and calculated from the Completion Date, within which the contractor is liable for any defects that may develop in the handed over works.

“Defects Notification Period” means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects], which extends over the days stated in the Special Conditions of Contract.

“Drawings” means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Procuring Entity in accordance with the Contract.

“Final Payment Certificate” means the payment certificate issued under Sub-Clause 14.13 [Issue of Final Payment Certificate].

“Final Statement” means the statement defined in Sub-Clause 14.11

[Application for Final Payment Certificate]. **“Force Majeure”** is defined in Clause 19 [Force Majeure].

“Foreign Currency” means a currency of another country (not Kenya) in which part (or all) of the Contract Price is payable, but not the Local Currency.

“Goods” means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

“Interim Payment Certificate” means a payment certificate issued under Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.

“Laws” means all national legislation, statutes, ordinances, and regulations and by-laws of any legally constituted public authority.

“Letter of Acceptance” means the letter of formal acceptance of a tender, signed by Procuring Entity, including any annexed memoranda comprising agreements between and signed by both Parties.

“Local Currency” means the currency of Kenya.

“Materials” means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

“Notice of Dissatisfaction” means the notice given by either Party to the other under Sub-Clause 20.3 indicating its dissatisfaction and intention to commence arbitration.

“Special Conditions of Contract” means the pages completed by the Procuring Entity entitled Special Conditions of Contract which constitute Part A of the Special Conditions.

“Party” means the Procuring Entity or the Contractor, as the context requires.

“Payment Certificate” means a payment certificate issued under Clause 14 [Contract Price and Payment].

“Performance Certificate” means the certificate issued under Sub-Clause 11.9 [Performance Certificate].

“Performance Security” means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security]. **“Permanent Works”** means the permanent works to be executed by the Contractor under the

Contract.

“Plant” means the apparatus, machinery and other equipment intended to form or forming part of the Permanent Works, including vehicles purchased for the Procuring Entity and relating to the construction or operation of the Works.

“Procuring Entity's Equipment” means the apparatus, machinery and vehicles (if any) made available by the Procuring Entity for the use of the Contract or in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Procuring Entity.

“Procuring Entity's Personnel” means the Engineer, the Engineer, the assistants and all other staff, labor and other employees of the Architect and of the Procuring Entity; and any other personnel notified to the Contractor, by the Procuring Entity or the Engineer, as Procuring Entity's Personnel.

“Procuring Entity” means the Entity named in the Special Conditions of Contract.

“Engineer” is the person named in the Appendix to Conditions of Contract (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract and shall be an “Architect” or a “Quantity Surveyor” registered under the Architects and Quantity Surveyors Act Cap 525 or an “Engineer” registered under Engineers Registration Act Cap 530.

“Engineer” means the person appointed by the Procuring Entity to act as the Architect for the purposes of the Contract and named in the Special Conditions of Contract, or other person appointed from time to time by the Procuring Entity and notified to the Contractor

“Provisional Sum” means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [Provisional Sums].

“Retention Money” means the accumulated retention moneys which the Procuring Entity retains under Sub-Clause 14.3 [Application for Interim Payment Certificates] and pays under Sub-Clause 14.9 [Payment of Retention Money].

“Schedules” means the document(s) entitled schedules, completed by the Contractor and submitted with the Form of Tender, as included in the Contract.

“Section” means a part of the Works specified in the Special Conditions of Contract as a Section (if any)

“Site Investigation Reports” are those reports that may be included in the tendering documents which a ref actual and interpretative about the surface and sub-surface condition sat the Site.

“Site” means the places where the Permanent Works are to be executed, including storage and working areas, and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.

“Specification” means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

“Start Date” or “Commencement Date” is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with the Site possession date(s).

“Statement” means a statement submitted by the Contractor as part of an application, under Clause 14 [Contract Price and Payment], for a payment certificate.

“Subcontractor” means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works.

“Taking-Over Certificate” means a certificate issued under Clause 10 [Procuring Entity's Taking Over].

“Temporary Works” means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

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

“Tender” means the Form of Tender and all other documents which the Contractor submitted with the Form of Tender, as included in the Contract.

“Tests after Completion” means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Procuring Entity.

“Testson Completion” means the tests which are specified in the Contractor agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Procuring Entity.

“Time for Completion” means the time for completing the Works or a Section (as the case may be) as stated in the Special Conditions of Contract (with any extension calculated from the Commencement Date.

“Unforeseeable” means not reasonably foreseeable by an experienced contractor by the Base Date.

“Variation” means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

“Works” means the items the Procuring Entity requires the Contractor to undertake as defined in the Appendix to Conditions of Contract. **“Works” may** also mean the Permanent Works and the Temporary Works, or either of them as appropriate.

1.2 Interpretation

In the Contract, except where the context requires otherwise:

- a) Words indicating one gender include all genders;
- b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing;
- d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

1.3 Communications

1.3.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

- a) In writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Special Conditions of Contract; and
- b) delivered, sent or transmitted to the address or the recipient's communications as stated in the Special Conditions of Contract. However:
 - i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and
 - ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

1.3.2 Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Architect or the

other Party, as the case may be.

1.4 Law and Language

141 The Contract shall be governed by the laws of **Kenya**.

142 The ruling language of the Contract shall be **English**.

1.5 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- a) The Contract Agreement,
- b) The Letter of Acceptance,
- c) The Special Conditions – Part A,
- d) the Special Conditions – Part B
- e) the General Conditions of Contract
- f) the Form of Tender,
- g) the Specifications and Bills of Quantities
- h) the Drawings, and
- i) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Architect shall issue any necessary clarification or instruction.

1.6 Contract Agreement

The Parties shall enter into a Contract Agreement within 14 days after the Contractor receives the Contract Agreement, unless the Special Conditions establish otherwise. The Contract Agreement shall be based upon the form annexed to the Special Conditions. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Procuring Entity.

1.7 Assignment

The Contractor shall not assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, the contractor:

- a) May assign the whole or any part with the prior consent of the Procuring Entity, and
- b) may, as security in favor of a bank or financial institution, assign its right to moneys due, or to become due, under the Contract.

1.8 Care and Supply of Documents

1.81 The Specifications and Drawings shall be in the custody and care of the Procuring Entity. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawings and Bills of Quantities shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

1.82 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Procuring Entity. Unless otherwise stated in the Contract, the Contractor shall supply to the Architect two copies of each of the Contractor's Documents.

1.83 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Procuring Entity's Personnel shall have the right of access to all these documents at all reasonable times.

1.84 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

1.9 Timely provision of Drawings or Instructions

- 1.91 The Contractor shall give notice to the Architect whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.
- 1.92 If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Architect to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any other associated costs accrued, which shall be included in the Contract Price.
- 1.93 After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 1.94 However, if and to the extent that the Architect failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, or costs accrued.

1.10 Procuring Entity's Use of Contractor's Documents

- 1.101 As agreed between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.
- 1.102 The Contractor shall be deemed (by signing the Contract) to give to the Procuring Entity a non-terminable transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:
- a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
 - b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
 - c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.
- 1.103 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Procuring Entity for purposes other than those permitted under Sub-Clause 1.10.2.

1.11 Contractor's Use of Procuring Entity's Documents

As agreed between the Parties, the Procuring Entity shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Procuring Entity. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Procuring Entity's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

1.12 Confidential Details

- 1.121 The Contractor's and the Procuring Entity's Personnel shall ensure confidentiality at all times. The

confidentiality shall survive termination or completion of the contract. They shall disclose all such confidential and other information as may be reasonably required in order to verify compliance with the Contract and allow its proper implementation.

- 1.122 The Contractor's and the Procuring Entity's Personnel shall also treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.

1.13 Compliance with Laws

The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Special Conditions of Contract:

- a) The Procuring Entity shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specifications as having been (or to be) obtained by the Procuring Entity; and the Procuring Entity shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Procuring Entity harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.

1.14 Joint and Several Liability

If the Contractor constitutes (under applicable Laws) a joint venture, consortium or other unincorporated grouping of two or more persons:

- a) These persons shall be deemed to be jointly and severally liable to the Procuring Entity for the performance of the Contract;
- b) these persons shall notify the Procuring Entity of their leader who shall have authority to bind the Contractor and each of these persons; and
- c) the Contractor shall not alter its composition or legal status without the prior consent of the Procuring Entity.

1.15 Inspections and Audit by the Procuring Entity

Pursuant to paragraph 2.2(e). of Appendix B to the General Conditions, the Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Public Procurement Regulatory Authority, Procuring Entity and/or persons appointed or designated by the Government of Kenya to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Procuring Entity if requested by the Procuring Entity. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 15.6 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Procuring Entity's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Procuring Entity's prevailing sanctions procedures).

2 THE PROCURING ENTITY

2.1 Right of Access to the Site

- 2.1.1 The Procuring Entity shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the **Special Conditions of Contract**. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Procuring Entity is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the

Procuring Entity shall do so in the time and manner stated in the Specification. However, the Procuring Entity may withhold any such right or possession until the Performance Security has been received.

- 212 If no such time is stated in the Special Conditions of Contract, the Procuring Entity shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under Sub-Clause 8.3 [Programme].
- 213 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Procuring Entity to give any such right or possession within such time, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 214 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 215 However, if and to the extent that the Procuring Entity's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

22 Permits, Licenses or Approvals

- 221 The Procuring Entity shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly:
- a) Copies of the Laws of Kenya which are relevant to the Contract but are not readily available, and
 - b) any permits, licenses or approvals required by the Laws of Kenya:
 - i) which the Contractor is required to obtain under Sub-Clause 1.13 [Compliance with Laws],
 - ii) for the delivery of Goods, including clearance through customs,
 - and
 - iii) for the export of Contractor's Equipment when it is removed from the Site.

23 Procuring Entity's Personnel

The Procuring Entity shall be responsible for ensuring that the Procuring Entity's Personnel and the Procuring Entity's other contractor son the Site:

- a) co-operate with the Contractor's efforts under Sub-Clause 4.6 [Co-operation], and
- b) take action ssimilar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of Sub-Clause 4.8 [Safety Procedures] and under Sub-Clause 4.18 [Protection of the Environment].

24 Procuring Entity's Financial Arrangements

The Procuring Entity shall make and maintain all necessary financial arrangements which will enable the Procuring Entity to pay the Contract Price punctually (as estimated at that time) in accordance with Clause14 [Contract Price and Payment].

3 THE ENGINEER

3.1 Architect Duties and Authority

- 3.1.1** The Procuring Entity shall appoint the Architect who shall carry out the duties as signed to him in the Contract. The Architect staff shall include suitably qualified Assistants and other professionals who are competent to carry out these duties. The Architect Name and Address shall be provided in the **Special Conditions of Contract**.

- 3.12 The Architect shall have no authority to amend the Contract.
- 3.13 The Architect May exercise the authority attributable to the Architect as specified in or necessarily to be implied from the Contract. If the Architect is required to obtain the approval of the Procuring Entity before exercising a specified authority, the requirements shall be as stated in the **Special Conditions of Contract**. The Procuring Entity shall promptly inform the Contractor of any change to the authority attributed to the Engineer.
- 3.14 However, whenever the Architect exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the contractor shall require the Architect to provide evidence of such approval before complying with the instruction.
- 3.15 Except as otherwise stated in these Conditions:
- a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Architect shall be deemed to act for the Procuring Entity;
 - b) the Architect has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract;
 - c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Architect (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances; and
 - d) any act by the Architect in response to a Contractor's request shall be notified in writing to the Contractor within 14 days of receipt.

- 3.16 The following provisions shall apply:

The Architect shall obtain the specific approval of the Procuring Entity before taking action under the following Sub-Clauses of these Conditions:

- a) Sub-Clause 4.12: agreeing or determining an extension of time and/or additional cost.
 - b) Sub-Clause 13.1: instructing a Variation, except;
 - i) In an emergency situation as determined by the Engineer, or
 - ii) If such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the **Special Conditions of Contract**.
 - c) Sub-Clause 13.3: Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2.
 - d) Sub-Clause 13.4: Specifying the amount payable in each of the applicable three currencies.
- 3.17 Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forth with comply, despite the absence of approval of the Procuring Entity, with any such instruction of the Engineer. The Architect shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Procuring Entity.

32 Delegation by the Engineer

- 3.21 The Architect may from time to time assign duties and delegate authority to assistants and may also revoke such assignment or delegation. These assistants may include a resident Engineer, and/or independent inspectors appointed to inspect and/ or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Architect shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5

[Determinations].

- 322 Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorized to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:
- a) Any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Architect to reject the work, Plant or Materials;
 - b) If the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

33 Instructions of the Engineer

- 33.1 The Architect may issue to the Contractor (at anytime) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under Clause 3.2.1.
- 33.2 The Contractor shall comply with the instructions given by the Architect or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Architect or a delegated assistant:
- a) Gives an oral instruction,
 - b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and
 - c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

Then the confirmation shall constitute the written instruction of the Architect or delegated assistant (as the case may be).

34 Replacement of the Engineer

If the Procuring Entity intends to replace the Engineer, the Procuring Entity shall, in not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended person to replace the Engineer.

35 Determinations

- 35.1 Whenever these Conditions provide that the Architect shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Architect shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Architect shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.
- 3.5.1 The Architect shall give notice to both Parties of each agreement or determination, with supporting particulars, within 30 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].

4 THE CONTRACTOR

4.1 Contractor's General Obligations

- 4.1.1 The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Architect instructions, and shall remedy any defects in the Works.

- 4.12 The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.
- 4.13 All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country.
- 4.14 The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the designer specification of the Permanent Works.
- 4.15 The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.
- 4.16 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Special Conditions:
- a) The Contractor shall submit to the Architect the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
 - b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language], and shall include additional information required by the Architect to add to the Drawings for co-ordination of each Party's designs;
 - c) the Contractor shall be responsible for this part and it shall, when the Works are completed, befit for such purposes for which the part is intended as are specified in the Contract; and
 - d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Architect the "as-built" documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Procuring Entity to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until these documents and manuals have been submitted to the Engineer.

42 Performance Security

- 4.21 The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the **Special Conditions of Contract** and denominated in the currency (ies) of the Contract or in a freely convertible currency acceptable to the Procuring Entity. If an amount is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
- 4.22 The Contractor shall deliver the Performance Security to the Procuring Entity within 30 days after receiving the Notification of Award and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank selected by the Contractor and shall be in the form annexed to the Special Conditions, as stipulated by the Procuring Entity in the Special Conditions of Contract, or in another form approved by the Procuring Entity.
- 4.23 The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.
- 4.24 The Procuring Entity shall not make a claim under the Performance Security, except for amounts to which the Procuring Entity is entitled under the Contract.

- 425 The Procuring Entity shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Procuring Entity was not entitled to make the claim.
- 426 The Procuring Entity shall return the Performance Security to the Contractor within 14 days after receiving a copy of the Taking-Over Certificate.
- 427 Without limitation to the provisions of the rest of this Sub-Clause, whenever the Architect determines an addition or a reduction to the Contract Price as a result of a change in cost and/ or legislation, or as a result of a Variation, amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Architect request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage.

43 Contractor's Representative

- 431 The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract. The Contractor's Representative's Name and Address shall be provided in the **Special Conditions of Contract**.
- 432 Unless the Contractor's Representative **is named in the Contract**, the Contractor shall, prior to the Commencement Date, submit to the Architect for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of Sub-Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.
- 433 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint another person.
- 434 The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Architect's prior consent, and the Architect shall be notified accordingly.
- 435 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].
- 436 The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Architect has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.
- 437 The Contractor's Representative shall be fluent in the language for communications defined in Sub-Clause 1.4 [Law and Language]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make a competent interpreter available during all working hours in a number deemed sufficient by the Engineer.

44 Sub-contractors

- 441 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.
- 442 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Special Conditions:
- a) The Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
 - b) The prior consent of the Procuring Entity shall be obtained to other proposed Subcontractors;
 - c) the Contractor shall give the Procuring Entity not less than 14 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such

work on the Site; and

- d) each subcontract shall include provisions which would entitle the Procuring Entity to require the subcontract to be assigned to the Procuring Entity under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity].

4.43 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.

4.44 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from Kenya to be appointed as Subcontractors.

45 Assignment of Benefit of Subcontract

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Procuring Entity, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Procuring Entity for the work carried out by the Subcontractor after the assignment takes effect.

46 Co-operation

4.61 The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- a) The Procuring Entity's Personnel,
- b) Any other contractors employed by the Procuring Entity, and
- c) The personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract.

4.62 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

4.63 If, under the Contract, the Procuring Entity is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Architect in the time and manner stated in the Specification.

47 Setting Out of the Works

4.71 The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.

4.72 The Procuring Entity shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

4.73 If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such costs accrued, which shall be included in the Contract Price.

4.7.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to these.

48 Safety Procedures

The Contractor shall:

- a) Comply with all applicable safety regulations,
- b) Take care for the safety of all persons entitled to be on the Site,
- c) Use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
- d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [Procuring Entity's Taking Over], and
- e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

49 Quality Assurance

4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Architect shall be entitled to audit any aspect of the system.

4.9.2 Details of all procedures and compliance documents shall be submitted to the Architect or information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor itself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

4.10 Site Data

4.10.1 The Procuring Entity shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Procuring Entity's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Procuring Entity shall similarly make available to the Contractor all such data which come into the Procuring Entity's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

4.10.2 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- a) The form and nature of the Site, including sub-surface conditions,
- b) the hydrological and climatic conditions,
- c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
- d) the Laws, procedures and labour practices of Kenya, and
- e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

4.11 Sufficiency of the Accepted Contract Amount

4.11.1 The Contractor shall be deemed to:

- a) Have satisfied itself as to the correctness and sufficiency of the Accepted Contract Amount, and
- b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [Site Data].

4.11.2 Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

4.12 Unforeseeable Physical Conditions

4.12.1 In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

4.12.2 If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Architect as soon as practicable.

4.12.3 This notice shall describe the physical conditions, so that they can be inspected by the Architect and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Architect may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

4.12.4 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such Cost, which shall be included in the Contract Price.

4.12.5 Upon receiving such notice and inspecting and/or investigating these physical conditions, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

4.12.6 However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Architect may also review whether other physical conditions in similar parts of the Works (if any) were more favorable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favorable conditions were encountered, the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

4.12.7 The Architect shall take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which shall be made available by the Contractor, but shall not be bound by the Contractor's interpretation of any such evidence.

4.13 Rights of Way and Facilities

Unless otherwise specified in the Contract the Procuring Entity shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities outside the Site which he may require for the purposes of the Works.

4.14 Avoidance of Interference

4.14.1 The Contractor shall not interfere unnecessarily or improperly with:

- a) The convenience of the public, or
- b) The access to and use and occupation of all roads and foot paths, irrespective of whether they are public or in the possession of the Procuring Entity or of others.

4.14.2 The Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

4.15 Access Route

4.15.1 The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

4.15.2 Except as otherwise stated in these Conditions:

- a) The Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;
- b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;
- c) the Procuring Entity shall not be responsible for any claims which may arise from the use or otherwise of any access route;
- d) the Procuring Entity does not guarantee the suitability or a availability of particular access routes; and
- e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16 Transport of Goods

Unless otherwise stated in the Special Conditions:

- a) the Contractor shall give the Architect not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and
- c) the Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods and shall negotiate and pay all claims arising from their transport.

4.17 Contractor's Equipment

The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

4.18 Protection of the Environment

4.18.1 The contractor shall comply with the applicable environmental laws, regulations and policies.

4.18.2 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

4.183 The Contractors shall ensure that emissions, surfaced is charges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

4.19 Electricity, Water and Gas

4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.

4.19.2 The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specifications. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

4.19.3 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

4.20 Procuring Entity's Equipment and Free-Issue Materials

4.20.1 The Procuring Entity shall make the Procuring Entity's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:

- a) The Procuring Entity shall be responsible for the Procuring Entity's Equipment, except that
- b) the Contractor shall be responsible for each item of Procuring Entity's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

4.20.1 The appropriate quantities and the amounts due (at such stated prices) for the use of Procuring Entity's Equipment shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

4.20.2 The Procuring Entity shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Procuring Entity shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them and shall promptly give notice to the Architect of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defect or default.

4.20.3 After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Procuring Entity of liability for any shortage, defect or default not apparent from a visual inspection.

4.21 Progress Reports

4.21.1 Unless otherwise stated in the Special Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Architect in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

4.21.2 Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:

- a) charts and detailed descriptions of progress, including each stage of design (if any),

Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [NominatedSubcontractors]),

- b) photographs showing the status of manufacture and of progress on the Site;
- c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
 - i) commencement of manufacture,
 - ii) Contractor's inspections,
 - iii) tests, and
 - iv) shipment and arrival at the Site;
- d) the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];
- e) copies of quality assurance documents, test results and certificates of Materials;
- f) list of notices given under Sub-Clause 2.5 [Procuring Entity's Claims] and notices given under Sub- Clause 20.1 [Contractor's Claims];
- g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- h) comparison so factual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.22 Security of the Site

Unless otherwise stated in the Special Conditions:

- a) The Contractor shall be responsible for keeping unauthorized persons off the Site, and
- b) authorized persons shall be limited to the Contractor's Personnel and the Procuring Entity's Personnel; and to any other personnel notified to the Contractor, by the Procuring Entity or the Engineer, as authorized personnel of the Procuring Entity's other contractors on the Site.

4.23 Contractor's Operations on Site

- 4.23.1 The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Architect as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacentl and.
- 4.23.2 During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.
- 4.23.3 Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

4.24 Fossils

- 4.24.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Procuring Entity. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.
- 4.24.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who

shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub- Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

5 NOMINATED SUBCONTRACTORS

5.1 Definition of “nominated Subcontractor”

In this Contract, “nominated Subcontractor” means a Subcontractor:

- a) Who is nominated by the Procuring Entity, or
- b) Contractor has nominated as a Subcontractor subject to Sub-Clause 5.2 [Objection to Notification].

5.2 Objection to Nomination

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Procuring Entity as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Procuring Entity agrees in writing to indemnify the Contractor against and from the consequences of the matter:

- a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;
- b) the nominated Subcontractor does not accept to indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or
- c) the nominated Subcontractor does not accept to enter into a subcontract which specifies that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:
 - i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract;
 - ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities, and
 - iii) be paid only if and when the Contractor has received from the Procuring Entity payments for sums due under the Subcontract referred to under Sub-Clause 5.3 [Payment to nominated Subcontractors].

5.3 Payments to nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts shown on the nominated Subcontractor's invoices approved by the Contractor which the Architect certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with sub-paragraph (b) of Sub-Clause 13.5 [Provisional Sums], except as stated in Sub-Clause 5.4 [Evidence of Payments].

5.4 Evidence of Payments

5.4.1 Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Architect may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- (a) Submits this reasonable evidence to the Engineer, or
- (b) i) Satisfies the Architect in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and

- ii) Submits to the Architect reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Procuring Entity may (at his sole discretion) pay, directly to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in subparagraphs (a) or (b) above. The Contractor shall then repay, to the Procuring Entity, the amount which the nominated Subcontractor was directly paid by the Procuring Entity.

6 STAFF AND LABOR

6.1 Engagement of Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, feeding, transport, and, when appropriate, housing. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within Kenya.

6.2 Rates of Wages and Conditions of Labor

6.2.1 The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entity's whose trade or industry is similar to that of the Contractor.

6.2.2 The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in Kenya in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of Kenya for the time being in force, and the Contractor shall perform such duties in regard to such deductions there of as may be imposed on him by such Laws.

6.3 Persons in the Service of Procuring Entity

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Procuring Entity's Personnel.

6.4 Lab or Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, employment of children, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

6.5 Working Hours

Nowork shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the **Special Conditions of Contract**, unless:

- a) Otherwise stated in the Contract,
- b) The Architect gives consent, or
- c) The work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer, provided that work done outside the normal working hours shall be considered and paid for as overtime.

6.6 Facilities for Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities on site for the Contractor's Personnel. The Contractor shall also provide facilities for the Procuring Entity's Personnel as stated in the Specifications. The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

6.7 Health and Safety

- 67.1 The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Procuring Entity's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.
- 67.2 The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide what ever is required by this person to exercise this responsibility and authority.
- 67.3 The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Architect may reasonably require.
- 67.4 The Contractor shall conduct an awareness programme on HIV and other sexually transmitted diseases via an approved service provider and shall undertake such other measures taken to reduce the risk of the transfer of these diseases between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.

68 Contractor's Superintendence

- 68.1 Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary super intendence to plan, arrange, direct, manage, inspect and test the work.
- 68.2 Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

69 Contractor's Personnel

- 69.1 The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Contractor's Key personnel shall be named in the Special Conditions of Contract. The Architect may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:
- a) Persists in any misconduct or lack of care,
 - b) Carries out duties in competently or negligently,
 - c) fails to conform with any provisions of the Contract,
 - d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment, or
 - e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works.
- 69.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

610 Records of Contractor's Personnel and Equipment

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

6.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

6.12 Foreign Personnel

6.12.1 The Contractor shall not employ foreign personnel unless the contractor demonstrates that there are no Kenyans with the required skills.

6.12.2 The Contractor shall be responsible for the return of any foreign personnel to the place where they were recruited or to their domicile. In the event of the death in Kenya of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

6.13 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

6.14 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

6.15 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of Kenya, onsite, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereof by Contractor's Personnel.

6.16 Prohibition of Forced or Compulsory Labour

The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.

6.17 Prohibition of Harmful Child Labor

The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where the relevant labour laws of Kenya have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.

6.18 Employment Records of Workers

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].

6.19 Workers' Organizations

The Contractor shall comply with the relevant labor laws that recognize workers' rights to form and to join workers' organizations of their choosing without interference.

620 Non-Discrimination and Equal Opportunity

The Contractor shall base the labour employment on the principle of equal opportunity and fair treatment and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employ mentor retirement, and discipline.

7. PLANT, MATERIALS AND WORKMANSHIP

7.1 Manner of Execution

The Contractor shall carry out the manufacture/assemble of plant, the production and manufacture of Materials, and all other execution of the Works:

- a) In the manner (if any) specified in the Contract,
- b) in a proper workman like and careful manner, in accordance with recognized good practice, and
- c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.

7.2 Samples

The Contractor shall submit the following samples of Materials, and relevant information, to the Architect for consent prior to using the Material sin or for the Works:

- a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and
- b) additional samples instructed by the Architect as a Variation.

Each sample shall be labeled as to origin and intended use in the Works.

7.3 Inspection

7.3.1 The Procuring Entity's Personnel shall at all reasonable times:

- a) Have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
- b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

7.3.2 The Contractor shall give the Procuring Entity's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

7.3.3 The Contractor shall give notice to the Architect whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Architect shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Architect does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and there after reinstate and make good, all at the Contractor's cost.

7.4 Testing

7.4.1 This Sub-Clause shall apply to all tests specified in the Contract.

7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labor, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and placef ort he specified testing of any Plant, Materials and other parts of the Works.

- 7.43 The Architect may, under Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.
- 7.44 The Architect shall give the Contractor not less than 24 hours' notice of the Architect intention to attend the tests. If the Architect does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Architect presence.
- 7.45 If the Contractor suffers delay and/ or incurs Cost from complying with these instructions or as a result of a delay for which the Procuring Entity is responsible, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 7.46 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 7.47 The Contractor shall promptly forward to the Architect duly certified reports of the tests. When the specified tests have been passed, the Architect shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Architect has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5 Rejection

- 7.51 If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Architect may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.
- 7.52 If the Architect requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Procuring Entity to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity.

7.6 Remedial Work

- 7.61 Notwithstanding any previous test or certification, the Architect may instruct the Contractor to:
- a) Remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
 - b) remove and re-execute any other work which is not in accordance with the Contract, and
 - c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseen able event or otherwise.
- 7.62 The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).
- 7.63 If the Contractor fails to comply with the instruction, the Procuring Entity shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity all costs arising from this failure.
- 7.64 If the contractor repeatedly delivers defective work, the Procuring Entity may consider termination in accordance with Clause 15.

7.7 Ownership of Plant and Materials

Except as otherwise provided in the Contract, each item of Plant and Materials shall become the property of the Procuring Entity at whichever is the earlier of the following times, free from liens and other encumbrances:

- a) When it is incorporated in the Works;
- b) when the Contractor is paid the corresponding value of the Plant and Materials under Sub-Clause 8.10 [Payment for Plant and Materials in Event of Suspension].

78 Royalties

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:

- a) Natural materials obtained from outside the Site, and
- b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal are as within the Site are specified in the Contract.

8 COMMENCEMENT, DELAYS AND SUSPENSION

8.1 Commencement of Works

8.1.1 Except as otherwise specified in the Special Conditions of Contract, the Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Architect notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:

- a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of Kenya;
- b) except if otherwise specified in the Special Conditions of Contract, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works.
- c) Receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor.

8.1.2 If the said Architect instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause 16.2 [Termination by Contractor].

8.1.3 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date and shall then proceed with the Works with due expedition and without delay.

8.2 Time for Completion

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

- a) Achieving the passing of the Test on Completion, and
- b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections].

8.3 Programme

8.3.1 The Contractor shall submit a detailed time programme to the Architect within 14 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

- a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of

Plant, delivery to Site, construction, erection and testing,

- b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),
- c) the sequence and timing of inspections and tests specified in the Contract, and
- d) a supporting report which includes:
 - i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
 - ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

832 Unless the Engineer, within 14 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Procuring Entity's Personnel shall be entitled to rely upon the programme when planning their activities.

833 The Contractor shall promptly give notice to the Architect of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works.

834 If, at anytime, the Architect gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contractor to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Architect in accordance with this Sub-Clause.

8.4 Extension of Time for Completion

841 The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:

- a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract,
- b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,
- c) exceptionally adverse climatic conditions,
- d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
- e) any delay, impediment or prevention caused by or attributable to the Procuring Entity, the Procuring Entity's Personnel, or the Procuring Entity's other contractors.

842 If the Contractor considers itself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Architect in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Architect shall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

- a) The Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in Kenya,
- b) These authorities delay or disrupt the Contractor's work, and
- c) the delay or disruption was Unforeseeable, then this delay or disruption will be considered as a cause of delay under sub-paragraph (b) of Sub-Clause 8.4 [Extension of Time for Completion].

8.6 Rate of Progress

861 If, at anytime:

- a) Actual progress is too slow to complete within the Time for Completion, and/or
- b) Progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme], other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Architect may instruct the Contractor to submit, under Sub-Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

862 Unless the Architect notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Procuring Entity to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity, in addition to delay damages (if any) under Sub-Clause 8.7 below.

863 Additional costs of revised methods including acceleration measures, instructed by the Architect to reduce delays resulting from causes listed under Sub-Clause 8.4 [Extension of Time for Completion] shall be paid by the Procuring Entity, without generating, however, any other additional payment benefit to the Contractor.

8.7 Delay Damages

871 If the Contractor fails to comply with Sub-Clause 8.2 [Time for Completion], the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay delay damages to the Procuring Entity for this default. These delay damages shall be the sum stated in the **Special Conditions of Contract**, which shall be paid for everyday which shall elapse between the relevant Time for Completion and the date stated in the taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Special Conditions of Contract.

872 These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

8.8 Suspension of Work

881 The Architect may at anytime instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

882 The Architect may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

8.9 Consequences of Suspension

891 If the Contractor suffers delay and/or incurs Cost from complying with the Architect instructions under Sub-Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) Payment of any such Cost, which shall be included in the Contract Price.

892 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

893 The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [Suspension of Work].

8.10 Payment for Plant and Materials in Event of Suspension

The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/or Materials which have not been delivered to Site, if:

- a) The work on Plant or delivery of Plant and/or Materials has been suspended for more than 30 days, and
- b) the Contractor has marked the Plant and/or Materials as the Procuring Entity's property in accordance with the Architect instructions.

8.11 Prolonged Suspension

If the suspension under Sub-Clause 8.8 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Architect permission to proceed. If the Architect does not give permission within 30 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [Variations and Adjustments] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [Termination by Contractor].

8.12 Resumption of Work

After the permission or instruction to proceed is given, the Contractor and the Architect shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension after receiving from the Architect an instruction to this effect under Clause 13 [Variations and Adjustments].

9 TESTS ON COMPLETION

9.1 Contractor's Obligations

9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [Contractor's General Obligations].

9.1.2 The Contractor shall give to the Architect not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Architect shall instruct.

9.1.3 In considering the results of the Tests on Completion, the Architect shall make allowances for the effect of any use of the Works by the Procuring Entity on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2 Delayed Tests

9.2.1 If the Tests on Completion are being unduly delayed by the Procuring Entity, Sub-Clause 7.4 [Testing] (fifth paragraph) and/or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.

922 If the Tests on Completion are being unduly delayed by the Contractor, the Architect may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

923 If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Procuring Entity's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

93 Retesting of related works

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.5 [Rejection] shall apply, and the Architect or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

94 Failure to Pass Tests on Completion

94.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Architect shall be entitled to:

- a) Order further repetition of Tests on Completion under Sub-Clause 9.3; or
- b) if the failure deprives the Procuring Entity of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Procuring Entity shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause 1.4 [Failure to Remedy Defects].

10. PROCURING ENTITY'S TAKING OVER

10.1 Taking Over of the Works and Sections

10.1.1 Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Procuring Entity when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

10.1.2 The Contractor may apply by notice to the Architect for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

10.1.3 The Architect shall, within 30 days after receiving the Contractor's application:

- a) Issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
- b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under his Sub-Clause.

10.1.4 If the Architect fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 30 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

10.2 Taking Over of Parts of the Works

10.2.1 The Architect may, at the sole discretion of the Procuring Entity, issue a Taking-Over Certificate for any part of the Permanent Works.

- 1022 The Procuring Entity shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Architect has issued a Taking-Over Certificate for this part. However, if the Procuring Entity does use any part of the Works before the Taking-Over Certificate is issued:
- a) The part which is used shall be deemed to have been taken over as from the date on which it is used,
 - b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Procuring Entity, and
 - c) if requested by the Contractor, the Architect shall issue a Taking-Over Certificate for this part.
- 1023 After the Architect has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.
- 1024 If the Contractor incurs Cost as a result of the Procuring Entity taking over and/or using a part of the Works, other than such use as is specified in the Contractor agreed by the Contractor, the Contractor shall (i) give notice to the Architect and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such accrued costs, which shall be included in the Contract Price. After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this accrued cost.
- 1025 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages there after for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [Delay Damages] and shall not affect the maximum amount of these damages.

103 Interference with Tests on Completion

- 103.1 If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Procuring Entity is responsible, the Procuring Entity shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.
- 103.2 The Architect shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Architect shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.
- 103.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such accrued costs, which shall be included in the Contract Price.
- 103.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

104 Surfaces Requiring Reinstatement

Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring

reinstatement.

11. DEFECTS LIABILITY

11.1 Completion of Outstanding Work and Remedying Defects

11.1.1 In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fairwear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable there after, the Contractor shall:

- a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
- b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Procuring Entity on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

11.1.2 If a defect appears or damage occurs, the Contractor shall be notified accordingly by the Engineer.

11.2 Cost of Remedying Defects

11.2.1 All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

- a) Any design for which the Contractor is responsible,
- b) Plant, Materials or workmanship not being in accordance with the Contract, or
- c) Failure by the Contractor to comply with any other obligation.

11.2.2 If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Procuring Entity, and Sub-Clause 13.3 [Variation Procedure] shall apply.

11.3 Extension of Defects Notification Period

11.3.1 The Procuring Entity shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defect or damage occurring more than two years after the Defects Notification Period for the Plant and/ or Materials would otherwise have expired.

11.4 Failure to Remedy Defects

11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Procuring Entity may (at his option):

- (a) Carry out the work itself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity the costs reasonably incurred by the Procuring Entity in remedying the defect or damage;
- (b) Require the Architect to agree or determine a reasonable reduction in the Contract Price in

- accordance with Sub-Clause 3.5 [Determinations]; or
- (c) if the defect or damage deprives the Procuring Entity of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract otherwise, the Procuring Entity shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work

If the defect or damage cannot be remedied expeditiously on the Site and the Procuring Entity gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

11.6 Further Tests

- 11.6.1 If the work of remedying of any defect or damage may affect the performance of the Works, the Architect may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 14 days after the defect or damage is remedied.
- 11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

11.7 Right of Access

Until the Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Procuring Entity's reasonable security restrictions.

11.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defect or parts of the works that have already accepted, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Architect in accordance with Sub-Clause 3.5 [Determinations] and shall be included in the Contract Price.

11.9 Completion Certificate

- 11.9.1 Performance of the Contractor's obligations shall not be considered to have been completed until the Architect has issued the Completion Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.
- 11.9.2 The Architect shall issue the Completion Certificate within 30 days after the latest of the expiry dates of the Defects Liability Period, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Completion Certificate shall be issued to the Procuring Entity.
- 11.9.3 Only the Completion Certificate shall be deemed to constitute acceptance of the Works.

11.10 Unfulfilled Obligations

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.11 Clearance of Site

- 11.11.1 Upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.
- 11.11.2 If all these items have not been removed within 30 days after receipt by the Contractor of the Completion Certificate, the Procuring Entity may sell or otherwise dispose of any remaining items. The Procuring Entity shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.
- 11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Procuring Entity's costs, the Contractor shall pay the outstanding balance to the Procuring Entity.

12 MEASUREMENT AND DEVALUATION

12.1 Works to be Measured

- 12.1.1 The Works shall be measured, and valued for payment, in accordance with this Clause. The Contractor shall show in each application under Sub-Clauses 14.3 [Application for Interim Payment Certificates], 14.10 [Statement on Completion] and 14.11 [Application for Final Payment Certificate] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.
- 12.1.2 Whenever the Architect requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:
- a) promptly either attend or send another qualified representative to assist the Architect in making the measurement, and
 - b) supply any particulars requested by the Engineer.
- 12.1.3 If the Contractor fails to attend or send a representative, the measurement made by the Architect shall be accepted as accurate.
- 12.1.4 Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree her records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.
- 12.1.5 If the Contractor examines and disagrees the records, and/ or does not sign them as agreed, then the Contractor shall give notice to the Architect of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Architect shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Architect within 14 days after being requested to examine the records, they shall be accepted as accurate.

12.2 Method of Measurement

Except as otherwise stated in the Contract:

- a) Measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

12.3 Evaluation

- 12.3.1 Except as otherwise stated in the Contract, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of work done by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.
- 12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contract, if there is no such item, specified for similar work.

- 1233 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.
- 1234 However, for a new item of work, a new rate or price shall be appropriate for such item of work if:
- a) The work is instructed under Clause 13 [Variations and Adjustments],
 - b) no rate or price is specified in the Contract for this item, and
 - c) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.
- 1235 Each new rate or price shall be derived from any relevant rates or prices in the Contract. If no rates or prices are relevant for the new item of work, it shall be derived from the reasonable Cost of executing such work, prevailing market rates, together with profit, taking account of any other relevant matters.
- 1236 Until such time as an appropriate rate or price is agreed or determined, the Architect shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.
- 1237 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (*which would be the tender price*), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: (*corrected tender price – tender price*) / *tender price* X 100.

124 Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- a) The Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;
- b) The omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and
- c) this cost is not deemed to be included in the evaluation of any substituted work; then the Contractor shall give notice to the Architect accordingly, with supporting particulars. Upon receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

13 VARIATIONS AND ADJUSTMENTS

13.1 Right to Vary

13.1.1 Variations may be initiated by the Architect at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. No Variation instructed by the Architect under this Clause shall in any way vitiate or invalidate the Contract.

13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Architect stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Architect shall cancel, confirm or vary the instruction.

13.1.3 Each Variation may include:

- a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
- b) changes to the quality and other characteristics of any item of work,
- c) changes to the levels, positions and/ or dimensions of any part of the Works,

- d) omission of any work unless it is to be carried out by others,
- e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
- f) changes to the sequence or timing of the execution of the Works.

13.14 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Architect instructs after obtaining approval of the Procuring Entity.

132 Variation Order Procedure

13.2.1 Prior to any Variation Order under Sub-Clause 13.1.4 the Architect shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:

- a) A description of work, if any, to be performed and a programme for its execution, and
- b) the Contractor's proposals for any necessary modifications to the Programme according to Sub-Clause 8.3 or to any of the Contractor's obligations under the Contract, and
- c) the Contractor's proposals for adjustment to the Contract Price.

Following the receipt of the Contractor's submission the Architect shall, after due consultation with the Employer and the Contractor, decide as soon as possible whether or not the variation shall be carried out. If the Architect decides that the variation shall be carried out, he shall issue a Variation Order clearly identified as such in accordance with the Contractor's submission or as modified by agreement.

If the Architect and the Contractor are unable to agree the adjustment of the Contract Price, the provisions of Sub-Clause 13.2.2 shall apply.

13.2.2 Disagreement on Adjustment of the Contract Price

If the Contractor and the Architect are unable to agree on the adjustment of the Contract Price, the adjustment shall be determined in accordance with the rates specified in the Bills of Quantities or Schedule of Daywork Prices. If the rates contained in the Bills of Quantities or Daywork Prices are not directly applicable to the specific work in question, suitable rates shall be established by the Architect reflecting the level of pricing in the Daywork Prices. Where rates are not contained in the said Prices, the amount shall be such as is in all the circumstances reasonable, reflecting a market price. Due account shall be taken of any over- or under-recovery of overheads by the Contractor in consequence of the variation. The Contractor shall also be entitled to be paid:

- a) The cost of any partial execution of the Work rendered useless by any such variation,
- b) The cost of making necessary alterations to Plant already manufactured or in the course of manufacture or of any work done that has to be altered in consequence of such a variation,
- c) any additional costs incurred by the Contractor by the disruption of the progress of the Works as detailed in the Programme, and
- d) the net effect of the Contractor's financial costs, including interest, caused by the variation.

The Architect shall on this basis determine the rates or prices to enable on-account payment to be included in certificates of payment.

13.2.3 Contractor to Proceed

On receipt of a Variation Order, the Contractor shall forthwith proceed to carry out the variation and be bound to these Conditions in so doing as if such variation was stated in the Contract. The work shall not be delayed pending the granting of an extension of the Time for Completion or an adjustment to the Contract Price under Sub-Clause 13.1.3.

133 Value Engineering

13.3.1 The Contractor may, at any time, submit to the Architect written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Procuring Entity of

executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Procuring Entity of the completed Works, or
(iv) otherwise be of benefit to the Procuring Entity.

- 13.3.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].
- 13.2.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:
- a) The Contractor shall design this part,
 - b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and
 - c) if this change results in a reduction in the contract value of this part, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be (50%) of the difference between the following amounts:
 - i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.8 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost], and
 - ii) the reduction (if any) in the value to the Procuring Entity of the varied works, taking account of any improvement in quality, anticipated life or operational efficiencies.
- 13.3.4 However, if the amount established in item 13.2.3 (c) (i) is less than amount established in item 13.2.3 (c) (ii), there shall not be a fee. However, if the amount established in item 13.2.3 (c) (i) is more than amount established in item 13.2.3 (c) (ii), it shall result in a price variation to the Procuring Entity.

134 Variation Procedure for Value Engineering proposal

- 13.4.1 If the Architect requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:
- a) A description of the proposed work to be performed and a programme for its execution,
 - b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [Programme] and to the Time for Completion, and
 - c) the Contractor's proposal for evaluation of the Variation.
- 13.4.2 The Architect shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Project Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst waiting a response.
- 13.4.3 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Architect to the Contractor, who shall acknowledge receipt.
- 13.4.4 Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Architect instructs or approves otherwise in accordance with this Clause.

135 Payment in Applicable Currencies

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

136 Provisional Sums

- 13.6.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Architect instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the

Provisional Sum relates, as the Architect shall have instructed. For each Provisional Sum, the Architect May instruct:

- a) Work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or
- b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise; and for which there shall be included in the Contract Price:
 - i) The actual amounts paid (or due to be paid) by the Contractor, and
 - ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in **the Special Conditions of Contract** shall be applied.

13.62 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

137 Dayworks

13.7.1 For work of a minor or incidental nature, the Architect may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.

13.7.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

13.7.3 Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Architect accurate statements induplicate which shall include the following details of the resources used in executing the previous day's work:

- a) The names, occupations and time of Contractor's Personnel,
- b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- c) the quantities and types of Plant and Materials used.

13.7.4 One copy of each statement will, if correct, or when agreed, be signed by the Architect and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].

138 Adjustments for Changes in Legislation

13.8.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of Kenya (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

13.8.2 If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such Cost, which shall be included in the Contract Price.

13.8.3 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

1384 Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8 [Adjustments for Changes in Cost].

139 Adjustments for Changes in Cost

1391 In this Sub-Clause, “table of adjustment data” means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this Sub-Clause shall not apply.

1392 If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labor, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included a mounts to cover the contingency of other rises and falls in costs.

1393 The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:

Price Adjustment Formula

Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies:

$$P = A + B \frac{I_m}{I_o}$$

where:

P is the adjustment factor for the portion of the Contract Price payable.

A and **B** a recoefficients **specified in the SCC**, representing then on adjustable and adjustable portions, respectively, of the Contract Price payable and

I m is the index prevailing at the end of the month being invoiced and **I o c** is the index prevailing 30 days before Bid opening for inputs payable.

NOTE: The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

1394 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. Forth is purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

1395 Incases where the “currency of index” is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the Central Bank of Kenya, of this relevant currency on the above date for which the index is required to be applicable.

1396 Until such time as each current cost index is available, the Architect shall determine a provisional

index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.

- 1397 If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices there after shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price, whichever is more favorable to the Procuring Entity.
- 1398 The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or in applicable, as a result of Variations.

14 CONTRACT PRICE AND PAYMENT

14.1 The Contract Price

14.1.1 Unless otherwise stated in the Special Conditions:

- a) The value of the payment certificate shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;
- b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [Adjustments for Changes in Legislation];
- c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:
 - i) of the Works which the Contractor is required to execute, or
 - ii) for the purposes of Clause 12 [Measurement and Evaluation]; and
- d) the Contractor shall submit to the Engineer, within 30 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Architect may take account of the break down when preparing Payment Certificates but shall not be bound by it.

14.1.2 Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts there for, imported by the Contractor for the sole purpose of executing the Contract shall not be exempt from the payment of import duties and taxes upon importation.

14.2 Advance Payment

14.2.1 The Procuring Entity shall make an advance payment, as an interest-free loan for mobilization and cashflow support, when the Contractor submits a guarantee in accordance with this Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the **Special Conditions of Contract**.

14.2.2 Unless and until the Procuring Entity receives this guarantee, or if the total advance payment is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.

14.2.3 The Architect shall deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under Sub-Clause 14.3 [Application for Interim Payment Certificates]) and after the Procuring Entity receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by a reputable bank or financial institutions elected by the Contractor and shall be in the form annexed to the Special Conditions or in another form approved by the Procuring Entity.

14.2.4 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

1425 Unless stated otherwise in **the Special Conditions of Contract**, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Architect in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:

- a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
- b) deductions shall be made at the amortization rate stated in the **Special Conditions of Contract** of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.

1426 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by Procuring Entity], Clause 16 [Suspension and Termination by Contractor] or Clause 19 [Force Majeure] (as the case may be), the whole of the balance then outstanding shall immediately become due and in case of termination under Clause 15 [Termination by Procuring Entity], except for Sub-Clause 14.2.7 [Procuring Entity's Entitlement to Termination for Convenience], payable by the Contractor to the Procuring Entity.

143 Application for Interim Payment Certificates

143.1 The Contractor shall submit a Statement (in number of copies indicated in the **Special Conditions of Contract**) to the Architect after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers itself to be entitled, together with supporting documents which shall include there portion the progress during this month in accordance with Sub-Clause 4.21 [Progress Reports].

143.2 The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);
- b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost];
- c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in **the Special Conditions of Contract** to the total of the above amounts, until the amount so retained by the Procuring Entity reaches the limit of Retention Money (if any) stated **in the Special Conditions of Contract**;
- d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];
- e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];
- f) any other additions or deductions which may have become due under the Contract otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and
- g) the deduction of amounts certified in all previous Payment Certificates.

144 Schedule of Payments

144.1 If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

- a) The instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates];

- b) Sub-Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and
- c) If these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.

1442 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

145 Plant and Materials intended for the Works

145.1 If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].

1452 If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules, this Sub-Clause shall not apply.

1453 The Architect shall determine and certify each addition if the following conditions are satisfied:

- a) The Contractor has:
 - i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
 - (ii) submitted statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;and either:
- b) the relevant Plant and Materials:
 - i) are those listed in the Schedules for payment when shipped,
 - ii) have been shipped to Kenya, enroute to the Site, in accordance with the Contract; and
 - iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Architect together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Procuring Entity in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; or
- c) the relevant Plant and Materials:
 - i) are those listed in the Schedules for payment when delivered to the Site, and
 - ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration and appear to be in accordance with the Contract.

1454 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Architect determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.

1455 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

14.6 Issue of Interim Payment Certificates

- 14.6.1 No amount will be certified or paid until the Procuring Entity has received and approved the Performance Security. Thereafter, the Architect shall, within 30 days after receiving a Statement and supporting documents, deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate which shall state the amount which the Architect fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Architect on the Statement if any.
- 14.6.2 However, prior to issuing the Taking-Over Certificate for the Works, the Architect shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated **in the Special Conditions of Contract**. In this event, the Architect shall give notice to the Contractor accordingly.
- 14.6.3 An Interim Payment Certificate shall not be withheld for any other reason, although:
- a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
 - b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.
- 4.6.4 The Architect may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Architect acceptance, approval, consent or satisfaction.

14.7 Payment

- 14.7.1 The Procuring Entity shall pay to the Contractor:
- a) The advance payment shall be paid within 60 days after signing of the contract by both parties or within 60 days after receiving the documents in accordance with Sub-Clause 4.2 [Performance Security] and Sub- Clause 14.2 [Advance Payment], whichever is later;
 - b) The amount certified in each Interim Payment Certificate within 60 days after the Architect Issues Interim Payment Certificate; and
 - c) the amount certified in the Final Payment Certificate within 60 days after the Procuring Entity Issues Interim Payment Certificate; or after determination of any disputed amount shown in the Final Statement in accordance with Sub-Clause 16.2 [Termination by Contractor].
- 14.7.2 Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (forth is currency) specified in the Contract.

14.8 Delayed Payment

- 14.8.1 If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges (simple interest) monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b) of the date on which any Interim Payment Certificate is issued.
- 14.8.2 These financing charges shall be calculated at the annual rate of three percentage points above the mean rate of the Central Bank in Kenya of the currency of payment, or if not available, the inter bank offered rate, and shall be paid in such currency.
- 14.8.3 The Contractor shall be entitled to this payment without formal notice and certification, and without prejudice to any other right or remedy.

14.9 Payment of Retention Money

- 149.1 When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.
- 149.2 Promptly after the latest of the expiry dates of the Defects Liability Periods, the outstanding balance of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.
- 149.3 However, if any work remains to be executed under Clause 11 [Defects Liability], the Architects shall be entitled to withhold certification of the estimated cost of this work until it has been executed.
- 149.4 When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost].
- 149.5 Unless otherwise stated in the Special Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a Retention Money Security guarantee, in the form annexed to the Special Conditions or in another form approved by the Procuring Entity and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money.
- 149.6 The Procuring Entity shall return the Retention Money Security guarantee to the Contractor within 14 days after receiving a copy of the Completion Certificate.

14.10 Statement at Completion

- 14.10.1 Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Architect three copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates], showing:
- a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
 - b) any further sums which the Contractor considers to be due, and
 - c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.
- 14.10.2 The Architect shall then certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates].

14.11 Application for Final Payment Certificate

- 14.11.1 Within 60 days after receiving the Completion Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:
- a) The value of all work done in accordance with the Contract, and
 - b) Any further sums which the Contractor considers to be due to him under the Contract otherwise.
- 14.11.2 If the Architect disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Architect may reasonably require within 30 days from receipt of said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Architect the final statement as agreed. This agreed

statement is referred to in these Conditions as the “Final Statement”.

14.11.3 However, if, following discussions between the Architect and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Architect shall deliver to the Procuring Entity (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.4 [Obtaining Dispute Board's Decision] or Sub-Clause 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Procuring Entity (with a copy to the Engineer) a Final Statement.

14.12 Discharge

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

14.13 Issue of Final Payment Certificate

14.13.1 Within 30 days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall deliver, to the Procuring Entity and to the Contractor, the Final Payment Certificate which shall state:

- a) The amount which he fairly determines is finally due, and
- b) After giving credit to the Procuring Entity for all amounts previously paid by the Procuring Entity and for all sums to which the Procuring Entity is entitled, the balance (if any) due from the Procuring Entity to the Contractor or from the Contractor to the Procuring Entity, as the case may be.

14.13.2 If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 30 days, the Architect shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

14.14 Cessation of Procuring Entity's Liability

14.14.1 The Procuring Entity shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

- a) in the Final Statement and also,
- b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [Statement at Completion].

14.14.2 However, this Sub-Clause shall not limit the Procuring Entity's liability under his indemnification obligations, or the Procuring Entity's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Entity.

14.15 Currencies of Payment

The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:

- a) If the Accepted Contract Amount was expressed in Local Currency only:
 - i) the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of

- Payment Currencies, except as otherwise agreed by both Parties;
- ii) payments and deductions under Sub-Clause 13.5 [Provisional Sums] and Sub-Clause 13.7 [Adjustments for Changes in Legislation] shall be made in the applicable currencies and proportions; and
 - iii) other payments and deductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [Application for Interim Payment Certificates] shall be made in the currencies and proportions specified in sub-paragraph (a) (i) above;
- b) payment of the damages specified in the Special Conditions of Contract, shall be made in the currencies and proportions specified in the Schedule of Payment Currencies;
 - c) other payments to the Procuring Entity by the Contractor shall be made in the currency in which the sum was expended by the Procuring Entity, or in such currency as may be agreed by both Parties;
 - d) if any amount payable by the Contractor to the Procuring Entity in a particular currency exceeds the sum payable by the Procuring Entity to the Contractor in that currency, the Procuring Entity may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and
 - e) if no rates of exchange are stated in the Schedule of Payment Currencies, they shall be those prevailing on the Base Date and determined by the Central Bank of Kenya.

15 TERMINATION BY PROCURING ENTITY

15.1 Notice to correct any defects or failures

If the Contractor fails to carry out any obligation under the Contract, the Architect may by notice require the Contractor to make good the failure and to remedy it within 30 days.

15.2 Termination by Procuring Entity

- 15.2.1 The Procuring Entity shall be entitled to terminate the Contract if the Contractor breaches the contract based on following circumstances which shall include but not limited to:
- a) fails to comply with Sub-Clause 4.2 [Performance Security] or with a notice under Sub-Clause 15.1 [Notice to Correct],
 - b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
 - c) without reasonable excuse fails:
 - i) to proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension], or
 - ii) to comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 30 days after receiving it,
 - d) subcontracts the major part or whole of the Works or assigns the Contract without the consent of the Procuring Entity,
 - e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
 - f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an induce mentor reward:
 - i) for doing or for bearing to do any action in relation to the Contract, or
 - ii) for showing or for bearing to show favor or disfavor to any person in relation to the Contract, or
 - iii) if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such induce mentor reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination, or
 - g) If the contract or repeatedly fails to remedy delivers defective work,
 - h) based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph

2.2 of the Appendix B to these General Conditions, in competing for or in executing the Contract.

- 1522 In any of these events or circumstances, the Procuring Entity may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub- paragraph (e) or (f) or (g) or (h), the Procuring Entity may by notice terminate the Contract immediately.
- 1523 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contractor otherwise.
- 1524 The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.
- 1525 After termination, the Procuring Entity may complete the Works and/ or arrange for any other entities to do so. The Procuring Entity and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.
- 1526 The Procuring Entity shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Procuring Entity, these items may be sold by the Procuring Entity in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

153 Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

154 Payment after Termination

After a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Procuring Entity may:

- a) Proceed in accordance with Sub-Clause 2.5 [Procuring Entity's Claims],
- b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Procuring Entity, have been established, and/ or
- c) recover from the Contractor any losses and damages incurred by the Procuring Entity and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Procuring Entity shall pay any balance to the Contractor.

155 Procuring Entity's Entitlement to Termination for Convenience

The Procuring Entity shall be entitled to terminate the Contract, at any time at the Procuring Entity's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 30 days after the later of the dates on which the Contractor receives this notice or the Procuring Entity returns the Performance Security. The Procuring Entity shall not terminate the Contract under this Sub-Clause in order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [Termination by Contractor]. After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with Sub-Clause 16.4 [Payment on Termination].

15.6 Fraud and Corruption

The Contractor shall ensure compliance with the Kenya Government's Anti-Corruption Laws and its prevailing sanctions.

15.7 Corrupt gifts and payments of commission

15.7.1 The Contractor shall not;

- a) Offer or give or agree to give to any person in the service of the Procuring Entity any gift or consideration of any kind as an inducement or reward for doing or for bearing to door for having done or for borne to do any act in relation to the obtaining or execution of this or any other Contract for the Procuring Entity or for showing or for bearing to show favor or disfavor to any person in relation to this or any other contract for the Procuring Entity.
- b) Enter into this or any other contract with the Procuring Entity in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment there of have been disclosed in writing to the Procuring Entity.

15.7.2 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 provisions of the Public Procurement and Asset Disposal Act (2015) and the Anti-Corruption and Economic Crimes Act (2003) of the Laws of Kenya.

16 SUSPENSION AND TERMINATION BY CONTRACTOR

16.1 Contractor's Entitlement to Suspend Work

16.1.1 If the Architect fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or Sub-Clause 14.7 [Payment], or not receiving instructions that would enable the contractor to proceed with the works in accordance with the program, the Contractor may, after giving not less than 30 days' notice to the Procuring Entity, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

16.1.2 The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Termination by Contractor].

16.1.3 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

16.1.4 If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such Cost-plus profit, which shall be included in the Contract Price.

16.2 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

16.3 Termination by Contractor

16.3.1 The Contractor shall be entitled to terminate the Contract if:

- a) the Architect fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- b) the Contractor does not receive the amount due under an Interim Payment Certificate within 90

days after the expiry of the time stated in Sub-Clause 14.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's Claims]),

- c) the Procuring Entity substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract,
- d) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or
- e) the Procuring Entity becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.
- f) the Contractor does not receive the Architect instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].

1632 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Procuring Entity, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

1633 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract otherwise.

164 Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 [Procuring Entity's Entitlement to Termination for Convenience], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

- a) cease all further work, except for such work as may have been instructed by the Architect for the protection of life or property or for the safety of the Works,
- b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

165 Payment on Termination

After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, the Procuring Entity shall promptly:

- a) Return the Performance Security to the Contractor,
- b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and
- c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

17. RISK AND RESPONSIBILITY

17.1 Indemnities

17.1.1 The Contractor shall indemnify and hold harmless the Procuring Entity, the Procuring Entity's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- a) Bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful actor breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and
- b) damage to or loss of any property, real or personal (other than the Works), to the extent that

such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.12 The Procuring Entity shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [Insurance Against Injury to Persons and Damage to Property], unless and to the extent that any such damage or loss is attributable to any negligence, willful actor breach of the Contract by the contractor, the contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.2 Contractor's Care of the Works

17.21 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Procuring Entity. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Procuring Entity.

17.22 After responsibility has accordingly passed to the Procuring Entity, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

17.23 If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

17.24 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

17.3 Procuring Entity's Risks

The risks referred to in Sub-Clause 17.4 [Consequences of Procuring Entity's Risks] below, in so far as they directly affect the execution of the Works in Kenya, are:

- a) War hostilities (whether war be declared or not),
- b) rebellion, riot, commotion or disorder, terrorism, sabotage by persons other than the Contractor's Personnel,
- c) explosive materials, ionizing gradiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such explosives, radiation or radio-activity,
- d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
- e) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
- f) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
- g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

17.4 Consequences of Procuring Entity's Risks

- 17.4.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Architect and shall rectify this loss or damage to the extent required by the Engineer.
- 17.4.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- (a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - (b) payment of any such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (e) and
 - (g) of Sub-Clause 17.3 [Procuring Entity's Risks], Accrued Costs shall be payable.
- 17.4.3 After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

17.5 Intellectual and Industrial Property Rights

- 17.5.1 In this Sub-Clause, "infringement" shall refer to an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" shall refer to a claim (or proceedings pursuing a claim) alleging an infringement.
- 17.5.2 Whenever a Party does not give notice to the other Party of any claim within 30 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.
- 17.5.3 The Procuring Entity shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:
- a) An unavoidable result of the Contractor's compliance with the Contract, or
 - b) A result of any Works being used by the Procuring Entity:
 - i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
 - ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.
- 17.5.4 The Contractor shall indemnify and hold the Procuring Entity harmless against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.
- 17.5.5 If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.
- 17.5.6 For operation and maintenance of any plant or equipment installed, the contractor shall grant a non-exclusive and non-transferable license to the Procuring Entity under the patent, utility models, or other intellectual rights owned by the contractor or a third party from whom the contractor has received the rights to grant sub-licenses and shall also grant to the Procuring Entity a non-exclusive and non-transferable license (without the right to sub-license) to use the know-how and other technical information disclosed to the contractor or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual rights from the contractor or any other third party to the Procuring Entity.

17.6 Limitation of Liability

- 17.6.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contractor for any in director consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause 17.4(b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].
- 17.6.2 The total liability of the Contractor to the Procuring Entity, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas], Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in **the Special Conditions of Contract**, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.
- 17.6.3 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

17.7 Use of Procuring Entity's Accommodation/Facilities

- 17.7.1 The Contractor shall take full responsibility for the care of the Procuring Entity provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).
- 17.7.2 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

18 INSURANCE

18.1 General Requirements for Insurances

- 18.1.1 In this Clause, "insuring Party" means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.
- 18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
- 18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the

rectification of the loss or damage.

18.16 The relevant insuring Party shall, within the respective periods stated in **the Special Conditions of Contract** (calculated from the Commencement Date), submit to the other Party:

- a) Evidence that the insurances described in this Clause have been affected, and
- b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].

18.17 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.

18.18 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.

18.19 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.

18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Procuring Entity, under the other terms of the Contract otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Procuring Entity.

18.1.12 Procuring Entity in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub-Clause 20.1 [Contractor's Claims], as applicable.

18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

18.2 Insurance for Works and Contractor's Equipment

18.2.1 The insuring Party shall insure the Works, Plant, Material and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.

18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).

18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement

value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

- 1824 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:
- a) Shall be effected and maintained by the Contractor as insuring Party,
 - b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
 - c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks],
 - d) shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Procuring Entity of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated **in the Special Conditions** of Contract (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
 - e) may however exclude loss of, damage to, and reinstatement of:
 - i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
 - ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
 - iii) a part of the Works which has been taken over by the Procuring Entity, except to the extent that the Contractor is liable for the loss or damage, and
 - iv) Goods while they are not in Kenya, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

1825 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

183 Insurance against Injury to Persons and Damage to Property

183.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

183.2 This insurance shall be for a limit per occurrence of not less than the amount stated in **the Special Conditions of Contract**, with no limit on the number of occurrences. If an amount is not stated in **the Special Conditions of Contract**, this Sub-Clause shall not apply.

- 183.3 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:
- a) Shall be effected and maintained by the Contractor as insuring Party,
 - b) shall be in the joint names of the Parties,
 - c) shall be extended to cover liability for all loss and damage to the Procuring Entity's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
 - d) may however exclude liability to the extent that it arises from:

- i) the Procuring Entity's right to have the Permanent Works executed on, over, under, in or
- ii) through any land, and to occupy this land for the Permanent Works,
- iii) damage which is an unavoidable result of the Contractor's obligations to execute the
- iv) Works and remedy any defects, and
- v) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.

18.4 Insurance for Contractor's Personnel

- 18.4.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.
- 18.4.2 The insurance shall cover the Procuring Entity and the Architect against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.
- 18.4.3 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19. FORCE MAJEURE

19.1 Definition of Force Majeure

- 19.1.1 In this Clause, "Force Majeure" means an exceptional event or circumstance:
- a) Which is beyond a Party's control,
 - b) Which such Party could not reasonably have provided against before entering into the Contract,
 - c) which, having arisen, such Party could not reasonably have avoided or overcome, and
 - d) which is not substantially attributable to the other Party.
- 19.1.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:
- a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
 - c) riot, commotion, disorder, strike or lock out by persons other than the Contractor's Personnel,
 - d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
 - e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

- 19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- 19.2.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- 19.2.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

19.3 Duty to Minimize Delay

Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

19.4 Consequences of Force Majeure

19.4.1 If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/ or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in Kenya, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub- Clause 18.2 [Insurance for Works and Contractor's Equipment].

19.4.2 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

19.5 Force Majeure Affecting Subcontractor

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

19.6 Optional Termination, Payment and Release

19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].

19.6.2 Upon such termination, the Architect shall determine the value of the work done and issue a Payment Certificate which shall include:

- a) the amounts payable for any work carried out for which a price is stated in the Contract;
- b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;
- c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- e) the Cost of repatriation of the Contractor's staff and lab or employed wholly in connection with the Works at the date of termination.

19.7 Release from Performance

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or

unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- a) The Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
- b) The sum payable by the Procuring Entity to the Contractor shall be the same as would have been payable under Sub-Clause 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under Sub-Clause 19.6.

20. SETTLEMENT OF CLAIMS AND DISPUTES

20.1 Contractor's Claims

- 20.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give Notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 20.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.
- 20.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.
- 20.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at an other location acceptable to the Engineer. Without admitting the Procuring Entity's liability, the Architect may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Architect to inspect all these records and shall (if instructed) submit copies to the Engineer.
- 20.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Architect fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:
- a) This fully detailed claim shall be considered as interim;
 - b) The Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Architect may reasonably require; and
 - c) The Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.
- 20.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Architect and approved by the Contractor, the Architect shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars but shall nevertheless give his response on the principles of the claim within the above defined time period.
- 20.1.7 Within the above defined period of 42 days, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the

Contract.

- 20.18 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- 20.19 If the Architect does not respond within the time frame defined in this Clause, either Party may consider that the claim is rejected by the Architect and any of the Parties may refer the dispute for amicable settlement in accordance with Clause 20.3.
- 20.1.10 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/ or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 20.3.

20.2 Procuring Entity's Claims

- 20.2.1 If the Procuring Entity considers itself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Procuring Entity or the Architect shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.
- 20.2.2 The notice shall be given as soon as practicable and no longer than 30 days after the Procuring Entity became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.
- 20.2.3 The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/or extension to which the Procuring Entity considers itself to be entitled in connection with the Contract. The Architect shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Procuring Entity is entitled to be paid by the Contractor, and/ or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].
- 20.2.4 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Procuring Entity shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

20.3 Amicable Settlement

Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 20.1 above should move to commence arbitration after 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

20.4 Matters that may be referred to arbitration

Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) Whether or not the issue of an instruction by the Architect is empowered by these Conditions.
- b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause

19.

- e) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

20.5 Arbitration

- 205.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 20.3 shall be finally settled by arbitration.
- 205.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.
- 205.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.
- 205.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 205.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision require prior notice had been given.
- 205.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Architect from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 205.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 205.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Architect shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 205.8 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

20.6 Arbitration with National Contractors

- 206.1 If the Contract is with national contractors, arbitration proceedings will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred 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, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;
- i) Architectural Association of Kenya
 - ii) Institute of Quantity Surveyors of Kenya
 - iii) Association of Consulting Engineers of Kenya
 - iv) Chartered Institute of Arbitrators (Kenya Branch)
 - v) Institution of Engineers of Kenya

2062 The institution written to first by the aggrieved party shall take precedence over all other institutions.

20.7 Arbitration with Foreign Contractors

207.1 Arbitration with foreign contractors shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

207.2 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

20.8 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

20.9 Failure to Comply with Arbitrator's Decision

209.1 The award of such Arbitrator shall be final and binding up on the parties.

209.2 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

20.10 Contract operations to continue

Notwithstanding any reference to arbitration herein,

1.1.1 the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

1.1.2 the Procuring Entity shall pay the Contractor any monies due the Contractor.

Section IX - Special Conditions of Contract

The following Special Conditions shall supplement the GCC. Whenever there is a conflict, the provisions here in shall prevail over those in the GCC.

Conditions	Sub-Clause	Data
Part A - Contract Data		
Procuring Entity's name and address	Heading	Simlaw Seeds Company Limited, P.O Box 40042-00100, Nairobi,
Name and Reference No. of the Contract	Heading and 1.1	Proposed construction of warehouses and offices with associated infrastructure at Kyang'ombe, off Old Mombasa Road, Nairobi County. TENDER REF: SSC/ONT/WHSE/09/2024-2025
Engineers Name and address	Heading and 3.1.1	To be provided by the Procuring Entity prior to Contract Signature
Contractor's Representative's name	4.3.1	<i>[insert the name of the Contractor's Representative agreed by the Procuring Entity prior to Contract signature]</i>
Key Personnel names	16.9.1	<i>[insert the name of each Key Personnel agreed by the Procuring Entity prior to Contract signature]</i>
Time for Completion	1.1.	<u>10 Months</u>
Defects Notification Period	1.1	_____ days
Sections	1.1	<i>If Sections are to be used, refer to Table: Summary of Sections below</i>
Electronic transmission systems	1.3	
Time for the Parties entering into a Contract Agreement	1.6	Within 30days
Commencement Date	8.1.1	To be provided by the Procuring Entity prior to Contract Signature
Time for access to the Site	2.1.1	No later than the Commencement Date, and not later than _____14_____ days after Commencement Date
Architect Duties and Authority	3.1.6 (b) (ii)	Variations resulting in an increase of the Accepted Contract Amount in excess of _____% shall require approval of the Procuring Entity._
Performance Security	4.2.1	The performance security will be in the form of a _____ <i>[insert either one of "demand guarantee" or "performance bond"]</i> in the amount(s) of <i>[insert related figure(s)]</i> percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.
Normal working hours	6.5	Specify
Delay damages for the Works	8.7 & 14.15(b)	_____ % of the Contract Price per day. <i>If Sections are to be used, refer to Table: Summary of Sections below</i>

Conditions	Sub-Clause	Data
Maximum amount of delay damages	8.7.1	_____ % of the final Contract Price.
Provisional Sums	13.6. (b)(ii)	<i>[If there are Provisional Sums, insert a percentage for adjustment of Provisional Sums]</i> _____ %
Adjustments for Changes in Cost	13.9	Period “n” applicable to the adjustment multiplier “Pn”: _____ <i>[Insert the period if different from one (1) month; if period “n” is one (1) month, insert “not applicable”]</i>
Total advance payment	14.2.1	___ % Percentage of the Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable <i>[Insert number and timing of installments if applicable]</i>
Repayment amortization rate of advance payment	14.2.5 (b)	_____ %
Percentage of Retention	14.3.2 (c)	_____ %
Limit of Retention Money	14.3.2 (c)	_____ % of the Accepted Contract Amount
Plant and Materials	14.5.3(b)(i))	If Sub-Clause 14.5 applies: Plant and Materials for payment Free on Board _____ <i>[list]</i> .
	14.5.3(c)(i))	Plant and Materials for payment when delivered to the Site _____ <i>[list]</i> .
Minimum Amount of Interim Payment Certificates	14.6.2	_____ % of the Accepted Contract Amount.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	Specify _____ % rate per month of delayed payment.
Maximum total liability of the Contractor to the Procuring Entity	17.6.2	<i>[Select one of the two options below as appropriate]</i> The product of _____ <i>[insert a multiplier less or greater than one]</i> times the Accepted Contract Amount, <i>or</i> _____ <i>[insert amount of the maximum total liability]</i>
Periods for submission of insurance: a. evidence of insurance. b. relevant policies	18.1.6	<i>[Insert period for submission of evidence of insurance and policy. Period may be from 14 days to 30days.]</i> ____ days ____ days
Maximum amount of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d)	<i>[Insert maximum amount of deductibles]</i>
Minimum amount of third-party insurance	18.3.2	<i>[Insert amount of third-party insurance]</i>
The place of arbitration	20.7.2	Nairobi, Kenya

SECTION X - CONTRACT FORMS

FORM No. 1 - NOTIFICATION OF INTENTION TO AWARD

FORM NO. 2 – REQUEST FOR REVIEW

FORM No. 3-LETTEROF AWARD

FORM No. 4 - CONTRACT AGREEMENT

FORM No. 5 - PERFORMANCE SECURITY [Option 1 - Unconditional Demand Bank Guarantee]

FORM No. 6- PERFORMANCE SECURITY [Option 2– Performance
Bond] FORM No. 7 - ADVANCE PAYMENT SECURITY

FORM No. 8 - RETENTION MONEY SECURITY

FORM No 1: NOTIFICATION OF INTENTION TOAWARD OF CONTRACT

This Notification of Award shall be sent to each Tenderer that submitted a Tender and was not successful. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

1. For the attention of Tenderer's Authorized Representative

- i) Name: *[insert Authorized Representative's name]*
- ii) Address: *[insert Authorized Representative's Address]*
- iii) Telephone: *[insert Authorized Representative's telephone/fax numbers]*
- iv) Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. Date of transmission: *[email]* on *[date]* (local time)

This Notification is sent by *(Name and designation)* _____

3. Notification of Award

- i) Procuring Entity: *[insert the name of the ProcuringEntity]*
- ii) Project: *[insert name ofproject]*
- iii) Contract title: *[insert the name of thecontract]*
- iv) ITT No: *[insert ITT reference number from ProcurementPlan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

4. Request a debriefing in relation to the evaluation of your tender by submitting a Procurement-related Complaint in relation to the decision to award the contracts.

a) The successful tenderers

i) Name of successful Tender _____

ii) Address of the successful Tender _____

iii) Contract price of the successful Tender Kenya Shillings _____
(in words _____)

b) The reasons for your tender being unsuccessful are as follows:

c) OtherTenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out.

SNo	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why Not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request a debriefing

- a) DEADLINE: The dead line to request a debriefing expires at midnight on *[insert date]* (local time).
- b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: *[insert full name of person, if applicable]*
 - ii) Title/position: *[insert title/position]*
 - iii) Agency: *[insert name of Procuring Entity]*
 - iv) Email address: *[insert email address]*
- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

6. How to make a complaint

- a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).
- b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: *[insert full name of person, if applicable]*
 - ii) Title/position: *[insert title/ position]*
 - iii) Agency: *[insert name of Procuring Entity]*
 - iv) Email address: *[insert email address]*
- c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website www.ppra.go.ke.

You should read these documents before preparing and submitting your complaint.

- e) There are four essential requirements:
- i) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process and is the recipient of a Notification of Intention to Award.
 - ii) The complaint can only challenge the decision to award the contract.
 - iii) You must submit the complaint within the period stated above.
 - iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) **DEADLINE:** The Standstill Period is due to end at midnight on *[insert date]* (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5(d) above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

FORM FOR REVIEW (r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO.....OF.....20.....

BETWEEN

.....**APPLICANT**

AND

.....**RESPONDENT (Procuring Entity)**

Request for review of the decision of the..... (Name of the Procuring Entity ofdated the...day of20.....in the matter of Tender No.....of20..... for (Tender description).

REQUEST FOR REVIEW

I/We.....,the above named Applicant(s), of address: Physical address.....P. O. Box 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.

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

- 1.
- 2.

SIGNED(Applicant) Dated on.....day of/...20.....

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on.....day of20.....

SIGNED

Board Secretary

FORM NO 3: LETTER OF AWARD

letterhead paper of the Procuring Entity]

[date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is here by accepted by..... *(name of Procuring Entity)*.

You are requested to furnish the Performance Security within in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:

Name and Title of Signatory:

Name of Procuring Entity:

Attachment: *Contract Agreement:*

FORM NO 4: CONTRACT AGREEMENT

THIS AGREEMENT made the day of..... 20.....,
between.....
.....of..... (hereinafter “the
Procuring
Entity”), of the one part, and _____ of
_____ (hereinafter “the Contractor”), of the
other part:

WHEREAS the Procuring Entity desires that the Works known as _____ should
be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and
completion of these Works and the remedying of any defects there in,

The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a) the Notification of Award
 - b) the Form of Tender
 - c) the addenda Nos _____ (if any)
 - d) the Special Conditions of Contract
 - e) the General Conditions of Contract;
 - f) the Specifications
 - g) the Drawings; and
 - h) the completed Schedules and any other documents forming part of the contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor here by covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity here by covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects there in, 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 where of the parties here to have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by _____ (for the Procuring Entity)

Signed and sealed by _____ (for the Contractor).

FORM NO. 5 - PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: *[insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with (name of Procuring Entity) _____ (the Procuring Entity as the Beneficiary), for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *(in words)*, ¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the.....Day of....., ² and any demand for payment under it must be received by us at the office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”
.....

[Name of Authorized Official, signature(s) and seals/stamps]

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

¹*The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency of the Contract or a freely convertible currency acceptable to the Beneficiary.*

²*Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM No. 6- PERFORMANCE SECURITY

[Option 2– Performance Bond]

[Note: Procuring Entities are advised to use Performance Security – Unconditional Demand Bank Guarantee in stead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary:

[insert name and Address of Procuring Entity]

Date: _____ *[Insert date of issue]*

PERFORMANCE BOND No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. By this Bond _____ as Principal (hereinafter called “the Contractor”) and _____] as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____] as Oblige (hereinafter called “the Procuring Entity”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the _____ day of _____, 20____, for _____ in accordance with the documents, plans, specifications, and amendments there to, which to the extent here in provided for, are by reference made part here of and are here in after referred to as the Contract.
3. 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 Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:
 - a) Complete the Contract in accordance with its terms and conditions; or
 - b) Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make a 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 Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
 - c) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named here in or the heirs, executors,

administrators, successors, and assigns of the Procuring Entity.

6. In testimony whereof, the Contractor has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly at tested by the signature of his legal representative, this day _____ of _____ 20_____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

FORM NO. 7 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of*

Procuring Entity] **Date:** _____ *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: _____ *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (in words _____) is to be made against an advance payment guarantee.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (in words _____)¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
 - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
 - b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number _____ at _____.
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the _____ day of _____, 20____², whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/stamps]

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

¹*The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.*

²*Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee*

FORM NO. 8 – RETENTION MONEY SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

Advance payment guarantee no. *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Contractor") has entered into Contract No. _____ *[insert reference number of the contract]* dated _____ with the Beneficiary, for the execution of _____ *[insert name of contract and brief description of Works]* (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys upto the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.
3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* _____ (*insert amount in words* _____) ¹ upon receipt by us of the Beneficiary's complying demands supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified there in.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention Money as referred to above has been credited to the Contractor on its account number _____ at _____ *[insert name and address of Applicant's bank]*.
5. This guarantee shall expire no later than the Day of ², and any demand for payment under it must be received by us at the office indicated above on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/stamps]

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

¹The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.
²Insert a date that is twenty-eight days after the expiry of retention period after the actual completion date of the contract. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form (“Form”) is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

Tender Reference No.: _____ [insert identification no]
 Name of the Tender Title/Description: _____ [insert name of the assignment] to: _____ [insert complete name of Procuring Entity]

In response to the requirement in your notification of award dated _____ [insert date of notification of award] to furnish additional information on beneficial ownership: _____ [select one option as applicable and delete the options that are not applicable]

D) We here by provide the following beneficial ownership information.

Details of Beneficial ownership

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
1.	Full Name	Directly--- ----- % of shares	Directly.....% of voting rights	1.Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - ----No----	1.Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----
	National identity card number or Passport number				
	Personal Identification Number (where applicable)				
	Nationality				
	Date of birth [dd/mm/yyyy]				
	Postal address				
	Residential address				

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)	
Telephone number					Indirect.....	
Email address						
Occupation or profession						
2.	Full Name		Directly--- ----- % of shares	Directly.....% of voting rights	1.Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - ---No--- 2.Is this right held directly or indirectly?: Direct..... Indirect.....	1.Exercises significant influence or control over the Company body of the Company (tenderer) Yes ----No----
	National identity card number or Passport number					
	Personal Identification Number (where applicable)					
	Nationality(ies)					
	Date of birth [dd/mm/yyyy]					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					
3. e. t. c						

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020.(Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
- (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
- (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
- (d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer:[insert complete name of the Tenderer]_____*

*Name of the person duly authorized to sign the Tender on behalf of the Tenderer: ** [insert complete name of person duly authorized to sign the Tender]*

Designation of the person signing the Tender: [insert complete title of the person signing the Tender]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date this [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp

**SECTION NO. 01
PRELIMINARIES**

	<p><u>SECTION NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>PRELIMINARY PARTICULARS</u></p> <p>A <u>PARTIES</u></p> <p>The "Employer" is</p> <p style="text-align: right;">SIMLAW SEEDS COMPANY; THE KENYA SEED COMPANY LIMITED P.O. Box 40042 - 00100 <u>NAIROBI</u></p> <p>The "Architect" is</p> <p>The "Quantity Surveyor" is</p> <p>The "Mechanical/Electrical Engineer" is</p> <p>The "Structural Engineer" is</p> <p>For the purpose of the works which are under the control of the Consultants above, the respective Consultants shall be deemed to be invested with the duties and be representatives of the Architect.</p> <p>B <u>SITE</u></p> <p>The site is located at KYANGOMBE, NAIROBI</p> <p>The Contractor shall obtain the Architect's approval for the siting of all temporary buildings, spoil heaps, temporary paths and storage areas for materials.</p> <p>The Contractor shall visit the Site to acquaint himself with its nature and position, the nature of the ground, substrata and other local conditions, position of power and water supplies, access roads or any other limitations, and no claims for extras will be considered on account of lack of knowledge in this respect.</p> <p>C <u>ACCESS TO SITE</u></p> <p>Access to site shall be as directed by the Architect. The Contractor shall strictly observe police regulations regarding traffic movement.</p>	
	<p>Preliminaries</p> <p style="text-align: center;">1</p> <p style="text-align: right;">Carried to collection</p> <p style="text-align: right;">KShs.</p>	

A	<p><u>WORKING AND STORAGE SPACE</u></p> <p>Working and storage space will be confined to the area designated by the Architect within the plot boundary.</p>	KShs								
B	<p><u>WORKING HOURS</u></p> <p>The Work must be carried out to cause minimum inconvenience to the occupants of the adjoining premises. If the Clients should require that work is suspended on any other several days, the contract period will be adjusted to cover these other several days.</p>									
C	<p><u>DESCRIPTION OF THE WORKS</u></p> <p>The works comprise 4 No. Warehouses complete with associated services and external works.</p> <p><u>The construction consists of:-</u></p> <p>a) Substructures: Concrete columns, concrete footing and foundation walling b) Superstructures: Comprises reinforced concrete columns, slabs, and beams, structural steel members c) The Roof: Structural steel trusses, Pre-painted iron sheets, heat insulation, rain water goods d) Finishes: Consists of: Floors: - Ceramic flooring on screed, power float finish Walls: - Plaster and paint - Ceramic tiles to wet areas Ceilings: - Plaster and paint; Gypsum Board Ceiling e) Windows: Aluminium windows, Steel louvres f) Doors: Timber doors, mild steel doors and Aluminium doors g) Joinery fitting: Aluminium Partitions h) Services: Mechanical works, electrical works g) External Works: Paved areas Stormwater drainage Foul drainage Landscaping</p> <p>Floor areas are in SM:</p> <table> <tr> <td>Ground floor</td> <td>3,028</td> </tr> <tr> <td>First floor</td> <td>343.00</td> </tr> <tr> <td>2nd floor</td> <td>943.00</td> </tr> <tr> <td>Total Area</td> <td><u><u>4,314</u></u></td> </tr> </table>	Ground floor	3,028	First floor	343.00	2nd floor	943.00	Total Area	<u><u>4,314</u></u>	
Ground floor	3,028									
First floor	343.00									
2nd floor	943.00									
Total Area	<u><u>4,314</u></u>									
Preliminaries	2	Carried to collection KShs.								

<u>FORM OF CONTRACT - CONTINUED</u>				KShs
A	Clause 12.0	INSURANCE AGAINST INJURY TO PERSONS AND PROPERTY - CONTINUED		
		Should the Contractor already hold annual insurance covering the whole of his activities and the indemnity required under this contract exceeds the indemnity under the existing policy or policies, then further insurances shall be effected and maintained to cover such excess.		
		The Contractor shall ensure that all sub-contractors effect and maintain such insurances as are necessary to cover their liabilities in respect of injury to persons and property and workmen's compensation.		
B	Clause 13.0	INSURANCE OF THE WORKS (CONTRACTOR'S LIABILITY)		
C	Clause 14.0	INSURANCE OF THE WORKS (EMPLOYER'S LIABILITY) This clause will not apply and will be deleted		
D	Clause 15.0	INSURANCE OF WORKS (WORKS OF ALTERATIONS etc) This clause will not apply and will be deleted		
E	Clause 16.0	PERFORMANCE BOND Sub-Clause 16.2 will not apply		
F	Clause 17.0	COMPLIANCE WITH REGULATIONS, NOTICES, ETC		
G	Clause 18.0	PROGRAMME OF WORKS		
H	Clause 19.0	ACCESS TO THE WORKS		
I	Clause 20.0	POSSESSION OF SITE AND COMMENCEMENT OF WORKS		
J	Clause 21.0	LEVELLING AND SETTING OUT		
K	Clause 22.0	ARCHITECT'S INSTRUCTIONS		
L	Clause 23.0	SPECIFICATION OF GOODS, MATERIALS AND WORKMANSHIP		
M	Clause 24.0	SAMPLES AND TESTS		
N	Clause 25.0	ROYALTIES AND PATENT RIGHTS		
	Preliminaries	4	Carried to collection	KShs.

<u>FORM OF CONTRACT - CONTINUED</u>				KShs
A	Clause 26.0	ASSIGNMENT		
B	Clause 27.0	SUBLETTING		
C	Clause 28.0	SUSPENSION OF THE WORKS BY THE ARCHITECT		
D	Clause 29.0	SUSPENSION OF THE WORKS BY THE CONTRACTOR		
E	Clause 30.0	VARIATIONS		
	Day work rates:	Any dayworks ordered under Sub-clause 30.6.3 shall be executed at the following rates:-		
	Labour:	The prime cost to which _____ per centum shall be added		
	Materials:	The prime cost delivered on site to which _____ per centum shall be added		
	Plant:	The nett hire charge to which _____ per centum shall be added		
	The percentage additions shall cover all insurances, use of small tools and non-mechanical plant, sharpening tools, water, supervision, watching, lighting, establishment and overhead charges and profit.			
	Dayworks will only be allowed where specifically ordered by the Architect.			
	All daywork sheets must be signed by the Architect and the Contractor or their authorised representatives.			
F	Clause 31.0	NOMINATED SUB-CONTRACTORS		
	The Contractor will be required to ensure that all Nominated Sub-Contractors enter into the Sub-Contract Agreement issued under the authority of the Kenya Association of Building and Civil Engineering Contractors and as amplified or varied herein after and he must deposit with the Quantity Surveyor a signed extract of the relevant details thereof.			
G	Clause 32.0	NOMINATED SUPPLIERS		
	The Contractor will not receive any cash, trade or other discounts on Prime Cost and Provisional Sums. Any profit in lieu of these discounts which the Contractor desires must be priced by him against the appropriate item provided in the Bills of Quantities.			
	Preliminaries	5	Carried to collection	Kshs.

<u>FORM OF CONTRACT - CONTINUED</u>				KShs
	<p>When tendering for Works covered by Prime Cost and Provisional Sums, the Contractor will be treated as any other Nominated Supplier or Sub-Contractor.</p> <p>The Employer reserves the right to pay direct on the Certificates of the Architect some or all accounts in respect of Works and materials covered by Prime Cost and Provisional Sums due to Nominated Sub-Contractors or Nominated Suppliers and to deduct any amounts so paid from any sums otherwise payable to the Contractor.</p> <p>Should this reservation be adopted due to the default on part of the Contractor, any profits which the Contractor may have allowed on Prime Cost and Provisional Sums will be omitted from the contract. Direct payment will not be deemed to construe omission of the work from the contract and the Contractor will continue to be responsible for the work or goods in accordance with the terms of the contract</p>			
A	Clause 33.0	WORK BY OTHER PERSONS ENGAGED BY THE EMPLOYER		
B	Clause 34.0	PAYMENTS		
C	Clause 35.0	FLUCTUATIONS Except for Sub Section 35.1 and 35.2 the rest of the Clause will not apply and will be deleted as the Contract will be a fixed one.		
D	Clause 36.0	EXTENSION OF TIME		
E	Clause 37.0	LOSS AND EXPENSE CAUSED BY DISTURBANCE OF REGULAR PROGRESS OF THE WORKS		
F	Clause 38.0	TERMINATION OF THE CONTRACT BY THE EMPLOYER		
G	Clause 39.0	TERMINATION OF THE CONTRACT BY THE CONTRACTOR		
H	Clause 40.0	TERMINATION OF THE CONTRACT BY EITHER PARTY		
I	Clause 41.0	PRACTICAL COMPLETION AND DEFECTS LIABILITY		
J	Clause 42.0	SECTIONAL COMPLETION		
K	Clause 43.0	DAMAGES FOR DELAY IN COMPLETION		
L	Clause 44.0	ANTIQUITIES AND OTHER OBJECTS OF VALUE		
M	Clause 45.0	SETTLEMENT OF DISPUTES		
	Preliminaries	1/6	Carried to collection	KShs.

<u>FORM OF CONTRACT - CONTINUED</u>			KShs
<u>APPENDIX TO THE CONDITIONS OF CONTRACT</u>		CLAUSE	
The appendices to the conditions of contract will be filled in as follows:-			
Percentage to cover professional fees for insurance purposes only		13.0 9 Percentum	
Period for submission of programme		18.1 14 DAYS	
Date for possession of site		20.1 TO BE DECIDED BY CLIENT	
Contract period		20.2 TO BE INSERTED BY THE TENDERER	
Date for commencement of Works		20.2 TO BE DECIDED BY CLIENT	
Date for practical completion		20.2 AS PER ACCEPTED TENDER	
Name of the bank for purposes of interest calculation		31.14 32.4.5 AS PER SURETY 34.6	
Interval for application of payment certificates		34.1 30 DAYS	
Minimum amount of payment certificate		34.4 N/A	
Percentage of certified value retained		34.12 10%	
Limit of retention fund		34.12 5% OF CONTRACT SUM	
Damages for delay in completion	Phase 1	43.1 AT THE RATE OF KSHS. 200,000.00 PER WEEK OR PART THEREOF	
Preliminaries	7	Carried to collection	KShs.

				KShs
	<u>GENERAL MATTERS</u>			
	<u>SUFFICIENCY OF TENDER</u>			
A	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the Works and of the rates and prices stated in the Priced Bills of Quantities, which rates and prices shall cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.			
	<u>STAMP CHARGES</u>			
B	The Contractor shall allow for the payment of all Stamp Charges in connection with the Surety and Contract Agreement.			
	<u>DEFINITIONS AND ABBREVIATIONS</u>			
C	Terms used in these Bills of Quantities shall be interpreted as follows:			
	"Approved"	Shall mean approved by the Architect.		
	"as directed"	Shall mean ad directed by the Architect.		
	"B.S."	Shall mean the current British Standard specifications published by the British Standards Institution, 2 Park Street, London W.I., England.		
	"C.M."	Shall mean Cubic Metres.		
	"S.M."	Shall mean Square Metres.		
	"L.M."	Shall mean Linear Metres.		
	"MM"	Shall mean Millimetres.		
	"Kg."	Shall mean Kilogramme.		
	"No."	Shall mean Number.		
	"M.S" or M/S	Shall mean Measured Separately		
	Ditto or Do	Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	Preliminaries	8	Carried to collection	KShs.

<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>	<p><u>PROGRESS SCHEDULE</u></p> <p>The Contractor shall, upon receiving instructions to proceed with the Work, draw up a time and progress Schedule setting out the order in which the Works are to be carried out with the appropriate dates thereof. This Time and Progress schedule is to be agreed with the Architect and no deviation from the order set out in this Schedule will be permitted without the written consent of the Architect. The Main Contractor will be responsible for arranging the above programme with all Sub-Contractors including the Nominated Sub-Contractors and Nominated Suppliers.</p> <p><u>FIGURED DIMENSIONS</u></p> <p>Figured dimensions are to be followed in preference to dimensions scaled from the Drawings; but wherever possible dimensions are to be taken on the Site or from the Buildings. Before any Work is commenced by Sub-Contractors or Specialist Firms, dimensions must be checked on the Site and/or buildings and agreed with the Contractor, irrespective of the comparable dimensions shown on the Drawings. The Contractor shall be responsible for the accuracy of such dimensions.</p> <p><u>PROVISIONAL WORK</u></p> <p>All "Provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the Quantity Surveyor. Immediately the work is ready for measurement, the Contractor shall give notice to the Quantity Surveyor.</p> <p>If the Contractor makes default in these respects he shall, if the Architect so directs, uncover the work at his own expense to enable the measurements to be taken.</p> <p><u>EXISTING SERVICES</u></p> <p>Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Architect and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.</p> <p><u>TRANSPORT TO AND FROM THE SITE</u></p> <p>The Contractor shall include in his prices for the transport of materials workmen, etc., to and from the Site of the Proposed Works, at such hours and by such routes as are permitted by the Authorities.</p>	<p>KShs</p>
<p>Preliminaries</p>	<p>9</p> <p>Carried to collection</p>	<p>KShs.</p>

				KShs
A	<p><u>PUBLIC AND PRIVATE ROADS, PAVEMENTS, ETC</u></p> <p>The Contractor will be required to make good, at his own expense any damage he may cause to the present road surfaces and pavements within or beyond the boundary of the Site, during the period of the Works. In particular, all existing trees, shrubs, plants. etc., which may be destroyed or damaged during the progress of the Works are to be made good by the Contractor to the approval of the Architect.</p>			
B	<p><u>POLICE REGULATIONS</u></p> <p>The Contractor is to allow for complying with all instructions and regulations of the police Authorities.</p>			
C	<p><u>CONTRACTORS' SUPERINTENDENCE</u></p> <p>The Contractor shall constantly keep on the Works a literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the Works. Such Agent or Representative shall receive on behalf of the Contractor, directions and instructions from the Architect and such directions and instructions shall be deemed given to the Contractor in accordance with the conditions of the Contract. The Agent shall not be replaced without the specific approval of the Architect.</p> <p>It is to be a specific condition of this Contract that the successful Tenderer shall provide on Site throughout the period of construction until the Date for Practical completion a suitably qualified, experienced and competent person to ensure that the works are carried out to the standard required by the specifications and detailed on the Drawings; and shall ensure that upon any termination of employment a suitable replacement is found.</p> <p>Before the Tenderer's offer is accepted the Architect will personally interview the Contractor's proposed Representative. A curriculum vitae of past experience and qualifications must be provided for the Architect's scrutiny.</p> <p>The Architect's decision will be final regarding the suitability of the proposed Representative.</p>			
D	<p><u>WATER</u></p> <p>The overall responsibility of getting water for the works shall rest solely with the Contractor. He shall provide temporary storage tanks and piping etc as he may consider necessary and clear away at completion.</p> <p>All water shall be fresh, clean and pure, free from earthy, vegetable or other organic, acid or alkaline substances in solution or suspension.</p>			
	Preliminaries	10	Carried to collection	KShs.

A	<p><u>POWER</u></p> <p>The Contractor shall provide at his own risk and cost power for use on the Works, including all Sub-Contractors' and Specialists' requirements and including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.</p>	KShs
B	<p><u>SAFETY</u></p> <p>The Contractor shall comply at all times with the requirements of the Factory Act (Cap 514), Building Construction Rules, Supplement 18, Legal Notice No.40 dated April, 1984 and ensure that the safety of his workpeople and authorised visitors to the Site is protected at all times. In particular there shall be proper provision of planked footways and guard-rails to scaffolding, etc., protection against falling materials and tools and the Site shall be tidy and clear of dangerous rubbish.</p> <p>The Contractor shall appoint a safety officer as required by the Factory Act and notify the Factory Inspector of his name. the safety Officer shall be on Site at all times and all directions given by the Architect to the Safety Officer shall be deemed to be Architect's Instructions, and shall be complied with promptly without additional cost to the contract.</p> <p>The Architect shall be empowered to suspend work on the Site should he consider these conditions are not being observed, and no claim arising from such suspension will be allowed.</p>	
C	<p><u>PROTECTIVE CLOTHING</u></p> <p>The Contractor shall provide all protective or any other special clothing or equipment for the Consultants and his employees that may be necessary.</p> <p>This shall include, inter-alia, safety helmets, gloves, goggles, earmuffs, gumboots, overalls, etc., according to the type of work. The Contractor shall ensure that safety helmets are worn by all staff at all times.</p>	
D	<p><u>PROVISIONAL SUMS</u></p> <p>The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A Item A7(i) of the Standard Method of measurements mentioned in condition No. 12 of the Conditions of Contract. Such sums are net and no addition shall be made to them for profit.</p>	
Preliminaries	11	Carried to collection KShs.

				KShs
A	<p><u>ADJUSTMENT OF PROVISIONAL SUMS</u></p> <p>In the final account all provisional sums shall be deducted and the value of the work properly executed in respect of them upon the Architect's order added to the contract sum. Such work shall be valued as described for variations in condition No. 30 of the conditions of contract, but should any articles for the work be executed by a Nominated Sub-Contractor, or any articles for the work be supplied by a Nominated Supplier, the Value of such work or articles shall be treated as a P.C. sum and profit and attendance comparable to that contained in the priced Bills of Quantities for similar items added.</p>			
B	<p><u>PRIME COST (OR P.C.) SUMS</u></p> <p>The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(ii) of the Standard Method of Measurements mentioned in condition No. 8 of the conditions of Contract.</p> <p>Persons or firms Nominated to execute the work or to provide and fix materials or goods as stated in condition No. 31 of the Conditions of Contract are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described as Nominated suppliers.</p>			
C	<p><u>ADJUSTMENT OF P.C. SUMS</u></p> <p>In the final account all P.C. sums shall be deducted and the amount properly expended upon the Architect's order in respect of each of them added to the contract sum. The Contractor shall produce to the Architect such quotations, invoices or bills properly receipted as may be necessary to show the actual details of the sums paid by the contractor.</p> <p>Items of profit upon P.C. sums shall be adjusted in the final account prorata to the amount paid.</p> <p>Items of Attendance following P.C. Sums shall be adjusted prorata to the physical extent of the work executed (not prorata to the amount paid) and this shall apply though the Contractor's Bills shows a percentage in the rate column in respect of them.</p> <p>Should the Contractor be permitted to tender and his tender be accepted for any work which a P.C. sum is included in these Bills of Quantities, profit and attendance will be allowed at the same rate as it would if the work were executed by a Nominated Sub-Contractor.</p>			
	Preliminaries	12	Carried to collection.	KShs.

	<p><u>MATERIALS AND WORKMANSHIP</u></p> <p>A <u>GENERALLY</u></p> <p>All materials shall be new unless otherwise directed or permitted by the Architect and in all cases where the quality of goods or materials is not described or otherwise specified, is to be the best quality obtainable in the ordinary meaning of the word "best" and not merely a trade signification of that word.</p> <p>All materials and workmanship shall, unless otherwise specified or described, conform to the appropriate British Standard Institution specification current at the date of tender.</p> <p>The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that such materials are on Site when required for use in the Works.</p> <p>The Contractor shall be responsible for and shall replace or make good at his own expense any materials lost or damaged.</p> <p>The Works throughout shall be executed by skilled workmen well versed in their respective trades.</p> <p>B <u>REJECTED WORKMANSHIP OR MATERIALS</u></p> <p>Any workmanship or materials not complying with the specific requirements or approved samples or which have been damaged, contaminated or have deteriorated, must immediately be removed from the Site and replaced at the Contractor's expense, as required.</p> <p>C <u>PROPRIETARY MATERIALS</u></p> <p>Where proprietary materials are specified herein-after the contractor may propose the use of materials of other manufacture but equal quality for approval by the Architect.</p> <p>All materials and goods, where specified to be obtained from a particular manufacturer or supplier are to be used or fixed strictly in accordance with their instructions.</p> <p>D <u>SAMPLES</u></p> <p>The Contractor shall furnish at the earliest possible opportunity before work commences and at his own cost, any samples of materials or workmanship that may be called for by the Architect for his approval or rejection, and any further samples in case of rejection until such samples are approved by the Architect and such samples, when approved, shall be the minimum standard for the work to which they apply.</p>	<p>KShs</p>
Preliminaries	13	Carried to collection KShs.

A	<p><u>CONCRETE TESTS</u></p> <p>Concrete test cubes, i.e. per set of four as described, including testing fee, labour and materials, making moulds, transport and handling, etc.</p> <p>Successful tests only (PROVISIONAL):</p> <p style="text-align: center;">Sets of four: No. 40 @ Shs. (Tenderer must insert rate and extend)</p> <p>The Contractor is to organise with the testing laboratory that copies of the Test Cube Reports are forwarded direct to the Structural Engineer and Quantity Surveyor.</p> <p>The accurate record of all test cubes taken and crushed must be kept on site and the Contractor will only be reimbursed for successful tests upon production of laboratory certificates.</p> <p>Note: The price per set inserted by the Tenderer is to include for making of the four cubes, curing, transporting and handling and crushing of one, two, three or four cubes in order to obtain a satisfactory results.</p>	KShs
	B	<p><u>OTHER MATERIAL TESTS</u></p> <p>The Contractor shall allow for providing samples of all other materials such as reinforcement bars, building sand, cement, building stone, concrete blocks, hardcore, etc, that may be requested by the Architects or Engineer for testing. He shall allow for the delivery of the same to the testing laboratory(ies), pay the testing fees and any other costs that may be required and arrange for test certificates to be sent directly to the Architect or Engineer by the testing laboratory. Under no circumstances will the Contractor be paid for such tests if he does not allow for the same here.</p>
	<p>Preliminaries 14 Carried to collection KShs.</p>	

	<p><u>TEMPORARY WORKS</u></p> <p>A <u>OFFICE AND SHEDS</u></p> <p>The Contractor shall erect and maintain temporary office accommodation for his own use, and ample temporary watertight sheds for the proper storage and protection of materials and for the use of artisans and remove when ordered. Floors of sheds shall be at least 150mm above ground level.</p> <p>B <u>SANITATION</u></p> <p>The Contractor shall put up sanitary facilities where shown on site and to the Architect's approval. He shall maintain the same in a thoroughly clean and sanitary condition, remove and make good all disturbed areas at the end of the contract.</p> <p>C <u>PLANT, TOOLS AND SCAFFOLDING</u></p> <p>The Contractor shall provide all necessary hoists, tackle, plant, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove same on completion.</p> <p>The Contractor shall provide, erect and maintain all temporary scaffolding, sufficiently strong and efficient for the due performance of the Works, including Sub-Contract works, provide special scaffolding as and when required during the Works and remove on completion and make good.</p> <p>Such scaffolding shall be constructed of tubular steel or timber of sufficient scantlings and be provided with planked footways and guard-rails to approval.</p> <p>All such plant, tools and scaffolding shall comply with all regulations whether general or local, in force throughout the period of the contract and shall be altered or adapted during the Contract as may be necessary to comply with any amendments in or additions to such regulations.</p> <p>Scaffolding is not measured hereinafter, and the Contractor must allow here or in his rates for the above.</p> <p>D <u>EXISTING AND ADJACENT PROPERTY</u></p> <p>The Contractor must take all steps necessary to safeguard existing and adjacent property, make good at his own expense any damage to persons or property caused thereon, and hold the Employer indemnified against any such claim arising.</p> <p>The Contractor will be held fully responsible for the safety of the existing and adjacent buildings and for any damage caused in consequence of these Works. He must reinstate all damage at his own expense and indemnify the Employer against any loss.</p> <p>The Contractor must take such steps and exercise such care and diligence as to minimise nuisance from dust, noise or any other cause to the occupiers of the existing and adjacent property.</p>	<p>KShs</p>
Preliminaries	15 Carried to collection	KShs.

				KShs
	<u>TEMPORARY WORKS - CONTINUED</u>			
A	<u>LABOUR CAMPS</u>	<p>No labour, with the exception of watchmen may be housed on the site and the Contractor shall allow for all transport and other charges in moving labour to and from site at such hours and by such routes as are permitted by the Authorities. The Contractor shall provide, erect and maintain satisfactory housing for the watchmen and shall remove same on completion of the works.</p>		
B	<u>WATCHING AND LIGHTING</u>	<p>The Contractor shall provide at his own risk and cost all watching and lighting as necessary to safeguard the Works, plant and materials against damage and theft.</p>		
C	<u>TEMPORARY ROADS</u>	<p>The Contractor shall provide where directed all temporary access roads, tracks and paths necessary for the execution of the Works, including making good when no longer in use.</p>		
D	<u>SIGNBOARD</u>	<p>The Signboard and lettering on same for the display of the General and Sub-Contractor's names shall be of an approved size with the Employer's name painted thereon. The names of Consultants shall be printed in 50mm letters. No other signboard or advertising will be permitted.</p>		
E	<u>SHOP DRAWINGS</u>	<p>The Contractor shall allow for preparation of shop drawings of all the steel structural works and modules for approval by the Engineer before installations of the works on site. No works will be installed on site before the shop drawings are inspected by the Engineer and confirmation given for the same. The Contractor shall allow against this item all costs arising from this requirement as no other compensation will be allowed.</p>		
	Preliminaries	16	Carried to collection	KShs.

	<p style="text-align: right;">KShs</p> <p><u>NOMINATED SUB-CONTRACTORS AND SUPPLIERS</u></p> <p>(See also under FORM OF CONTRACT Clause 31 and 32)</p> <p>A <u>NOMINATED SUB-CONTRACTORS</u></p> <p>The Contractor shall be responsible for Nominated Sub-Contractors in every respect and in particular it shall be the Contractor's responsibility to ensure that each Sub-Contractor commences and completes the work in such manner and is ready on the Site with his materials, labour and special plant at such times so as to conform with the progress Schedule, as specified previously, and so ensure satisfactory progress.</p> <p>The Contractor shall also accept liability for and bear the cost of General Attendance on Nominated Sub-Contractors which shall be deemed to include for:</p> <p>Allowing the use of standing scaffolding, maintenance and alteration of all scaffolding, retention of all scaffolding until such time as all relevant Sub-Contractors' works are complete and removal of all scaffolding on completion. Providing space for office accommodation, and for storage of plant and materials; allowing use of sanitary accommodation; the supply of all necessary water, and lighting; and clearing away all rubbish.</p> <p>The items for "General Attendance" given herein-after following P.C. Sums in respect of Sub-Contractors' work shall be deemed to include all the above.</p> <p>The Contractor shall also accept liability for and bear the cost of Special Attendance on Nominated Sub-Contractors which shall include for one or more of the following:</p> <p>Unloading, storing, hoisting, placing in position, providing power, provision of special scaffolding.</p> <p>The items of "Special Attendance" given herein-after following P.C. Sums shall include any one or more of the above items as set out in the particular reference.</p> <p>Cutting away for and making good after the work of Sub-Contractors as may be required will be measured and valued separately by the Surveyor.</p>	
		<p>Preliminaries 17 Carried to collection KShs.</p>

				KShs
<u>NOMINATED SUB-CONTRACTORS AND SUPPLIERS - (CONTINUED)</u>				
A	<u>NOMINATED SUPPLIERS</u>			
	<p>The cost of "Fix only" materials to be obtained from Nominated Suppliers which are covered by prime Cost or Provisional Sums shall include for taking delivery where directed, checking with invoices or indents, reporting and claiming damages for shortages and damaged goods, defraying demurrage signing for as having been received in good order, transporting, unloading, storing, covering and protecting until the time of fixing, unpacking, replacing anything lost or damaged, sorting, assembling, hoisting to required levels and fixing as described.</p> <p>Before placing any orders with Nominated Sub-Contractors or Nominated Suppliers the Contractors must ascertain that the terms and conditions of the quotations and the dates of delivery of materials or execution of works comply with the terms of Contract and the Progress Schedule.</p>			
B	<u>PRIME COST RATES</u>			
	<p>Where description of items include a P.C. rate per unit this rate is to cover the nett supply of the unit only. The Contractor's price must include for the cost of the unit at the rate stated, plus waste, taking delivery, storage, fixing in position, profit and overheads.</p>			
C	<u>PROTECTION</u>			
	<p>The Contractor shall cover up and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Architect until the completion of the Contract, and carefully preserve all trees or bushes on or near the Site.</p>			
D	<u>CLEANING</u>			
	<p>The Contractor shall, upon completing of the Works, at his own expense, remove and clear away all surplus excavated materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Architect, including clearing away and making good all traces of temporary access roads, offices, sheds camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all rubbish and dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection therewith.</p>			
E	<u>HOARDING</u>			
	<p>The Contractor shall enclose the Site, as will be directed by the Architect with a hoarding 2.40 metres high, with openings and gates as required, constructed of substantial timbers to approval and covered with new galvanised iron corrugated sheeting gauge 28 painted to approval.</p> <p>Allow for a provisional length of 250metres @ KShs (Tenderer must insert rate and extend)</p>			
Preliminaries	18	Carried to collection	KShs.	

A	<p><u>VALUE ADDED TAX</u></p> <p>The Contractor's attention is drawn to the Finance Act 1993 and subsequent amendments thereon which requires payment by the Contractor of <u>Value Added Tax (VAT)</u> on construction services rendered.</p> <p>The Tenderer shall price all works inclusive of VAT</p>	KShs
	<p>Preliminaries 19 Carried to collection KShs.</p>	

COLLECTION

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SECTION NO. 1
PRELIMINARIES

Preliminaries

TO MAIN SUMMARY
AT END OF BILLS

KSHS.

Preambles and Specifications

GENERAL DESCRIPTION OF MATERIALS AND WORKMANSHIP

The following apply to all sections hereafter.

A ALTERATIONS, ADDITIONS AND EXTENSIONS

In alterations or extensions to existing works, buildings and/or external works, new work is to match up in all respects to the existing work unless otherwise specified, shown on the Drawings or approved before-hand by the Architect.

QUALITY, SAMPLES, TESTING AND APPROVAL

B MATERIALS

All materials, commodities, components and equipment are to be new and unused unless otherwise specified or approved by the Architect. Handle, store, fix and protect all commodities with care to ensure that they are in perfect condition when incorporated into the works and handed over on completion.

C MANUFACTURER'S RECOMMENDATIONS

Handling, storage and fixing of every commodity shall be in accordance with the printed or written recommendations of the manufacturer and/or supplier. Supply the Architect with copies of manufacturer's recommendations. Inform the Architect if the manufacturer's recommendations conflict with any other specified requirements, and obtain his instructions before proceeding.

D STANDARDS

Where commodities or workmanship are specified by reference to British Standard (B.S) or codes of practice (C.P.) or International (I.S.O) or Kenyan Standard or other Standards, such standards are deemed to be the latest published at the time of tendering. The Contractor will be deemed to have read and understood the standards specified, and no claim for want of knowledge will be allowed. The substitution of commodities or standards of workmanship complying with other standards may be well allowed at the discretion of the Architect, but application for permission for such substitution must be made in writing in sufficient time to allow adequate investigation. Obtain Certificate of Compliance with standards and supply to the Architect on request.

E LOCAL CONDITIONS

All materials, commodities, components and equipment must be suitable for use in tropical climates.

A **SAMPLES**

Where samples of commodities or specimens of finished work are specified submit samples or specimens to the Architect and obtain his approval before confirming orders or carrying out the work. Retain approved samples and specimens on Site for comparison with the finished work. Finished work must conform in all respects with the samples or specimens approved. Remove samples and specimens when no longer required. The cost of supplying samples and specimens may form part of the finished work where approved by the Architect.

GENERAL DESCRIPTIONS OF MATERIALS AND WORKMANSHIP

The following apply to all sections hereinafter.

DEMOLITIONS AND ALTERATIONS

A GENERALLY

The Contractor is required to visit the existing buildings and ascertain for himself the nature of the Works and no claim arising from want of knowledge in this respect will be allowed. The dimensions and quantities given in this section are approximate given for guidance only and the Contractor is referred to the Site to ascertain the exact nature of the works.

The items of pulling down and alterations are to include for both labour and materials and for any shoring, needling and strutting and temporary works in connection therewith. The Contractor must allow in his pricing for making good all works disturbed in all trades and for carting away all debris arising.

The Contractor must give all the necessary notices and must exercise due care in the demolitions. He must not collapse large sections of walls, floors, etc., and must provide all necessary shoring and supports during the demolitions.

During demolition works the Contractor shall keep the debris constantly watered to minimise the dust arising and this shall be included in his prices.

The Contractor is to erect dust-proof screens to the approval of the Architect where deemed necessary and to remove them on completion of the work, all to the Architect's satisfaction.

All materials arising from the demolitions, unless specifically stated otherwise, are to become the property of the Contractor and any credit allowed for the value of such materials shall be shown in the space provided.

All materials, including rubbish shall be removed from the Site as soon as possible.

DEMOLITIONS AND ALTERATIONS (CONTINUED)

A INTERPRETATION OF TERMS

Demolish' shall be deemed to mean cutting away, breaking up, demolishing, pulling down, taking down, removing, etc., as the context requires and shall include in all cases temporarily strutting and supporting and making good remaining work as necessary, and clearing away and removing from Site all debris, etc

Remove' shall mean taking down, hacking up, breaking down, removing etc., and clearing away from Site and all other expenses thereby entailed.

Make good' shall be deemed to mean , all making good, fitting, facing, plastering, paving, repairing and painting to match and jointing to remaining existing work.

To 'match' shall mean to be all equal to relevant existing work in design, workmanship and all other aspects.

Re-fix' shall apply to existing materials arising from the Works and shall mean take from store and fix in new position, including making good, repairing and adjusting as necessary.

EXCAVATIONS

A EXAMINE THE SITE

The Contractor is assumed to have visited and examined the Site carefully and ascertained for himself its nature and the kind of materials to be excavated.

B EXCAVATIONS

Excavations shall be to the widths and depths indicated on the Drawings subject to the rules of working space or to such lesser or greater depths as the Architect may deem necessary and so instruct the Contractor in order to obtain satisfactory foundations.

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 Surveyor as a Variation under the relevant Conditions of Contract.

If, however, the Contractor excavates to any greater depths or widths than are shown on the Drawings or directed, then the Contractor shall at his own expense, fill in such extra depth and width with concrete similar to that described for foundations to the Architect's satisfaction.

C BOTTOMS OF EXCAVATIONS TO RECEIVE FOUNDATIONS

The Contractor shall report to the Architect when secure bottoms to the excavations have been obtained. Any concrete or other work executed before the excavations have been inspected and approved shall, if so directed, be removed and new work substituted after the excavations have been approved, all at the Contractor's expense.

The Surface of the bottoms of excavations to receive foundations shall be leveled or graded to falls as required.

D SIDES OF EXCAVATIONS

Sides of excavations shall be maintained vertical by means approved by the Architect, and the Contractor shall also allow for keeping same free from fallen materials in his rates for excavations.

The Contractor shall also allow for keeping excavations free from, water and mud by baling, pumping or otherwise, in his rates for excavations.

EXCAVATIONS (CONTINUED)

A ROCK

Excavation in rock shall exclude all materials which can be removed by hand and does not necessarily require the use of compressors or other mechanical equipment although the Contractor may use such equipment to loosen the material for ease of its removal. All top soils, black cotton and other clay soils, murrum, stone and other fill and all similar materials will NOT be classified as rock.

Rock has been measured hereafter as extra over excavation for excavating in soft or hard rock.

Soft rock shall be deemed to mean any material which cannot reasonably be removed without the use of mechanical plant such as rippers, compressors, traxcavators, but which does not require drilling, wedging or blasting. Local tuffs, magadi highly-consolidated literate, weather, lavas, boulders or outcrops of harder rock not exceeding one cubic metre in volume, Nairobi building stone and similar materials shall be classified as soft rock.

Hard rock shall be classified as material which is massive and geologically homogeneous and which requires the use of drilling, wedging or blasting for its removal such as blacktrap or similar material.

The Engineer's decision shall be final with regard to the classification of excavated materials.

B STARTING LEVEL

Unless otherwise described the starting level of all excavations has been measured from the level remaining after completion of reduced level excavation. However, the Contractor's prices should include for carrying out the excavation work in any alternative sequence that he may require.

C BLASTING

No blasting will be permitted without the prior approval of Local Authorities and the Architect.

EXCAVATIONS (CONTINUED)

A CART AWAY

All surplus excavated materials where so directed and all rubbish are to be removed from the Site and the Contractor is to find his own dump and shall pay all charges.

B BORROW PITS

No borrow pits will be allowed to be opened on the Site.

C FILLING OBTAINED FROM THE EXCAVATIONS

Filling obtained from surplus excavation materials will only be incorporated if suitable material arises and it is to be free from all weeds, roots, vegetable soil or other unstable materials and is to be filled in layers each of not more than 250mm finished thickness. Each layer to be wetted and consolidated as described hereafter.

D HARDCORE FILLING

Hardcore for filling under floors, etc., shall be good hard stone, ballast or quarry waste to the approval of the Architect broken to pass not greater than 150mm ring or to be 75% of the finished thickness of the layers being compacted, whichever is the lesser. Hardcore shall be free from all weeds, roots, vegetable soil, clay, black cotton soil or other unstable materials.

It shall be well graded with smaller stones and fine materials to give a dense compact mass after consolidation. Sufficient fine material shall be added to each layer to give gradation of materials as necessary to obtain a solid compact mass after rolling. Hardcore filling is to be laid in layers each of consolidated thickness not exceeding 250mm. Each layer shall be compacted by at least 8 passes of 10 tonne smooth-wheeled roller or a 2 tonne vibrating roller until all movement ceases. Sufficient water is to be added to obtain maximum compaction to the Architect's approval. To each layer a 25mm thick layer of sand complying with the specification for fine aggregate for concrete shall be spread over the surface and forced into the hardcore by the use of a vibrating roller weighing not less than 2 tonnes. This operation should be carried out when the materials are dry and repeated whilst the sand is well watered. Should all the sand be absorbed the Architect may require a further layer to be applied and the process repeated.

EXCAVATIONS (CONTINUED)

A HARDCORE FILLING (CONTINUED)

The top surface of the hardcore shall be leveled or graded to falls as required, and shall then be blinded with a layer of similar materials broken to 25mm gauge and finished with a 10 ton smooth-wheeled roller. The surfaces so obtained shall be to the Architect's approval.

B MATERIALS FOUND IN EXCAVATIONS

No sand, aggregate, murrum or other materials found in the excavations is to be used in the Works without the written permission of the Architect.

C RATES FOR EXCAVATIONS

The rates for excavation, including excavation in rock, shall include for trimming, leveling and preparing bottoms and all faces to receive concrete, etc., and for any extra excavation required for planking and strutting.

Prices shall include for excavating in any material encountered unless specifically otherwise described, handling, etc., of extra bulk after excavating, or before consolidating, any extra excavation required for formwork or planking and strutting, circular work, grubbing up any old drains, roots etc., that may be encountered, for trimming sides and leveling and ramming bottoms, forming steppings and trimming excavation or filling to embankments and batters as required.

In his prices for the item 'allow for keeping the whole of the excavations free from water' the Contractor shall allow and make provision for keeping the whole of the Works thoroughly drained and clear of water below the lowest level of any part of them so long as may be required if considered necessary by the Architect, continuously day and night by petrol or hand pumps or other mechanical appliances, pipes, chutes, dams, manholes, sumps, diversions or any other means necessary for that purpose. Water pumped from the trenches shall not be allowed to run down the road channels but shall be conveyed to the nearest surface water sewer, ditch or river through troughs, chutes or pipes.

EXCAVATIONS (CONTINUED)

A RATES FOR DISPOSAL

Rates for disposal of excavated material are to include for the selection of spoil as it arises and for all double handling and re-excavation from spoil heaps not specifically ordered by the Architect.

B DIOTHENE SHEETING

Diothene sheeting shall be 500 gauge or 1000 gauge as shown and as produced by Plastics Africa Limited, or other equal and approved. Joints in sheeting shall be treble folded with 150mm fold and taped at 300mm intervals with 50mm wide black plastic adhesive taps as manufactured by Cellotape Limited. The sheeting shall not be stretched but shall be laid loose with sufficient wrinkles to permit shrinkage up to 15%.

C CUTTING DOWN TREES

The Contractor must consult the Architect before cutting down or pruning any trees or shrubs encountered on the Site.

CONCRETE WORK

A ARCHITECT/ENGINEER

For the purposes of the concrete structure the Structural Engineer, hereafter referred to as 'the Engineer', shall be deemed invested with the duties and be the representative of the Architect.

B CODE OF PRACTICE

All materials, workmanship, tests and performances in connection with reinforced work are to be in conformity with the latest edition of the British Standard Code of practice B.S. (8110 for 'The Structural Use of Concrete') where not inconsistent with these Preambles.

C SUPERVISION

A competent person approved by the Engineer shall be employed by the Contractor whose duty shall be to supervise all stages in the preparation and placing of the concrete. All cubes shall be made and Site tests carried out under his direct supervision, in consultation with the Engineer.

D CONTRACTOR'S PLANT, EQUIPMENT AND CONSTRUCTION PROCEDURES

Not less than 30 days prior to the installation of Contractor's plant and equipment for processing, handling, transporting, storing and proportioning ingredients, and for mixing, transporting and placing concrete, the Contractor shall submit drawings for approval by the Engineer, showing proposed general plant arrangements, together with a general description of the equipment he proposes to use.

After completion of installation, the operation of the plant and equipments shall be subject to the approval of the Engineer.

Where these Preambles, the Bills of Quantities or the Drawings require specific procedures to be followed, such requirements are not to be construed as prohibiting use by the Contractor, of alternative procedures if it can be demonstrated to the satisfaction of the Engineer that equal results will be obtained by the use of such alternatives.

Approval of plant and equipment or their operation, or of any construction procedure, shall not operate to waive or modify any provision or requirements contained in these preambles governing the quality of the Materials or of the finished work.

CONCRETE WORK (CONTINUED)

A CONTRACTOR'S PLANT, EQUIPMENT (CONTINUED)

Where suspended floor slabs are to be construed without expansion joints, concreting is to be in panels of sizes and positions to the approval of the Engineer. To permit setting shrinkages to occur, some panels will be left unconcreted until 7 days or more after main areas have been concreted. The Contractor must include for this method of construction in his pricing.

B TOLERANCE

On all setting out dimensions of 5 metres and over a maximum non-accumulative tolerance of plus or minus 5 millimetres will be allowed. On all setting out dimensions under 5 metres, a maximum non-accumulative tolerance of plus or minus 3 millimetres will be allowed. On the cross-sectional dimensions of structural members, unless otherwise required by the Drawings, a maximum tolerance of plus or minus 3 millimetres will be permitted.

The top surface of concrete floor slabs and beams shall be within 6 millimetres of the normal level and line shown on the Drawings. Columns shall be truly plumb and non-accumulative tolerance of 3 millimetres in each storey and not more than 6 millimetres out of plumb in their full height will be permitted. The Contractor shall be responsible for the cost of all corrective measures required by the Engineer to rectify work which is not constructed within the tolerances set out above.

C MATERIALS GENERALLY

All materials which have been damaged, contaminated or have deteriorated or do not comply in any way with the requirements of these Preambles shall be rejected and shall be removed immediately from the Site at the Contractor's expense. No materials shall be stored or stacked on floors without the Engineer's prior approval.

The sources of supply for all materials used for concrete work shall be approved by the Engineer before these materials are delivered on the Site. All materials shall comply with the requirements of the latest appropriate British Standard unless otherwise agreed with the Engineer whose approval shall be obtained in writing.

The suppliers of materials shall give the Engineer access to their Premises when directed for the purpose of obtaining samples of the materials for testing.

CONCRETE WORK (CONTINUED)

A SAMPLES

Samples of materials shall be submitted as soon as possible after the Contract is let. No deliveries in bulk shall be made until the samples are approved by the Engineer. All condemned materials shall be removed from the Site within 24 hours.

Every facility shall be provided to enable the Engineer to obtain samples and carry out tests on the materials and construction. If these tests show that any of the materials or construction do not comply with the requirements of this Specification, the Contractor will be responsible for the cost of the tests and the replacement of defective materials and/or construction.

Samples of all materials proposed to be used shall be submitted to the Engineer and shall be tested, where required, by the Materials Branch of the Ministry of Works or other approved testing place, and receive his approval prior to being delivered in bulk upon the Works.

The Contractor's attention is drawn to the fact that the testing of samples of aggregate, sand and cement by the materials Branch, M.O.W. or any other testing laboratory, takes time and it is of the utmost importance that the samples should be submitted for testing as soon as possible after the letting of the Contract. The Ministry or other testing Laboratory will not accept any responsibility whatsoever for delay in the commencement of the Contractor in submitting samples.

B CEMENT

Cement, unless otherwise specified, shall be Portland cement of a brand approved by the Engineer and shall comply with the requirements of B.S. 12 with the exceptions that it may contain reactive volcanic ash (of not more than 10% of the total weight) and the quantity of insoluble residue permitted in B.S. 12 may be exceeded. A manufacturer's Certificate of Test in accordance with B.S. 12 shall be supplied for each consignment delivered to the Site.

Should the Contractor require to use cement of the rapid hardening variety, he shall obtain the approval of the Engineer and also obtain any instructions regarding modifications to these Preambles caused thereby. Any additional cost that may be caused by the use of rapid hardening cement shall be at the Contractor's expense.

CONCRETE WORK (CONTINUED)

A CEMENT (CONTINUED)

Cement may be delivered to the Site either in bags or in bulk.

If delivered in bags, each bag shall be properly sealed and be marked with the manufacturer's name and on the Site is to be stored in weather-proof shed of adequate dimensions with a raised floor. Each consignment shall be kept separate and marked so that it may be used in the sequence in which it is received. Any bag found to contain cement which has set or partly set, shall be completely discarded and not used in the Works. Bags shall not be stored more than 1,500mm in height.

If delivered in bulk the cement shall be stored in a water-proof silo either provided by the cement supplier or by the Contractor, but in either case the silo shall be to the approval of the Engineer.

B AGGREGATES

The aggregates shall conform with the requirements of B.S. 882 and the sources and types of all aggregates are to be approved in all respects by the Engineer before work commences.

The grading of aggregates shall be one within the limits set out in B.S. 882 and as later specified and the grading, once approved, shall be adhered to throughout the Works and not varied without the approval of the Engineer. Fine aggregate shall be clean, coarse, siliceous sand of good, sharp, hard quality and shall be free from lumps of stone, earth, loam, dust, salt, organic matter and any other deleterious substances. It shall be graded within the limits of Zone 1 or 2 Table 2 of B.S. 882

Coarse aggregate shall be good, hard, clean approved blacktrap or similar stone, free from dust, decomposed stone, clay, earthy matter, foreign substances or friable thin elongated or laminated pieces. It shall be graded within the limits of Table 1 of B.S. 882 for its respective nominal size.

If in the opinion of the Engineer the aggregate meets with the above requirements but it is dirty or adulterated in any manner it shall be screened and/or washed with clean water if he so directs at the Contractor's expense.

Aggregates shall be delivered to the Site in their prescribed sizes or gradings and shall be stockpiled on paved areas or boarded platforms in separate units to avoid intermixing. On no account shall aggregates be stockpiled on the ground.

CONCRETE WORK (CONTINUED)

A WATER

The water used for mixing concrete shall be from an approved source, clean, fresh and free from harmful matter and comply with the requirements of B.S. 3148

B READY-MIXED CONCRETE

Ready-mixed concrete may only be used with the prior permission of the Engineer, subject to special additional conditions laid down by the Engineer.

C CONCRETE MIXES

Concrete mixes have been described either by the volumetric proportions or by the 28-day cube strength.

D CONCRETE STRENGTHS

Concrete mixes shall have the following minimum strengths as given by the Works Cube Test: -

Minimum crushing Strength at 28 Days

	<u>N/mm</u>
Class 40	40
Class 30	30
Class 25	25
Class 20	20

The average strength obtained from cube tests shall be 10% higher than the minimum strength shown above.

Works Cube Test will not be required for class 15 blinding concrete which shall comprise 1:3:6 by weight.

Volumetric mixes shall comprise the following: -

CONCRETE WORK (CONTINUED)

A CONCRETE STRENGTHS (CONTINUED)

	<u>Cement/Kg</u>	<u>Fine Aggregate/CM</u>	<u>Coarse Aggregate/CM</u>
1:1.5:3	50	0.05	0.10
1:2:4	50	0.07	0.14
1:3:6	50	0.10	0.20
1:4:8	50	0.13	0.26

B MEASURED PROPORTIONS OF CONCRETE

Cement

The quantity of cement shall be measured by weight. When delivered in bags, each batch of concrete is to use one or more whole bags of cement.

Aggregates

Concrete aggregates shall be measured by weight in a weigh batching machine.

Weigh batching machines shall be of an approved type and shall be properly maintained and checked for accuracy at regular intervals.

C CONCRETE CLASSES 20, 25, 30 & 40

The weights of fine and coarse aggregate to be used in concrete Classes 20 to 25 shall be limited in accordance with the table below. The proportions of fine to coarse aggregate and cement which the Contractor proposes to use for each of the mixes specified shall first be approved by the Engineer. The Contractor will then be required to prepare Preliminary Test Cubes and have these cubes tested as described for Work Cube Tests. The test results should be submitted to the Engineer in sufficient time for further tests to be carried out should they prove unsatisfactory. Cube strengths in the preliminary tests must show crushing strengths at least 25% higher than the strengths specified for Works Cube Test. If the Contractor is unable to produce specified cube strengths he will be required at his own cost to increase the cement content of the mix until satisfactory results are produced.

The Engineer may require at any time during the Contract the proportions of fine to coarse aggregate to be altered in order to produce a mix of greater strength or improved workability and providing that the total proportions of aggregate to cement remain unchanged, no claim for additional cost will be considered.

CONCRETE WORK (CONTINUED)

A MINIMUM CEMENT CONTENT

<u>Concrete Class</u>	<u>Minimum Cement Content by weight to combined total weight of aggregate</u>
Class 40	1 to 5
Class 30	1 to 6.5
Class 25	1 to 7
Class 20	1 to 7.5
Class 15	1 to 9

CONCRETE WORK (CONTINUED)

B WATERPROOF CONCRETE

Where waterproof concrete is specified, "Sealopruf Integral Water-proofing Compound" and "Sealoplaz Plasticiser" as manufactured by Sealocrete Group Sales Ltd., Atlantic Works, Hythe Road, London NW10 5RD, England, are to be added to the mixing water strictly in accordance with the manufacturer's instructions and at the rate of 0.50 litres and 0.25 litres respectively to each 50 Kg. bag of cement to which the aggregates have already been added and mixed. Not more than 25 litres of water per 50 Kg. bag of cement are to be used unless otherwise approved by the Engineer

C EXPANSION JOINTING

Expansion joint filler shall be "Flexcell" as manufactured by Expandite Ltd., or "Resilex" as manufactured by Evomastics Ltd., or other equal and approved.

D JOINT SEALER

Sealers shall be either hot or cold applied. Hot applied sealers shall comply with B.S. 2499. Cold mastics shall be applied by gun and where more than 12mm deep shall include filling with loose packing yarn to within 2 mm from the outer face. All joint sealers are to be approved by the Engineer prior to their use.

CONCRETE WORK (CONTINUED)

A WATERBAR

Waterbar shall be as shown on the drawings or as described in the Bills of Quantities. PVC waterbar shall be as manufactured by Expandite Limited, or other approved type and shall be provided in the positions indicated on the Drawings. Joints shall be heat welded in accordance with the manufacturer's instructions and where the waterbar is to be fixed vertically, metal clips as manufactured by the supplier of the waterbar or of other approved design shall be provided to suspend the waterbar from the reinforcement.

Where waterproof concrete is used the Contractor shall adhere strictly to the position and type of construction joints as detailed on the Drawings. Any deviation from this procedure or the provision of additional construction joints will require the prior approval of the Engineer and any additional waterbar so required will be at the Contractor's expense.

Formwork shall be designed with sufficient timber formers and blocking pieces to support the waterbar and to ensure that it is not displaced during concreting. In the case of horizontal joints in vertical walling and similar members the formwork shall be so constructed as to permit the starter or upstand of concrete surrounding the lower half of the waterbar to be poured in the same operation as the slab or other concrete from which it springs. Formwork to walls or similar members where the waterbar is positioned at the base of the lift shall have sufficient temporary openings not less than 300mm square at approximately 200mm above the level of the waterbar to permit checking that the waterbar is correctly positioned and is not displaced during concreting.

No concreting will be permitted to portions where upstand starters form an integral part until the formwork to the starter has been fixed and approved.

B TESTING EQUIPMENT

The Contractor shall provide the following equipment for carrying out control tests on the Site:

- a) Straight edges 3 metres and 1 metre long for testing the accuracy of the finished concrete;
- b) A glass graduated cylinder for use in the silt test for organic impurities in the sand;

CONCRETE WORK (CONTINUED)

A TESTING EQUIPMENT (CONTINUED)

- c) Slump test apparatus;
- d) Four 150mm steel cube moulds with base plates and tampering rods to B.S. 1881

B WORKS CUBE TESTS

Works cubes are to be made at intervals as required by the Engineer in accordance with B.S 8110 and the Contractor shall provide a continuous record of the concrete work. The cubes shall be made in approved 15mm moulds in strict accordance with the Code of Practice.

Four cubes shall be made on each occasion.

Each cube shall be marked with a distinguishing number (numbers) to run consecutively and the date, and a record shall be kept on Site giving the following particulars: -

- a) Cube No.
- b) Date Made
- c) Location in work
- d) 7-day Test
Date
Strength
- e) 28-day Test
Date
Strength

Cubes shall be forwarded, carriage paid, to an approved Testing Authority, in time to be tested one at 7 days and the remaining three twenty eight days. No cube shall be dispatched within 3 days of casting.

CONCRETE WORK (CONTINUED)

A WORKS CUBE TESTS (CONTINUED)

Copies of all Works Cube Tests shall be forwarded directly to the Engineer by the testing laboratory.

If the strengths required above are not attained, and maintained throughout the carrying out of the contract, the Contractor will be required to increase the proportion of cement and/or substitute better aggregates so as to give concrete which does comply with the requirements of the Contract. The Contractor may be required to remove and replace at his own cost any concrete which fails to attain the required strength as ascertained by Works Cube Tests.

B MIXING AND PLACING OF CONCRETE

The concrete shall be mixed only in approved power-driven mixers of a type and capacity suitable for the work, and in any event not smaller than 0.40/0.28 cu.m. capacity.

The mixer shall be equipped with an accurate water measuring device. All materials shall be thoroughly mixed dry before the water is added and the mixing of each batch shall continue for a period of not less than two minutes after the water has been added and until there is a uniform distribution of the materials and the mass is uniform in colour.

The entire contents of the mixed drum shall be discharged before recharging. The volume of mixed materials shall not exceed the rated capacity of the mixer. Whenever the mixer is started, 10% extra cement shall be added to the first batch and no extra payment will be made on this account.

As a check on concrete consistency, slump tests may be carried out and shall be in accordance with B.S. 1881. The Contractor shall provide the necessary apparatus and carry out such tests as are required. The slump of the concrete made with the specified water content, using dry materials shall be determined and the water be added under wet conditions shall be so reduced as to give approximately the same slump.

CONCRETE WORK (CONTINUED)

A MIXING AND PLACING OF CONCRETE (CONTINUED)

The concrete shall be mixed as near to the place where it is required as is practicable, and only as much as is required for a specified section of the work shall be mixed at one time, such sections being commenced and finished in one operation without delay. All concrete must be efficiently handled and used in the Works within twenty (20) minutes of mixing. It shall be discharged from the mixer direct either into receptacles or barrows and shall be distributed by approved means which do not cause separation or otherwise impair the quality of the concrete. Approved mechanical means of handling will be encouraged, but the use of chutes for placing concrete is subject to prior approval of the Engineer.

Concrete shall be placed from a height not exceeding 1,500mm directly into its permanent position and shall not be worked along the shutters to that position. Unless otherwise approved, concrete shall be placed in a single operation to the full thickness of slabs, beams, and similar members, and shall be placed in horizontal layers not exceeding 1,500mm deep in walls and similar members.

Concrete in columns may be placed to a height of 4 metres with careful placing and vibration and satisfactory results. Where the height of the column exceeds 4 metres suitable openings must be left in the shutters so that this maximum lift is not exceeded.

Concrete shall be placed continuously until completion of the part of the work between construction joints as specified hereinafter or of a part of approved extent. At the completion of a specified or approved part a construction joint of the form and in the positions hereinafter specified shall be made. If stopping of concreting be unavoidable elsewhere, a construction joint shall be made where the work is stopped. A record of all such joints shall be made by the Contractor and a copy supplied to the Engineer.

Any accumulation of set concrete on the reinforcement shall be removed by wire brushing before further concrete is placed.

The Contractor shall provide runaways for concreting to the satisfaction of the Engineer. Under no circumstances will the runaways be allowed to rest on the reinforcement.

Care shall be taken that the concrete is not disturbed or subjected to vibrations and shocks during the setting period.

CONCRETE WORK (CONTINUED)

A MIXING AND PLACING OF CONCRETE (CONTINUED)

Mixing machines, platforms and barrows shall be clean before commencing mixing and be cleaned on every cessation of work.

Where concrete is laid on hardcore or other absorbent materials, the base shall be suitable and sufficiently wetted before the concrete is deposited.

B COMPACTION

At all times during which concrete is being placed the Contractor shall provide adequate trained and experienced labour to ensure that the concrete is compacted in the forms to the satisfaction of the Engineer.

Concrete shall not be placed at a rate greater than will permit satisfactory compaction nor to a depth greater than 400mm before it is compacted.

During and immediately after placing, the concrete shall be thoroughly compacted by means of continuous tamping, spading, slicing and vibration. Vibration is required for all concrete of Classes 40, 35, 25 and 20.

Care shall be taken to fill every part of the forms, to work the concrete under and around the reinforcement without displacing it and to avoid disturbing recently placed concrete which has begun to set.

Any water accumulating on the surface of newly placed concrete shall be removed and no further concrete shall be placed thereon until such water is removed.

Internal vibrators shall be a frequency of not less than 7,000 cycles per minute and shall have a rotating eccentric weight of at least 0.50 Kg, with an eccentricity of not more than 12mm. Such vibrators shall visibly affect the concrete within a radius of 250mm from the vibrator.

Internal vibrators shall not be inserted between layers of reinforcement less than one and one half times the diameter of the vibrators apart. Contact between vibrators and reinforcement and vibrators and formwork shall be avoided.

CONCRETE WORK (CONTINUED)

A COMPACTION (CONTINUED)

Internal vibrators shall be inserted vertically into the concrete wherever possible at not more than 500mm centres and shall constantly be moved from place to place. No internal vibrator shall be permitted to remain in any one position for more than ten seconds and it shall be withdrawn very slowly from the concrete.

In consolidating each layer of concrete the vibrating head shall be allowed to penetrate and re-vibrate the concrete in the upper portion of the underlying layer. In the area where newly placed concrete in each layer joins previously placed concrete more than usual vibration shall be performed, the vibrator penetrating deeply at close intervals along these contacts. Layers of concrete shall not be placed until layers previously placed have been vibrated thoroughly as specified.

Vibrators shall not be used to move concrete from place to place in the formwork.

At least one internal vibrator shall be operated for every 1.5 cubic metres of concrete placed per hour and at least one spare vibrator shall be maintained on Site in case of breakdown during concreting operations.

External formwork vibrators shall be of the high frequency low amplitude type applied with the principal direction of vibration in the horizontal plane. They shall be attached directly to the forms at not more than 1,200mm centres.

In addition to internal and external vibration the upper surface of suspended floor slabs shall be levelled by tamping or vibrating to receive finishes. Vibrating elements shall be of the low frequency high amplitude type operating at a speed of not less than 3,000 r.p.m.

B CONSTRUCTION JOINTS

Construction joints shall be permitted only at the positions pre-determined on the drawings or as instructed on the Site by the Engineer. In general they shall be perpendicular to the lines of principal stress and shall be located at points of minimum shear, viz., vertically at, or near, mid-spans of slabs, ribs and beams.

CONCRETE WORK (CONTINUED)

A CONSTRUCTION JOINTS (CONTINUED)

Suspended concrete slabs are generally to be cast using alternate bay construction in bays not exceeding 20 metres in length. No two adjacent bays are to be cast within a minimum period of 48 hours of each other. The joints between adjacent bays are to be in positions agreed with the Engineer.

Under no circumstances shall concrete be allowed to tail off, but it shall be deposited against stopping-off boards.

Before placing new concrete against concrete already hardened, the face of the old concrete shall be thoroughly hacked roughened and cleaned, and laitance and loose material removed therefrom, and immediately before placing the new concrete the surface shall be saturated with water and covered with a coat of mortar at least 25mm in thickness composed of cement and fine aggregate in the proportions used in the concrete.

B CURING AND PROTECTION

Care must be taken that no concrete is allowed to become prematurely dry and the fresh concrete must be carefully protected within two hours of placing from rain, sun and wind by means of hessian sacking, polythene sheeting, or other approved means. This protective layer and the concrete itself must be kept continuously damp for at least seven days after the concrete has been placed. The Contractor will be required to provide complete coverage of all fresh concrete for a period of 7 days. Hessian or polythene sheeting shall be in the maximum widths obtainable and shall be secured against wind. The Contractor will not be permitted to use old cement bags, hessian or other material in small pieces.

Concrete in foundations and other underground work shall be protected from admixture with falling earth during and after placing.

Traffic or loading must not be allowed on the concrete until the concrete is sufficiently matured, and in no case shall traffic or loading be of such magnitude as to cause deflection or other movement in the formwork or damage to the concrete members. Where directed by the Engineer props may be required to be left in position under slabs and other members for greater periods than those specified hereafter.

CONCRETE WORK (CONTINUED)

A FAULTY CONCRETE

Any concrete which fails to comply with these Preambles, or which shows signs of setting before it is placed shall be taken out and removed from the Site. Where concrete is found to be defective after it has set, the concrete shall be cut out and replaced in accordance with the Engineer's instructions. On no account shall any faulty, honeycombed or otherwise defective concrete be repaired or patched until the Engineer has made an inspection and issued instructions for the repair. The whole of the cost whatsoever, which may be occasioned by the need to remove faulty concrete, shall be borne by the Contractor.

B ROD REINFORCEMENT

The steel reinforcement shall comply with the latest requirements of the following British Standards: -

Hot rolled bars for the
reinforcement of concrete to B.S 4449 (metric units)

Cold worked steel for the
reinforcement of concrete to B.S. 4461 (metric units)

The Contractor will be required to submit a test certificate of the rollings. Reinforcement shall be stored on racks above ground level. All reinforcement shall be free from loose mill scale or rust, grease, paint or other substances likely to reduce the bond between the steel and concrete.

C FABRIC REINFORCEMENT

To be electrically cross-welded steel wire mesh reinforcement to B.S 4483, 1969 and of the size and weight specified.

D FIXING ROD REINFORCEMENT

Reinforcement shall be accurately bent to the shapes and dimensions shown on the Drawings and Schedules and in accordance with B.S. 4466 (1969). Reinforcement must be cut and bent cold and no welded joints will be permitted unless so detailed.

CONCRETE WORK (CONTINUED)

A FIXING ROD REINFORCEMENT (CONTINUED)

Reinforcement shall be accurately placed in position as shown on the drawings, and before and during concreting, shall be secured against displacement by using No. 18 S.W.G. annealed binding wire or suitable clips at intersections, and shall be supported by concrete or metal supports, spacers or metal hangers to ensure the correct position and cover.

No concreting shall be commenced until the Engineer has inspected the reinforcement in position and until his approval has been obtained and the Contractor shall give two clear days' notice of his intention to concrete.

The Contractor is responsible for maintaining the reinforcement in its correct position, according to the Drawings, before and during concreting. During concreting a competent steel fixer must be in attendance to adjust and correct the position of any reinforcement which may be displaced. The vibrators are not to come into contact with the reinforcement.

B POSITION AND CORRECTNESS OF REINFORCEMENT

Irrespective of whether any inspection and/or approval of the fixing of the reinforcement has been carried out as above, it shall be the Contractor's sole responsibility to ensure that the reinforcement complies with the details on the Drawings or Schedules and is fixed exactly in the positions shown therein and in the positions to give the prescribed cover. The Contractor will be held entirely responsible for any failure or defect in any portion of the reinforced concrete structure and including any consequent delay, claims, third party claims, etc., where it is shown that the reinforcement has been incorrectly positioned or is incorrect in size or quantity with respect to the detailed Drawings or Schedules.

C SPACER BLOCKS

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 No. 18 S.W.G. wires set into the spacer blocks or other approved means shall be provided where necessary to ensure that the requisite cover is obtained. Where hollow concrete block construction is used, spacer blocks are to be provided as shown on the Drawings. These will consist of concrete blocks as described above made to fit the width of the rib less 3mm tolerance and with single or double grooves (depending on the number of reinforcement bars used per rib) in the top surface with wire ties at each groove.

CONCRETE WORK (CONTINUED)

A CONCRETE COVER TO REINFORCEMENT

Unless otherwise directed the concrete cover to rod reinforcement over main bars in any face shall be: -

Foundations against earth face	75mm
Foundations against Building	50mm
Columns	40mm
Beams	25mm
Slabs	15mm

D FIXING FABRIC REINFORCEMENT

The fabric shall be free from scale, rust, grease or other substance likely to reduce the bond between the steel and the concrete and shall be laid minimum 300mm laps and bound with No. 18 S.W.G. annealed iron wire.

C PROJECTING REINFORCEMENT

Where reinforcement projects from a concrete section of the structure and this reinforcement is expected to remain exposed for some time, it is to be coated with a cement grout to prevent rust staining on the finished concrete. This grout is to be brushed off the reinforcement prior to the continuation of concreting.

D CHASES, HOLES, ETC. IN CONCRETE

The Contractor shall be responsible for the co-ordination with the Electrical and other Sub-Contractors for incorporating electrical conduits, pipes, fixing blocks, chases, holes and the like in concrete members as required and must ensure that adequate notice is given to such Sub-Contractors informing them when concrete members incorporating the above are to be poured. The Contractor shall submit full details of these items to the Engineer for approval before the work is put in hand. All fixing blocks, chases, holes, etc., to be left in the concrete shall be accurately set out and cast with the concrete.

E POSITION OF ELECTRICAL CONDUITS

Unless otherwise instructed by the Engineer all electrical conduits to be positioned within the reinforced concrete shall be fixed inside the steel cages of beams and columns and between the top and bottom steel layers in slabs and similar members.

CONCRETE WORK (CONTINUED)

A POSITION OF ELECTRICAL CONDUITS

The proposed position of all electrical conduits 25mm and over in diameter which are to be enclosed in the concrete shall be shown accurately on a plan to be submitted to the Engineer, whose approval shall be obtained before any such conduit is placed. The dimensions and positions of all holes, sleeves, or ducts required in the structure for electrical cables or conduits shall be advised to the Engineer in sufficient time for them to be approved and shown on the structural Drawings. No other holes or sleeves shall be cut on site without the Engineer's prior approval.

B FORMWORK

The method and system of formwork which the Contractor proposes to use shall be approved by the Engineer before construction commences. Formwork shall be substantially and rigidly constructed of timber or steel or precast concrete or other approved material.

All timber for formwork shall be good, sound, clean, sawn well-seasoned timber, free from warps and loose knots and of scantlings sufficiently strong for their purpose.

C CONSTRUCTION OF FORMWORK

All formwork shall be of sufficient thickness and with joints close enough to prevent undue leakage of liquid from the concrete and fixed to proper alignment, level and plumb and supported on sufficiently strong bearers, shores, braces, plates, etc., properly held together by bolts or other fastenings to prevent displacement, vibration or movement by the weight of materials, men and plant on same and so wedged and clamped as to permit easing of and removal of the formwork without jarring the concrete. Where formwork is supported on previously constructed portions of the reinforced concrete structural frame, the Contractor shall by consultation with the Engineer ensure that the supporting concrete structure is capable of carrying the load and/or sufficiently propped from lower floors or portions of the frame to permit the load to be temporarily carried during construction.

Soffits shall be erected with an upward camber of 5mm for each 5 metres of horizontal span or as directed by the Engineer.

CONCRETE WORK (CONTINUED)

A CONSTRUCTION OF FORMWORK (CONTINUED)

Great care shall be taken to make and maintain all joints in the formwork as tight as possible, to prevent the leakage of grout during vibration. All faulty joints shall be caulked to the Engineer's approval before concreting.

The formwork shall be sufficiently rigid to ensure that no distortion or bulging occurs under the effects of vibration. If at any time the formwork is insufficiently rigid or in any way defective the Contractor shall strengthen or improve such formwork as the Engineer may direct.

The Contractor's attention is drawn to the various surface textures and applied finishes required and the faces of formwork next to the concrete must be of such material and construction and be sufficiently true to provide a concrete surface which will in each particular case permit the specified surface treatment or applied finish.

All surfaces which will be in contact with concrete shall be oiled or greased to prevent adhesion of mortar. Oil or grease shall be of a non-staining mineral type applied as a thin film before the reinforcement is placed. Surplus moisture shall be removed from the forms prior to placing of the concrete.

Temporary openings shall be provided at the base of columns, wall and beam forms and at any other points where necessary to facilitate cleaning and inspection immediately before the pouring of concrete. Before the concrete is placed the shuttering shall be trued-up and any water accumulated therein shall be removed. All sawdust, chips, nails and other debris shall be washed out or otherwise removed from within the formwork. The reinforcement shall then be inspected for accuracy of fixing. Immediately before placing the concrete the formwork shall be well wetted and inspection openings shall be closed. The erection, easing, striking and removing of all formwork must be done under the personal supervision of a competent foreman, and any damage occurring through faulty formwork or its incorrect removal shall be made good by the Contractor at his own expense.

After removal of formwork, all projections, fins, etc., on the concrete surface shall be chipped off, and made good to the requirements of the Engineer. Any voids or honeycombing shall be treated as described in "Faulty Concrete".

CONCRETE WORK (CONTINUED)

A STRIPPING FORMWORK

All formwork shall be removed without undue vibration or shock and without damage to the concrete. No formwork shall be removed without the prior consent of the Engineer.

Removal of props (partly subject to 7 days concrete cube strength being satisfactory) to:-

Slabs	14 days
Beam soffits	21 days
Cantilevered beams and slabs	28 days
Beam sides, walls and columns	2 days

If the Contractor wishes to take advantage of the shorter stripping times permitted for beam and slab soffits when props are left in place, he must so design his formwork that sufficient props as agreed with the Engineer can remain in their original positions without being moved in any way until expiry of the minimum time for removal of props, stripping and re-propping will not be permitted.

The above times may be reduced in certain circumstances, at the discretion of the Engineer, provided an approved method is adopted at the Contractor's expense to ensure that the required concrete strength is attained before the forms are stripped.

Solid strips in composite slabs shall be considered as beams. The tops of retaining walls shall be adequately supported with stout raking props at intervals required by the Engineer. These props are not to be removed until 7 days after casting of the floor slab over.

B SUPPORTING PROPS TO WALL AND BEAM SOFFITS

Where directed by the Engineer supporting props to wall and beam soffits are to be left in position until completion of the whole reinforced concrete structure.

The props are to be to the approval of the Engineer and the Contractor must submit the suggestion method of propping to the Engineer prior to removal of formwork to the relevant surfaces.

CONCRETE WORK (CONTINUED)

EXPOSED CONCRETE FINISHES

A GENERAL

Contractors will be required at an early stage in the Contract, to prepare samples for the approval of the Architect of the various concrete finishes specified hereafter. Samples are to be prepared using the same materials and the same methods of construction, compaction, curing, etc., as the Contractor proposes to use for executing the full quantity of the work.

A record of the mix, water content, method of compaction, any additives used, etc., is to be kept for each sample prepared. When the Architect has approved a sample it will be kept on Site in an approved location. The finishes in construction will be expected to be up to a standard equal to the approved sample. The Contractor is to include for all costs in preparing samples in his rates for the respective finish.

Consistency in cement colour, grading and quality of aggregates must be maintained in all finished concrete work.

B TAMPED FINISH

Areas so specified shall be finished at the time of casting with a tamped finish to the Architect's approval, produced by an edge board. Board marks are to be made to a true pattern and will generally be at right angles to the traffic flow. Haphazard or diagonal tamping will not be accepted.

C CHAMFERS AND REBATES TO EXPOSED CONCRETE

Wherever concrete surfaces are to remain exposed and otherwise where specified or shown on the Drawings, rebates and chamfers are to be provided at junctions, corners and changes in direction of concrete members.

Rebates will also be required to surrounds to chisel-dressed, brushed, or similar concrete finishes.

Rebates and chamfers are to have a fair face finish.

Unless otherwise instructed concrete pours to columns and to other members where applicable are to terminate only at the pre-determined rebate positions.

CONCRETE WORK (CONTINUED)

A FAIR FACE

Fair face surfaces shall be clean, smooth, even, true to form, line and level, and free from all board marks, joint marks, honeycombing, pitting, and other blemishes. Forms are to be provided with a smooth lining of plywood, steel, or other approved material which will achieve the required finish without any general rubbing down. Rubbing down will only be permitted to remove any projecting fins at corners or joints.

B FINE FACE

Fine face shall be as for fair face but to a higher standard obtained from forms provided with an impervious sheet lining of metal or plastics faced plywood in large panels arranged in an approved pattern.

Rubbing down shall only be permitted after inspection by the Engineer. The finished surface shall be capable of receiving paint.

C BRUSHED CONCRETE FINISH

Brushed concrete finish shall be provided to precast concrete members where specified or shown on the Drawings.

The surface is to be sprayed with water and brushed within 2 hours of casting to expose the aggregate to an extent to be approved by the Architect.

The brushed face will generally be contained within a surround of fair face concrete and the Contractor is to allow for retaining the fair face forms or otherwise protecting the surround whilst achieving the brushed finish.

D BOARD-MARKED FINISH

The required finish is to be a board-marked pattern and the boards are to be arranged vertically or horizontally to the patterns shown on the Drawings or as otherwise agreed by the Architect.

Formwork shall be made from timber of sufficiently strong grain to the Architect's approval in matching widths with straight sawn staggered joints. Short make-up lengths will not be permitted and boards shall generally be in the longest lengths practical. Construction joints shall be at predetermined positions and at recesses where so detailed.

CONCRETE WORK (CONTINUED)

A CHISEL-DRESSED FINISH

Chisel-dressed finish is to be carried out on any grade of concrete but not until it is at least 30 days old.

The surfaces are to be fully chisel-dressed to remove a maximum of 12mm (average 9mm) of the surface by shearing and exposing the aggregate without excessive cracking of the surrounding matrix.

Arrises of columns, beams, etc., are pre-formed fair face with timber fillets (which have been measured separately) set in the formwork and care must be taken in working up to these to preserve a clean line.

For vertical surfaces of walls and columns particular care must be taken to remove all sharp projections. For beam soffits this requirement is not necessary.

All surfaces requiring this treatment are to have the margins chisel-dressed by hand for a minimum width of 75mm commencing from the fillet edge. Thereafter mechanical chisel-dressing may be used but the Contractor must ensure that a uniform texture and even plan surface is achieved.

The use of sharply pointed steel tools for both hand and mechanical chisel-dressing is essential.

Upon completion the surfaces are to be thoroughly wire brushed and washed down.

B PROTECTION OF FINISHES

Wherever possible in-situ exposed concrete finishes should be commenced at the highest level and worked progressively down the building.

Precaution shall be taken to avoid staining or discoloration of previously finished concrete faces by leakage of grout from newly placed concrete. The Contractor shall during all stages of construction adequately protect all concrete finishes from damage by leaking grout, knocking, paint stains, falling plaster, etc. In cases of balustrade walls to staircases and members where damage is otherwise likely, concrete finishes shall be protected by cladding with timber, celotex, or other approved sheeting. All Sub-Contractors shall be informed accordingly on the precautions to be taken.

CONCRETE WORK (CONTINUED)

A PRECAST CONCRETE

All precast concrete shall be of mix 1:2:4 unless otherwise specified.

The maximum size of coarse aggregate in precast concrete shall not exceed 20mm except for thicknesses less than 75mm where it shall not exceed 10mm

The compaction of precast concrete shall conform with requirements given elsewhere in these preambles except for thin slabs where use of immersion type vibrations is not practicable. The concrete in these slabs may be consolidated on a vibrating table or by any other methods approved by the Engineer.

Steam curing of precast concrete will be permitted. The procedure for steam curing shall be subject to the approval of the Engineer.

The precast work shall be made under cover and shall remain under the same for seven days. During this period and for a further seven days the concrete shall be shielded by sacking or other approved material kept constantly wet. It shall then be stacked in the open for at least a further seven days to season before being set in position. Where steam curing is used these times may be reduced subject to the approval of the Engineer.

Precast concrete units shall be constructed in individual forms. The method of handling the precast concrete units after casting, during curing and during transport and erection shall be subject to the approval of the Engineer, providing that such approval shall not relieve the Contractor of responsibility for damage to precast concrete units resulting from careless handling.

Repair of damage to the precast concrete units, except for minor abrasions of the edges which will not impair the installation and/or appearance of the units will not be permitted and the damaged units shall be replaced by the Contractor at his own expense.

Except where precast work is described as "fair face" the moulds shall be made of suitably strong sawn timber true in form to the shapes required. Unless otherwise described faces are to be left rough from the sawn moulds.

Where precast work is described as "fair face" the moulds are to be made of metal or are to have metal or plywood linings or are to be other approved moulds which will produce a smooth dense fairface to the finished concrete suitable to receive a painted finish direct and free from all shutter marks, holes, pitting, etc.

CONCRETE WORK (CONTINUED)

The precast units shall be installed to the lines, gradients and dimensions shown on the Drawings or as directed by the Engineer.

A CONCRETE SURFACE BEDS

The concrete shall be placed as soon as possible after being mixed. In transporting the concrete adequate precautions shall be taken to avoid damage to the prepared base. The concrete shall be spread to such a thickness that when compacted it shall have the finished thickness as specified or shown on the Drawings. A layer of concrete 50mm less than the finished thickness shall first be spread and struck off at the correct level to receive the top fabric reinforcement. The top layer shall then be added. Not more than 30 minutes shall elapse between spreading the bottom layer and the start of compaction of the top layer. The Contractor shall be responsible for maintaining the reinforcement in its correct position during the placing and compaction of the concrete.

The compacting and finishing of the concrete shall be effected by immersion vibrators and a hand mechanical tamper weighing not less than 10 Kg. per linear metre and having a tamping edge shod with a steel strip 75mm wide fixed to the tamper by countersunk screws. Immersion vibrators with "spade" attachments will be permitted. Compaction shall be continued until a dense, scaled surface finish is achieved. Over-compaction causing an excessive amount of fines to be brought to the surface shall be avoided.

The surface of the concrete shall be finished with a wood float finish to the levels, falls and crossfalls, as directed or shown on the Drawings and shall be subject to the following tolerances:-

1. The level shall be within + or - 6mm of the levels directed.
2. The falls shall be within 10% of the falls directed.
3. The smoothness shall be such that departures from a 3 metre straight edge laid in any direction shall not exceed 3mm.

Minor irregularities shall be made good by the use of a steel float but in no circumstances shall mortar be used to make good the surface. Before the concrete has finally set and after completion of the floating the concrete shall be brushed with a strong-headed broom to produce a grooved finish in parallel lines to the satisfaction of the Engineer.

CONCRETE WORK (CONTINUED)

A CONCRETE SURFACE BEDS (CONTINUED)

As soon as the surface has been finished it shall be protected against too-rapid drying by means of damp hessian, polythene sheeting or other approved means placed carefully on the surface and kept damp and in position for 7 days and the concrete shall be kept wet for a further 21 days. The most critical period is the first 24 hours after placing and curing during that time shall be very thorough. The Contractor is to obtain the Engineer's approval to the material and method he proposes to use for curing and no concreting will be permitted

Forms shall not be moved from freshly placed concrete until it is at least 24 hours old. Care shall be taken that in their removal no damage is done to the concrete, but should any damage occur the Contractor shall be responsible for making it good.

B HOLLOW CLAY POTS

The hollow clay pots for suspended floor shall be manufactured by Messrs. Clayworks Ltd., P.O. Box 48202, Nairobi and shall be suspended floor units size 350mm x 300mm x 230mm deep. Care shall be taken in unloading, stacking and placing hollow pots in position. Damaged units shall not be incorporated in the works and shall be removed from the Site.

C HOLLOW BLOCK SUSPENDED FLOORS

The hollow blocks shall be set out to the dimensions shown on the drawings. Slip tiles will not be required. Care shall be taken when placing and vibrating the concrete to avoid damage to or displacement of the pots. Any blocks damaged shall be replaced before concreting.

D NOTES CONCERNING PRICING

The Contractor must allow for all costs incurred during the progress of the Contract for complying with the provisions concerning the preparation and use of graded mixes.

CONCRETE WORK (CONTINUED)

A NOTES CONCERNING PRICING (CONTINUED)

Prices for plain or reinforced concrete shall include for mixing, hoisting, depositing, compacting, curing and protection at the various levels required throughout the building, and shall also include for forming or hacking a satisfactory key for all faces receiving asphalt and plaster work. Prices for slabs shall include for forming construction joints at bay edges, including all necessary temporary formwork and supplying records of such joints to the Engineer.

Prices for steel rod reinforcement shall include for cutting to lengths and all labour in bending and cranking, forming hooked ends, handling, hoisting and fixing in position and for providing all necessary tying wire, spacer blocks and supports. Prices for fabric reinforcement shall include for all straight cutting and waste, handling, hoisting and fixing in position, providing all necessary tying wire, and supports and all extra material in laps

The prices for formwork shall include for extra material at joints, extra labour and waste for narrow widths, small quantities, overlaps, passings, etc., and for fixing at the various levels including battens, struts, and supports and for bolting, wedging, easing striking and removal. Prices for linear items such as boxing shall include for angles and ends.

Prices of all precast concrete shall include for all moulds, finishing as described, handling, reinforcement, hoisting and fixing at the required levels and for casting or cutting to the exact lengths required and any waste resulting from such cutting.

Prices for expansion joints shall include for cutting to size and all temporary supports and prices for expansion joint sealers shall include for all temporary battens or fillets required to form the necessary grooves.

Prices for hollow concrete block suspended construction must be "all inclusive" to include for concrete hollow tiles, in-situ concrete ribs, concrete topping, concrete filling to open ends of hollow concrete tiles and solid concrete bearings and beams.

The Contractor is to allow in his prices for carrying out all tests as specified in this Section apart from work cube tests for which a provisional item is included in the preliminaries section of these Bills of Quantities.

The price for wrought formwork shall include for fair face finish either by rubbing down or by smooth lining all as described in these preambles.

WALLING

A STONE

Stone for walling shall be hard, dense, stone from an approved quarry with accurately dressed faces on all sides.

Stone walling described as load-bearing shall have a minimum crushing strength of 14.00 Newtons per square millimetre and shall comply with B.S. 5628: Part 2.

B CONCRETE BLOCKS

All hollow or solid concrete blocks for general use shall comply with B.S. 2028, Type 'A' and with C.P. III : Part 2., of minimum crushing strength of 3.5 Newtons per square millimetre, and must be obtained from an approved manufacturer, equal to samples deposited with and approved by the Architect.

Concrete block walling described as load-bearing shall have a minimum crushing strength of 7.0 Newtons per square millimetre.

All concrete blocks must be cured for a minimum period of four weeks before use and all testing of blocks is to be carried out by the Ministry of Works Materials Testing Laboratory or a Laboratory approved by the Structural Engineer.

C WALL REINFORCEMENT

All walling described as reinforced shall be reinforced with hoop iron 25mm wide or similar reinforcement centrally in every alternate joint (vertically for the full length of the walls, lapped and crimped 300mm at running joints and full width of wall at angles and intersections).

D WALL TIES

20 Gauge hoop iron ties 25mm wide x 450mm long to be provided for every alternate course at all connections between block walls and reinforced concrete columns or walls. One end to be cast into concrete and other end bent and built into mortar joint of walling.

E CHASING

Chasing in load-bearing walls for electrical conduits, pipes, etc., is to be kept to a minimum size of cut and positions and runs of chases are to be approved by the Architect before any cutting is commenced. Horizontal runs will not be permitted.

WALLING (CONTINUED)

A CEMENT

The cement shall be as described in "Concrete Work".

B SAND

The sand for mortars shall be as described in "Concrete Work", except that it shall be fine sand.

C LIME

The lime for plastering shall comply with B.S. 890, Class 'A' for non-hydraulic lime and shall be as rich as obtainable and to approval. It must be freshly burnt and shall be slaked at least one month before being used by drenching with water, well broken up and mixed and the wet mixture shall be passed through a sieve of sixty-four meshes to the square inch. Lime putty shall consist of freshly slaked lime as above described, saturated with water until semi-fluid and passed through a fine sieve; it shall then be allowed to stand until superfluous water has evaporated and it has become of the consistency of thick paste, in no case for a shorter period than one month before being used, during which it must be kept damp and clean and no portion of it allowed to become dry.

Alternatively, hydrated lime with 70% average calcium oxide content may be used and it must be protected from damp until required for use. It shall be soaked to a putty at least 24 hours before use.

D MORTARS

Cement mortar shall consist of one part of portland cement, to three parts of sand by volume.

The cement/lime mortar shall consist of one part of Portland cement, one part of lime and six parts of sand of volume.

The ingredients of mortar shall be measured in proper gauge boxes on a boarded platform, the ingredients being thoroughly mixed dry, and again whilst adding water. In the case of cement/lime mortar the sand and lime shall be mixed first and then the cement added.

All mortar is to be thoroughly mixed to a uniform consistency with only sufficient water to obtain a plastic condition suitable for trowelling. No mortar that has commenced to set is to be used or remixed for use.

WALLING (CONTINUED)

A SETTING OUT

The Contractor shall provide proper setting out rods and set out on the same all work showing openings, heights, sills and lintels and shall build the various walls and piers to the thicknesses, widths and heights shown upon the Drawings. No part of the walling shall be carried up more than one metre 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 round at floor and wall heads.

B BONDING WALLING

All blocks shall be properly bonded together and in such a manner that no vertical joints in any one course shall be within 100mm of a similar joint in the courses immediately above and below. Alternative courses of walling at all angles and intersections shall be carried through the full thickness of the adjoining walls.

All perpend, reveals, quions and other angles and joints of the walls, etc., shall be built strictly true and square.

C LAYING AND JOINING

All bricks and blocks are to be well wetted before laying and tops of walls where left off shall be well wetted before commencing building. All joints are to be 10mm thick and flush up and grouted in solid as the work proceeds.

All exposed faces of walls for plastering are to be left rough and the joints raked out while mortar is green to form adequate key.

All other faces shall be cleaned down on completion with a wire brush or as necessary and mortar droppings, smear marks, etc., removed and rates must include for this.

D PUTLOG HOLES

All putlog holes shall be carefully, properly and completely filled up on completion of walling and before plastering is commenced.

E FAIR FACE

Walling described as fair-faced shall be built with selected blocks and pointed with neat flush joints. Stone walling shall be fine chisel dressed.

WALLING (CONTINUED)

A BRICKS

All bricks shall be obtained from Clayworks Limited, P.O. Box 45154, Nairobi, of sizes as required and shall be hard, sound, square, well-burnt, uniform in shape and free from cracks, stones and other defects.

B DAMP-PROOF COURSES

Damp-proof courses shall be bituminous felt to B.S 743 weighing 7 lbs.. per square yard, free from tears and holes, and be laid with 150mm minimum laps on and including a levelling screed of cement mortar.

C PRICES TO INCLUDE

The rates for walling shall include for all reinforcement, all straight cutting, bonding, plumbing angles, forming reveals, pinning up to underside of concrete soffits and cutting up to sides of columns and building in ends of lintels and sills.

D BRICK WORK

Brick work shall be build to a gauge of 4 courses to 340mm of wall height including 10mm bed joints.

Facing walls shall be built in stretcher bond and be tied to the blockworks or concrete backing walls with 10mm gauge galvanised wire wall ties 500mm girth, formed to a figure 8 and twisted together at the lap.

Three wall ties per square metre are to be used, wall ties for concrete backing walls shall be cast into the concrete including all temporary fixing to formwork.

Facing walls shall be pointed as the work proceeds. External walls shall have recessed joints and internal walls shall have flush joints. Facing walls shall be kept perfectly clean and no rubbing down of brickwork will be allowed.

E FAIR FACE

Walling described as fair faced shall be built with selected bricks and pointed with neat recesses joints.

ROOFING

A PREPARATION OF SURFACES

All surfaces to receive roofing shall be clean, dry, free from fins or projections and loose materials, and with cracks or voids filled with cement mortar.

B LIGHTWEIGHT ROOF SCREEDS

Roof screeds will be executed to the approval of the specialist Roofing Sub-Contractor and will consist of cement, sand and pumice (1:3:7) finished with 6mm layer of cement and sand (1:4) topping. Screeds shall not be laid in areas exceeding ten square metres during any period of 24 hours. As bays are formed batten strips must be used to retain the exposed edge of the screed. Screeds shall be finished to falls and currents to receive roofing.

C ASPHALT ROOFING

Asphalt roofing will be executed by an approved specialist Roofing Sub-Contractor. Before any application of roofing, the Contractor is to ensure that all roof surfaces are thoroughly cleaned by sweeping.

Roofing asphalt to B.S. 988/1966 Table 3, Column III, Tropical Mastic asphalt laid in two coats to a total thickness of 20mm on and including black sheathing felt and finished with two coats aluminium paint to horizontal and vertical surfaces.

D GALVANISED CORRUGATED STEEL SHEETING

The roof sheeting shall be of the gauge specified and comply with B.S. 3083. The roof sheeting shall be laid and fixed with steel hook bolts and nuts, steel roofing bolts and clips or steel roofing screws to B.S. 1494: Part 1.

E GALVANISED LT5 LONG TROUGH STEEL SHEETS

Where specified the roof sheeting and fittings shall be 24 gauge LT5 galvanised steel long trough as manufactured by GALSHEET KENYA LTD P.O. Box 78162, Nairobi or other equal and approved manufacturer. The roof sheeting shall be laid and fixed with approved purpose made hook bolts, washers, etc. to 'z' purlins. Where so specified the roofing shall be pre-painted with a RESINCOT FINISH.

ROOFING (CONTINUED)

A GALVANISED IT4 LONG TROUGH STEEL SHEETS

Where specified, the roof sheeting and fittings shall be 24 gauge IT4 roofing as manufactured by GALSHEET KENYA LTD. P.O. BOX 78162, NAIROBI or other equal and approved manufacturer. The roof sheeting shall be laid and fixed with approved purpose made hook bolts, washers, etc, to 'z' purlins. The ridge flashing sheets shall be IT4 profiled sheeting curved to the radii shown on the Drawings. Where so specified the roofing shall be pre-painted with a RESINCOT FINISH.

B CORRUGATED ASBESTOS CEMENT ROOFING SHEETS

Where specified, the roof sheeting shall be as manufactured by Simbarite Ltd., P.O. Box 90662, Mombasa. The roof sheeting shall be laid and fixed with approved hook bolts or roofing screws, complete with washers and caps.

C CONCRETE TILE ROOFING

Concrete single lap tiles and fittings shall be to B.S 473 & 550 Part 2, Group B of the colour, finish, type, size and manufacturer approved by the Architect. A full range of fittings must be available to match the tiles. Tiles shall be 380 x 230mm nominal unless otherwise specified. Tiles and fittings must be true to shape and of uniform structure. Surface coatings shall be firmly bonded.

Fixing shall include nailing to battens at every third course, at eaves, verges, and at the top course under the ridge.

Ridges and hips shall be bedded in cement mortar and roofs shall be left watertight.

D MANGALORE TILE ROOFING

Mangalore clay tiles shall be "best" or selected quality as manufactured by the Miritini Brick and Tile Works.

Tiles shall be well wetted before use and all dropped or broken tiles shall be rejected before carrying.

Cutting of tiles, where necessary at hips or valleys, shall be carefully and neatly carried out with properly sharpened tools.

Tiling shall be executed to the Architect's satisfaction and roofs left watertight.

E PROTECTION

All roof surfaces shall be kept clean and protected and handed over watertight at completion.

CARPENTRY, JOINERY AND IRONMONGERY

A ALL TIMBER

All timber shall be in accordance with the latest approved Grading Rules issued by the Government of Kenya (Legal Notice No. 358). Timber for Carpentry shall be SECOND (OR SELECT) GRADE and timber for joinery shall be FIRST (OR PRIME) GRADE.

B GENERALLY

All timber as it arrives on the Site shall be inspected by the Contractor, and any timber brought on the Site and not complying with the Specification or not approved, must be removed forthwith from the Site and only timber as approved shall be used in the Works.

The Contractor shall upon signing the Contract purchase sufficient supplies of specified hardwoods to avoid possible shortages at a later date.

C SPECIES OF TIMBER

The following timber shall be used.

<u>Standard Common Name</u>	<u>Botanical Name</u>
Cypress	Cypress spp.
Podocarpus	Podocarpus spp.
Cedar	Juniperus procera
E.A. Camphor wood	Ocotea usambaransis
African Mahogany (Munyama)	Khaya anthotheca
Mninga	Pterocarpus Angolensis
Mvule	Clorophora excelsa
Elgon Olive	Olea welwitschii

D TOLERANCE IN THICKNESS

Shall conform with the following extracts of Government of Kenya Grading Rules: -

1. Hardwood Grading: (First and Second Grades)

The following tolerances in thickness will be admitted:

- a) 1.5mm oversize on pieces up to 25mm in thickness,

CARPENTRY, JOINERY AND IRONMONGERY (CONTINUED)

A TOLERANCE IN THICKNESS (CONTINUED)

b) 3mm oversize on pieces over 25mm and up to 50mm in thickness,

c) 6mm oversize on pieces over 50mm in thickness.

Undersize will not be permitted.

2. Softwood Grading: Strength Grades (for Carpentry)

First and Second grades.

Undersize not allowed.

Oversize: All timber to be sawn oversize by 1.5mm for 25mm thickness and width. Not more than 3mm in thickness and not more than 6mm in width.

3. Softwood grading: Appearance Grades (for joinery)

First and Second Grades.

All as for Strength Grades above.

B INSECT DAMAGE

All timber shall be free of live borer beetle or other insect attacks 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 attacks on timber which becomes evident, including the replacement of timber attacked or suspected of being attacked, notwithstanding that the timber concerned may have already been inspected and passed as fit for use.

C SEASONING OF TIMBER

All timber shall be seasoned to a moisture content of not more than 22% Carpentry and 15% for Joinery.

CARPENTRY, JOINERY AND IRONMONGERY (CONTINUED)

A PRESSURE IMPREGNATION PRESERVATIVE TREATMENT

All carpentry timbers, sawn joinery and timber grounds for fixing joinery shall be treated with pressure impregnated "Celcure" or Tanalith" solution with a minimum nett retention of 0.35 lbs. of dry salt per cubic foot. If so required "charge sheets" issued after treatment with "Celcure" or Tanalith" shall be submitted by the Contractor to the Architect for his retention. All cut ends and any other cut faces of timbers sawn after treatment shall be treated before fixing with "Celcure B" or "Wolmanol" solution brushed on.

The Contractor's prices for such timber hereinafter must allow for the above treatment.

B INSPECTION AND TESTING

The Architect shall be given facilities for inspection of all work in progress whether in workshop or on Site. 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, species, strength, etc., such tests will be carried out by the Forestry Department.

C CLEARING UP

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.

This is to prevent accidental borer infestation and to discourage termites and decay.

D WORKMANSHIP

All Carpenter's work shall be accurately set out in strict accordance with the Drawings and shall be framed together and securely fixed in the best possible manner with properly made joints; all brads, nails and screws, etc., shall be provided as necessary, directed and approved, and the Contractor's prices shall allow for all the foregoing.

All workmanship shall be of the best quality.

All Carpenter's work shall be left with sawn surfaces except where particularly specified to be wrought.

CARPENTRY, JOINERY AND IRONMONGERY (CONTINUED)

A DIMENSIONS

Dimensions of timber for Carpentry left with sawn faces shall comply with the previous Clause specifying tolerances in thickness. Dimensions for wrought members shall be as described in "Joinery".

B JOINING

All timber shall be as long as possible and practicable to eliminate joints. Where joints are unavoidable surfaces shall be in contact over the whole area of the joint before fastenings are applied.

No nails, screws, or bolts are to be fixed in any split end. If splitting is likely, or is encountered in the course of any work, holes for nails are to be prebored at diameter not exceeding 4/5th of the diameter of the nails. Clenched nails must be bent at right angles to the grain.

Lead holes are to be bored for all screws. When the use of bolts is specified the holes are to be bored from both sides of the timber and are to be of the diameter $D + D/16$, where D is the diameter of the bolt. Nut must be brought up tight but care is to be taken to avoid crushing of the timber under the washers.

JOINERY

C GENERALLY

All joiner's 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 works connected therewith fully delineated. Such setting out must be submitted to the Architect and approved before such respective works are commenced.

All joiner' s work shall be cut out and framed together as soon after the commencement of the building as is practicable, but not to 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.

CARPENTRY, JOINERY AND IRONMONGERY (CONTINUED)

JOINERY (CONTI NUED)

A GENERALLY (CONTINUED)

All work shall be properly mortised, tenoned, housed, shouldered, dove-tailed, notched, pinned, branded, etc., as directed and to the satisfaction of the Architect and all properly glued up with the best quality glue. All horns to be cut off neat and square with back of jambs before incorporating into the walls. The feet of all door jambs are to be cut off square with the floor finish and are to be dowelled to the structure with steel dowels.

Joints in joinery must be as specified or detailed, and so designed and secured 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, glued joints where shrinkage need not be considered and where sealed joints are required. Glued for load-bearing joints or where conditions may be damp must be of the resin type. For non-load-bearing joints to where dry conditions may be guaranteed casein or organic glues may be used.

All exposed surfaces of joinery work shall be wrought and all arrises "eased off" by planing and sandpapering to an approved finish suitable to the specified treatment.

B DIMENSIONS

All joinery has been described by nominal sizes and a 3mm reduction off specified sizes will be allowed for each wrought face except where described as finished sizes in which case joinery shall hold up full dimensions.

C FIXING JOINERY

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 screws. Brass screws shall be used for fixing of all hardwoods, the heads let in and pelleted over with wood pellets to match the grain.

D BEDDING FRAMES, ETC.

The Contractor's rates must include for bedding frames, sills, etc., in mortar or dressing surfaces of walls, etc., in lieu.

CARPENTRY, JOINERY AND IRONMONGERY (CONTINUED)

A PLUGGING CONCRETE AND WALLS

Round wood plugs shall not be used. All work described as plugged shall be fixed with screws to plugs formed by drilling concrete, walls etc., with a masonry twist drill of suitable size at 750mm spacing and filling the holes completely with "Philplug" rawl plastic or plastic wall plugs as manufactured by Sumaria Industries, P.O. Box 42565, Nairobi, (or equal and approved) in accordance with the manufacturer's instructions.

All holes in masonry to take fixings should be drilled using the appropriate size masonry twist drill and shall not be cut by chisels or punches.

B FIBREBOARD

Fibreboard shall be 12mm "Celotex", or other equal and approved termite-proofed softboard, cut to panels with V-edges.

C PLYWOOD

Plywood for general purposes shall be manufactured to comply with KS. 02-301. Marine plywood shall comply with B.S. 1088.

D BLOCKBOARD

Blockboard shall be laminated board to approval, and exposed edges shall be lipped with 20mm hardwood.

E CHIPBOARD

Chipboard shall be manufactured to comply with B.S 5669.

F PLASTIC SHEETING

Plastic sheeting shall be "Formica" sheeting 1.5mm thick and securely fixed with approved type waterproof adhesive, and the colours approved by the Architect.

G SELECTED FOR CLEAR FINISH

All timber and joinery work described as selected for clear finish shall be executed by a specialised joinery firm. The name of the firm shall be submitted to the Architect before any works commence.

CARPENTRY, JOINERY AND IRONMONGERY (CONTINUED)

A PROTECT JOINERY

Any 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. The casing shall consist of two layers of polythene sheeting or plywood coverings.

B FLUSH DOORS

Semi-solid flush doors shall be manufactured to the thicknesses specified and consist of 100mm wide framing all round with minimum 25 thick horizontal core battens at not more than 75mm centres, pressure-impregnated as described and bored with 15mm diameter ventilation holes at 300mm centres. Doors shall have two lock blocks and be faced both sides with 6mm plywood and have 25mm mahogany twice rebated lipping all round and otherwise be equal to the requirements of B.S. 459 Part 2A, and equal to an approved sample.

C BOTTOM EDGES

Bottom edges of doors shall be painted with one coat of approved primer before fixing.

D IRONMONGERY

All locks and ironmongery shall be fixed with screws, etc., 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. All keys shall be labelled with the door reference marked on labels before handing to the Architect on completion.

E PRICES TO INCLUDE

Prices of items hereafter shall include for the foregoing labours, etc., and in addition the prices for linear items are to include all internal and external angles, either mitred or tongued, all fair, fitted, stopped, notched or returned ends, all similar incidental labours and all short lengths.

METAL WORK

A ALL MATERIALS

All materials shall be of the best quality, free from defects. The materials in all stages of transportation, handling and piling shall be kept clean and damage from breaking, bending and distortion prevented.

B STRUCTURAL STEELWORK

Materials and workmanship shall conform with the requirements of B.S. 449. Steel frames, trusses and purlins shall be carried out by a Nominated Sub-Contractor.

C NAILS, SCREWS AND BOLTS

Nails, screws and bolts shall be of the best quality mild steel of lengths and weights approved by the Architect. Nails shall be to B.S. 1202 and bolts to B.S. 916.

Bolts shall project at least two threads through nuts and all bolts passing through timber shall have washers under heads and nuts.

D WORKMANSHIP

All work shall be carried out in the most workmanlike manner and strictly as directed by the Architect.

Welding shall be neatly cleaned off and units shall be prefabricated in the workshop wherever possible, the minimum of site welding being employed.

All screw work shall have full internal and external threads and holes shall have been cleaned off. Countersinking must be concentric.

E RAINWATER GOODS

Prices shall include for building in, casting in or cutting mortices for fastenings, all making good, jointing, short lengths and all extra joints in the case of fittings.

METAL WORK (CONTINUED)

A METAL WINDOWS AND DOORS

Metal windows and doors shall be manufactured to B.S. 990 from hot rolled mild steel sections produced by reputable mills and to be of dimensions and weights laid down in B.S. 990. Where specified all casements and doors are to be made from heavy sections. Corners of frames are to be mitred and welded, and glazing bars, etc., either tenon riveted or welded into frames. Top-hinge casements are to be hung on projecting hinges and fitted with bronze single point handle and cabin hook with concealed sliding stays. Window stays and fasteners shall be to the approval of the Architect.

B FIXING METAL WINDOWS, DOORS, ETC.

The Contractor's prices for fixing metal windows, doors etc., shall include for assembling and fixing, including screwing to wood frames or cutting mortices for lugs in concrete or walling and running with cement mortar (1:4), bedding frames in similar mortar and pointing in mastic, bedding sills, transoms and mullions in mastic, making good plaster around both sides, and fixing, oiling and adjusting all fittings and frames.

C QUALITY OF MATERIALS AND WORKMANSHIP

The quality of materials and workmanship used in this contract shall conform to the requirements of the following British Standards: -

- | | |
|------------|--|
| B.S. 15 | Mild steel for general structural purposes. |
| B.S. 449 | The use of structural steel in building. |
| B.S. 4 p.2 | Hot Rolled Hollow Sections. |
| B.S. 994 | Cold Rolled Steel Sections. |
| B.S. 938 | General requirements for the metal Arc Welding or Structural Steel Tubes to B.S. 1775. |
| B.S. 1856 | General requirements for the Metal Arc Welding of Mild Steel. |
| B.S. 639 | Covering Electrocodes for the Metal Arc Welding of Mild Steel. |

Materials may be required at any time to be tested in accordance with the British Standards listed above.

METAL WORK (CONTINUED)

QUALITY OF MATERIALS AND WORKMANSHIP (CONTINUED)

The cost of successful tests will be borne by the Client, but the Sub-Contractor shall supply at his own expense test specimens when required. The cost of tests which do not comply with the standard will be borne by the Sub-Contractor.

A STRUCTURAL HOLLOW SECTIONS

All hollow sections are to be connected by electrical welding.

For butt welds, the fusion surface of each member must be properly aligned and prepared.

B ELECTRICAL WELDING

All welding is to be in accordance with the requirements of B.S. 1856 and 938 and the electrodes shall comply with B.S. 639.

Fusion faces shall be free from irregularities which could interfere with the welding material. These faces shall also be free from any deleterious material such as rust, grease and paint.

All welds shall be of the specified finished sizes and the sequence of the welding shall be carried out in a manner that will give minimum distortion to the welded parts.

Edges for welding shall be prepared by planing or machine flame cutting.

During welding all parts will be maintained in their correct position.

Welds shall be carried out with each run closely following the one prior with sufficient time between to allow for removal of slag.

Each run of weld is to be inspected and the Sub-Contractor shall ensure that unsatisfactory welds are cut out or remade to the required standard.

The minimum size of fillet weld shall be 6mm.

All completed welds shall have a regular and smooth surface. The weld material shall be solid with complete fusion throughout the weld and to the farecut metals.

METAL WORK (CONTINUED)

A ELECTRICAL WELDING (CONTINUED)

Any defects shall be cut or made good to approval.

External faces of butt welds to be ground smooth.

B PAINTING

All steel is to be wire brushed and any loose scale, dirt or grease shall be removed before any painting is commenced. One coat of red oxide primer Type A to B.S. 2523 shall be applied at the shop.

Any damage to the priming paint shall be made good to the Architect's satisfaction.

PLASTERWORK AND OTHER FINISHES

MATERIALS

A CEMENT

The cement shall be as previously described in "Concrete Work".

B SAND

The sand shall be as described for fine aggregate but that for plastering shall be light in colour and well graded to a suitable fineness in accordance with the nature of the work in order to obtain the finish directed.

C LIME

The lime for plastering shall comply with B.S. 890 Class "A" for non-hydraulic lime and shall be as rich as obtainable and to approval. It must be freshly burnt and shall be slaked at least one month before being used by drenching with water, well broken up and mixed and the wet mixture shall be passed through a sieve of sixty-four meshes to the square inch. Lime putty shall consist of four freshly slaked lime as above described, saturated with water until semi-fluid and passes through a fine sieve; it shall then be allowed to stand until superfluous water has evaporated and it has become of the consistency of a thick paste, in no case for a shorter period than one month before being used, during which it must be kept damp and clean and no portion of it allowed to become dry.

Alternatively, hydrated lime with 70% average calcium oxide content may be used and it must be protected from damp until required for use. It shall be soaked to a putty at least 24 hours before use.

D LIME PLASTER

Lime plaster shall consist of a backing coat in cement, lime and sand (1:2:9) and a finishing coat of lime putty skim with 10% cement added

E CONMIX DECORATIVE PLASTER GLITTERLITE

All decorative finishes as indicated must be pre-mixed Conmix Decorative Plaster-Glitterlite, to be supplied by Conmix Ltd., P.O. Box 5936, Sharjar, U.A.E.
Tel: 971-6-314165 or their authorized distributor, in the colour or colours and texture selected by the Architect.

Factory manufactured Conmix Glitterlite, consists of White Portland Cement, special fillers, specially crushed glass or de-dusted, oven dried and graded silca sand, marble chips, non fading iron oxide pigments and chemical additives.

PLASTERWORK AND OTHER FINISHES - (CONTINUED)

A CONMIX DECORATIVE PLASTER GLITTERLITE - (CONTINUED)

Conmix Glitterlite application and the necessary substrate preparations must be in accordance with the Manufacturer's data sheet recommendations, complying with the relevant BS, ASTM and DIN Standards.

The background for application of Glitterlite should be clean, free of dust deposits, loose mortar, chemical impurities (Salts and sulphates) and other contamination, which may adversely affect adhesion and cause variation in colour of Glitterlite. The substrata should be sound, free of undue shrinkage, structural, tensile and thermal movements.

B POLISHED GRANOLITHIC

Polished granolithic shall consist of one part cement (by volume) coloured light brown with an approved dye, to two parts (by volume) of metamorphic coral chipping graded from 6mm down to 3mm with not more than 15% to pass a No. 40 B.S. sieve.

C POLISHED TERRAZZO

All terrazzo work shall be carried out by an approved Sub-Contractor. Polished terrazzo shall consist of a first coat of cement and sand (1:3) and a 12mm finishing coat of "Snowcrete" and marble chippings (1:2), coloured with "Cemmentone No.1" colouring compound mix in the proportions of 1:10, compound to cement. The overall thickness will be as specified in the measured work.

Where terrazzo paving is specified as incorporating especially selected large aggregate the thickness of the finishing coat shall be increased as required.

The price shall include for all grinding and waxing to the Architect's satisfaction.

D VINYL ASBESTOS TILES

The vinyl asbestos floor tiles shall be 300 x 2mm thick and shall comply with B.S. 3260. They shall be of selected pattern and colour from the "Marley Heavy Duty Tile Range" or equal and approved.

Vinyl asbestos floor tiles shall be stored and laid in accordance with the manufacturer's written recommendations using a bitumen-based adhesive. The tiles shall be laid with butt joints straight both ways. Tiling shall start from the centre of a room or area.

PLASTERWORK AND OTHER FINISHES - (CONTINUED)

A GLAZED WALL TILES

White glazed wall tiles shall be size 150 x 150 x 6mm thick, manufactured to comply with B.S. 1281.

B QUARRY TILES

Quarry tiles shall be manufactured to B.S. 1286 type A and shall be chosen from the manufacturer's standard colour range.

Quarry tiles shall be bedded in 10mm thick cement mortar (1:3) with 10mm joint laid straight both ways. The joints shall be filled with cement mortar neatly flush pointed. The tiles are to be soaked in water before laying

C PRECAST TERRAZZO TILES

Precast terrazzo tiles are to be as manufactured by the Linotic Flooring Company Ltd., P.O. Box 42290, Nairobi, or equal and approved.

D ASBESTOS CEMENT PROMENADE TILES

Shall be as manufactured by Eternit Building Products Ltd.

E MARBLE GLOMERATE TILES

Marble glomerate tiles shall be as manufactured by the Linotic Flooring Company Ltd. All edges shall be square and faces polished, or equal and approved.

F BEDS AND BACKINGS

Beds and backings shall be composed of cement and sand in the volumetric proportions stated in the measured work.

WORKMANSHIP

G GENERALLY

All screeds and pavings shall be finished smooth, even and truly level unless otherwise specified and paving shall be steel trowelled.

Rendering and plastering shall be finished plumb, square, smooth, hard and even, and junctions between surfaces shall be perfectly true, straight and square.

PLASTERWORK AND OTHER FINISHES (CONTINUED)

WORKMANSHIP (CONTINUED)

At the junction of all concrete work and block walling a 150mm wide strip of expanded metal lathing must be included to avoid plaster cracks.

All arrises and angles shall be clean and sharp or slightly round or thumb covered as directed including neatly forming mitres.

All surfaces to be paved or plastered must be brushed clean and well wetted before each coat is applied. All cement pavings and plaster shall be kept continually damp in the interval between application of coats and for seven days after the application of the final coat.

Where dubbing out is required, it shall be composed of one part cement to six parts of sand.

Partially or wholly set materials will not be allowed to be used or remixed. The plaster, etc., mixes must be used within two hours of being combined with water.

A SAMPLES

The Contractor shall prepare samples minimum one square metre of each of the screeds, pavings and plastering for the approval of the Architect, after which all work executed shall conform with the approved samples.

B LIME PLASTERING

Lime plastering shall be carried out in two coats having a total thickness of not less than 15mm to walls and 10mm to ceilings.

The first coat shall be trowelled to a perfectly true and even surface and finished with a wood float, the surface being sprinkled with water from a brush during the process and before it has set thoroughly scratched to form a key. The finishing coat shall not be less than 1.5mm thick, thoroughly worked with a steel trowel, sprinkled with water as before and be brought to a uniform smooth and hard surface.

C TYROLEAN RENDERING

Tyrolean rendering shall consist of a trowelled backing coat in cement and sand mortar (1:4) gauged with 10% lime, to a thickness of 10mm and a finished coat of cement sand mortar (1:4) applied with an approved machine to a thickness of between 5 and 10mm, to provide an even and uniform texture. Coloured cement or pigment is to be used if so directed by the Architect.

PLASTERWORK AND OTHER FINISHES (CONTINUED)

A GRANOLITHIC AND TERRAZZO PAVING

Granolithic and terrazzo paving shall be spread and well compacted and given only sufficient trowelling to produce a perfectly level surface immediately after laying. When the granolithic or terrazzo has stiffened sufficiently so that a hard surface can be obtained without laitance, then the surface shall be machine ground to a perfectly even and smooth surface. On no account will dusting with neat cement to the surface be permitted.

B MARBLE TILES AND TERRAZZO TILES

The tiles are to be bedded in 10mm thick cement mortar (1:3) with fine butt joints. The surface is to be washed and polished on completion.

C CERAMIC WALL TILES

Wall tiles shall be fixed with a cement-based adhesive with 3mm wide joints straight both ways. When an area of tiles is complete the joints should be grouted with white cement.

D BEDS AND BACKING

Floor screeds shall not be laid in areas exceeding ten square metres during any period of 24 hours. As bays are formed steel edge strips must be used to retain the exposed edge of the screed.

The thicknesses and mixes of the screeds shall be adjusted to suit the various top dressing and the Contractor must first ascertain what finish is intended to each specified area before the work of laying screeds is put in hand.

Screeds shall be finished with a wood float for wood blocks and steel trowel for thermoplastic and similar tiles.

E MAKING GOOD

All making good shall be cut out to a rectangular shape, the edges undercut to form a dovetail key and finished flush with the face of surrounding paving or plaster. Cut out and make good all cracks, blisters, and other defects and leave the whole of the work perfect on completion.

PLASTERWORK AND OTHER FINISHES (CONTINUED)

A PRICES GENERALLY

In addition to the foregoing, prices of superficial items are to include for work in narrow widths, all liner labours, angles and arrises, all fair edges, for making good up to or stopping to a line at the required level at top of skirting or dados where directed and for making good up to windows, door frames and similar.

The prices for all linear items unless otherwise measured are to include for all short lengths, angles and arrises, mitres, and ends of every description.

Prices for pavings are to include for adequate covering and protection during the progress of the Works to ensure that the floors are handed over in perfect condition on completion.

Prices for all pavings and plastering, etc., shall include for hacking concrete surfaces and for raking out joints of walls 12mm deep and for cross-scoring undercoats to form a proper key.

Plastering on walls generally shall be taken to include flush faces of lintels, beams, etc., in the same.

B PROTECTION

The Contractor's rates for all finishings shall allow for adequate protection against damage by all following trades or any other causes, to the satisfaction of the Architect.

GLAZING

A GLASS

All glass shall be manufactured complying with B.S. 952, free from flaws bubbles, specks and other imperfections.

Glass panes shall be cut to sizes to fit the openings with not more than 1.5mm play all round and where puttied shall be sprigged to wood or clipped to metal frames.

Clear sheet glass shall be ordinary glazing (O.Q) quality. Polished plate glass shall be (G.G.) quality.

Anti-bandit glass shall be 9mm thick laminated glass of approved type.

B PUTTY

Putty for glazing in wood frames shall be composed of pure linseed oil and powdered whiting free from grittiness in accordance with B.S. 544 Type 1 putty.

Putty for glazing in metal frames shall be composed of hard-setting tropical putty specially manufactured for use with steel windows.

Rebates of metal frames receiving glass shall be prepared and treated with primer for putty prior to glazing and putty shall be primed ten days after glazing.

C BEDDING STRIPS

Bedding strips shall be of plastic or washleather approved by the Architect and shall be cut to fit exactly the line of frame and beads.

D ON COMPLETION

Remove all broken, scratched or cracked panes and replace with new to the satisfaction of the Architect. Clean inside and out with an approved cleaner. On no account shall windows be cleaned by scraping with glass.

PLUMBING

A EXECUTION OF THE WORKS

The works shall be carried out strictly in accordance with: -

- a) By-laws of the Local Authority
- b) British Standard Code of Practice C.P. 301 : 1971, Building Drainage.
- c) British Standard Code of Practice C.P 310 : 1965, Water Supply
- d) British Standard Code of Practice C.P. 304 : 1968, Sanitary Pipework above Ground.
- e) British Standard Code of Practice C.P. 305 : 1974. Sanitary Appliances.
- f) British Standard Code of Practice C.P. 342 : 1970, Centralised Hot Water Supply.
- g) All other relevant British Standard Specifications and Codes of Practice (hereinafter referred to as B.S. And C.P. Respectively)
- h) The Working Drawings
- i) The Architect's instructions.

B EXTENT OF THE WORKS

The Works include, unless otherwise specified, the supply, installation, testing and commissioning, and delivery up clean and in working order of the installations shown on the Drawings and specified in the Specifications, including all details such as: -

Cold and hot water pipes, discharge pipes (the discharge pipe is used as a comprehensive all-embracing description in place of the traditional soil and waste terms), drain and ventilating pipes, valves, fire fighting installations and equipment, thermal insulation, etc., and all labour, materials, tools, instruments and scaffolding necessary to execute the work in a first-class manner.

The Contractor shall undertake all modifications demanded by the Authorities in order to comply with the current regulations and produce all certificates, if any, from the Authorities without extra charge.

PLUMBING (CONTINUED)

A EXTENT OF THE CONTRACTOR'S DUTIES

At the commencement of the work, the Contractor shall investigate and report to the Architect the availability of all materials and equipment to be used in the work. If not available, the Contractor shall at this stage place orders for the materials in question and copy the orders to the Architect. Failure to do so shall in no way relieve the Contractor from supplying the specified materials and equipment in time.

The Contractor shall be responsible for verifying all dimensions relative to his work by actual measurements taken on the Site.

B RECORD DRAWINGS

During the execution of the Works on the Site the Contractor shall, in all manner approved by the Architect, record on Working Drawings and Contract Drawings all information necessary for preparing Record Drawings of the installed Contract Works. Marked-up Drawings and other documents shall be made available to the Architect as he may require for inspection and checking.

Record Drawings may, subject to the approval of the Architect, include approved Working Drawings adjusted as a correct record of the installation of the Contract Works.

Record Drawings shall be prepared on approved translucent linen or plastic material suitable for reproduction by the Dyeline process or similar.

C MATERIALS AND WORKMANSHIP GENERALLY

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 B.S.

Uniformity of type and manufacture of equipment or accessories is to be preserved as far as practicable throughout the whole work.

The Contractor shall, if required by the Architect, submit samples of materials to the Architect for his approval before placing an order.

Where a particular item is specified as a particular firm's product "or similar" 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 are quoted.

PLUMBING (CONTINUED)

A MATERIALS AND WORKMANSHIP GENERALLY (CONTINUED)

Where particular manufacturers are specified herein, no alternative make will be considered, and the Architect shall be allowed to reject any other makes.

The Contractor will be entirely responsible for all materials, apparatus, equipment, etc., furnished 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 to the Employer.

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.

B TUBING GENERALLY

All tubing exposed on faces of walls shall, unless otherwise specified be fixed at least 25mm clear of adjacent surfaces with approved holderbats built into walls, cut and pinned to walls in cement mortar; where fixed to woodwork, suitable clips shall be used.

All tubing specified as fixed to ceilings, roofs or roof structures shall be fixed with approved mild steel hangers cut and pinned to ceilings, roof or roof structures. Where three or more tubes are fixed to ceilings, roofs or roof structures close to each other, they shall be fixed in positions which leave the lower surfaces at the same horizontal level, unless otherwise specified.

Where insulated, tubing shall be fixed with the insulation at least 25mm clear of adjacent surfaces and with at least the same clearance between insulated pipes.

Tube fixings and supports shall, if nothing else is specified, be arranged at intervals not greater than those given in the following tables:-

Mild Steel Tubing

<u>Diameter of Pipe in mm</u>	<u>Maximum Spacing of Fixing in mm</u>	
	<u>Horizontal Runs</u>	<u>Vertical Runs</u>
15	1,800	2,400
20	2,400	3,000
25	2,400	3,000
32	2,700	3,000
40	3,000	3,600

PLUMBING (CONTINUED)

A TUBING GENERALLY (CONTINUED)

MILD STEEL TUBING

<u>Diameter of Pipe in mm</u>	<u>Horizontal Runs</u>	<u>Vertical Runs</u>
50	3,000	3,600
65	3,600	4,600
80	3,600	4,600
100	4,000	4,600

Unplasticised P.V.C. Pipe

<u>Diameter of Pipe in mm</u>	<u>Maximum Spacing of Fixing in mm</u>	
	<u>Horizontal Runs</u>	<u>Vertical Runs</u>
12	300	900
19	400	900
25	400	900
32- 152	500	1,200

Each support shall take its due proportion of the weight of the tube or pipe and shall allow free movement for expansion and contraction.

Full allowance shall be made for the expansion and contraction of pipework, precautions being taken to ensure that any forces produced by pipe movements are not transmitted to valves, equipment or plant.

All tubing specified as chased into walls shall have the wall face neatly cut and chased, the tubing wedged and fixed and plastered over.

Where tubing is laid in trenches care shall be taken to ensure that fittings are not strained.

All water systems shall be provided with sufficient drain points to enable them to function correctly. Valves and other user equipment shall be installed with adequate access for operation and maintenance. Where valves and other operational equipment are unavoidably installed beyond normal reach or in such a position as to be difficult to reach from a shore step-ladder, extension spindles with floor or wall pedestals shall be provided.

Before any joint is made, the pipes shall be hung in their supports and adjusted to ensure that the joining faces are parallel and any falls which shall be required are achieved without springing the pipe.

PLUMBING (CONTINUED)

A TUBING GENERALLY (CONTINUED)

All formed bends shall be made so as to retain the full diameter of the pipe.

Sleeves shall be provided where tubes pass through walls and soiled floors to allow movement of the tubes without damage to the structure. The overall length of the sleeve shall be such that it projects at least 2mm beyond the finished thickness of the wall or partition.

Tubing shall be cut by hacksaw or other method which does not reduce the diameter of the tube or form a bead or feather which might restrict the flow.

B GALVANISED MILD STEEL TUBING

Galvanised mild steel tubing shall be in accordance with B.S. 1387 : 1967 with screwed and socketed joints; medium-duty for pipes above ground, heavy-duty for pipes under ground, cast into concrete or chased into walls.

Fittings for same shall be galvanised malleable iron to B.S. 1940 : 1965, with threads to B.S. 21 : 1957.

Joints shall be made with fine hemp and an approved jointing compound or tape. Compound containing red lead must not be used.

Long screw connectors and flat-faced unions shall not be used, unless otherwise specified.

Where laid underground or cast in concrete, galvanised mild steel tubing shall be protected by "Densotape" or similar, wound on at least two layers thick, or given two coats of approved bitumen. Minimum earth cover to underground tubing shall be 450mm.

Where chased into walls or cast into concrete galvanised mild steel tubing carrying hot water shall be wrapped in hair felt secured by copper wire.

The fixing of galvanised mild steel shall use: -

- a) Malleable iron "schoolboard" pattern brackets for building in or for screwing to structure,
- or b) Malleable iron pipe rings, with either back plate, plugs or girder clips;
- or c) purpose-made straps to the Architect's approval.

PLUMBING (CONTINUED)

A UNPLASTICISED P.V.C. PIPES

Unplasticised P.V.C. discharge and ventilating pipes and fittings shall be to

B.S. 4514 : 1964, Grade 2.

U.P.V.C. ventilating pipes passing through roofs shall terminate at least 300mm above the roof level and shall be protected against insect penetration by a copper wire mosquito-proof ballon grating securing bound on the top of the pipe with stout copper wire.

Joints for U.P.V.C. discharge and ventilating pipes shall be spigot and socket joints which incorporate synthetic rubber rings or they shall be closely fitting spigots and sockets jointed together by means of a solvent solution provided by the pipe maker.

Joints of U.P.V.C. discharge and ventilation pipes to cast iron drain pipes shall be by means of purpose-made cast iron sleeves jointed with tarred yarn and fibrous lead yarn properly caulked into the wetted sockets. Joints to pitch fibre drain pipes shall be made with approved adaptors.

The fixing of U.P.V.C. pipes shall use holderbats of metal, or plastic-coated metal, care being taken that they do not damage the pipe when tightened. Where anchor points are specified to control thermal movement, the holderbars shall be fitted on the pipe sockets. Intermediate holderbars fitted to the pipe barrel shall be such as to allow thermal movement to take place.

At the foot of all U.P.V.C. ventilating stacks and where shown on the Drawings and in other positions as directed or necessary for cleaning, inspection pipes with door shall be provided, with a bolted oval recess door, shaped internally to bore of pipe.

B VALVES, COCKS, TAPS, ETC.

Draw-off taps and stop valves shall comply with B.S. 1010 ; 1959.

Brass ball valves shall comply with B.S. 1212 : 1953 and copper floats for ball valves shall comply with B.S. 1968 : 1953, and plastic floats for same shall comply with B.S 2456 : 1954.

Sluice valves shall comply with B.S. 1218 :1946
Gate valves on main supply shall comply with B.S. 3465.

PLUMBING (CONTINUED)

A VALVES, COCKS, TAPS, ETC.

Manually operated mixing valves for ablutionary and domestic purposes shall comply with B.S. 1415 : 1955

Drain taps shall comply with B.S. 2879 : 1957

Safety valves, stop valves and other safety fittings for air receivers and compressed air installations shall comply with B.S. 1123 : 1961

Safety valves, for thermal storage water heaters shall comply with B.S. 959 : 1967.

B THERMAL INSULATION

Thermal insulating material for hot and cold water supply installation shall conform to B.S. 1334 : 1966, unless otherwise specified. The Contractor shall ensure that the thermal insulating materials used conform to the requirements of the Local Fire Authority.

All thermal insulating materials shall be delivered to the Site in a dry condition and housed in a store until drawn upon for use.

All surfaces to be insulated shall be cleaned carefully before fixing the insulating material.

The installation of insulating materials shall be entrusted only to operatives skilled in the work. All insulating material, however fixed, shall be in close contact with the surface to which it is applied and all joints shall be sealed after ensuring that edges or ends of any section are built up close to one another. Edges or ends shall be cut either non-corrodable material or adequately protected against rust.

Each pipe or item shall be insulated separately.

Fixing of insulating material shall suit the progress of other installation works in the building.

Insulation, where pipes are fixed exposed, shall be pre-formed rigid sections with approved finish. Where pipes are fixed in close ducts, above false ceilings, etc., matts cut in suitable sections on the site shall be used, well secured with copper or galvanised wire, finally covered with asphalt roofing paper.

PLUMBING (CONTINUED)

A THERMAL INSULATION (CONTINUED)

Where subject to outside weather or other potentially damp or wet conditions, the insulation shall be adequately protected against moisture pick-up.

If nothing else is specified, the minimum thickness of insulating material for cold and hot water pipes shall be as specified in B.S. 1588 : Table 1.

B SANITARY APPLIANCES

The installation of sanitary appliances shall be in accordance with C.P. 305 : 1952 and B.S. 3202 : 1959.

The appliances shall be fixed in the positions shown on the Drawings or as directed by the Architect.

For all sanitary appliances, the necessary number of supports, brackets, plugs, screws, washers, jointing materials, etc., shall be provided.

Where supports, brackets etc., are screwed to wall or structures, "Rawlplugs" or similar shall be used.

No traps for any appliances whatsoever shall have a seal less than 75mm.

Fixing shall, if required by the Architect, include for temporarily erecting appliances in the required position of service and discharge pipes, taking down, storing and permanently fixing after completion of wall finishings and connecting to service and discharge.

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.

C FIRE FIGHTING EQUIPMENT

The specified fire fighting shall be supplied and installed by the Contractor in the position shown on the Drawings.

Portable fire extinguishers shall comply with the following B.S. :

PLUMBING (CONTINUED)

A FIRE FIGHTING EQUIPMENT(CONTINUED)

a)	Water type (soda acid)	-	B.S. 138 : 1948
b)	Foam type (chemical)	-	B.S. 740 : Part 1 : 948
c)	Foam type (gas pressure)	-	B.S. 740 : Part 2 : 1952
d)	Water type (gas pressure)	-	B.S. 1382 : 1948
e)	Halogenated hydrocarbon type (carbon tetrochloride and chlorobromomethane)	-	B.S. 1721 : 1968
f)	Carbon dioxide type	-	B.S. 3326 : 1960
g)	Dry powder type	-	B.S. 3465 : 1962
h)	Water type (stored pressure)	-	B.S. 3709 : 1964

Fire hose couplings and ancillary equipment shall comply with B.S. 336 : 1965.

Hose reels: Hoses to be 20mm reinforced red rubber canvas double braided, to comply with B.S. 3169 : 1970. Waterway pressure castings machined throughout. Hose plates 560mm diameter steel. Inlet valve with inlet screwed 3/4" B.S.P. Controller plastic jet spray pattern and shut-off. Test pressure : 2.5 Kg/square centimetre. Finish fire red.

The installation of fire extinguishers shall be in accordance with C.P. 402 : Part 3 : 1964.

B TESTING

The whole of the water and discharge installation shall be tested to the satisfaction of the Architect and the Local Authority. The Contractor shall provide all necessary testing apparatus and facilities for testing the installations and any defective work shall be replaced immediately and shall be the subject of re-testing until found satisfactory.

Where pipes are to be lagged, chased into walls or otherwise concealed, the work shall be tested prior to lagging, making good chases, etc.

PLUMBING (CONTINUED)

A TESTING (CONTINUED)

All hot and cold water installations shall, if nothing else is specified, be tested to 1.5 times normal working pressure, minimum 4KG/cm squared; and compressed air systems tested with minimum 10 Kg/cm squared.

The test pressure shall be applied by means of a manually-operated test pump or, in the case of long mains or mains of large diameter, by a power-driven test pump. Pressure gauges shall be recalibrated before the test.

The test pressure shall be maintained by the pump for about one hour and a leak as specified in C.P. 310, section 502 J, shall be approved, but any visible individual leak shall be repaired.

Valves, cocks and taps shall be absolutely tight under the test pressure for the corresponding pipes as well as under a small pressure.

Testing drain pipes shall be carried out in accordance with C.P. 304, 1968.

Testing drain pipes shall be carried out in accordance with C.P. 301 : 1950.

Tests shall, if necessary, be done in sections as work proceeds without extra payment.

All tests shall be carried out in the presence of a representative of the local Authority and/or the Architect or his representative.

Upon completion of the work, including re-testing if necessary, the installation shall be thoroughly flushed out.

B STERILISATION OF WATER SUPPLY PIPES

Sterilisation shall be carried out strictly in accordance with C.P. 310 : 1065. The sterilisation will not be approved unless the final test for residual choline mentioned in the above C.P. proves positive.

C COMMISSIONING

Before handing over, the Contractor shall confirm that the installation has been examined, tested, is ready for use, that it will operate and can be maintained efficiently.

PLUMBING (CONTINUED)

A COMMISSIONING (CONTINUED)

When handing over, the Contractor shall demonstrate to the Employer the methods of operation, limitations, and the maintenance requirements and safety precautions to be observed; and shall also hand over any tools for operating, cleaning, testing and maintenance of the installation.

On acceptance the Contractor shall provide the Employer with operation and maintenance instructions and any other documents of information appropriate to the installation.

B MEASUREMENT

Prices for tubing shall include for all short lengths and sockets. Connectors, elbows, bends, formed bends, tees, reducing pieces and other fittings are measured separately and are to include for any extra joints and other extra labour required. The prices for the reducing tees shall include for any extra reducing pieces which may be required, if the correct reducing tee is not available.

All pipes have been measured over all bends, tees and other fittings and the Contractor shall include in his prices for all cutting and waste.

DRAINAGE

A SETTING OUT

Lines of drains shall be accurately set out and trenches excavated and bottoms trimmed to accurate gradients to approval before pipe laying commences.

B DRAIN TRENCHES

Excavation shall be made to such depths and dimensions as may be required by the Architect to obtain proper falls and firm foundations. No permanent construction shall be commenced on any bottom until the excavation has been examined and approved by the Architect. Should the Contractor in error, or without instructions of the Architect, make any excavation below the required level of the drain or bed, as the case may be, he will be required to refill such excavation to the correct levels with Class 15 concrete at his own expense.

Prices for excavation must include for excavating in all materials met with and for trimming bottoms to the necessary falls and for any extra excavation required for planking and strutting and working space, all as described under "Excavation". Excavation in hard rock requiring the use of compressors or wedging is measured separately.

C KEEP EXCAVATIONS DRY

The Contractor shall keep the whole of the trenches or other excavations free from water, and he shall execute such works and install such pumps as may be required to keep the excavations dry at all times. No subsoils water shall be discharged into the sewers without the written permission of the Architect.

D PITCH FIBRE DRAIN PIPES AND FITTINGS

Pitch fibre drain pipes and fittings shall be to B.S. 2760 and of approved manufacture. Joints shall be made with straight couplings as indicated in the B.S. and the laying, cutting and jointing shall be carried out strictly in accordance with the manufacturer's printed instructions.

E CAST IRON DRAIN PIPES

Cast iron drain pipes shall be coated cast iron spigot and socket pipes conforming with B.S. 437 in all respects and with fittings to B.S. 1130. Pipes shall be jointed with asbestos yarn and caulked with molten lead or jointed with special jointing compound, all to approval.

DRAINAGE (CONTINUED)

A BACKFILLING

The first backfilling of pipe trenches is to be of soft material free from stones and shall be watered and carefully tamped over and around the pipes in 300mm layers until they are covered to a depth of 600mm. Subsequent filling is to be in 150mm layers, watered and rammed. Only materials approved by the Architect are to be used as backfilling.

Where hardcore is used for backfilling it is not to exceed 150mm gauge and all interstices shall be properly filled with small pieces and fine binder. Surplus excavated materials are to be removed from the Site.

If, in the opinion of the Architect, care has not been exercised in refilling trenches, he may order a fresh test to be made on the drain. In the event of the drain failing to pass the test the Contractor will be required to remedy the fault at his own expense.

B CONCRETE BEDS AND SURROUNDS

Concrete beds and surrounds shall be Class 25 concrete to the thicknesses and widths specified.

Where pipes are specified to be haunched, the concrete shall be carried up from the outside edge of the bed to meet the pipe barrel tangentially.

Where pipes are specified to be surrounded, the concrete shall be carried up from the bed in a square section with a minimum of 150mm in thickness over the barrel of the pipe.

Rates for beds and surrounds shall include for forming recesses and filling with concrete, for mortar layer, etc., and for any necessary formwork.

C LAYING PIPES

Each pipe shall be carefully examined on arrival, any defective pipes shall be removed immediately from the Site and not used in the Works. Minor damage to the protective coating of cast iron pipes shall be made good by painting with hot tar; if major defects in the coating exist, such pipes shall be rejected and removed from the Site.

Drains shall be laid in straight lines and to even gradients as required and to the satisfaction of the Architect.

DRAINAGE (CONTINUED)

A LAYING PIPES (CONTINUED)

Great care shall be exercised in setting out and determining the levels of the pipes and the Contractor shall provide suitable instruments and set up and maintain all sight rails, boning rods and bench marks, etc., necessary for the purpose.

All drains shall be kept free from earth, debris, superfluous cement and other obstructions or water during laying and until completion of the Contract when they shall be handed over in a clean condition.

Pipes shall be laid with the sockets leading uphill and shall rest on solid and even foundations for the full length of the barrel. Socket recesses shall be formed in the foundation, as short as practicable but sufficiently deep to allow the pipe jointer room to work right round the pipe. Such recesses shall be filled with cement mortar (1:4) on completion of laying.

B INSPECTION CHAMBERS

Inspection chambers shall be constructed in the positions indicated on the Drawings or as required by the Architect. Such chambers shall be to the depths required to obtain even gradients in the drain and of sufficient size to contain the requisite main channel and any branches thereto and all to the entire satisfaction of the Architect and the Local Authority.

Rendering shall be trowelled smooth, coved at all internal angles and rounded on arrises.

C TESTING

Each length of drain and manhole shall be tested as described hereinafter and approved by the Engineer before any backfilling of the trench takes place.

Testing shall not be carried out until at least 12 hours have elapsed after the jointing of the last pipe.

The test shall be as follows:

- (i) The lower end of the pipe and all junctions shall be securely stoppered and the whole length under test filled with water.

DRAINAGE (CONTINUED)

A TESTING (CONTINUED)

- (ii) When full, a further stopper shall be inserted at the top leaving a pipe attached to the drain plug. This pipe shall be bent through a 90° and shall terminate in a header tank 225mm square. The vertical distance between the concrete line of the drain plug and the top of the header tank shall be not less than 900mm.
- (iii) Water shall then be poured into the header tank which shall be kept full for a minimum period of 3 hours to allow absorption to take place. At the expiration of this period the header tank shall be topped up and the testing of the drain commenced. If, after a further period of 30 minutes, the water level in the header tank has not fallen by more than 2mm the test will be considered satisfactory.
- (iv) In the event of a pipe failing to withstand the test, the point of failure shall be completely surrounded, at the Contractor's expense, with class 25 concrete 19mm maximum aggregate, so that there is a minimum cover of 150mm in all directions. The length shall then be re-tested.
- (v) Immediately a length of drain has been approved the trench shall be backfilled for a depth of at least 300mm above the top of the pipes.

B GULLEYS

Gulleys shall be approved 100mm salt glazed stoneware or cast iron trapped gulleys with 150 x 150mm cast iron gratings to receive the waste fittings. Bed the gulleys on and surround with Class 25 concrete 100mm thickness, carried up to form a 75 x 75mm kerb with all exposed surfaces finished in cement and sand (1:2) trowelled hard and smooth and all angles rounded. Make good cement joint to drain pipe and run drain to adjacent manhole.

C MEASUREMENT

Drain pipes have been measured over all bends, junctions and other fittings, and the Contractor shall include in his prices for all joints, short lengths, cutting and waste. Prices for bends, junctions, etc., shall include for the extra joints, cutting and waste and any extra labour required.

PAINING AND DECORATING

A APPROVED SPECIALIST

All work under this trade must be executed by an approved specialist.

B GENERALLY

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 must remove all concrete and mortar droppings and the like from all work to be decorated and remove all stains from and obtain uniform colour to be oiled and polished.

All plaster, metal, wood or other surfaces which are to receive finishes of paint, stain, polish, distemper or paintwork of any description are to be carefully inspected by the Contractor before he allows any of his painters to commence work. The Contractor will be held solely responsible for all defective work condemned as a result of his painter's failure to insist on receiving from the other trades surfaces in the proper condition to allow first-class finishes of the various kinds specified being applied to them.

C PAINING GENERALLY

All materials are to be of the best quality and shall be of an approved proprietary brand selected from the latest Schedule of Approved Paints issued by the Ministry of Works.

All materials to be applied externally shall be of exterior quality and/or recommended by the manufacturers for external use.

All materials shall be delivered on Site intact in the original sealed drums or tins and shall be mixed and applied strictly in accordance with the manufacturer's instructions and to the approval of the Architect.

Unless specially instructed or approved by the Architect, no paints, distemper, etc., are to be thinned, or otherwise adulterated, but are to be as supplied by the manufacturers and direct from the tins.

If required by the Architect, the Contractor is to provide at his own expense samples of paints, etc., with containers and cases to be forwarded carriage paid by the Contractor for analysis to a laboratory.

PAINTING AND DECORATING (CONTINUED)

A PAINTING GENERALLY (CONTINUED)

The priming, undercoats and finishing coats shall each be of differing tints and the priming and undercoats shall be the correct brands and tints to suit the respective finishing coats, in accordance with the manufacturer's instructions. All finishing coats shall be of colours and tints selected by the Architect. Each coat must be approved by the Architect before the next coat is applied.

Each coat shall be properly dry and in the case of oil or enamel, paints shall be well rubbed down with fine glass paper before the next coat is applied. The paintwork shall be finished smooth and free from brush marks.

Colour cards of all paints, etc., shall be submitted to, and samples prepared for approval of the Architect before laying on, and such samples, when approved, shall become the standard for work.

All paints, emulsion paints, and distempers shall be applied by means of a brush or spray gun or rollers of an approved type, where so agreed by the Architect.

No painting is to be done on surfaces which are not thoroughly dry.

Prices of paint, distemper, etc., shall include for preparation of surfaces, rubbing down between each coat, stopping, knotting, etc., and all other work in connection and as described and as necessary to obtain a first-class and proper finish to approval.

Emulsion paint on ceilings and all undercoats of emulsion paint and complete oil painting on walls shall be completed before thermoplastic floorings are laid. Final coats of emulsion paint on walls shall be applied after such flooring has been laid complete.

B SAMPLES

The Contractor shall furnish at the earliest possible opportunity before work commences and at his own cost, samples of painting for the Architect's approval and any further samples in the case of rejection until such samples are approved by the Architect and such samples, when approved, shall be the minimum standard for the work to which they apply.

The Architect may reject any materials or workmanship not in his opinion up to the approved sample, and these must be removed from the Site without delay.

PAINTING AND DECORATING (CONTINUED)

A WOOD PRESERVATIVE

All woodwork in contact with walling or plaster shall be treated after cutting and preparation but before assembly or fixing with one coat of "TIMCIDE" wood preservative manufactured by Timsales Ltd., P.O. Box 18080, Nairobi. The solution is to be brushed on all faces of all timbers unless exposed to view and painted.

The Contractor shall note that this solution is POISONOUS and shall take all necessary precautions and instruct his workmen accordingly.

B WAX POLISH

Wax polish shall be furniture polish of an approved brand and wood surfaces shall be clean, smooth, free from oil or grease or any other blemishes. A minimum of two coats shall be applied to approval.

C PREPARATION AND PRIMING OF PLASTER, ETC... SURFACES

Plaster surfaces shall be perfectly smooth, free from defects and ready for decoration. All such surfaces shall be allowed to dry for a minimum period of six weeks, stopped with approved plaster compound stopping and rubbed down flush, as necessary, and then be thoroughly brushed down and left free from all efflorescence, dirt and dust immediately prior to decorating.

Plaster surfaces which are to be finished with emulsion, oil or enamel paint, shall be primed with an alkali resisting primer complying with the particular paint manufacturer's specification and applied in accordance with their instructions.

Fibreboard or similar surfaces shall be lightly brushed down to remove all dirt, dust and loose particles and have all nail holes or other defects stopped with an approved plaster compound stopping, rubbed down flush and left with a texture to match surrounding material and shall receive one coat petrifying liquid as last.

D PREPARATION AND PRIMING OF METAL ETC... SURFACES

All surfaces shall be thoroughly brushed down with wire brushes and scraped where necessary to remove all scale, rust, etc., immediately prior to decorating. Where severe rust exists and if approved by the Architect as proprietary, derusting solution may be used in accordance with the manufacturer's instructions

PAINTING AND DECORATING (CONTINUED)

A PREPARATION AND PRIMING OF METAL ETC... SURFACES (CONTINUED)

Shop-primed and unprimed surfaces shall be given one coat of metal chromate primer.

Galvanised surfaces shall be treated before painting with an approved proprietary mordant or de-greasing solution before priming.

Coated surfaces already treated with bituminous solution shall be scraped to remove soft parts and then receive two isolating coats of aluminium primer or other approved anti-tar primer.

B PREPARATION AND PRIMING OF WOODWORK

All woodwork shall be rubbed down, all knots covered with a thick coat of good shellac or aluminium knotting; primed with one coat of approved ready-mixed proprietary wood primer and all cracks, nail holes, defects and uneven surfaces, etc., stopped and faced up with hard stopping rubbed down flush.

C PREPARATION OF PREVIOUSLY PAINTED METAL SURFACES

Thoroughly wash down with water containing an approved cleaning agent and rinse with clean water. Wire brush to remove all rust and loose paint and touch up bare patches with zinc-rich primer.

D PREPARATION OF PREVIOUSLY PAINTED WOODWORK

Thoroughly wash down with water containing an approved cleaning agent and rinse with clean water. Lightly rub down with glass paper and prime and bring forward all bare patches for decoration.

E PREPARATION OF PREVIOUSLY PAINTED PLASTER, ETC., ... SURFACES

Thoroughly wash down with water containing an approved detergent to remove stains and rinse with clean water. Make good all defect (cracks and the blemishes) with plaster, sand/cement or polyfilla (on internal surfaces) of same porosity as wall surface. Rub down with sand paper and dust clean.

F EMULSION PAINT

After preparation as specified above a minimum of THREE coats, unless otherwise specified, shall be applied using a thinning medium of water only if and as recommended by the manufacturer.

An approved plaster primer tinted to match may be substituted for the first coat in three-coat work.

PAINTING AND DECORATING (CONTINUED)

A DURACOAT DURAPLAST

Loose, flaking, powdery material must be removed prior to painting. Any surface cracks or holes should be raked out and filled with SUPAFIX crack filler (SUPAFIX crack filler is not recommended for external use). Treat surfaces for mould or algae if present and ensure that the surface is completely dry. Apply at least one coat of DURA penetrating primer to seal the surface prior to applying DURACOAT DURAPLAST. Apply two or three coats using brush, roller or conventional spray.

Application of subsequent coats requires four hours between coats in dry weather conditions. Otherwise longer drying times will be required.

B ENAMEL PAINT

Apply two undercoats and one finishing coat, after preparation and priming as specified above.

C CLEAR POLYURETHANE VARNISH

Surfaces are to be treated with "Ronseal" or other equal and approved, in three coats. The first is to be applied with a linen pad and well rubbed in and second and successive coats are to be applied by brush. The first and second coats are to be lightly rubbed with Grade 'O' and Grade 'OO' wire respectively.

D POLYURETHANE CLEAR LACQUER

To be applied strictly as per the manufacturer's instructions.

E IRONMONGERY

All ironmongery shall be removed from joinery, steel windows and louvres before painting is commenced, and shall be cleaned and renovated if necessary and refixed after completion of painting.

F PAINTING ITEMS

Painting items as billed hereafter, shall include for preparing all priming surfaces as above described.

G COVER UP

Cover up all floors, fittings, etc., with dust sheets when executing all painting and decorating work.

H CLEAN AND TOUCH UP

Paint splashes, spots and stains shall be removed from floors, woodwork, etc., any damaged surfaces touched up and the whole of the work left clean and perfect upon completion.

EXTERNAL WORKS

DRIVEWAYS AND PARKING AREAS

A EXCAVATIONS

Excavations to areas to receive bitumen macadam or other road or paved finish shall be carried out in a manner ensuring that excavation plant and vehicles do not cause shear failure more than 250mm in the sub-grade. Wheel loads and tyre pressures shall be limited and work shall be interrupted to let the sub-grade dry out as necessary to avoid such subgrade failure.

If shear failure more than 250mm deep occurs in the sub-grade, the soil affected shall be excavated and replaced by soil filling as described.

If the soil develops a highly elastic condition as excavation approaches formation level, excavations shall be interrupted until the excess pore consequently disappears.

Before any further work is executed the formation level must be inspected and approved by the Engineer.

B COMPACTION

The sub-grade shall be compacted by a smooth-wheeled roller of 8 to 10 tonnes weight or vibrating roller of minimum 1,300Kg., or other approved plant. The number of coverages shall be at least 10 and there shall be a 50% overlap of successive coverages. If so instructed by the Engineer, water shall be added during compaction to obtain optimum water content. Filling shall be compacted as above but in maximum 200mm deep layers.

C SUB-GRADE SURFACE FINISH

The surface of the sub-grade shall be finished to the levels, falls and crossfalls shown on the Drawings within the following tolerance:

- (i) The level shall both be above and not more than 50mm below the level shown on the Drawings.
- (ii) The falls shall be within 10% of the falls shown on the Drawings.
- (iii) The smoothness shall be such that departures from a 3 metre straight edge laid in any direction shall not exceed 50mm and there shall be no ponding of water.

EXTERNAL WORKS (CONTINUED)

A COARSE AGGREGATE

Coarse aggregate for the base shall be crushed stone or rock conforming to the following requirements: -

- (i) It shall be from sound, hard, igneous rock, limestone, quartzite or hard coral, and shall be free from weathered or disintegrated stone, clay, organic or other foreign matter.
- (ii) The shape shall be thoroughly cubical and the grading shall conform to: -

Passing 75mm standard sieve:	100%
Passing 38mm standard sieve:	20 - 80%
Passing 19mm standard sieve:	0 - 20%

B CRUSHER DUST

Crusher dust shall mean material in accordance with the table for 5mm nominal maximum size below:

: B.S. Sieve Size :	Percentage Passing :
: 5mm :	100 :
: No. 7 :	80 - 100 :
: No. 14 :	50 - 80 :
: No. 25 :	30 - 60 :
: No. 52 :	20 - 45 :
: No. 200 :	10 - 25 :

Notes

- (i) Not less than 10% shall be retained between each pair of successive sieves specified for use, excepting the largest pair.

EXTERNAL WORKS (CONTINUED)

A CRUSHER DUST (CONTINUED)

Notes: (continued)

- (ii) The material passing the No. 36 sieve shall have the following characteristics (B.S. 1377): -

Liquid Limit not exceeding 25%

Plasticity Index not exceeding 8%

B CRUSHER FINES (2 to 10mm)

All the materials in crusher fines shall pass the 13mm B.S. sieve and be retained on the No. 25 B.S. sieve, evenly graded with no excess of any size.

C SUB-BASE

The material for use in the sub-base shall consist of crusher dust as described, or other approved material. It shall be placed in one layer of such thickness that when compacted it shall attain the finished thickness shown on the Drawings. The material shall be watered as necessary and compacted as described. The sub-base material shall have CBR value (unsoaked) of not less than 25.

D BASE

The material for use in the basecourse shall consist of one layer of coarse aggregate as described of which the interstices are filled with fine material consisting either of crusher dust or a mixture of crusher fines. The proportions of crusher dust and crusher fines in the fine material shall be such as to obtain the maximum density of basecourse when compacted.

The procedure for construction shall be as follows: The coarse aggregate shall be placed in a layer of such thickness so as to obtain the required thickness after compaction. It shall be compacted lightly until the Engineer is satisfied that a layer true to shape and level has been obtained. The fine material shall then be spread over the layer by hand or by mechanical means. The application of fine material shall be made gradually in successive layers not exceeding 25mm in thickness and each layer shall be worked into the voids in the coarse aggregate before the application of the succeeding layer. The fine material shall be laid as described and brushed into the coarse aggregate and rolled and consolidated by an approved vibrating roller to feed fines to the bottom of the layer.

EXTERNAL WORKS (CONTINUED)

A BASE (CONTINUED)

Additional blinding material shall be applied as above until the surface will accept no more. In no case shall the blinding material be applied so thickly that it cakes or bridges on the surface in such a manner as to prevent the direct bearing of the roller or other compacting plant on the stones.

Final compaction shall be by an 8 - 10 tonnes smooth-wheeled roller until there is no visible movement under the action of the roller and until the required tolerances are achieved. Water may be applied during final compaction subject to the Engineer's approval.

Compaction shall in any case achieve 100% maximum dry density in accordance with B.S. 1377.

B QUARRY WASTE

Quarry waste shall mean material to the same specification as crusher dust, except as follows: -

- (i) The Plasticity Index taken on material passing the No. 36 sieve shall not exceed 16%
- (ii) The material may have up to 35% of stones not larger than 38mm, provided that the material passing the 5mm sieve is within the limits specified.

Quarry waste shall be clean and completely free from earth, organic or other foreign matter.

C BASECOURSE FINISH

The surface of the basecourse shall be finished to the levels shown on the Drawings subject to the following tolerances: -

- (i) The level shall be within + or - 12mm of the levels shown on the Drawings.
- (ii) The falls shall be within 10% of the falls shown on the Drawings.
- (iii) The smoothness shall be such that departure from a 3 metre straight edge laid in any direction shall not exceed 12mm.

EXTERNAL WORKS (CONTINUED)

A BASECOURSE FINISH (CONTINUED)

The surface of basecourse shall be inspected and approved by the Engineer before bitumen paving is commenced.

B BITUMEN PRIMING COAT

Immediately before applying the priming coat, the surface of the basecourse shall be brushed free from dust and loose stones. The material for the priming coat shall be a cutback bitumen of M.C.O. grade or other approved.

Approximately 30 minutes before applying the priming coat the surface of the basecourse should be made slightly damp by use of a water spray. The priming coat shall be applied at a temperature of 100 -150 degrees Fahrenheit and at a rate of 0.60 litres per square metre.

After application of the primer, a period of at least two days shall elapse before the road surfacing is applied. During this period all traffic shall be kept off the treated surface.

C BITUMEN MACADAM SURFACING

A single course open graded premix of 30mm to 40mm compacted thickness shall be used, with a seal coat.

Coarse aggregate shall be crushed blacktrap with particles having a cubicle shape to the Engineer's approval and shall be washed free from dust.

The coarse aggregate gradings shall be: -

: Sieve Size :	Percentage Passing :
: 19mm :	100 :
: 13mm :	60 - 100 :
: 10mm :	45 - 70 :
: 6mm :	30 - 50 :
: 4 mesh :	25 - 40 :
: 8 mesh :	15 - 25 :
: 200 mesh :	2 - 5 :

EXTERNAL WORKS (CONTINUED)

A BITUMEN MACADAM SURFACING (CONTINUED)

The binder shall be Shellmac MC/RC2 or other approved. The percentage by weight of binder shall be 4.5%. Mixing shall be in an approved mixer and mixing shall proceed until the stone is evenly coated with binder. The temperature (at mixing) shall be within the following range: -

	Aggregate	Binder
Mixing Temperature:	50 ⁰ - 95 F ⁰	125 ⁰ - 150 F ⁰

The laying temperature shall be not less than 20 F below the mixing temperature.

The mix shall be spread evenly over the primed surface and shall be thoroughly compacted by rolling with a minimum of 6 passes. A smooth-wheeled roller of not less than 5 tonnes weight and with rear wheel loading 0.25 Kg. per square millimetre width shall be used.

B ROLLING

Any longitudinal joints shall be rolled first, after which rolling shall start longitudinally at the side and proceed towards the centre of the carpet. Each pass of the roller shall overlap the preceding one by at least one half width of the rear wheel. Alternate passes of the roller shall be of varying length. Immediately following initial compaction, the surface shall be checked with a straight edge to ensure that it meets the surface finish requirements.

Minor variations shall be corrected by rolling, but major imperfections shall be compacted by adding or taking away mix while it is still workable.

C SURFACE FINISH

The surface of the bitumen macadam shall be finished to the levels, contours and slopes shown on the Drawings with the following tolerance: -

- (i) The level shall be within + or - 6mm of the level shown on the Drawings.
- (ii) The gradient shall be within 10% of the gradient shown on the Drawings.
- (iii) The smoothness shall be such that departures from a 3 metre straight edge laid in any direction shall not exceed 6mm.

EXTERNAL WORKS (CONTINUED)

A SEAL COAT

The seal coat shall consist of pre-coated fines consisting of crushed blacktrap stone graded from 3mm to dust, or coarse sand. The binder shall consist of 4.5% by weight of MC/RC2. The seal coat shall be spread and brushed into the macadam surface at the rate of 180 square metres per tonne and compacted by rolling as for the macadam.

FENCING

B CONCRETE POSTS AND STRUTS, GENERALLY

Concrete posts and struts shall be manufactured to B.S. 1722: Part 1, Appendix A by an approved manufacturer, using concrete Class 20 (10mm), and reinforced in accordance with the following table: -

Intermediate posts not exceeding 2450mm long	4No. 6mm bars
Intermediate posts exceeding 2450mm long	4No. 8mm bars
Straining posts not exceeding 2450mm long	4No. 8mm bars
Straining posts exceeding 2450mm long	4No. 10mm bars
Struts not exceeding 2450mm long	4No. 6mm bars
Struts exceeding 2450mm long	4No. 8mm bars

Bars shall be made up into cages with 12 swg stirrups at centres not exceeding 380mm. Bars shall extend to 25mm from the end of the post or strut and have minimum cover of 16mm.

C CONCRETE POSTS AND STRUTS FOR CHAINLINK FENCES

Concrete posts and struts for chainlink fences shall be to B.S. 1722: Part 1, Table 3.

D CONCRETE POSTS AND STRUTS FOR STRAINED WIRE FENCES

Concrete posts and struts for strained wire fences shall be to B.S. 1722: Part 3 Table 2.

EXTERNAL WORKS (CONTINUED)

FENCING (CONTINUED)

A STEEL ANGLE POSTS AND STRUTS GENERALLY

Steel angle posts and struts shall be to B.S. 1722: Parts 1 & 3. Angles shall be to B.S. 4: Part 1 and B.S. 4360 with ends ragged for casting in and supplied primed with one coat of red oxide to B.S. 2524.

B STEEL HOLLOW SECTION POSTS AND STRUTS

Steel hollow section posts and struts shall be to B.S. 1722: Parts 1 & 4. Sections shall be to B.S. 4: Part 2 and B.S. 4360 with ragged ends for casting on and supplied primed with one coat of red oxide to B.S. 2524.

C STEEL TUBE POSTS AND STRUTS

Steel tubes for posts and struts shall be to B.S. 1775, with ragged ends for casting in and supplied primed with one coat of red oxide to B.S. 2524.

D STEEL ANGLE, HOLLOW SECTION AND TUBE POSTS AND STRUTS FOR CHAINLINK FENCING

Steel angle, hollow section and tube posts and struts for chainlink fencing shall be to B.S. 1722: Part 1, Tables 4A and 4B.

E TIMBER POSTS AND STRUTS FOR STRAINED WIRE FENCING

Timber posts and struts for strained wire fencing shall be cedar of diameters specified, reasonably straight and free from bark and excessive sapwood with tops cut at a slight angle to shed water. Straining posts shall be notched for struts.

F GALVANISED LINE WIRE

Galvanised line wire for chainlink fencing shall be to B.S. 4102 of the following diameters: -

Medium pattern chain link	3mm
Heavy pattern chain link	3.55mm
Extra heavy pattern chain link	4mm

Galvanised line wire for strained wire fencing shall be to B.S. 4102 and 4mm diameter.

EXTERNAL WORKS (CONTINUED)

FENCING (CONTINUED)

A GALVANISED TYING WIRE

Galvanised tying wire shall be B.S. 4102 and 2mm diameter.

B GALVANISED BARBED WIRE

Galvanised barbed wire shall be to B.S. 4102 of two strands of 2.5mm line wire with barbs of 2mm point wire at centres not exceeding 90mm.

C GALVANISED CHAINLINK

Galvanised chainlink shall be to B.S 4102: Table 6 of the pattern specified, of 50mm mesh, and of the following wire diameters: -

Medium pattern chain link	2.5mm
Heavy pattern chain link	3mm
Extra heavy pattern chain link	3mm

D EXTENSION ARMS

Extension arms for barbed wire shall be of mild steel to B.S. 1722: Part 1, cranked at 45 degrees and slotted for three strands of barbed wire at centres not exceeding 150mm.

Arms for concrete, steel and timber intermediate posts shall be of 35 x 6mm mild steel flat. Arms for concrete and timber attaining posts shall be of 50 x 50 x 6mm mild steel angle. Arms for steel straining posts shall be of similar section to the post.

E SUNDRIES

Galvanised steel eye bolt strainers and winding brackets shall be to B.S. 1722.

Bolts, nuts and washers shall be ISO metric to B.S. 4190.

Galvanised wire staples shall be to B.S. 1494: Part 2: - 9s.w.g. x 32mm.

Black bitumen coating solution shall be to B.S. 3416: Type 1.

EXTERNAL WORKS (CONTINUED)

FENCING (CONTINUED)

A PREPARING POSTS

Timber posts shall be drilled for line wire at the height specified, notched for struts in the top third of the exposed pole, and coated at the bottom end with bitumen to a height 300mm above ground level.

Steel posts and struts shall be drilled for connection by two 10mm diameter bolts at a point in the top third of the exposed post.

B FIXING POSTS

Straining posts shall be provided at all ends and changes of direction or level and in straight runs at intervals not exceeding 50 metres.

Struts shall be fitted to straining posts in the direction of each line of fencing.

Intermediate posts shall be provided at intervals not exceeding 3 metres.

Post and strut holes shall be excavated not less 450 x 450mm on plan: 600 deep for fences not exceeding 1400mm high and 750mm deep for fences exceeding 1400mm high.

Concrete bases shall be as specified and not less than half the depth of the post holes.

Wires and fencing shall not exert strain until at least seven days after posts are fixed in bases.

C FIXING LINE WIRES

Line wires shall be threaded through posts, connected to eye bolt strainers at ends and angles and strained taut to approval.

D FIXING BARBED WIRE

Barbed wire shall be slotted into steel extension arms, stapled to timber posts or wired firmly to concrete posts as specified and strained taut to approval.

E FIXING CHAIN LINK

Chain link fencing shall be wired firmly to each wire at horizontal centres not exceeding 600mm.

BILL NO. 1

WARE HOUSES

Description	Qty	Unit	Rate	Shs	Cts
BILL NO. 1 GO DOWNS					
<u>ELEMENT NO. 1</u>					
<u>SUBSTRUCTURE</u>					
<u>(All Provisional)</u>					
<u>Demolitions</u>					
A Allow for Exhausting existing Septic Tank, Break and remove existing concrete slabs approximately 200SM, Demolish existing toilet structure, excavate murrum fill below concrete slabs and heap on site for re use as directed cart away all arising debris		Item			
<u>Site clearance</u>					
B Clear site of shrubs, and grass cart away all arising materials	3,237	SM			
<u>Excavation and Earthworks</u>					
C Mass excavation to remove Black Cotton Soil not exceeding 1.5M deep	5,341	CM			
D Mass excavation to remove Black Cotton Soil exceeding 1.5M deep but not exceeding 3.0M deep	1,068	CM			
E Excavate for trench,0-1.5m depth from reduced level	136	CM			
F Excavate for pits, 0-1.5m depth from reduced level	-	CM			
G Excavate for column bases,0-1.5m depth from reduced level	55	CM			
H Extra over excavation in soft Rock	191	CM			
I Return fill and ram selected excavated materials around foundations	191	CM			
J Load,transport, heap and spread on Site as directed - approximately 50LM away	2,402	CM			
K Load and Cart away excess excavated material to approved Tip	4,007	CM			
L Allow for plunking and strutting to sides of excavation		ITEM			
M Allow for keeping excavations free of surface water		ITEM			
<u>Filling</u>					
N Imported murrum fill material compacted to Structural Engineers approval to make up level	8,513	CM			
O 300mm thick hand packed hardcore filling rolled and compacted in layers not exceeding 150mm thick	2,895	SM			
N 50mm thick murrum or sand blinding	2,895	SM			
Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
A	Treat surface and hardcore with " Termidor" insecticide to manufacturer's written specification and provide 10 years quarantine certificate	3,028	SM			
B	1000 gauge polythene sheet damp proof membrane blinded hardcore	3,028	SM			
	<u>Concrete Works</u>					
	<u>Mass concrete class 15/40</u>					
C	50mm blinding under column bases	113	SM			
D	50mm blinding under footing	398	SM			
	<u>Vibrated reinforced concrete class 25/20 in:-</u>					
E	Column bases	55	CM			
F	Columns	31	CM			
G	Foundation footing	88	CM			
H	200mm thick floor Ground Floor slab	2,406	SM			
H	150mm thick floor Ground Floor slab	622	SM			
I	200mm thick ramp with tamped finish	79	SM			
J	Entrance Steps	2	CM			
K	200mm thick to Pits and Hoist walls	74	SM			
L	300mm thick Pit and Hoist Bases	30	SM			
	<u>High tensile steel reinforcement bars to BS 4461</u>					
M	8mm Diameter Bars	2,239	KG			
N	10mm Diameter Bars	4,787	KG			
O	12mm Diameter Bars	8,213	KG			
P	16mm Diameter Bars	8,718	KG			
	<u>Fabric mesh</u>					
Q	BRC A142 placed 25mm from top measured net	3,028	SM			
	<u>Sawn formwork to:</u>					
R	Sides of column bases	212	SM			
S	Sides of columns	370	SM			
T	Sides of strip footing	364	SM			
	Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Sawn formwork to:</u>					
A	Sides of Pit and Hoist bases	17	SM			
B	Sides of pit and Hoist walls	148	SM			
C	Edges of ground slab girth 150-225mm	241	LM			
	<u>Water Proofing</u>					
D	Prepare Surfaces, Prepare and apply approved Water proofing as Sika or other approved to Concrete surfaces of Pits and hoist	104	SM			
	<u>Three ply hessian based bituminous felt damp proof course bedded on cement/sand (1:4) mortar</u>					
E	200mm wide	558	LM			
	<u>Natural stone wall bedded and jointed in cement/sand (1:4) mortar reinforced with hoop iron every alternate course</u>					
F	200mm thick walling (foundation)	2,380	SM			
	<u>Expansion Joint</u>					
G	Supply and Fix 25mm styrofoam or other equal and approved	124	SM			
	<u>Concrete Hardener</u>					
H	Extra over concrete incorporating approved hardening compound in concrete as "Chapdur" premix natural hardener floor applied strictly in accordance with manufacturer's instructions to basement slab	2,897	SM			
	<u>Power floating</u>					
I	Extra over floor surface bed for "Sikafloor-Quartztop ZA or equal and approved anti-dust concrete hardening additive; applied strictly according to the manufacture's instructions. Including all necessary surface preparation. Apply smooth and polished machine power float finish to surface beds of floors	2,897	SM			
	Carried to collection					
	<u>COLLECTION</u>					
	From page 1/1					
	" " 1/2					
	" " 1/3					
	<u>ELEMENT NO. 1</u>					
	<u>SUBSTRUCTURE</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 2</u>					
	<u>SUPERSTRUCTURE CONCRETE</u>					
	<u>Vibrated reinforced concrete class 25/20 in:-</u>					
A	150mm suspended floor slab (First slab)	343	SM			
B	150mm suspended floor slab (Second floor slab)	943	SM			
C	150mm suspended floor slab (Water Tank Slabs)	33	SM			
D	Beams - 1st Floor	37	CM			
E	Tie Beam - 1st Floor	12	CM			
F	Beams - 2nd Floor	49	CM			
G	Tie Beam - 2nd Floor	29	CM			
H	Ring Beam	9	CM			
I	Columns	18	CM			
J	Concrete encasing to H Beams	24	CM			
K	Staircases	12	CM			
	<u>High tensile steel reinforcement to BS 4461</u>					
L	Assorted Reinforcement	68,200	KG			
	<u>Sawn formwork to</u>					
M	Edges of suspended floor slab not exceeding 150 - 225mm width	315	LM			
N	Soffit of suspended slab	1,029	SM			
O	Soffits of Suspended slab exceeding 5.0M but not exceeding 6.5M high	290	SM			
P	Sides of beams externally	856	SM			
	Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Sawn formwork continued to :</u>					
A	Soffits of beams	168	SM			
B	Sides of Tie Beams Externally	308	SM			
C	Sides of Tie beams internally	308	SM			
D	Soffits of tie beams	50	SM			
E	Sides of ring beam Externally	19	SM			
F	Sides and soffits of ring beam internally	306	SM			
G	Sides of columns	1,120	SM			
H	Slopping Soffits of staircase	58	SM			
I	Edges of risers 150mm high	189	LM			
	<u>Concrete Hardener</u>					
J	Extra over concrete incorporating approved hardening compound in concrete as "Chapdur" premix natural hardener floor applied strictly in accordance with manufacturer's instructions to basement slab	838	SM			
	<u>Power floating</u>					
K	Extra over floor surface bed for "Sikafloor-Quartztop ZAor equal and approved anti-dust concrete hardening additive;applied strictly according to the manufacture's instructions.Including all necessary surface preparation. Apply smooth and polished machine power float finish to surface beds of floors	838	SM			
	Total Carried to Collection					
	<u>COLLECTION</u>					
	From page 1/4					
	" " 1/5					
	<u>ELEMENT NO. 2 TOTAL CARRIED</u>					
	<u>SUPERSTRUCTURE CONCRETE TO SUMMARY</u>					

Description	Qty	Unit	Rate	Shs	Cts
<u>ELEMENT NO. 3</u>					
<u>WALLING</u>					
<u>Natural stone wall bedded and jointed in cement/sand (1:4) mortar reinforced with hoop iron every alternate course</u>					
A 200mm thick externally	1,035	SM			
B Extra over for fine chisel dressed stone and key pointing in horizontal recessed joints and flush vertical joints	1,035	SM			
C 200mm thick internally	629	SM			
D 100mm thick internally	42	SM			
E 150 mm thick hollow blocks	96	SM			
<u>Concrete Louvres</u>					
F Supply and lay Concrete Louvres well pointed to sands cement mortar approval	189	SM			
<hr/>					
<u>ELEMENT NO. 3</u>	<u>TOTAL CARRIED</u>				
<u>WALLING</u>	<u>TO SUMMARY</u>				
<hr/>					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 4</u>					
	<u>DOORS</u>					
	<u>Wrot mahogany to door frames and finishing</u>					
A	200 x 50mm frame with two labours	263	LM			
B	75 x 20mm Architrave	263	LM			
C	20 mm quadrant	263	LM			
	<u>Flush door</u>					
D	900 x 2400mm high ditto solid core flush door, single swing, with hardwood edging, faced with interior quality decorative groove veneer complete with 200 x 900mm 4mm thick clear glass fan light, 150 x 950mm View Panel infilled with 4mm clear glass with timber beading - Ref D -010	22	NO			
E	900 x 2400mm high ditto Semi solid core flush door, single swing, with hardwood edging, faced with interior quality decorative groove veneer complete with 200 x 900mm 4mm thick clear glass fan light with timber heading - Ref D -008	9	NO			
F	1050 x 2400mm high ditto Semi solid core flush door, double swing, double action, with hardwood edging, faced with interior quality decorative groove veneer complete with 200 x 900mm 4mm thick clear glass fan light with timber heading - Ref D -007	4	NO			
G	900 x 2000mm high ditto Semi solid core flush door, single swing, with hardwood edging, faced with interior quality veneer - Ref D -009	14	NO			
	<u>Fire doors</u>					
H	50mm thick fire double door, overall size 2000 x 2400mm high, comprising 100 x 50mm frame, 200 x 50mm top, middle rails and bottom rails and 200 x 50mm 2no. Vertical stiles, rockwool infill, 16 gauge mild steel plate fire rated with 2 hours fire retaining, panic bar, all to Architects details - Ref D -012	2	NO			
	<u>Mild steel door frames</u>					
I	100 x 50 x 2mm Mild steel frame complete with red oxide primer	59	LM			
	Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Mild steel doors</u>					
A	900 x 2400mm high mild steel double leaf door comprising 900 x 300mm mild steel louvres, 2.No. 200 x 900 steel louvres, decorative mild steel plate panels, 50 x 50 x 3mm SHS mild steel frames, 2 No. 300mm wide Stainless steel back to back D handles complete with associated bushes and connectors - Ref D-011	1	NO			
B	900 x 2400mm high mild steel single leaf door comprising 900 x 300mm mild steel louvres, decorative mild steel plate panels, 50 x 50 x 3mm SHS mild steel frames, 1No. 300mm wide Stainless steel back to back D handles complete with associated bushes and connectors - Ref D-005	3	NO			
C	1200 x 2400mm high mild steel double leaf door comprising 1200 x 300mm mild steel louvres, 2No. 400 x 900, 4mm thick clear glass panels, 2No. 400 x 770mm decorative mild steel plate panel, 50 x 50 x 3mm SHS mild steel frames, 2No. 300mm wide Stainless steel back to back D handles complete with associated bushes and connectors - Ref D-004	6	NO			
	<u>Cold Room Doors</u>					
D	2100 x 2700mm high aluminium sliding door comprising 75mm thick heavy duty stainless steel track with anti corrosion treatment, nylon rollers with ball bearings, anti shock absorbing stopper, floor guide rail, 100mm thick door leaf PUF core (40-45 KG/M3) with hardwood veneer exterior, Moisture resistant MDF interior, air tight seals, 50mm wide rubber insulation with thermal break inserts, a weather resistant coating and anchored to the cold room wall using, expansion bolts, complete with magnetic gasket sealing mechanism, adjustable bottom seal and 50mm overlap on all sides for airtight efficiency, complete with associated ironmongery - Ref D -003	2	NO			
	<u>Aluminium framed door</u>					
E	Supply and fix 2000 x 2400mm double unequal leaf door complete with 100 x 50mm powder coated aluminium frames, 4mm thick clear glass with gaskets, to Detail - Ref D -006	4	NO			
	Total carried to collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Supply and fix the following purpose made galvanized 16 gauge mild steel roller shutter door complete with 450 x 450mm overhead box, frame, pulley, 3 lever lock, 2 no. handles and any other iron mongery that maybe needed complete with mechanical/electrical chain operated; all primed with one coat of grey oxide primer and one undercoat before fixing, including for welding and/or bolting to mild steel frame to approval and all to manufacturer's specifications and Architect's approval</u>					
A	Overall size 6000 x 4500mm high - Ref D-001	2	NO			
B	Ditto 2000 x 2400mm high - Ref D- 002	2	NO			
	<u>Supply and fix the following ironmongery with matching screws as Union Catalogue or other equal and approved</u>					
C	100 mm brass butt hinges with washers	74	PRS			
D	Two lever mortise lock ref 2295 complete with lever handle set ref. 680 -06	49	NO			
E	3 Lever Cylinder lock with handles	4	NO			
F	3 Lever Deadlock	11	NO			
G	Indicator bolts	14	NO			
H	38mm diameter x 59mm deep rubber door stop ref No. 8400	77	NO			
I	Door closer	4	NO			
J	150mm flush bolts	11	NO			
K	25mm wide x 200mm long mild steel wall brackets twice bent and end screwed to door frame	450	NO			
	<u>Prime back of wood before fixing</u>					
L	Surfaces between 100mm and 200mm girth	263	LM			
M	Surfaces not exceeding 100mm girth	526	LM			
	Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Knot prime stop and apply two undercoats and one gloss oil finishing coat to wood</u>					
A	General surfaces	199	SM			
B	Surfaces between 200 mm and 300 mm girth	526	LM			
	<u>Prepare and apply one coat red oxide primer and three coats gloss oil paint to metal</u>					
C	General surface of steel casement door	221	SM			
D	Surfaces between 200 mm and 300 mm girth	59	LM			
	Carried to collection					
	<u>COLLECTION</u>					
	From page 1/7					
	" page 1/8					
	" page 1/9					
	" page 1/10					
	<u>ELEMENT NO. 4</u>					
	<u>DOORS</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 5</u>					
	<u>WINDOWS</u>					
	<u>Powder coated aluminium windows in heavy duty 75 x 50mm hollow section frames and 75 x 50mm mullions and transomes complete with and including 6mm thick clear/Obscure glass and bolted and/or welded to steel frame with and including all ironmongery and mastic pointing all round to Architect's details and approval</u>					
A	3000 x 900mm high - Ref W -005	2	NO			
B	3000 x 1200mm high - Ref W -004	3	NO			
C	3000 x 1500mm high (Serving hatch)	2	NO			
D	1200 x 950mm high - Ref W -007	17	NO			
E	2000 x 1800mm high - Ref W -006	20	NO			
F	2000 x 7800mm high (Staircase Window)	1	NO			
G	3000 x 5400mm high circular bay window (TSU Manager Office)	1	NO			
	<u>Mild steel louvres bolted and/or welded to 40x 40 x 2mm steel frame complete with mastic pointing all round to Architect's details and approval</u>					
H	2000 x 1600mm high Mild steel louvres complete with approved framing	32	NO			
I	2000 x 4600mm high Mild steel louvres complete with approved framing	4	NO			
J	17900 x 600mm high mild steel louvres ditto (Jack roof level)	8	NO			
	<u>Prepare and apply one coat red oxide primer and three coats gloss oil paint to metal</u>					
K	General surface of steel louvres and framing	449	SM			
	<u>Window Cill</u>					
L	Supply and lay Precats Concrete window cill size 250mm wide x 75mm average thickness	100	LM			
	<u>ELEMENT NO.5</u>					
	<u>WINDOWS</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO.6</u>					
	<u>FINISHES</u>					
	<u>EXTERNAL FINISHES</u>					
	<u>Wall Finishes</u>					
	<u>Cement/Sand render</u>					
A	10mm cement/sand (1:4) render steel trowelled to beams and columns	1,658	SM			
B	Ditto to Surfaces of Plinth	264	SM			
C	100 x 12mm thick moulding around windows (m.s)	508	LM			
	<u>INTERNAL FINISHES</u>					
	<u>Wall Finishes</u>					
	<u>Cement/Lime/ sand plaster</u>					
D	12mm two coats cement/lime/sand (1:4) and (1:1:6) plaster to walls and beam internally	4,282	SM			
	<u>Cement/Sand render</u>					
E	10mm cement/sand (1:4) render to receive tiles	267	SM			
	<u>Glazed wall tiles to Saj Catalogue</u>					
F	400 x 400 x 6mm thick patterned glazed wall tiles fixed with adhesive to rendered surfaces (m/s)	267	SM			
	<u>Floor Finishes</u>					
G	32mm thick cement/ sand (1:4) screed to receive ceramic tiles	674	SM			
H	Ditto to 300mm wide treads	120	LM			
I	Ditto to 150mm high risers	126	LM			
J	Ditto to Landings	25	SM			
	Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Ceramic floor tiles to M/s Saj catalogue</u>					
A	400 x 400 x 10mm thick Ceramic floor tiles fixed on to prepared screed with manufacturer's approved adhesive	541	SM			
B	100mm high matching skirting ditto	393	LM			
C	400 x 400 x 10mm thick non slip Ceramic floor tiles fixed on to prepared screed with manufacturer's approved adhesive	133	SM			
D	Ditto to 300mm wide treads	120	LM			
E	Ditto to 150mm high risers	126	LM			
F	Ditto to Landings	25	SM			
	<u>Ceiling</u>					
	<u>12mm thick cement lime sand (1:1:6) plaster to</u>					
G	Soffits of suspended floor slab	1,487	SM			
	<u>Concrete gutter and Tank Slab finishes</u>					
H	12mm thick plaster to sides and bases of Gutter	58	SM			
I	Prepare and apply approved water proofing as Sika 1 to gutter	58	SM			
J	Prepare and apply three coats of Bituminous paint as Colas	58	SM			
	<u>Acoustic suspended semi recessed LIG acoustic ceiling as Armstrong TEGULAR DUNE on white 24mm wide lat-in grids as Trulok F24 Armstrong complete with white perimeter and curved trim; wall angles as necessary including 12mm diameter hangers and wires as per the Manufacturer's Specifications fixed 350mm below soffits of concrete slab and to the Architect's approval</u>					
K	600 x 600 x 16mm " Armstrong Fine Fissured" or equal and approved accoustic tiles fixed with metal suspended hangers as specified	176	SM			
	Total Carried to Collection					
	COLLECTION					
	From Page 1/12					
	From Page 1/13					
	<u>ELEMENT NO. 6</u>	<u>TOTAL CARRIED</u>				
	<u>FINISHES</u>	<u>TO SUMMARY</u>				

	Description	Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 7</u>					
	<u>PAINTING AND DECORATING</u>					
	<u>External</u>					
	<u>Prepare and apply one under coat and two coats of External quality paint as Permacote ultraguard rain proof silicone paint or other equal and approved</u>					
A	Rendered concrete surfaces externally	1,734	SM			
	<u>Prepare and apply three coats of Black bitumious Paint to:</u>					
B	Plastered plinth surfaces (m.s)	264	SM			
	<u>Internal</u>					
	<u>Skim, Prepare and apply one under coat and two coats silk vinyl paint to</u>					
C	Plastered surfaces internally	4,282	SM			
	<u>Skim, Prepare and apply one under coat and two finishing coats plastic emulsion paint to:-</u>					
D	Soffits of suspended slabs internally	1,487	SM			
	<u>ELEMENT NO.7</u>					
	<u>PAINTING AND</u>					
	<u>DECORATING</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 8</u>					
	<u>FIXTURES AND FITTINGS (ALL PROVISIONAL)</u>					
	<u>Balustrading</u>					
	<u>Mild steel welded and smooth ground</u>					
A	900mm high mild steel railing comprising 50mm diameter CHS hand rail, 900mm high 50 x 50 x 3mm RHS balusters, 3No. 25 x 25 x 2mm horizontal members complete with red oxide primer	77	LM			
B	Ditto to staircase railing	42	LM			
	<u>Prepare and apply red oxide primer and three coats gloss oil paint to metal</u>					
C	Ditto to sides of railing	161	SM			
	<u>Mild steel framing with Weld Mesh</u>					
D	Supply materials, fabricate and install 50 x 50 x 3mm SHS mild steel framing at 3000mm centres vertically and 1200mm centres horizontally, faced with weld mesh and painted both sides to approval	260	SM			
E	Ditto 1800 x 3000mm high double door complete with painting and associated ironmongery	2	NO			
F	Ditto 3000 x 3000mm high double door complete with painting and associated ironmongery	2	NO			
	<u>Powdercoated Aluminium Partitions</u>					
	<u>Aluminium glass partition</u>					
G	Supply and install 100 x 50mm Powder Coated aluminium frames complete with 6mm thick clear glass /9mm thick Laminated MDF with gaskets	144	SM			
	<u>Kitchen Fittings</u>					
	Kitchen cabinets					
H	Supply and install 6800 x 600 x 900mm high kitchen low level cabinets in 20mm laminated MDF to doors, shelves and partitions, hinges and locks complete with 75mm thick concrete Top, 20mm thick black galaxy granite slate; all to Architect's details and approvals	2	NO			
I	Supply and install high level cabinets in 20mm thick MDF board including doors, hinges and locks; overall size 4800 x 300mm wide x 600mm high all to Architect's details and approvals	2	NO			
	Total Carried to Collection					

	Description	Qty	Unit	Rate	Shs	Cts
	<u>Vanity tops</u>					
A	75mm thick suspended slab; complete with reinforcement and formwork all to approval	6	SM			
B	Supply and install 20mm thick granite top to vanity top; complete with 75mm thick suspended slab(MS), allowing for reinforcement and finished to approval	6	SM			
C	Supply and install 100mm high; 20mm thick granite skirting	20	LM			
	Total Carried to Collection					
	<u>Collection</u>					
	From Page 1/15					
	From Page 1/16					
	<u>ELEMENT NO. 8 FIXTURES AND FITTINGS</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

Description	Qty	Unit	Rate	Shs	Cts
<p><u>ELEMENT NO. 9</u></p> <p><u>Builder's Work</u></p> <p>The contractor shall here allow all builder's work in connection with Electrical and Mechanical Engineering Installation</p> <p>The builders work shall include but not limited to</p> <p>a) Chases in wall, concrete work, and make good</p> <p>b) Forming, making or leaving holes, etc. in masonry concrete or wood work</p> <p>c) Making good all disturbed area</p> <p>d) Excavations refill and disposal to spoil</p> <p><u>Electrical Work</u></p> <p>A Allow for all builder's work in connection with Electrical Engineering Installations</p> <p><u>Mechanical Engineering</u></p> <p>B. Allow for all builder's work in connection with Mechanical Engineering Installations</p>		Item			
<p><u>ELEMENT NO.9</u> <u>TOTAL CARRIED TO</u></p> <p><u>BUILDER'S WORK</u> <u>SUMMARY</u></p>		Item			

	Description	Qty	Unit	Rate	Shs	Cts
	SUMMARY					
	ELEMENT NO.					
1	Substructure - Page 1/3					
2	Reinforced Concrete Superstructure - Page 1/5					
3	Walling - Page 1/ 6					
4	Doors Page 1/10					
5	Windows Page 1/11					
6	Finishes Page 1/13					
7	Painting and Decorating Page 1/14					
8	Fixtures and Fittings Page 1/16					
9	Builders work Page 1/17					
	GODOWNS					
	TOTAL CARRIED TO GRAND SUMMARY - PAGE GS/1					

BILL NO. 2
GATE HOUSE

		Qty	Unit	Rate	Shs	Cts
BILL NO. 2: GATE HOUSES						
<u>ELEMENT NO. 1</u>						
<u>SUBSTRUCTURE</u>						
<u>(All Provisional)</u>						
<u>Site clearance</u>						
A	Clear site of shrubs, and grass cart away all arising materials	11	SM			
<u>Excavation and Earthworks</u>						
B	Mass excavation to remove black cotton soil not exceeding 1.5M deep and cart away	20	CM			
C	Excavate for trench,0-1.5m depth from reduced level	2	CM			
D	Extra over excavation in rock	0	CM			
E	Return fill and ram selected excavated materials around foundation	2	CM			
F	Load and Cart away	-	CM			
G	Allow for plunking and strutting to sides of excavation		ITEM			
H	Allow for keeping excavations free of surface and spring water		ITEM			
<u>Filling</u>						
I	Imported Murrum fill rolled and compacted in layers not exceeding 150mm thick	28	CM			
J	50mm thick murrum or sand blinding	11	SM			
K	Treat surface and hardcore with " Termidor" insecticide to manufacturer's written specification and provide 10 years quarantee certificate	11	SM			
Total Carried to Collection						

		Qty	Unit	Rate	Shs	Cts
	<u>DPM</u>					
A	1000 gauge polythene sheet damp proof membrane blinded hardcore	11	SM			
	<u>Concrete Works</u>					
	<u>Mass concrete class 15/40</u>					
B	50mm blinding under footing	8	SM			
	<u>Vibrated reinforced concrete class 25/20 in complete with Sika waterproofing additive or equal and approved:-</u>					
C	Foundation footing	2	CM			
D	150mm thick floor ground floor bed	11	SM			
	<u>High tensile steel reinforcement bars to BS 4461</u>					
E	Assorted reinforcement	316	KG			
	<u>Fabric mesh</u>					
F	BRC A142 placed 25mm from top measured net	11	SM			
	<u>Sawn formwork to:</u>					
G	Sides of strip footing	7	SM			
H	Edges of ground slab girth 150-225mm	13	LM			
	<u>Three ply hessian based bituminous felt damp proof course bedded on cement/sand (1:4) mortar</u>					
I	200mm wide	13	LM			
	<u>Natural stone wall bedded and jointed in cement/sand (1:4) mortar reinforced with hoop iron every alternate course</u>					
J	200mm thick walling (foundation)	33	SM			
	Total Carried to Collection					

		Qty	Unit	Rate	Shs	Cts
<u>Sundries</u>						
<u>Cement sand (1:3) render to:-</u>						
A	15mm Render to plinths	8	SM			
B	Prepare and apply three coats of black bituminous paint on rendered surfaces	8	SM			
Carried to collection						
<u>COLLECTION</u>						
	From	page	2/1			
	"	"	2/2			
	"	"	2/3			
<u>ELEMENT NO. 1</u>			<u>TOTAL CARRIED</u>			
<u>SUBSTRUCTURE</u>			<u>TO SUMMARY</u>			

		Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 2</u>					
	<u>SUPERSTRUCTURE CONCRETE</u>					
	<u>Vibrated reinforced concrete class 25/20 (20mm aggregate) in:-</u>					
A	Ring beam	1	CM			
	<u>Deformed reinforcement bars to B.S 4449 cut, bent and placed in position including all necessary binding wire and spacer blocks:</u>					
B	Assorted diameter bars	100	KG			
	<u>Sawn formwork to:-</u>					
C	Sides and soffits of ring beam	14	SM			
	<u>ELEMENT NO. 2 TOTAL CARRIED</u>					
	<u>SUPERSTRUCTURE CONCRETE TO SUMMARY</u>					

		Qty	Unit	Rate	Shs	Cts
<u>ELEMENT NO. 3</u>						
<u>WALLING</u>						
<u>Natural stone wall bedded and jointed in cement/sand (1:4) mortar reinforced with hoop iron every alternate course</u>						
A	200mm thick externally	29	SM			
B	Ditto; parapet	10	SM			
C	100mm thick internally	5	SM			
D	Extra over for fine chisel dressed stone and key pointing in horizontal recessed joints and flush vertical joints	39	SM			
<u>Coping</u>						
E	250 x 50mm thick precast concrete coping twice throated	11	LM			
<u>ELEMENT NO. 3</u>		<u>TOTAL CARRIED</u>				
<u>WALLING</u>		<u>TO SUMMARY</u>				

		Qty	Unit	Rate	Shs	Cts
<u>ELEMENT NO. 4</u>						
<u>ROOF</u>						
<u>Supply and fix Prepainted IT5 roofing sheets as supplied by Mabati Rolling Mills or other equal and approved on steel trusses (measured seperately)</u>						
A	Gauge 26 prepainted IT5 iron sheets complete with J bolts and associated connectors	15	SM			
<u>Sawn Celcured grade GS cypress</u>						
B	150 x 50mm wall plate	13	LM			
C	150 x 50mm Ridge Board	2	LM			
D	150 x 50mm purlins	17	LM			
<u>Roof trusses including hoisting average height 6M high</u>						
<u>The following Trusses in sawn celcured 2nd grade cypress, including nailing or bolting with 12mm diameter bolts complete with head nuts and washers, shear connectors .drilling holes through timber and anchoring bolts in concrete or masonry</u>						
E	150 x 50mm rafters	10	LM			
F	150 x 50mm joists	6	LM			
G	150 x 50mm struts and ties	8	LM			
<u>Metal work</u>						

		Qty	Unit	Rate	Shs	Cts
H	M12 x 300mm long bolts for wall plates complete with head, nuts, washers, drill hole through timber and anchor bolts into concrete or masonry wall	7	NO			
	Total Carried to Collection					
<hr/>						
	<u>22 Gauge galvanized mild steel metal in:</u>					
A	200 x 200mm boxed gutter jointed with mastic asphalt and hemp gasket and held to fascia boards with and including heavy duty mild steel brackets at 1000 gauge c/c primed with one coat zinc chromate anti-rust primer.	13	LM			
B	Rain water system; heavy gauge; 200mm diameter mild steel rainwater down pipe.	3	M			
C	Ditto for swanneck 800mm long	1	No.			
D	Extra over ditto for shoe	1	NO			
E	Extra for stopped end.	1	NO			
	<u>Prepare touch up one coat red oxide primer and apply one under coat and then two coats of gloss oil paint to:</u>					
F	General surfaces of down pipes	2	SM			
G	General surfaces of gutter	8	SM			
	Total Carried to Collection					
<hr/>						
<u>COLLECTION</u>						
From page 2/6						

	Qty	Unit	Rate	Shs	Cts
" " 2/7					
<u>ELEMENT NO. 4</u> <u>ROOF</u>					
<u>TOTAL CARRIED</u> <u>TO SUMMARY</u>					
<u>ELEMENT NO. 5</u> <u>DOORS</u>					
<u>Wrot mahogany to door frames and finishings</u>					
A 150 x 50mm frame with two labours	11	LM			
B 40 x 10mm moulded Architrave	11	LM			
C 25mm quadrant	11	LM			
<u>Solid core flush doors</u>					
D 45 x 900 x 2400mm high solid core flush doors complete with mahogany veneer	2	NO			
<u>Supply and fix the following ironmongery with matching screws as Union East Africa Catalogue or other equal and approved</u>					
E 100 mm brass butt hinges with washers	3	PRS			
F Two lever mortice lock complete with handles	2	NO			
G 38mm diameter x 59mm deep rubber door stop ref No. 8400	2	NO			

		Qty	Unit	Rate	Shs	Cts
H	25mm wide x 300mm girth metal cramp once bent, twice drilled, one end screwed to timber frame and other split and built into wall	12	NO			
	<u>Prime back of wood before fixing</u>					
I	Surfaces between 100mm and 200mm girth	11	LM			
J	Surfaces not exceeding 100 mm girth	23	LM			
	<u>Prepare and apply primer, two undercoats and one finishing coat of polyurethane clear varnish to wood</u>					
A	General surfaces	9	SM			
B	Surfaces between 200mm and 300mm girth	11	LM			
C	Surfaces not exceeding 100 mm girth	23	LM			
	<u>ELEMENT NO. 5</u>					
	<u>DOORS</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					
	<u>ELEMENT NO. 6</u>					
	<u>WINDOWS</u>					
	<u>Powder coated aluminium windows in heavy duty 75 x 50mm hollow section frames and 75 x 50mm mullions and transomes complete with and including 6mm thick clear glass and bolted and/or welded to steel frame with and including all ironmongery and mastic pointing all round to Architect's details and approval</u>					
A	1200 x 1200mm	1	NO			
B	600 x 600mm	1	NO			
	<u>ELEMENT NO.6</u>					
	<u>WINDOWS</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

		Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO.7</u> <u>FINISHES</u> <u>EXTERNAL FINISHES</u> <u>Wall Finishes</u> <u>Cement/ sand render</u> A 12mm two coats cement/sand (1:4) render to beam externally <u>INTERNAL FINISHES</u> <u>Wall Finishes</u> <u>Cement/Lime/ sand plaster</u>	5	SM			

		Qty	Unit	Rate	Shs	Cts
B	12mm two coats cement/lime/sand (1:4) and (1:1:6) plaster to walls and beam internally <u>Cement sand backing</u>	35.25	SM			
C	12mm thick backing to receive tiles <u>Tiles</u>	4	SM			
D	8mm thick slip Ceramic wall tiles fixed on walls with approved adhesive (wet areas) <u>Floor Finishes</u> <u>Cement/sand screed (1:4) woodfloat finished</u>	4	SM			
E	20mm thick to receive tiles <u>Tiles</u>	11	SM			
F	10mm thick slip Ceramic floor tiles fixed with approved adhesive (wet areas) <u>Ceiling Finishes</u>	11	SM			
G	12mm thick gypsum ceiling complete with aluminium studs and matching cornice to approval	11	SM			
	<u>ELEMENT NO. 7</u> <u>FINISHES</u>					
	<u>TOTAL CARRIED</u> <u>TO SUMMARY</u>					
	<u>ELEMENT NO. 8</u> <u>PAINTING AND DECORATING</u> <u>External</u> <u>Wall painting</u> <u>Prepare and apply one under coat and two coats of external quality paint as permacote Silicon utraquard or other equal and approved</u>					
A	Plastered walls externally	5	SM			

		Qty	Unit	Rate	Shs	Cts
	a) Chases in wall, concrete work, and make good b) Forming, making or leaving holes, etc. in masonry concrete or wood work c) Making good all disturbed area d) Excavations refill and disposal to spoil <u>Electrical Work</u> A Allow for all builder's work in connection with Electrical Engineering Installations <u>Mechanical Engineering</u> B. Allow for all builder's work in connection with Mechanical Engineering Installations					
	<u>ELEMENT NO. 9</u> <u>BUILDER'S WORK</u>					
	<u>TOTAL CARRIED TO</u> <u>SUMMARY</u>					
	<u>SUMMARY</u> <u>ELEMENT NO.</u>					

			Qty	Unit	Rate	Shs	Cts
1	Substructure	- Page 2/3					
2	Superstructure	- Page 2/4					
3	Walling	- Page 2/5					
4	Roof	- Page 2/7					
5	Doors	- Page 2/8					
6	Windows	- Page 2/9					
7	Finishes	- Page 2/10					
8	Painting and Decorating	- Page 2/11					
9	Builders work	- Page 2/12					
	<u>GATE HOUSE</u>	<u>TOTAL CARRIED TO</u>					
		<u>GRAND SUMMARY PAGE GS/1</u>					

BILL NO. 3

GENERATOR HOUSE

	Qty	Unit	Rate	Shs	Cts
BILL NO. 3 GENERATOR ROOM					
<u>ELEMENT NO. 1</u>					
<u>SUBSTRUCTURE</u>					
<u>(All Provisional)</u>					
<u>Site clearance</u>					
A	Clear site of shrubs, and grass cart away all arising materials	34	SM		
<u>Excavation and Earthworks</u>					
B	Mass excavation to remove black cotton soil and cart away to approved tip	60	CM		
C	Excavate for trench,0-1.5m depth from reduced level	4	CM		
D	Extra over excavation in rock	4	CM		
E	Return fill and ram selected excavated materials around foundation	4	CM		
F	Load and Cart away	-	CM		
G	Allow for plunking and strutting to sides of excavation		ITEM		
H	Allow for keeping excavations free of surface and spring water		ITEM		
<u>Filling</u>					
I	Imported murrum filling rolled and compacted in layers not exceeding 150mm thick	85	CM		
J	50mm thick murrum or sand blinding	34	SM		
K	Treat surface and hardcore with " Termidor" insecticide to manufacturer's written specification and provide 10 years quarantine certificate	34	SM		
Total Carried to Collection					

		Qty	Unit	Rate	Shs	Cts
	<u>DPM</u>					
A	1000 gauge polythene sheet damp proof membrane blinded hardcore	34	SM			
	<u>Concrete Works</u>					
	<u>Mass concrete class 15/40</u>					
B	50mm blinding under footing	18	SM			
	<u>Vibrated reinforced concrete class 25/20 in complete with Sika waterproofing additive or equal and approved:-</u>					
C	Foundation footing	4	CM			
D	150mm thick floor ground floor bed	26	SM			
E	200mm thick ramp	1	SM			
	<u>High tensile steel reinforcement bars to BS 4461</u>					
F	Assorted reinforcement	420	KG			
	<u>Fabric mesh</u>					
G	BRC A142 placed 25mm from top measured net	26	SM			
	<u>Sawn formwork to:</u>					
H	Sides of strip footing	15	SM			
I	Edges of ground slab girth 150-225mm	21	LM			
J	To edges of ramp	1	SM			
	<u>Three ply hessian based bituminous felt damp proof course bedded on cement/sand (1:4) mortar</u>					
K	200mm wide	21	LM			
	Total Carried to Collection					

		Qty	Unit	Rate	Shs	Cts
	<u>Natural stone wall bedded and jointed in cement/sand (1:4) mortar reinforced with hoop iron every alternate course</u>					
A	200mm thick walling (foundation)	58	SM			
	<u>Sundries</u>					
	<u>Cement sand (1:3) render to:-</u>					
B	15mm Render to plinths	12	SM			
C	Prepare and apply three coats of black bituminous paint on rendered surfaces	12	SM			
	Carried to collection					
	<u>COLLECTION</u>					
	From page 3/1					
	" " 3/2					
	" " 3/3					
	<u>ELEMENT NO. 1</u>					
	<u>SUBSTRUCTURE</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

		Qty	Unit	Rate	Shs	Cts
<u>ELEMENT NO. 2</u>						
<u>SUPERSTRUCTURE CONCRETE</u>						
<u>Vibrated reinforced concrete class 25/20 (20mm aggregate) in:-</u>						
A	Ring beam	2	CM			
<u>Deformed reinforcement bars to B.S 4449 cut, bent and placed in position including all necessary binding wire and spacer blocks:</u>						
B	Assorted diameter bars	200	KG			
<u>Sawn formwork to:-</u>						
C	Sides and soffits of ring beam	23	SM			
<u>ELEMENT NO. 2 TOTAL CARRIED</u>						
<u>SUPERSTRUCTURE CONCRETE TO SUMMARY</u>						

		Qty	Unit	Rate	Shs	Cts
<u>ELEMENT NO. 3</u>						
<u>WALLING</u>						
<u>Natural stone wall bedded and jointed in cement/sand (1:4) mortar reinforced with hoop iron every alternate course</u>						
A	200mm thick externally	52	SM			
B	Ditto; parapet	15	SM			
C	Extra over for fine chisel dressed stone and key pointing in horizontal recessed joints and flush vertical joints	52	SM			
<u>Coping</u>						
D	250 x 50mm thick precast concrete coping twice throated	17	LM			
<u>ELEMENT NO. 3</u>						
<u>WALLING</u>					<u>TOTAL CARRIED TO SUMMARY</u>	

		Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 4</u>					
	<u>ROOF</u>					
	<u>Supply and fix Prepainted IT5 roofing sheets as supplied by Mabati Rolling Mills or other equal and approved on steel trusses (measured seperately)</u>					
A	Gauge 26 prepainted IT5 iron sheets complete with J bolts and associated connectors	34	SM			
	<u>Sawn Celcured grade GS cypress</u>					
B	150 x 50mm wall plate	21	LM			
C	150 x 50mm Ridge Board	5	LM			
D	150 x 50mm purlins	25	LM			
	<u>Roof trusses including hoisting average height 6M high</u>					
	<u>The following Trusses in sawn celcured 2nd grade cypress, including nailing or bolting with 12mm diameter bolts complete with head nuts and washers,shear connectors .drilling holes through timber and anchoring bolts in concrete or masonry</u>					
E	150 x 50mm rafters	10	LM			
F	150 x 50mm joists	6	LM			
G	150 x 50mm struts and ties	8	LM			
	<u>Metal work</u>					
H	M12 x 300mm long bolts for wall plates complete with head, nuts, washers, drill hole through timber and anchor bolts into concrete or masonry wall	10	NO			
	Total Carried to Collection					

		Qty	Unit	Rate	Shs	Cts
	<u>22 Gauge galvanized mild steel metal in:</u>					
A	200 x 200mm boxed gutter jointed with mastic asphalt and hemp gasket and held to fascia boards with and including heavy duty mild steel brackets at 1000 gauge c/c primed with one coat zinc chromate anti-rust primer.	21	LM			
B	Rain water system; heavy gauge; 200mm diameter mild steel rainwater down pipe.	6	M			
C	Ditto for swanneck 800mm long	2	No.			
D	Extra over ditto for shoe	2	NO			
E	Extra for stopped end.	2	NO			
	<u>Prepare touch up one coat red oxide primer and apply one under coat and then two coats of gloss oil paint to:</u>					
F	General surfaces of down pipes	4	SM			
G	General surfaces of gutter	12	SM			
	Total Carried to Collection					
	<u>COLLECTION</u>					
	From	page	3/6			
	"	"	3/7			
	<u>ELEMENT NO. 4</u>		<u>TOTAL CARRIED</u>			
	<u>ROOF</u>		<u>TO SUMMARY</u>			

		Qty	Unit	Rate	Shs	Cts
	<p><u>ELEMENT NO. 5</u></p> <p><u>DOORS</u></p> <p><u>Mild steel Louvered Door</u></p> <p>A Supply and install 2000 x 3000mm high double leaf mild steel louvered door complete with associated ironmongery and painting</p>	1	NO			
	<p><u>ELEMENT NO. 5</u></p> <p><u>DOORS</u></p>					
	<p><u>TOTAL CARRIED</u> <u>TO SUMMARY</u></p>					

		Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO.7</u>					
	<u>FINISHES</u>					
	<u>EXTERNAL FINISHES</u>					
	<u>Wall Finishes</u>					
	<u>Cement/ sand render</u>					
A	12mm two coats cement/sand (1:4) render to beam externally	61	SM			
	<u>INTERNAL FINISHES</u>					
	<u>Wall Finishes</u>					
	<u>Cement/Lime/ sand plaster</u>					
B	12mm two coats cement/lime/sand (1:4) and (1:1:6) plaster to walls and beam internally	61	SM			
	<u>Floor Finishes</u>					
	<u>Cement/sand screed (1:3)</u>					
C	12 mm thick plaster 2 No coats (1:3) cement/sand screed trowelled smooth to concrete surface	28	SM			
	<u>Terrazzo finish</u>					
D	20mm thick terrazzo to floor and skirting complete with dividing plastic strips, complete with grinding and polishing to approval	28	SM			
	<u>ELEMENT NO. 7</u>					
	<u>FINISHES</u>					
	<u>TOTAL CARRIED TO SUMMARY</u>					

		Qty	Unit	Rate	Shs	Cts
<u>ELEMENT NO. 8</u>						
<u>PAINTING AND DECORATING</u>						
<u>External</u>						
<u>Wall painting</u>						
<u>Prepare and apply one under coat and two coats of external quality paint as permacote Silicon utraguard or other equal and approved</u>						
A	Plastered walls externally	61	SM			
<u>Internal</u>						
<u>Wall painting</u>						
<u>Prepare and apply one under coat and two coats silk vinyl paint to</u>						
B	Plastered walls internally	61	SM			
<u>ELEMENT NO. 8</u>						
<u>PAINTING AND</u>						
<u>DECORATING</u>						
<u>TOTAL CARRIED</u>						
<u>TO SUMMARY</u>						

		Qty	Unit	Rate	Shs	Cts
	<u>ELEMENT NO. 9</u>					
	<u>Builder's Work</u>					
	The contractor shall here allow all builder's work in connection with Electrical and Mechanical Engineering Installation					
	The builders work shall include but not limited to					
	a) Chases in wall, concrete work, and make good					
	b) Forming, making or leaving holes, etc. in masonry concrete or wood work					
	c) Making good all disturbed area					
	d) Excavations refill and disposal to spoil					
	<u>Electrical Work</u>					
	Allow for all builder's work in connection with Electrical Engineering Installations					
A	<u>Mechanical Engineering</u>		Item			
	Allow for all builder's work in connection with Mechanical Engineering Installations					
B.			Item			
	<u>ELEMENT NO. 9</u>					
	<u>BUILDER'S WORK</u>					
				<u>TOTAL CARRIED TO</u>		
				<u>SUMMARY</u>		

		Qty	Unit	Rate	Shs	Cts
<u>SUMMARY</u>						
<u>ELEMENT NO.</u>						
1	Substructure			- Page 3/3		
2	Superstructure			- Page 3/4		
3	Walling			- Page 3/5		
4	Roof			Page 3/7		
5	Doors			Page 3/8		
6	Windows			Page 3/9		
7	Finishes			Page 3/10		
8	Painting and Decorating			Page 3/11		
9	Builders work			Page 3/12		
	<u>GENERATOR ROOM</u>			<u>TOTAL CARRIED TO GRAND SUMMARY - PAGE GS/1</u>		

BILL NO. 4

EXTERNAL WORKS

	Qty	Unit	Rate	Amount
BILL NO.4 EXTERNAL WORKS				
EXTERNAL WORKS				
All Provisional				
<u>BOUNDARY WALL (APPROX' 172LM LONG X 2.4M HIGH AND GATE (ALL PROVISIONAL)</u>				
<u>Earth works</u>				
A	Excavate for trench foundation not exceeding 1.5 m deep	170	CM	
B	Excavate for column bases not exceeding 1.5m deep	138	CM	
C	Return fill and ram	135	CM	
D	Load and cart away	173	CM	
<u>Mass concrete 1:4:8 in</u>				
E	50mm thick blinding to stip foundation and column bases	205	SM	
<u>Reinforced concrete class 25/20 mm in</u>				
F	Column bases	28	CM	
G	Columns below ground level (Size 300 x 300)	13	CM	
H	Columns above ground leve (Size 300 x 300)	14	CM	
I	Strip foundation	28	CM	
J	Ground beam	17	CM	
K	Top Beam	11	CM	
<u>Sawn formwork</u>				
L	Sides of column bases	107	SM	
M	Sides of columns below ground level	168	SM	
N	Sides of strip foundation	95	SM	
O	Sides of ground beam	170	SM	
P	Sides of Top Beam	76	SM	
<u>Fairface formwork to</u>				
Q	Sides of columns	184	SM	
Total Carried to Collection				

		Qty	Unit	Rate	Amount
	<u>Reinforcement</u>				
	<u>High tensile steel to B.S. 4461</u>				
A	8mm bars	1611	KG		
B	10mm bars	467	KG		
C	12mm bars	3316	KG		
	<u>Natural stone wall bedded and jointed in cement sand (1:4) mortar reinforced with hoop iron every alternate course</u>				
D	200 mm thick below ground level	473	SM		
	<u>Machine Cut Natural stone wall bedded and jointed in cement sand (1:4) mortar reinforced with hoop iron every alternate course</u>				
E	200mm thick machine cut natural stone laid to approval	454	SM		
	<u>Damp proof course</u>				
F	200mm wide bituminous felt damp proof course to walls	155	LM		
	<u>Precast Concrete class 20/12 mm in</u>				
G	400 x 300 x 75mm thick 4 times weathered and throated coping to columns	58	NO		
H	250 x 50mm thick average once weathered and throated coping	155	LM		
	<u>Cement/sand (1:3) render</u>				
I	12mm thick render to columns and Top beam	259	SM		
	<u>Mild steel gate</u>				
J	5500 x 2400mm high mild steel gate in two equal leafs in incorporating 1750 x 2400 mm gate in two leaves, comprising 50 x 50 x 3mm RHS frame, top, middle, bottom rail, lined with 20 gauge plain sheet, 3 pairs mild steel pin hinges, tower bolts hasns and staples for pad lock	1	NO		
K	Ditto size 1510 x 2100mm high pedestrian gate	1	NO		
	<u>Prepare and apply red oxide primer before fixing touch up primer after fixing and apply three coats gloss oil paint to metal</u>				
L	General surfaces both sides	34	SM		
	Total Carried to Collection				

	Qty	Unit	Rate	Amount
<u>HEIGHT INCREASE AND IMPROVEMENTS TO EXISTING WALLS - 287 LM</u>				
<u>Reinforced concrete class 20/20 mm in</u>				
A	Columns above ground leve (Size 300 x 300)	7	CM	
B	Tie Beam	19	CM	
<u>Sawn formwork</u>				
C	Sides of strip tie beam	126	SM	
<u>Fairface formwork to</u>				
D	Sides of columns	95	SM	
<u>Reinforcement</u>				
<u>High tensile steel to B.S. 4461</u>				
E	8mm bars	889	KG	
F	12mm bars	1478	KG	
<u>Natural stone wall bedded and jointed in cement sand (1:4) mortar reinforced with hoop iron every alternate course</u>				
G	200mm thick chisel dressed natural stone in zero joint, both sides above ground level	237	SM	
<u>Cement/sand (1:3) render</u>				
H	12mm thick render to columns	298	SM	
I	Ditto to Masonry Surfaces	1183	SM	
Total carried to collection				
<u>Collection</u>				
From page 4/1				
From page 4/2				
From page 4/3				
<u>BOUNDARY WALL AND GATES</u>		<u>TOTAL CARRIED COLLECTION</u>		

		Qty	Unit	Rate	Amount
ROAD WORKS					
<u>SITE CLEARANCE</u>					
A	Clear site to remove bushes, shrubs, grass and the like, grub up roots and cart away to tip as directed by the Project Manager	SM	1901		
<u>EXCAVATION</u>					
B	Excavate in bulk to remove cotton soil not exceeding 1.5m deep, and cart away to approved dumping site	CM	2851		
	Ditto 1.5m-3m deep, and cart away	CM	570		
C	Fill with approved granular material, compact including benching of shoulders of embankments to atleast 95% MDD (AASHTO T99)	CM	4752		
D	Provide, lay and compact 300mm thick hand packed stone base including all necessary preparation to receive 50mm sand bed	SM	1901		
E	Provide and lay 80mm thick heavy duty concrete paving blocks including 50mm graded sand or graded quarry dust.	SM	1901		
<u>KERB AND CHANNEL</u>					
H	Provide, lay and joint along the edge of the road precast concrete kerb 125x250mm and channel including 100mm thick 1:3:6 concrete bed, haunch and all necessary excavations, formwork and disposal to detail	LM	317		
I	Ditto for curved radius not exceeding 3 M	LM	16		
J	Provide road marking paint and mark road and parkings in 100mm wide strips as indicated t on road layout	SM	35.4		
K	Provide, erect 150mm diam Upvc pipe bollards filled with concrete mix 1:3:6 and tapered at the top 900mm above the ground as directed by the Engineer	NO	12		
TOTAL FOR ROAD WORKS CARRIED TO SUMMARY PAGE					

		Qty	Unit	Rate	Amount
	<u>STORM WATER DRAINAGE</u>				
	<u>RECTANGULA DRAIN WITH COVER SLAB</u>				
A	Provide materials and construct precast concrete covered storm drain comprising 700mmx150mm thick 1:2:4 concrete base, 600 x 150mm Concrete to walls complete with associated formwork and reinforcement 550mm wide, 75mm thick precast concrete cover slab reinforced with BRC A142 Including excavation, part return and fill and carting away excess materials. All to detail C. Ave. depth 0.50m	LM	118		
	<u>CULVERTS AND HEADWALLS</u>				
B	Provide, lay and joint dia 600mm precast concrete pipes as culvert including all excavations backfilling, 1:3:6 100mm thick concrete surround and disposal of excess material	LM	20		
C	Ditto 300mm diameter pcc pipe	LM	63		
D	Provide material and erect headwalls to detail including excavations 150mm concrete bed, backfilling along the sides and disposal of excess material	NO	2		
E	Construct open storm water drain with two courses of side slabs on either side comprising 450x250x75mm invert block drain, and side slabs including all excavation, cart away and part return and fill	LM	231		
	<u>MANHOLES</u>				
F	Provide materials and erect manhole maximum depth 0.6m comprising 1130 x 930 x 200mm thick , 1:3:6 concrete benching 75mm ave. thickness, 100mm thick 1:2:4 concrete cover slab, 1:4 cement / sand plaster, medium duty manhole cover and frame. Include all necessary formwork, excavation, cart away, return fill and ram, medium duty manhole cover and frame and step irons.	NO	2		
G	Ditto, maximum depth 1.0m size 1180x930 ditto	NO	4		
H	Ditto, maximum depth 1.50m size 1380x1180,	NO	3		
I	Ditto, maximum depth 2.0m ,	NO	3		
J	Allow for testing of the whole storm water drainage to the satisfaction of the Engineer	Item			
	TOTAL FOR STORM WATER DRAINAGE CARRIED TO SUMMARY PAGE				

		Qty	Unit	Rate	Amount
	<u>FOUL DRAINAGE</u>				
A	Clear site to remove bushes, shrubs, grass and the like, grub up roots and cart away to tip as directed by the Project Manager	SM	600		
	<u>TRENCH EXCAVATION</u>				
B	Excavate trench for diameter (dia.) 160mm uPVC sewer pipe starting from ground level depth not exceeding 1.5m. Backfill after laying the pipe av. Depth 0.50m.	LM	33		
C	Ditto; ave. depth 0.75m; ditto	LM	44		
D	Ditto; ave. depth 1.0m; ditto	LM	66		
E	Ditto; ave. depth 1.25m; ditto	LM	55		
F	Ditto; ave. depth 1.50m; ditto	LM	11		
	<u>SEWER PIPE CONSTRUCTION</u>				
G	Provide, lay and joint in the trench dia 160mm class 41 golden brown uPVC sewer pipe including type 'F' murrum bedding and surround. Joint to be either rubber ring or leap seal	LM	209		
	<u>MANHOLES</u>				
H	Provide materials and erect manhole maximum depth 0.6m comprising 1130 x 930 x 150mm thick 1:3:6 concrete bed, 140 mm thick masonry walling, 1:3:6 concrete benching 150mm ave. thickness, 100mm thick 1:2:4 concrete cover slab, 1:4 cement / sand plaster, medium duty manhole cover and frame. Include all necessary formwork, excavation, cart away, return fill and ram, medium duty manhole cover and frame and step irons.	NO	4		
I	Ditto, maximum depth 1.0m size 1180x930 ditto	NO	10		
J	Ditto, maximum depth 1.50m size 1380x1180,	NO	10		
K	Ditto, maximum depth 2.0m ,	NO	1		
L	Allow for testing of the whole foul drainage to the satisfaction of the Engineer	Item	1		
M	Allow for connecting to the developers sewerline	Item	1		
	TOTAL FOR FOUL DRAINAGE CARRIED TO GRAND SUMMARY				

		Qty	Unit	Rate	Amount
	<u>PAVING SLABS AROUND BUILDING</u>				
A	Provide ,lay,and compact hardcore and filling.	CM	399		
B	Provide and spread on hardcore 50mm thick quarry dust	SM	160		
C	Provide lay and joint in cement mortat 600x600x50 mm precast concrete paving slabs including 50mm thick quarry dust	SM	160		
	<u>TOTAL FOR PAVING SLABS AROUND AROUND THE BUILDING CARRIED TO SUMMARY PAGE</u>				

		Qty	Unit	Rate	Amount
	SUMMARY				
1	BOUNDARY WALL AND GATES - Page 4/3				
2	ROAD WORKS - Page 4/4				
3	STORM WATER - Page 4/5				
4	FOUL DRAINAGE - Page 4/6				
5	PAVING SLABS - Page 4/7				
	EXTERNAL WORKS				
	TOTAL CARRIED				
	<u>GRAND SUMMARY</u>				

BILL NO. 5

FUTURE EXTENSION

		Qty	Unit	Rate	Amount
BILL NO. 5 AREA FOR FUTURE EXPANSION					
<u>Excavating and Earthworks</u>					
A	Mass Excavation not exceeding 1.5M deep to remove black cotton soil and cart away	2633	CM		
B	Mass excavation to remove Black Cotton Soil exceeding 1.5M deep but not exceeding 3.0M deep	527	CM		
B	Approved imported filling rolled and compacted in layers not exceeding 300mm thick to make up levels (2500mm deep)	4389	CM		
C	Supply and lay and spread 50mm thick ballast on Compacted fill surfaces (Measured seperately)	4090	SM		
<u>FUTURE EXTENSION AREA</u>					
<u>TOTAL CARRIED TO GRAND SUMMARY</u>					

BILL NO. 6

LAND SCAPPING

	Unit	Qty	Rate	Amount
BILL NO. 6 LANDSCAPE WORKS				
<u>GROUND PREPARATION</u>				
<u>EARTH WORKS (Manual Works)</u>				
A				
Digging and Rough grading up to a depth of 150mm. Land preparation, Manual transportation of red soil to level out the area, manuring, and all other land preparation works.	3299	SM		
B				
Carting away of deleterious material (Transport and Dumping fees)	2	SUM		
<u>FINE GRADING, SUPPLY AND APPLICATION OF MANURE (100mm)</u>				
C				
Fine grading and mixing of top soil with imported well-dried FYM for soil enrichment.	4	Truck load		
<u>GROUND PREPARATION</u>				
<u>TOTAL CARRIED TO TO COLLECTION</u>				
<u>SOFT LANDSCAPING</u>				
A				
Lawn (Paspalum/Zimbabwe Grass sp sprigs)	2199	SM		
B				
Shrubs and Ground covers including but not limited to agapanthus, cycads, phormium, euginia, firebush, aloes, roses, hibiscus (double petal), spider plants, calla lillies, calatheas, euphorbias, agaves, birds of paradise, lantana trailing, chlorophytum comosum, dreaceana, gardenias, jasmines, alpinia, etc. Permaculture component will also tie in sunflowers, thyme, basil, lemons, lime, habanero rainbow peppers, mints, pomergranate and so forth.	1100	SM		
C				
Specimen 1 rees Royal Palms, italian cypress, thika palms, pinanga palms, bottle palms, queen palms, etc along the driveway, other ornamental trees around the courtyard, and recreational breakout space.	300	No.		
D				
Green Wall Lattice and Creepers: Jasmine, hedera helix, climbing rose, and bougainvillea	1	Sum		
<u>SOFT LANDSCAPING</u>				
<u>TOTAL CARRIED TO TO COLLECTION</u>				-

		Unit	Qty	Rate	Amount
HARD LANDSCAPING					
A	Ballast Walkway in the garden 92sqm	9.2	CM		
B	Ballast Kitchen Garden Flooring 407 sqm	40.7	CM		
C	1No. Green House for growth of sensitive seeds size 9 x 4M wide - Approximately 36SM to approval		Sum		
D	Allow for a Sand Pit shade approximately 18SM comprising of a 150mm thick concrete base slab, 600mm high plastered walls, mild steel framework complete with gauge 28 prepainted ironsheets roof cover		Sum		
E	Palette Kitchen Garden Planters at the future development space: Area:30 acting as grow area for sensitive seeds and seedlings while others can be planted on the ground	20	No.		
F	Fibreglass planters around the office lobby and main entrance	10	No.		
	<u>HARD LANDSCAPING</u>				
	<u>TOTAL CARRIED TO TO COLLECTION</u>				

		Unit	Qty	Rate	Amount
	<p>POST-IMPLEMENTATION MAINTENANCE</p> <p>A Post-implementation maintenance which includes watering, weeding, and pest & disease control by 2 or 3 landscaping technicians. This is an Optional section, but the consultant will offer free maintenance services for one month after handing over the site. After that, the rate will apply for a period of 6months, after which the consultant will hand over when the lawn is mature</p>				
	<p><u>POST-IMPLEMENTATION MAINTENANCE</u></p>	6	No of Months		
	<p><u>TOTAL CARRIED TO COLLECTION</u></p>				

		Unit	Qty	Rate	Amount
	SUMMARY				
1	Ground Preparation - Page 6/1				
2	Soft Landscaping - Page 6/1				
3	Hard Landscaping Page 6/2				
4	Post-Implementation Maintenance - Page 6/3				
	LANDSCAPE WORKS TOTAL CARRIED				
	<u>GRAND SUMMARY - PAGE GS/1</u>				

BILL NO. 7

UNDERGROUND WATER TANK

PROPOSED UNDERGROUND WATER TANK

Item	Description	Unit	Qty	Rate	Amount(Kshs)
	<u>Excavation</u>				
	<u>Clearing site vegetation, grubbing up roots and filling up voids left with selected excavated material;</u>				
A	Bushes, shrubs, undergrowth or the like and cart away from site;	SM	56		
	<u>EXCAVATING</u>				
	Bulk excavation for the tank ;				
B	Depth not exceeding 1.5m deep starting from existing ground level	CM	92		
C	Ditto but depth over 1.5m but not exceeding 3.0m deep starting from ground level	CM	180		
D	Excavate for Retaining Wall bases	CM	3		
E	Extra over excavation irrespective of depth for breaking out all classes of rock	CM	36		
F	Plank and strut to uphold sides of excavations: keep excavations free from all fallen material	Item			
G	Keep excavations free from general water	Item			
H	Load and cart away surplus excavated material from site as directed (on site)	CM	276		
I	Fill and ram excavated material around foundations	CM	45		
	<u>Plain concrete class 15 in:</u>				
J	50mm thick blinding	SM	56		
	<u>In situ concrete class 25, vibrated and reinforced as described mixed with waterproof in:-</u>				
K	300mm thick Retaining Wall and Colum Base	CM	6.6		
L	200mm thick Water tank Base	SM	36		
M	200mm thick Water tank walls	SM	81.4		
N	Column	SM	1		
O	175mm thick suspended slab	SM	63		
	<u>Reinforcement</u>				
	<u>High tensile square twisted steel bars to B.S. 4441</u>				
P	Assorted reinforcement(8mm - 12mm Ø)	Kg	5052.6		
	Total Carried to collection				

Item	Description	Unit	Qty	Rate	Amount(Kshs)
	<u>Formwork</u>				
A	Edges of base slab	SM	6		
B	Sides of R.C walls	SM	163		
C	Soffits of Suspended slab	SM	63		
D	Edges of slab	LM	31		
	<u>Finishes</u>				
	<u>Cement/sand screed to protect tanking (mix 1:3)</u>				
E	50mm thick ON floors	SM	56		
F	Ditto to walls	SM	81		
	<u>Waterproofing</u>				
	<u>Penetron or other equal and approved waterproofing to comply with B.S 988/1973 table 4 laid in three continous layers or any other equal and approved in:-</u>				
G	Screeded bottoms with and including protective screed	SM	56		
H	Ditto vertically to walls	SM	81		
	<u>Water bars</u>				
	<u>PVC bulb-edge strip as 'SIKA' or other equal and approved water bar in concrete laid to manufacturer's specification</u>				
I	4mm PVC 200mm wide Water bar	LM	31		
	<u>ACCESS MANHOLES</u>				
J	Heavy duty water tight 1200 x 1200mm wide manhole cover and frame set in concrete slab;	No	1		
	<u>Cement/sand screed</u>				
K	32mm on top slab to receive APP	SM	56		
L	4mm App Membrane	SM	56		

Item	Description	Unit	Qty	Rate	Amount(Kshs)
	Total Carried to collection				
	Collection Total from Page 7/1 Total from Page 7/2				
	TOTAL AMOUNT FOR THE WORKS				

BILL NO. 8

BIODIGETSER CIVIL WORKS

BIODIGESTER - CIVIL WORKS

Item	Description	Unit	Qty	Rate	Amount(Kshs)
	<u>Excavation</u>				
	<u>Clearing site vegetation, grubbing up roots and filling up voids left with selected excavated material:</u>				
A	Bushes, shrubs, undergrowth or the like and cart away from site;	SM	47		
	<u>EXCAVATING</u>				
	Bulk excavation for the tank ;				
B	Depth not exceeding 1.5m deep starting from existing ground level	CM	77		
C	Ditto but depth over 1.5m but not exceeding 3.0m deep starting from ground level	CM	15		
D	Excavate for Retaining Wall bases	CM	3		
E	Extra over excavation irrespective of depth for breaking out all classes of rock	CM	3		
F	Plank and strut to uphold sides of excavations: keep excavations free from all fallen material	Item			
G	Keep excavations free from general water	Item			
H	Load and cart away surplus excavated material from site as directed (on site)	CM	96		
I	Fill and ram excavated material around foundations	CM	22		
	<u>Plain concrete class 15 in;</u>				
J	50mm thick blinding	SM	47		
	<u>In situ concrete class 25, vibrated and reinforced as described mixed with waterproof in:-</u>				
K	300mm thick Retaining Wall and Colum Base	CM	5		
L	200mm thick Water tank Base	SM	47		
M	200mm thick Water tank walls	SM	120		
N	Column	SM	0		
O	175mm thick suspended slab	SM	47		
	<u>Reinforcement</u>				
	<u>High tensile square twisted steel bars to B.S. 4441</u>				
P	Assorted reinforcement(8mm - 12mm Ø)	Kg	5122		
	Total Carried to collection				

Item	Description	Unit	Qty	Rate	Amount(Kshs)
	<u>Formwork</u>				
A	Edges of base slab	SM	11		
B	Sides of R.C walls	SM	264		
C	Soffits of Suspended slab	SM	52		
D	Edges of slab exceeding 150mm but not exceeding 225mm girth	LM	34		
	<u>Finishes</u>				
	<u>Cement/sand screed to protect tanking (mix 1:3)</u>				
E	30mm thick to base slab	SM	47		
F	12mm thick plaster to wall surfaces	SM	264		
	<u>Waterproofing</u>				
	<u>Penetron or other equal and approved waterproofing to comply with B.S 988/1973 table 4 laid in three continous layers or any other equal and approved in:-</u>				
G	Screeded bottoms with and including protective screed	SM	47		
H	Ditto vertically to walls	SM	71		
	<u>Water bars</u>				
	<u>PVC bulb-edge strip as 'SIKA' or other equal and approved water bar in concrete laid to manufacturer's specification</u>				
I	4mm PVC 200mm wide Water bar	LM	28		
	ACCESS MANHOLES				
J	Heavy duty water tight 1200 x 1200mm wide manhole cover and frame set in concrete slab; <u>Cement/sand screed</u>	No	9		
K	32mm on top slab to steel troweled smooth	SM	47		
	Total Carried to collection				
	Collection				
	Total from Page 8/1				
	Total from Page 8/2				
	TOTAL AMOUNT FOR THE WORKS - CARRIED TO GRAND SUMMARY PAGE GS/1				

BILL NO. 9

PRIME COST AND PROVISIONAL SUMS

		Qty	Unit	Rate	Shs	Cts
	<u>BILL NO. 9</u>					
	<u>Prime Cost and Provisional Sums</u>					
	<u>Structural Steel Works, Roof Structure, roof covering and Rain Water Goods</u>					
A	Provide the Prime Cost Sum for Structural Steel Works, Roof Structure, Covering and Rain Water goods		SUM		40,054,222.32	
B	Add for Profit		%			
C	Add for Attendance		Sum			
	<u>WeighBridge</u>					
D	Provide the Prime Cost Sum for Weigh Bridge		SUM		6,000,000.00	
E	Add for Profit		%			
F	Add for Attendance		Sum			
	<u>Hoist</u>					
G	Provide the Prime Cost Sum for a Hoist		SUM		2,000,000.00	
H	Add for Profit		%			
I	Add for Attendance		Sum			
	<u>PRIME COST AND</u>					
	<u>TOTAL CARRIED</u>					
	<u>PROVISIONAL SUMS</u>					
	<u>TO GRAND SUMMARY - PAGE GS/1</u>					

ELECTRICAL INSTALLATIONS

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>GROUND FLOOR LIGHTING INSTALLATIONS</u>				
	Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Lighting and switching wiring outlets</u>				
A	Lighting and switching outlets wired in 3x1.5mm ² pvc SC copper cables drawn in 20mm dia. HG pvc conduits wired as for 1 ,2 or intermediate switching or on motion or Presence detector control.	No	234		
B	Emergency Lighting and switching outlets wired in 4 x 1.5mm ² PVC SC copper cables drawn in 20mm dia. PVC concealed HG conduit with all glands and connectors as necessary for 1 or 2 ways switching with all accessories.	No	4		
	<u>Accessories</u>				
C	10A plate switch 1 gang two-way SP as MK K 4871 WHI	No	8		
D	10A plate switch 2 gang two-way SP as MK K 4871 WHI	No	4		
E	10A plate switch 4 gang two-way SP as MK K 4871 WHI	No	4		
F	10A plate switch Intermediate SP switch s MK K 4871 WHI	No	2		
G	6000mm radius PIR for lights control	No	12		
H	10A 4 Poles AC3 240V coil contactor in enclosure	No	2		
I	Digital Time switch with 100Hrs reserve	No	2		
J	Photo electric cell switch complete with mpunting bracket	No	2		
K	10A 4 Pole cum switch in riser as contactor override	No	2		
	<u>Light Fittings complete with lamps, tubes, and all accessories.</u>				
L	Type HB	No	42		
M	Type A2	No	8		
N	Type A2E	No	4		
O	Type EXIT.	No	6		
P	Type FL	No	16		
Q	Type F6	No	48		
R	Type F6E	No	10		
S	Type N3	No	24		
T	Type S1	No	18		
U	Type A1	No	14		
V	Type A1E	No	8		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Small Power wiring outlets</u>				
A	Power outlets on recessed switch box wired as for a ring main circuit in 3x2.5mm ² PVC copper cables enclosed in 20mm dia HG concealed PVC conduit or enclosed in metal cable trunking complete with all accessories but excluding outlet plate	No	50		
B	Ditto but wired as for a radial circuit	No	46		
C	Ditto but wired in 5x 4.0 sqmm as for a radial circuit drawing in 25mm dia HG PVC conduit and in trunking	No.	20		
D	Ditto but wired in 5x 6.0 sqmm as for a radial circuit drawing in 25mm dia HG PVC conduit and in trunking	No.	8		
E	Allow 25mm HG PVC conduit for final equipment connections	LM	120		
F	Ditto but 125mm wide knockout plate	No	8		
G	Ditto but 150mm wide knockout plate	No	8		
	<u>Small Power Accessories</u>				
J	15A Standard Single switched socket outlet	No	6		
K	13A standard single switched socket outlet	No	2		
L	13A standard Twin switched socket outlet	No	48		
M	13A twin Non- standard socket outlet	No	22		
N	13A Fused Un-switched Spur Unit	No.	4		
O	IP56 20A SPN Isolator	No.	8		
P	IP56 63A TPN Isolator	No.	8		
Q	20A DP switch with neon lamp	No.	6		
R	16 Amp 3 Pin Industrial socket outlet + isolator + plug (220-250V) , IP56	No.	8		
S	32 Amp 5 Pin Industrial socket outlet+isolator+ Plug (415V),IP56	No.	12		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
GROUND FLOOR					
<u>TELEVISION,CCTV VOICE& DATA OUTLETS</u>					
<u>Outlet points comprising of 25mm dia HG PVC concealed conduits with all accessories and draw wire but excluding face plates from cable draw-in box ,trunking or between intermediate outlets as shown on drawing and white cover plates over switch boxes (average length 20m)</u>					
A	TV outlet	No	1		
B	Ditto, but for telephone/Data/Voice/WIFI outlets	No	22		
C	Ditto, but for CCTV/ACCESS outlets	No	24		
D	Draw-in box 200x200x75mm plastic box with cover	No	8		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	GROUND FLOOR				
	<u>FIRE ALARM SYSTEM AND DISABLED TOILET ALARM SYSTEMS INSTALLATION</u>				
	<u>Fire alarm and Detection system</u>				
A	Fire alarm initiating points wired in 2x1.5mm ² FP200 cables enclosed in 25 dia. HG high impact concealed PVC conduit	No.	55		
B	Optical smoke detector+base	No.	37		
C	Sounders + bacon	No.	4		
D	Break glass unit	No.	4		
E	Monitoring module	No.	2		
F	Addressable 4loops fire alarm panel with batteries (72hrs standby) and integral charger and printer	No.	1		
G	32mm dia concealed HG PVC conduit link to tele/data service riser duct	LM	50		
H	Addressable fire alarm repeater panel	No.	1		
I	loop isolator module	No.	2		
	<u>Disabled Toilet Alarm System</u>				
K	4 zone Disabled alarm control /indicator panel as C-TEC complete with power supply unit installed at the reception on ground floor	Item	2		
L	Disabled alarm outlet points comprising push button, pull cord switch, reset button and lamps and tone generator wired in 1.5mm sqmm 4core control cable enclosed in HG PVC conduit	No	2		
M	Pull cord switch in disabled toilet	No	2		
N	Remote reset unit with sounder in the disabled toilet	No	2		
O	Over door lamp and with tone generator	No	2		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	GROUND FLOOR Supply, install, test, commission and maintain: -				
	POWER DISTRIBUTION				
	<u>Distribution boards consumer unit interiors, lugs and glands to be of the type suitable for aluminium or cooper cables terminations as necessary (Copper, bimetal or Aluminium terminations)</u>				
A	Low voltage switchboard, MSB'M' free standing fully front access, fabricated from 16 SWG steel sheets and frames fabricated to form 3B rating of segregation complete with bonding,labeling and all items as indicated on the main electrical schematic wiring diagram :-	Item	1		
B	Generator Supply sub-board, 'GM' free standing fully front access , fabricated from 16 SWG steel sheets and frames fabricated to form 2B rating of segregation complete with bonding,labeling and all items as indicated on the main electrical schematic wiring diagram :-	No.	1		
C	4 ways TPN Distribution panel board surface fixed in power plant room comprising 125A TPN integral isolator,busbars,Din rail, neutral & earth bars,cover,labeling and bonding only as Havel's	No.	1		
	<u>The following in (DB')</u>				
D	Curve 'C' SP MCB rated between 50A	No.	5		
E	Blanking plates	No.	7		
F	16 ways TPN distribution boards surface fixed in power duct comprising 125A TPN integral isolator,busbars,Din rail, neutral & earth bars,cover,labeling and bonding only as Havel's.(DB'MG2' & DB'MG3')	No.	1		
J	4 ways TPN distribution board surface fixed in power duct comprising 125A TPN integral isolator,busbars,Din rail, neutral & earth bars, cover,labeling and bonding only as Havel's.	No.	1		
	<u>The following the above distribution boards as Havel's</u>				
K	Curve 'C' SP MCB rated between 5A	No.	3		
L	Curve 'C' SP MCB rated between 10A and 30A	No.	40		
M	Curve 'D' TP MCB rated between 20A	No.	24		
N	Curve 'D' TP MCB rated between 30A	No.	24		
O	30mA DP RCBO rated between 20A	No.	3		
P	30mA DP RCBO rated between 30A	No.	3		
Q	Blanking plates	No.	3		
	TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8				

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY.	RATE SHS.	AMOUNT
	GROUND FLOOR Supply, install, test, commission and maintain: -				
	POWER DISTRIBUTION				
	<u>Sub-main cables laid on cable tray connected from sub-board, 'GM' to Various distribution boards including cable glands, lugs and terminations at both ends (cableways measured elsewhere)</u>				
	<u>10 sq. mm 4 core XPLE SWA PVC cables</u>				
A	To DB 'GG1' in duct 1 Ground Floor	LM.	15		
B	To DB 'GF1' in duct1 First Floor	LM.	18		
C	To DB 'GS1' in duct 1 Second Floor	LM.	23		
D	To UPS maintenance Isolator and then to UPS and in turn to UPS panel board	LM.	25		
	<u>4 sq. mm 4 core XPLE SWA PVC copper cables</u>				
A	To Hose reel pump isolator	LM.	65		
B	20A TP Hose reel pump isolator	No	1		
C	63A TP UPS maintenance isolator	No	1		
	POWER DISTRIBUTION				
	<u>Sub-main cables laid on cable tray connected from MSB'M' to Various distribution boards including cable glands, lugs and terminations at both ends (cableways measured elsewhere)</u>				
	<u>50 sq. mm 4 core XPLE SWA PVC cables</u>				
A	To DB 'GG2' in duct 2 Ground Floor	LM.	120		
	<u>Cableways For Submain cables and for common services complete with all required conduit fittings such as bends , couplings etc.</u>				
A	100mm dia. UPVC heavy gauge ducts around the building		120		
B	150mm dia. UPVC heavy gauge ducts around the building		80		
C	50mm dia. PVC heavy gauge ducts in and around the building		50		
D	32mm dia. PVC heavy gauge conduits		50		
E	25 mm dia. PVC heavy gauge conduits		120		
J	450x450mmx500mm deep masonry cable pit with medium duty concrete cover (125kN)	No	4		
F	450x450mmx450mm deep masonry cable pit with medium duty concrete cover (125kN)	No	7		
	<u>Hot dip galvanized steel cable tray rawl bolted on brackets in riser ducts or in plantrooms complete with bends, tees, fixings and bonding</u>				
A	150mm wide x 50mm x18 SWG	LM.	120		
B	300mm wide x 50mm x18 SWG	LM.	20		
C	Square Galvanised Steel Metal Tube, 5m L, 20mm W, 20mm H	No.	4		
D	Trenching, sifting and backfilling the duct trench after laying the ducts and compaction ,500mm deep for not more than 3runs of150mm ducts	LM	60		
	<u>Power coated steel cable trunking rawl bolted on brackets in riser ducts or on wall complete with bends, tees,end cups, covers ,fixings and bonding</u>				
A	200mm wide x 50mm x20 SWGx 2 compartment	LM.	30		
B	150mm x 150mm x 400mm (LxWxH) powder coated galvanized steel power post complete with 2No. twin socket outlet and 4No. Dual RJ/11, RJ45 outlet	No	4		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	GROUND FLOOR Supply, install, test, commission and maintain: -				
	POWER DISTRIBUTION				
	Earthing				
A	Test earth electrode area resistance to ascertain the need for soil treatment so as to obtain earth resistance less than 1 ohm	Item	1		
B	6-Way 50mmx6mmx 550mm split earthing /copper neutral bar M10 termination screws on DC clip and back plate holdfast stem screw fixed on wall for up to 240mm sq.ECC in services riser ducts	No	1		
C	15mm dia,2000m long Copper clad earthing rod, earth clamp and pit.	No	6		
D	Treatment of earth pits with marconite, charcoal dust and salt to obtain the required resistances.Note,application of the soil treatment will be subject to approval based on the site conditions.	No	1		
E	240sq mm 1 core PVC Aluminium cable ECC including connecting to MSB'M' and earth electrodes	LM	15		
F	10sq mm 1 core PVC copper cable ECC including connecting to Sub board 'GM',UM and earth electrodes	LM	30		
	<u>XPPE SWA PVC Aluminium sub-main cables from Main LV switch board to various boards including cable glands,and terminations at both ends.</u>				
H	120 sq. mm 4 core cable from Generator output board to sub board 'GM'	LM.	50		
L	Compression glands with PVC shroud for 185 sqmm 4 core Aluminium cable	No	12		
M	Trenching, sifting and backfilling the duct trench after laying the ducts and compaction,500mm deep for not more than 3runs of 150mm ducts	LM	120		
N	100mm dia. UPVC heavy gauge ducts with 150m thick concrete surround across road	LM	40		
O	150mm dia. UPVC heavy gauge ducts with 150m thick concrete surround across road	LM	40		
P	Concrete cable Route marker	No	4		
Q	Lay concrete (HATARI) tiles over entire cable route after laying cables before backfilling	LM	50		
R	100mm dia. UPVC heavy gauge ducts around the building	LM	50		
	TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 8				

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION				AMOUNT SHS.
	<u>GROUND FLOOR COLLECTION PAGE</u>				
A	TOTAL BROUGHT FORWARD FROM PAGE No.. 1				
B	TOTAL BROUGHT FORWARD FROM PAGE No. 2				
C	TOTAL BROUGHT FORWARD FROM PAGE No. 3				
D	TOTAL BROUGHT FORWARD FROM PAGE No. 4				
D	TOTAL BROUGHT FORWARD FROM PAGE No.. 5				
D	TOTAL BROUGHT FORWARD FROM PAGE No. 6				
D	TOTAL BROUGHT FORWARD FROM PAGE No. 7				
TOTAL CARRIED FORWARD TO MARITIME COLLECTION PAGE No. 29					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FIRST FLOOR LIGHTING INSTALLATIONS				
	Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Lighting and switching wiring outlets</u>				
A	Lighting and switching outlets wired in 3x1.5mm ² pvc SC copper cables drawn in 20mm dia. HG pvc conduits wired as for 1 ,2 or intermediate switching or on motion or Presence detector control.	No	70		
B	Emergency Lighting and switching outlets wired in 4 x 1.5mm ² PVC SC copper cables drawn in 20mm dia. PVC concealed HG conduit with all glands and connectors as necessary for 1 or 2 ways switching with all accessories.	No	4		
	<u>Accessories</u>				
C	10A plate switch 1 gang two-way SP as MK K 4871 WHI	No	32		
D	10A plate switch 2 gang two-way SP as MK K 4871 WHI	No	12		
E	10A plate switch 4 gang two-way SP as MK K 4871 WHI	No	4		
F	10A plate switch Intermediate SP switch s MK K 4871 WHI	No	2		
G	6000mm radius PIR for lights control	No	9		
H	10A 4 Poles AC3 240V coil contactor in enclosure	No	7		
I	Digital Time switch with 100Hrs reserve	No	2		
	<u>Light Fittings complete with lamps, tubes, and all accessories.</u>				
A	Type A1	No	24		
B	Type A1E	No	8		
C	Type A2	No	6		
E	Type A2E	No	2		
F	Type EXIT.	No	4		
G	Type F6	No	4		
H	Type S1	No	6		
I	Type C2	No	9		
J	Type P1	No	2		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 14					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SMALLPOWER INSTALLATIONS Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Small Power wiring outlets</u>				
A	Power outlets on recessed switch box wired as for a ring main circuit in 3x2.5mm ² PVC copper cables enclosed in 20mm dia HG concealed PVC conduit or enclosed in metal cable trunking complete with all accessories but excluding outlet plate	No	34		
B	Ditto but wired as for a radial circuit	No	4		
C	Ditto but wired in 5x 4.0 sqmm as for a radial circuit drawing in 25mmdia HG PVC conduit and in trunking	No.	6		
D	Ditto but wired in 5x 6.0 sqmm as for a radial circuit drawing in 25mmdia HG PVC conduit and in trunking	No.	6		
E	Allow 25mm HG PVC conduit for final equipment connections	LM	120		
F	Ditto but 125mm wide knockout plate	No	28		
G	Ditto but 150mm wide knockout plate	No	32		
H	150mm x50mm ² compartment hot dip galvanized cable tray complete with clip-on cover, factory made bends and tees	LM	40		
	<u>Small Power Accessories</u>				
A	15A Standard Single switched socket outlet	No	1		
B	13A standard single switched socket outlet	No	8		
C	13A standard Twin switched socket outlet	No	26		
D	13A twin Non- standard socket outlet	No	16		
E	13A Fused Un-switched Spur Unit	No.	2		
F	20A DP switch with neon lamp	No.	4		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 14					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p>FIRST FLOOR</p> <p><u>TELEVISION,CCTV VOICE& DATA OUTLETS</u></p> <p><u>Outlet points comprising of 25mm dia HG PVC concealed conduits with all accessories and draw wire but excluding face plates from cable draw-in box ,trunking or between intermediate outlets as shown on drawing and white cover plates over switch boxes (average length 20m)</u></p>				
A	TV outlet	No	3		
B	Ditto, but for telephone/Data/Voice/WIFI outlets	No	14		
C	Ditto, but for CCTV/ACCESS outlets	No	4		
D	Draw-in box 200x200x75mm plastic box with cover	No	6		
	TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 14				

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<u>FIRE ALARM SYSTEM AND DISABLED TOILET ALARM SYSTEMS INSTALLATION</u>					
<u>Fire alarm and Detection system</u>					
A	Fire alarm initiating points wired in 2x1.5mm ² FP200 cables enclosed in 25 dia. HG high impact concealed PVC conduit	No.	25		
B	Optical smoke detector+base	No.	12		
C	Heat detector+base	No.	1		
D	Sounders + bacon	No.	4		
E	Break glass unit	No.	4		
F	Monitoring module	No.	4		
H	32mm dia concealed HG PVC conduit link to tele/data service riser duct	LM	50		
<u>Disabled Toilet Alarm System</u>					
K	4 zone Disabled alarm control /indicator panel as C-TEC complete with power supply unit installed at the reception on ground floor	Item	1		
L	Disabled alarm outlet points comprising push button, pull cord switch, reset button and lamps and tone generator wired in 1.5mm sqmm 4core control cable enclosed in HG PVC conduit	No	3		
M	Pull cord switch in disabled toilet	No	1		
N	Remote reset unit with sounder in the disabled toilet	No	1		
O	Over door lamp and with tone generator	No	1		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 14					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FIRST FLOOR Supply, install, test, commission and maintain: -				
	POWER DISTRIBUTION				
	<u>Distribution boards consumer unit interiors, lugs and glands to be of the type suitable for aluminium or cooper cables terminations as necessary (Copper, bimetal or Aluminium terminations)</u>				
A	16 ways TPN distribution boards surface fixed in power duct comprising 125A TPN integral isolator,busbars,Din rail, neutral & earth bars,cover,labeling and bonding only as Havel's.(DB'MG2' & DB'MG3')	No.	1		
B	9 ways SPN Consumer Unit surface fixed in power duct and in server room comprising 100A SPN integral isolator,busbars,Din rail, neutral & earth bars,cover,labeling and bonding only as Havel's.(CU'GGS', DB'UGS')	No.	1		
	<u>The following the above distribution boards as Havel's</u>				
A	Curve 'C' SP MCB rated between 5A	No.	3		
B	Curve 'C' SP MCB rated between 10A and 30A	No.	40		
C	30mA DP RCBO rated between 20A	No.	3		
D	30mA DP RCBO rated between 30A	No.	3		
E	Blanking plates	No.	3		
	<u>Sub-main cables laid on cable tray connected from MSB'M' to Various distribution boards including cable glands, lugs and terminations at both ends (cableways measured elsewhere)</u>				
	<u>25 sq. mm 4 core XPLE SWA PVC Aluminium cables</u>				
A	To DB 'GG2' in duct 2 Ground Floor	LM.	60		
	<u>Hot dip galvanized steel cable tray rawl bolted on brackets in riser ducts or in plantrooms complete with bends, tees, fixings and bonding</u>				
A	150mm wide x 50mm x18 SWG	LM.	20		
	<u>Power coated steel cable trunking rawl bolted on brackets in riser ducts or on wall complete with bends, tees,end cups, covers ,fixings and bonding</u>				
A	200mm wide x 50mm x20 SWGx 2 compartment	LM.	60		
B	150mm x 150mm x 400mm (LxWxH) powder coated galvanized steel power post complete with 2No. twin socket outlet and 4No. Dual RJ/11, RJ45 outlet	No	4		
	TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 14				

PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS

ITEM	DESCRIPTION				AMOUNT SHS.
	<u>FIRST FLOOR</u>				
	<u>COLLECTION PAGE</u>				
A	TOTAL BROUGHT FORWARD FROM PAGE No. 9				
B	TOTAL BROUGHT FORWARD FROM PAGE No. 10				
C	TOTAL BROUGHT FORWARD FROM PAGE No. 11				
D	TOTAL BROUGHT FORWARD FROM PAGE No. 12				
E	TOTAL BROUGHT FORWARD FROM PAGE No. 13				
	TOTAL CARRIED FORWARD TO PAGE No. 29				

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>SECOND FLOOR LIGHTING INSTALLATIONS</u>				
	Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Lighting and switching wiring outlets</u>				
A	Lighting and switching outlets wired in 3x1.5mm ² pvc SC copper cables drawn in 20mm dia. HG pvc conduits wired as for 1 ,2 or intermediate switching or on motion or Presence detector control.	No	99		
B	Emergency Lighting and switching outlets wired in 4 x 1.5mm ² PVC SC copper cables drawn in 20mm dia. PVC concealed HG conduit with all glands and connectors as necessary for 1 or 2 ways switching with all accessories.	No	6		
	<u>Accessories</u>				
D	10A plate switch 1 gang two-way SP as MK K 4871 WHI	No	32		
E	10A plate switch 2 gang two-way SP as MK K 4871 WHI	No	12		
F	10A plate switch 4 gang two-way SP as MK K 4871 WHI	No	4		
G	10A plate switch Intermediate SP switch s MK K 4871 WHI	No	2		
H	6000mm radius PIR for lights control	No	32		
I	10A 4 Poles AC3 240V coil contactor in enclosure	No	7		
J	Digital Time switch with 100Hrs reserve	No	2		
	<u>Light Fittings complete with lamps, tubes, and all accessories.</u>				
T	Type A2	No	14		
U	Type A2E	No	6		
V	Type EXIT.	No	4		
X	Type F6	No	36		
Z	Type S1	No	4		
Z	Type C2	No	7		
TOTAL CARRIED FORWARD TO COLLECTION PAGE 20					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY		
	SMALLPOWER INSTALLATIONS Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Small Power wiring outlets</u>				
A	Power outlets on recessed switch box wired as for a ring main circuit in 3x2.5mm ² PVC copper cables enclosed in 20mm dia HG concealed PVC conduit or enclosed in metal cable trunking complete with all accessories but excluding outlet plate	No	24		
B	Ditto but wired as for a radial circuit	No	4		
C	Ditto but wired in 5x 4.0 sqmm as for a radial circuit drawing in 25mm dia HG PVC conduit and in trunking	No.	4		
D	Ditto but wired in 5x 6.0 sqmm as for a radial circuit drawing in 25mm dia HG PVC conduit and in trunking	No.	2		
E	Allow 25mm HG PVC conduit for final equipment connections	LM	120		
F	Ditto but 125mm wide knockout plate	No	4		
G	Ditto but 150mm wide knockout plate	No	6		
	<u>Small Power Accessories</u>				
J	15A Standard Single switched socket outlet	No	1		
K	13A standard single switched socket outlet	No	6		
L	13A standard Twin switched socket outlet	No	18		
N	13A Fused Un-switched Spur Unit	No.	2		
Q	20A DP switch with neon lamp	No.	4		
TOTAL CARRIED FORWARD TO COLLECTION PAGE 20					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECOND FLOOR				
	<u>TELEVISION,CCTV VOICE& DATA OUTLETS</u>				
	<u>Outlet points comprising of 25mm dia HG PVC concealed conduits with all accessories and draw wire but excluding face plates from cable draw-in box ,trunking or between intermediate outlets as shown on drawing and white cover plates over switch boxes (average length 20m)</u>				
A	TV outlet	No	4	600	
B	Ditto, but for telephone/Data/Voice/WIFI outlets	No	6	600	
C	Ditto, but for CCTV/ACCESS outlets	No	8	600	
D	Draw-in box 200x200x75mm plastic box with cover	No	4	1000	
TOTAL CARRIED FORWARD TO COLLECTION PAGE 20					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECOND FLOOR				
	<u>FIRE ALARM SYSTEM AND DISABLED TOILET ALARM SYSTEMS INSTALLATION</u>				
	<u>Fire alarm and Detection system</u>				
A	Fire alarm initiating points wired in 2x1.5mm ² FP200 cables enclosed in 25 dia. HG high impact concealed PVC conduit	No.	32		
B	Optical smoke detector+base	No.	20		
C	Heat detector+base	No.	1		
D	Sounders + bacon	No.	4		
E	Break glass unit	No.	4		
H	32mm dia concealed HG PVC conduit link to tele/data service riser duct	LM	50		
I	Addressable fire alarm repeater panel	No.	1		
J	loop isolator module	No.	2		
	<u>Disabled Toilet Alarm System</u>				
K	4 zone Disabled alarm control /indicator panel as C-TEC complete with power supply unit installed at the reception on ground floor	Item	1		
L	Disabled alarm outlet points comprising push button, pull cord switch, reset button and lamps and tone generator wired in 1.5mm sqmm 4core control cable enclosed in HG PVC conduit	No	3		
M	Pull cord switch in disabled toilet	No	1		
N	Remote reset unit with sounder in the disabled toilet	No	1		
O	Over door lamp and with tone generator	No	1		
TOTAL CARRIED FORWARD TO COLLECTION PAGE 20					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECOND FLOOR Supply, install, test, commission and maintain: - POWER DISTRIBUTION <u>Distribution boards consumer unit interiors, lugs and glands to be of the type suitable for aluminium or cooper cables terminations as necessary (Copper, bimetal or Aluminium terminations)</u> 6 ways TPN distribution boards surface fixed in power duct comprising 125A TPN integral isolator,busbars,Din rail, neutral & earth bars,cover,labeling and bonding only as Havel's.(DB'MG2' & DB'MG3') <u>The following the above distribution boards as Havel's</u>				
F		No.	1		
K	Curve 'C' SP MCB rated between 5A	No.	3		
L	Curve 'C' SP MCB rated between 10A and 30A	No.	40		
M	Curve 'D' TP MCB rated between 20A	No.	24		
N	Curve 'D' TP MCB rated between 30A	No.	24		
O	30mA DP RCBO rated between 20A	No.	3		
P	30mA DP RCBO rated between 30A	No.	3		
Q	Blanking plates <u>25 sq. mm 4 core XPLE SWA PVC Aluminium cables</u>	No.	3		
A	To DB 'GG2' in duct 2 Ground Floor <u>Hot dip galvanized steel cable tray rawl bolted on brackets in riser ducts or in plantrooms complete with bends, tees, fixings and bonding</u>	LM.	80		
L	150mm wide x 50mm x18 SWG	LM.	10		
TOTAL CARRIED FORWARD TO COLLECTION PAGE 20					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION				AMOUNT SHS.
	<p><u>SECOND FLOOR COLLECTION PAGE</u></p> <p>A TOTAL BROUGHT FORWARD FROM PAGE No.15</p> <p>B TOTAL BROUGHT FORWARD FROM PAGE No.16</p> <p>C TOTAL BROUGHT FORWARD FROM PAGE No.17</p> <p>D TOTAL BROUGHT FORWARD FROM PAGE No.18</p>				
	TOTAL CARRIED FORWARD TO SUMMARY PAGE No. 29				

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ROOF LEVEL LIGHTING INSTALLATIONS</u>				
	Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Lighting and switching wiring outlets</u>				
A	Lighting and switching outlets wired in 3x1.5mm ² pvc SC copper cables drawn in 20mm dia. HG pvc conduits wired as for 1 ,2 or intermediate switching or on motion or Presence detector control.	No	234		
	<u>Accessories</u>				
A	10A plate switch 1 gang two-way SP as MK K 4871 WHI	No	8		
B	10A plate switch 2 gang two-way SP as MK K 4871 WHI	No	4		
C	10A 4 Poles AC3 240V coil contactor in enclosure	No	2		
D	Digital Time switch with 100Hrs reserve	No	2		
E	10A 4 Pole cum switch in riser as contactor override	No	2		
	<u>Light Fittings complete with lamps, tubes, and all accessories.</u>				
A	Type FL	No	10		
B	Type N3	No	8		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 25					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Supply, Install, Test , commission and maintain the following complete as specified:				
	<u>Small Power wiring outlets</u>				
A	Power outlets on recessed switch box wired as for a ring main circuit in 3x2.5mm ² PVC copper cables enclosed in 20mm dia HG concealed PVC conduit or enclosed in metal cable trunking complete with all accessories but excluding outlet plate	No	6		
B	Ditto but wired as for a radial circuit	No	18		
C	Ditto but wired in 5x 4.0 sqmm as for a radial circuit drawing in 25mm dia HG PVC conduit and in trunking	No.	6		
D	Ditto but wired in 5x 6.0 sqmm as for a radial circuit drawing in 25mm dia HG PVC conduit and in trunking	No.	4		
E	Allow 25mm HG PVC conduit for final equipment connections	LM	60		
	<u>Small Power Accessories</u>				
A	15A Standard Single switched socket outlet	No	6		
B	13A metal clad Twin switched socket outlet	No	6		
C	13A Fused Un-switched Spur Unit	No.	4		
D	IP56 20A SPN Isolator	No.	4		
E	IP56 63A TPN Isolator	No.	4		
F	20A DP switch with neon lamp	No.	12		
G	16 Amp 3 Pin Industrial socket outlet + isolator + plug (220-250V) , IP56	No.	2		
H	32 Amp 5 Pin Industrial socket outlet+isolator+ Plug (415V),IP56	No.	2		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 25					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p>ROOF LEVEL</p> <p><u>TELEVISION,CCTV VOICE& DATA OUTLETS</u></p> <p><u>Outlet points comprising of 25mm dia HG PVC concealed conduits with all accessories and draw wire but excluding face plates from cable draw-in box ,trunking or between intermediate outlets as shown on drawing and white cover plates over switch boxes (average length 20m)</u></p>				
A	Ditto, but for telephone/Data/Voice/WIFI outlets	No	6		
B	Ditto, but for CCTV/ACCESS outlets	No	12		
C	Draw-in box 200x200x75mm plastic box with cover	No	6		
	TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 25				

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY.	RATE SHS.	AMOUNT
	ROOF LEVEL Supply, install, test, commission and maintain: - POWER DISTRIBUTION POWER DISTRIBUTION <u>Sub-main cables laid on cable tray connected from MSB'M' to</u> <u>Various distribution boards including cable glands, lugs and</u> <u>terminations at both ends (cableways measured elsewhere)</u> <u>16 sq. mm 4 core XPLE SWA PVC cables</u>				
A	To roof DB '	LM.	60		
	<u>Cableways For Submain cables and for common services complete with all required conduit fittings such as bends , couplings etc.</u>				
A	50mm dia. PVC heavy gauge ducts in and around the building		50		
B	32mm dia. PVC heavy gauge conduits		50		
C	25 mm dia. PVC heavy gauge conduits		120		
	<u>Hot dip galvanized steel cable tray rawl bolted on brackets in riser ducts or in plantrooms complete with bends, tees, fixings and bonding</u>				
A	150mm wide x 50mm x18 SWG	LM.	20		
	<u>Power coated steel cable trunking rawl bolted on brackets in riser ducts or on wall complete with bends, tees, end cups, covers, fixings and bonding</u>				
A	200mm wide x 50mm x20 SWGx 2 compartment	LM.	30		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. 25					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION				AMOUNT SHS.
	<u>FOOF LEVEL COLLECTION PAGE</u>				
A	TOTAL BROUGHT FORWARD FROM PAGE No.. 21				
B	TOTAL BROUGHT FORWARD FROM PAGE No. 22				
C	TOTAL BROUGHT FORWARD FROM PAGE No. 23				
D	TOTAL BROUGHT FORWARD FROM PAGE No. 24				
TOTAL CARRIED FORWARD TO MARITIME COLLECTION PAGE No. 29					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE KSHS	AMOUNT TOTAL
	<u>LIGHTNING PROTECTION SYSTEM</u>				
	Supply, install, test, commission and maintain in compliance with KS04503 and BS code of Practice :-				
A	Early Streamer Emission Lightning Conductor (air terminal 60m radius coverage) plus 3m high hot deep galvanized steel mast, plus mast anchor plate plus wall mount brackets	No.	2		
B	70sqmm earth bare cable enclosed in 32mm dia, HG concealed PVC cable.	LM	200		
C	Test clamps for copper down conductor as Furse	No.	2		
D	Rod to earth conductors clamps Furse	No.	2		
E	1500mm X15mm dia. Copper clad earth rods Furse RB220-FU with driving stud, furse ST200 and coupling furse CG270 driven + pit, Furse PT-005	No.	6		
F	125 x 100 x 50mm deep boxes with cover and marked safety	No.	2		
G	lightning Strike Counter	No.	1		
H	Periodic ESC tester	No.	1		
TOTAL CARRIED TO SUMMARY PAGE No. 29					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

ITEM	DESCRIPTION	UNIT	QTY	RATE KSHS	AMOUNT TOTAL
	<u>STREET LIGHTING</u>				
	Supply, install, test, commission and maintain				
	5A MCBs units on DIN rail and Klipon connectors at the base of the lighting columns and in cable junction boxes	No.	26		
	600mm deep hole to receive light column poles	No.	26		
	500x300x200mm concrete pad (Mix 1:3:6) in the holes above and install 2nos 32 mm dia. sleeve with slow right angle bed	No.	26		
	4.0mm ² PVC SWA/PVC 2 core copper cable laid in trench concrete tiles marked "DANGER/HATARI" (trench measured elsewhere)	LM	400		
	Excavate 300mm wide 450mm deep cable trench , backfill after laying the cables and cart away excess soil	LM	360		
	Cable glands with PVC shroud for 4.0mm ² PVC SWA PVC 3 core cable	No.	42		
	10.0mm ² PVC SWA/PVC 2 core copper cable laid in trench	LM	60		
	Cable glands with PVC shroud for 10.0mm ² PVC SWA PVC 3 core cable	No.	8		
	1.5mm ² PVC/PVC 2 core and earth flat cable installed between the MCB units at the base of lighting column and terminals of lanterns	LM	50		
	100mm dia. duct with 150mm thick 1:3:6 concrete surround at road crossings	LM	20		
	100x100x50mm deep steel cable junction box -IP55 on wall with 3poles 15A Klippon connectors and neutral block on DIN rail and 10A cartridge fuse	No.	4		
	1220mmx12.5mm dia copper clad earth electrode in an earthing inspection pit Type Furse PT005 complete with earthing clamps and 2.5mm ² ECC (max 2m) laid in ground and bonded to earth electrode	No.	9		
	Thorn QPK photoelectric cell mounted on an approved	No.	3		
	20A DP Contactor in metal ventilated enclosure as MK Cat No. 6420S	No.	3		
	IP 67 Control Pillar with 4 way consumer unit,earth leakage circuit breakers mounted on a plinth 450mm above natural ground,	No.	1		
	100W LED decorative street light fitting with alluminium blacket and 60mm diameter spigot asThorn. - Type 'SL'	No.	13		
	Ditto as type S6 above but with double arm type 'ST'	No.	13		
	Standard street lighting column manufactured in galvanised steel pipe raising 7.6m above ground level for post top lighting for mounting the above type 'SL'	No.	13		
	As above galvanised steel pipe but for type 'ST'	No.	13		
	TOTAL CARRIED TO SUMMARY PAGE No. 29				

PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS

ITEM	DESCRIPTION	UNIT	QTY	RATE KSHS	AMOUNT TOTAL
<u>TELEPHONE RETICULATION</u>					
A	400 x 400 x 400mm masonry cable pit internally plastered complete with concrete base and water tight heavy duty precast concrete cover	No.	10		
B	100mm dia. HG PVC duct complete with draw wire	LM	90		
C	150mm dia. HG PVC duct complete with draw wire	LM	40		
D	100mm duct with 150 mm thick 1:3:6 concrete surround for linking the manholes complete with draw wire	LM	25		
E	Trenching, sifting and backfilling the duct trench after laying the ducts and compaction	LM	80		
TOTAL CARRIED TO SUMMARY PAGE No. 29					

**PROPOSED WAREHOUSE FOR KENYS SEEDS COMPANY LTD NAIROBI/BLOCK
165/691 NAIROBI COUNTY, ELECTRICAL INSTALLATIONS**

SUMMARY PAGE

ITEM	DESCRIPTION	
<u>SUMMARY PAGE</u>		
A	Total Brought Forward From PAGE No. 8 For ground Floor	
B	Total Brought Forward From PAGE No. 14 For first Floor	
C	Total Brought Forward From PAGE No. 20 For second Floor	
D	Total Brought Forward From PAGE No. 25 For roof level	
E	Total Brought Forward From PAGE No. 26 For Lightning Protection	
F	Total Brought Forward From PAGE No. 27 For street lighting	
G	Total Brought Forward From PAGE No. 28 For telephone reticulation	
H	Contingency Sum	500,000.00
TOTAL FOR ELECTRICAL INSTALLATIONS CARRIED TO GRAND SUMMARY PAGE GS/1		

Amount in Figures: Kshs.....

Amount in Words: Kenya Shillings.....

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Official Stamp & Address:.....

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Tenderer's Signature:.....Date:.....

Witness' Name:.....Witness' Signature:.....

Address:.....

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STRUCTURED CABLING INSTALLATIONS

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED COMPANY LIMITED
ON NAIROBI/BLOCK165/691 NAIROBI COUNTY, PABX
ANDSTRUCTURED CABLING**

ITEM	DESCRIPTION	UNIT	QTY.	RATE KSHS	AMOUNT KSHS
	Supply, install, test, commission and maintain:-				
	CABINETS AND EQUIPMENT				
A	9U Cabinet lockable with a glass door complete with surge protected universal PDU power supply with at least 6 sockets and fan as Siemon.	NO	1		
B	24 port Cisco Catalyst Switch 3850 24 Port PoE (WS-C3850-24P-S)	NO	2		
C	24port Fibre/CU patch panel with spare ports fibre blanks as required	NO	2		
D	24port RJ45 CAT6E patch panel	NO	2		
E	5kVA rack mount UPS	NO	2		
F	1U cable managers	NO	2		
G	Cabinet accessories such as power cables,labels etc	Item	2		
H	1M Factory terminated Cat 6A 4 pair-UTP RJ 45- RJ 45 patch cords to be used inside cabinet as SIEMON	NO	12		
I	3M Factory terminated Cat 6A 4 pair-UTP RJ 45- RJ 45 patch cords to be used inside cabinet as SIEMON	NO	12		
	BACKBONE & horizontal CABLING SYSTEM				
	FIBER BACKBONE LINKS				
A	50/125µm 8 Core Armoured Fiber Optic Cable as SIEMON	LM	120		
B	High Density 1U Fiber Panel with Fixed Tray as SIEMON FCP3-RACK	No.	1		
C	8 Way Fiber Adapter as SIEMON RIC-F-SC8-01	No.	1		
D	Fiber Blanks as SIEMON RIC-F-BLNK-01	No.	2		
E	SC Fiber Connectors as SIEMON	No.	8		
F	2.0m LC-SC MM Fiber Patch Cords as SIEMON	No.	1		
G	Cat 6A cable	No.	12		
H	Cat 6A cable terminations including connectors.	No	12		
I	Networking accessories and consumables comprising of masking tapes,labels,cable ties etc,	LOT	1		
J	Dual data outlets Type RJ45 with face plates and outlets	NO	40		
K	Cisco 2911 Integrated Services Router to manage 4 wireless access points complete with software, configuration , support and warranty	Item	1		
	TOTAL CARRIED FORWARD TO PAGE No 3				

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED
COMPANY LIMITED ON NAIROBI/BLOCK165/691
NAIROBI COUNTY, PABX AND STRUCTURED CABLING**

ITEM	DESCRIPTION	UNIT	QTY.	RATE KSHS	AMOUNT KSHS
	Supply, install, test, commission and maintain:- PBX				
A	VOiP PBX or voice gateway,rack mounted with hardware and software capacity to operate 200 No.handsets,fully connected and configured including,power and network interface, accessories,associated PC server,keyboard and monitor.support (SDS)	Item	1		
B	Multimedia attendant console with PC,monitor,keyboard ,license software,power and network interface cables.	Item	1		
C	IP low end phones with software licence POE and or power supplies				
D	Standard head sets,desk top for offices	No.	40		
E	Access point in the various location to CISCO standard complete with power supply , cord and waranty as Cisco AIR-ANT2422DB-R'	No.	3		
F	2 No. Analogue Terminal Adaptors cards		1		
G	MDF equipment.	No.	1		
H	GSM modules.	No.	6		
I	2 No. Analogue Terminal Adaptors cards		1		
J	Liaison with ISPs and client's network staff, for systems connections, configuration, testing, certification,labeling,comisioning,documentation of entire system installation and training to employers staff.	Item	1		
TOTAL CARRIED FORWARD TO PAGE No 3					

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED
COMPANY LIMITED ON NAIROBI/BLOCK165/691**

ITEM	DESCRIPTION	AMOUNT KSHS
SUMMARY PAGE		
A	Total Brought Forward From Page No. 1	
B	Total Brought Forward From Page No. 2	
C	Allow for contingencies	200,000.00
TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE GS/1		

Amount in Figures: Kshs.....

Amount in Words: Kenya Shillings.....

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Official Stamp & Address:.....

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Tenderer's Signature:.....Date:.....

Witness' Name:.....Witness' Signature:.....

Address:.....

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CCTV INSTALLATIONS

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED COMPANY LIMITED ON NAIROBI/BLOCK165/691
NAIROBI COUNTY, CCTV SYSTEMS INSTALLATIONS INSTALLATIONS.**

ITEM	DESCRIPTION	UNIT	QTY	RATE Kshs	TOTAL (Kshs)
	Supply, Install, Test, Commission and Set to work as Hikvision or approved equivalent:				
A	48Channel Network Video recorder - NVR+inbuilt storage.	No.	1		
B	2 MP WDR fixed dome IP Camera (TYPE1)	No.	18		
C	4MP WDR fixed dome IP Camera (TYPE2)	No.	24		
D	Pan Tilt Zoom Camera - PTZ (TYPE3) 100Metre	No.	2		
E	Monitoring Screens 49", complete with mounting brackets	No.	2		
F	HDMI Cables, 10Meters	No.	4		
G	CAT 6 Cables (Boxes)	No.	30		
H	RJ 45 Connectors,CAT 6	No.	120		
I	3-meter RJ45 Patch Cords,CAT 6.UTP	No.	4		
J	5-meter RJ45 Patch Cords,CAT 6.UTP	No.	2		
K	24TB Storage distributed among harddisks in the NVRs (each hardisk capacity assumed +6TB)	Item	1		
L	Accessories for termination and labelling at both camera and patch panel within cabinet.	LOT			
M	PC as Dell Intel Core i7 8GB RAM 1TB + HDD 18.5" Monitor including for networkcardsstartup,optical mouse and ,graphics and ios necessary at keyboard,Joystic fully set-up interwiringssoftware,windows 10 or higher,	Item	1		
N	6 Metre Galvanised poles,Brackets and complete with 450x450x600mm deep pit reinforced by class 32 concrete and all other accessories	No.	8		
O	Labour, Installation, Testing and Commissioning including for liaison with the ICT subcontractor.	LOT	1		
TOTAL CARRIED FORWARD TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate (KES)	Amount (KES)
2.00	BIOMETRIC ACCESS CONTROL SYSTEMS INSTALLATION				
	Supply, Install, Test, Commission and Set to work:-				
2.01	ZK Teco F18 Fingerprint Standalone Access Control or approved equivalent	No.	20		
2.02	Magnetic Lock with 600kg holding force, 12/24VDC, 12V/500mA, 24V/250mA and with lock signal	No.	20		
2.03	Card Reader: ZK Teco FR1200	No.	20		
2.04	Override keyswitch	No.	20		
2.04	Magnetic Contacts	No.	20		
2.05	Magnetic brackets	No.	20		
2.06	Breakglass	No.	6		
2.07	Power supply Unit complete with power backup batteries	No.	2		
2.08	Signal and Power Cable	No.	2		
2.09	Installation Accessories	Lot	1		
2.10	Installation Charges	Item	1		
Total Carried forward to Summary Page					

ITEM	DESCRIPTION	AMOUNT (KSHs)
A	Total Brought Forward From Page No.1	
B	Total Brought Forward From Page No.2	
C	Allow for contingencies	200,000.00
TOTAL CARRIED TO GRAND SUMMARY PAGE GS/1		

Amount in Figures: Kshs.....

Amount in Words: Kenya Shillings.....

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Official Stamp & Address:.....

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Tenderer's Signature:.....Date:.....

Witness' Name:.....Witness' Signature:.....

Address:.....

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**PLUMBING, DRAINAGE, FIRE FIGHTING AND
COMPRESSED AIR INSTALLATIONS**

PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED COMPANY LIMITED ON NAIROBI /BLOCK 165/691
NAIROBI COUNTY, PLUMBING, DRAINAGE, FIRE FIGHTING AND COMPRESSED AIR INSTALLATIONS.

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
1.00	<p>SANITARY FITTINGS</p> <p>Supply, deliver and install the following appliances including their support brackets, screws etc. and their connection to water supply, waste/soil drainage and electrical power supply:- <u>NOTE: TRADE NAMES</u></p> <p><u>Where Trade or Brand Names are mentioned below, it is only an indication of quality. Equal and approved appliances may be supplied. Where trade names are mentioned, the Ref No. is intended only as a guide to the type and quality of fittings.</u></p>				
A	<p>Wall Hung WC Pan</p> <p>D-Code: WC Pan: Wall Hung: White, 54.5cm, Item Code: BWHDRDCO50, Color Code: White, Brand: Duravit, Brand Reference: 25350900002, or equal approved equivalent.</p>	No.	16		
	<p>WC Seat and Cover</p>				
B	<p>Happy D.2: Seat Cover: Soft Close + Hinges: White, Item Code: BWHDRHAP56 Brand: Duravit, Color: White or equal approved equivalent.</p>	No.	16		
	<p>WC Flush Valves</p>				
C	<p>Docol: Flush Valve: 1.5", Low Pressure, Item Code: DFLUVAL07 Brand: Docol, Brand Reference: 01021500 complete with Salvagua Anti Vandal Dual Flush Cover Plate, Item Code: DFLUVAL82, Brand: Docol Brand Reference: 00572706 or equal approved equivalent.</p>	No.	16		
	<p>Toilet Roll Holder</p>				
D	<p>Mediclinics 0.8mm stainless steel AISI 304, satin finish, one piece body and lid industrial toilet paper dispenser for 1 layer paper roll capacity of 230m, Ref No. PRO783CS or approved equivalent with modular axis system in thermoplastic for industrial rolls and a lock system for a standard mediclinics key</p>	No.	16		
	<p>Vanity top WHB</p>				
E	<p>White vitreous china 550 x 400 mm vanity type WHB as Duravit D Code Range Ref 033754 with one taphole</p>	No.	19		
	<p>WHB Accessories</p>				
F	<p>Tapis: Basin Tap 1/4 Turn, Chrome Plated, Item Code: CBSTPTAZZ06 Brand: Tapis, Brand Reference: 12002F2, Color: Silver or equal approved equivalent.</p>	No.	19		
G	<p>Tapis 32mm CP bottle trap Ref No. C53012 with 200mm tail pipe, cap nut and wall flange</p>	No.	19		
H	<p>Tapis 32mm pop up basin waste in CP Ref No. G9802</p>	No.	19		
	<p>Kitchen Sink.</p>				
I	<p>FRANKE Stainless Steel Kitchen Sink double bowl, - 120X60CM, Catalogue No. SPN 721-120 or equal approved equivalent.</p>	No.	2		
TOTAL CARRIED FORWARD TO COLLECTION PAGE: G1/4					

DESCRIPTION				AMOUNT
				Kshs.
Kitchen sink tap.				
A	Tapis: Enoch Sink Mixer, Item Code: CBSMXTAZZ06, Brand Reference: WGH56477C or equal approved equivalent.	No.	2	
B	Tapis 32mm pop up basin waste in CP Ref No. G9802	No.	2	
Bowl Urinals				
C	White Duravit " D-Code " urinal bowl size 305 x 295 x 570mm, back entry inlet with concealed trap Ref 082930 with doomed waste	No.	5	
D	Stern Jupiter 2030E urinal flush valve, housing for electronic urinal complete with shut off valve Ref 125200 and Hytronic urinal electronic flush valve, AC operated with cover plate	No.	5	
E	White Cotto urinal divider 400 x 705 x 8mm thick, Ref C306	No.	1	
Showers				
F	Docol: Primor Stop Cock; 3/4in, Chrome Plated, Item Code: DFLUVAL218, Brand Reference: 00923106 or equal approved equivalent.	No	5	
G	Automatic turn on/off with uniform hot water flow instant shower to be as maxiducha alta lorenzetti or equal approved equivalent.	No.	5	
H	Tapis: Round Brass/Chrome Plated Shower Arm; (200×φ30)mm Item Code: CSHARJIZZ06, Brand Reference: G0088-1CP or equal approved equivalent.	No.	5	
Foot tap				
I	Tapis: Wall Type Star Head Bib Tap With Hose Union; 11cm, Chrome Plated, Item Code: CBBCKTAZZ08, Brand Reference: 603-2S or equal approved equivalent.	No.	5	
Towel Rail.				
J	Tapis: Towel Bar, Single, Item Code: ETWLBAR268, Brand: Tapis, Brand Reference: D0280270C or equal approved equivalent.	No	5	
Waste Bin				
K	Stainles Steel Step Bin; 5lts Mirror Polish, Item Code: ZSTPBIN60, Brand: Tramontina, Brand Reference: 94538105, Weight: 1.105 kg or equal approved equivalent.	No.	11	
Hand dryer				
L	Tapis: Stainless Steel Infrared Hand Dryer, 1000W: White, item code: EHND DRY12, Brand Reference: K2020 or equal approved equivalent.	No.	11	
M	Tapis: Infra Red Soap Dispenser, White ABS; 1000ml, Item Code: ESOPDSP43 Brand Reference: HSD-F9305 or equal approved equivalent.	No.	11	
N	Tapis: Tissue Paper Dispenser; Satin SS304, Item Code: ETRLHLD403, Brand Reference: MC-8955 or equal approved equivalent.	No.	11	
Mirror				
O	600 x750 x110 mm white vitreous china mirror mounted into the wall as Twyford's Bathrooms Ltd.	No.	9	
P	1500 x750 x110 mm white vitreous china mirror mounted into the wall as Twyford's Bathrooms Ltd.	No.	5	
TOTAL CARRIED FORWARD TO COLLECTION PAGE: G1/4				

DESCRIPTION				AMOUNT
				Kshs.
	Coat Hook			
A	Logis Universal: Double Hook, Chrome Plated,Wall-mounted, Material holder: metal,Material: brass.Item Code: EROBHK4002, Brand: Hansgrohe,Brand Reference: 41725000 or equal approved equivalent.	No.	16	
	Grab rails.			
B	Straight Grab Bar: Handicap Satin,Item Code: EGRBBAR020, Brand Reference: BR0600CS or equal approved equivalent.	No.	4	
	Toilet brush Holder.			
C	Logis Universal: Toilet Brush + Holder; Wall Mount, Chrome Plated, Wall-mounted,Material: Item Code: ETBRHLD093,Brand: Hansgrohe, Brand Reference: 41722000,Color: White or equal approved equivalent.	No.	16	
	Angle Regulating Valves			
D	1/2" Chrome plated angle regulating valve with 350 mm long service connection and wall plate	No.	37	
TOTAL CARRIED FORWARD TO COLLECTION PAGE: G1/4				

	DESCRIPTION	AMOUNT
	<p>COLLECTION PAGE.</p> <p>A Total Brought Forward from Page No. G1/1</p> <p>B Total Brought Forward from Page No. G1/2</p> <p>C Total Brought Forward from Page No. G1/3</p>	<p>Kshs.</p>
	TOTAL CARRIED FORWARD TO MAIN COLLECTION PAGE M/S.	

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
2.00	INTERNAL PLUMBING <u>Supply, deliver and install plastic "CAGLAR PLASTIK" PPRC pipes or equal and approved equivalent.</u> <u>Tenderers must allow in their pipework prices for all the couplings, connectors, unions, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, and pipe sleeves through structural members.</u>				
A	25 mm diameter PPRC PN 20 Grey Pipes	LM	80		
B	40 mm diameter PPRC PN 20 Grey Pipes	LM	90		
C	50 mm diameter PPRC PN 20 Grey Pipes	LM	320		
D	65 mm diameter PPRC PN 20 Grey Pipes	LM	250		
	Extra Over PPRC Tubing for the following:-				
E	25 mm diameter PPRC Bend	No.	11		
F	40 mm diameter PPRC Bend	No.	7		
G	50 mm diameter PPRC Bend	No.	15		
H	65 mm diameter PPRC Bend	No.	4		
I	25 mm diameter PPRC 90 Degrees Equal Tee	No.	14		
J	25 mm diameter PPRC 90 Degrees Female Tee	No.	5		
K	40 mm diameter PPRC 90 Degrees Equal Tee	No.	1		
L	40 x 25 mm diameter PPRC 90 Degrees Unequal Tee	No.	5		
M	50 x 40 mm diameter PPRC 90 Degrees Unequal Tee	No.	3		
N	65 X 25mm diameter PPRC 90 Degrees Unequal Tee	No.	1		
O	65 X 50mm diameter PPRC 90 Degrees Unequal Tee	No.	1		
P	40 x 25 mm diameter PPRC Reducer	No.	3		
Q	50 x 25 mm diameter PPRC Reducer	No.	1		
R	65 x 50 mm diameter PPRC Reducer	No.	1		
S	25 x 1/2" diameter PPRC Female Screwed Elbow	No.	33		
T	40 x 1 1/2" diameter PPRC Female Screwed Elbow	No.	15		
U	25 x 1" diameter PPRC Male Screwed Adaptor	No.	14		
V	40 x 1/2" diameter PPRC Male Screwed Adaptor	No.	8		
W	65 x 2 1/2" diameter PPRC Male Screwed Adaptor	No.	6		
TOTAL CARRIED FORWARD TO COLLECTION Page No. G1/8					

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
	Gate Valves				
A	25 mm diameter approved high pressure screw-down fullway non-rising stem, solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Pegler" or equal and approved	No.	2		
B	40mm Ditto.	No.	4		
C	65mm ditto	No.	3		
	Roof Water Storage Tanks.				
D	Rotationally moulded polyethylene tank tested to BS 2782: Method of Testing Plastics: of nominal capacity of 5,000 Litres (880 Gallons) of size diameter 1780mm x 1790mm high as manufactured by "ROTO MOULDERS LTD" Loftank cylindrical vertical closed end tank with lid Model SL No. 23 complete with inlet, outlet and overflow connections as described below: - - 50 mm diameter inlet pipe connection - 65 mm diameter overflow pipe connection - 65 mm diameter Interconnecting pipe connection - 65 mm diameter outlet pipe connection				
	Tank Connectors				
	6No. 65 mm diameter ditto.	No.	2		
	Accessories To R C Water Storage Tank				
	Paddle Flanges				
	Ball Valve and Float				
E	PEX 2 1/2" (65 mm) diameter high pressure cast brass ball valve MOH Pattern with 1 1/4" shank complete with ball float	No.	1		
F	50 mm diameter steel paddle flanges	No.	1		
G	65 mm diameter steel paddle flanges	No.	1		
H	100 mm diameter Tank breathers.	No.	2		
	Lifting Pump				
I	Pedrollo multistage submersible pump, Pump to be as " Pedrollo " Model No.Upm8/4 or equal and approved with a discharge of 2.77l/s (10m ³ /hr) against a head of 20 m with a power supply of 1.5kW 1x240V 50 Hz , or equal approved equivalent.	No.	1		
	Float Switch & Cable				
J	Ground level tank, low water level cut out float switch, roof tanks high level and low level cut out and cut-in float switch inclusive of cables(approx. 200 metres).	Item	1		
TOTAL CARRIED FORWARD TO COLLECTION Page No. G1/8					

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
	Water meter application				
A	Allow for a 65mm diameter council water application meter and connection.	Item	1		
B	Allow for a 65mm PPRC pipe for connection to main nairobi water line approximatel 1500m away, allow for bemds, sockets e.t.c	LM	1,300		
C	Factory acceptance test as necessary for various mechanical equipments	Item	1	650,000.00	650,000.00
	Sterilization				
D	Allow for sterilization of the whole of the plumbing system with chlorine	Item	1		
	Testing & Commissioning				
E	Allow for setting to work, testing and commissioning of the whole of the plumbing system inclusive of water for testing purposes	Item	1		
TOTAL CARRIED FORWARD TO COLLECTION Page No. G1/8					

ITEM	DESCRIPTION	AMOUNT Kshs
COLLECTION PAGE		
A	Total Brought Forward From Page No. G1/5	
B	Total Brought Forward From Page No. G1/6	
C	Total Brought Forward From Page No. G1/7	
TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
3.00	<p>FOUL WATER DRAINAGE</p> <p><u>Supply and fix uPVC soil system to BS 4660 and BS 4515; and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21.</u></p> <p><u>Solvent welded joints shall be as per the systems manufacturer's written instructions.</u></p> <p><u>Tenderers must allow in their pipework prices for all the couplings, connectors, joints etc as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed.</u></p> <p><u>The installation must comply with BS 5572.</u></p> <p><u>MuPVC Waste System conforming to BS 5255 Heavy Gauge Pipework Class 41.</u></p>				
A	40 mm diameter waste pipe	LM	60		
B	50 mm diameter Waste pipe	LM	60		
	Extra Over MuPVC Waste Pipework for the following:-				
C	40 mm diameter 90 degrees Sweep Bend	No.	30		
D	40 mm diameter 135 degrees Sweep Bend	No.	20		
E	40 mm diameter 90 degrees Sweep Tee	No.	28		
F	50 mm diameter 90 degrees Sweep Tee	No.	4		
G	50 mm diameter 135 degrees Sweep Bend	No.	4		
H	100 mm diameter 90 degrees Sweep Tee	No.	12		
I	100 x 50mm diameter 90 degrees Sweep Tee	No.	12		
J	50 x 40 mm diameter reducer.	No.	3		
K	40 mm diameter Access Plug	No.	16		
L	50 mm diameter Access Plug	No.	2		
M	100 mm diameter Light Grey Soil Pipe	LM	80		
	Extra Over uPVC Soil Pipework for the following: -				
N	100 mm diameter 92 Deg. Light Grey Sweep Bend	No.	9		
O	100 mm diameter Light Grey Weathering Apron	No.	5		
P	100 mm diameter Light Grey Weathering Slate	No.	5		
Q	100 mm diameter Light Grey Vent Cowl	No.	5		
	uPVC Buried Drain System conforming to BS 4660 Heavy Gauge Class 41 Pipework				
R	150 mm diameter Golden Brown Buried Drain Pipe	LM	275		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. G1/11					

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
	Inspection Chambers - Heavy Duty (As Bilco Engineering)				
A	Allow excavation, concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, heavy duty rectangular cover and frame as manufactured by Bilco Engineering for manhole not exceeding 1000 mm depth.	No.	25		
	Gully Trap				
B	Allow for a masonry gully trap of size 300 x 300 x 450 mm deep with cast Iron P-Trap, cast iron grating, drain pipe, concrete cover, etc.	No.	6		
C	100 x 50 Trapped Floor with 3 No. 40 mm diameter inlets and 50 mm diameter outlet	No.	18		
D	Floor trap cover 150 x 150 mm with 100 mm diameter inlet	No.	18		
	Excavation				
E	Excavate trench for buried drain pipes not exceeding 1000 mm and average 600 mm deep, part return, fill in, ram and remainder cart away.	LM	275		
	Testing & Commissioning				
F	Allow for setting to work, testing and commissioning	Item	1		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. G1/11					

ITEM	DESCRIPTION	AMOUNT
		Kshs
	COLLECTION PAGE	
A	Total Brought Forward From Page No.G1/9	
B	Total Brought Forward From Page No.G1/10	
TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
4.00	FIRE FIGHTING				
	Hose Reel Pump.				
A	Stainless steel frame mounted coupled in parallel provided with all necessary fittings. Make: Dayliff, Model DFS8 or equal & approved equivalent. Pumps: Vertical multistage fire hose reel pumps (1 duty/1 standby) Power: 3.4x 3ph 50Hz. pressure tank, 1x 300L Capacity (each pump): 12m ³ /hr. at 4.0bar Complete with Bronze Hattersley PN20 isolating valves, Hattersley non-return valves with neoprene gasket (for quiet operation), Bronze strainer (fine mesh), control panel incorporating isolator, changeover switch, single phase failure protection, auto sequencing, indicator lamps, hour meters, ammeters, voltmeter, dry running protection, associated electrical wiring, complete.	Item	1		
	<u>Supply, deliver, install, test and commission the following:-</u>				
	PIPEWORK				
	<u>Galvanised mild steel piping to BS 1387 Heavy Grade with screwed and socketed joints to BS 21 and galvanized cast iron fittings and jointing to BS 143.</u>				
	<u>Tenderers must allow in their prices for all the couplings, connectors, unions, joints, etc as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holderbats, plugged and screwed, and pipe sleeves through structural members.</u>				
	<u>The tenderer must allow also for painting the pipework and fittings with an undercoat and 2 coats of signal red oil paint</u>				
B	50mm dia Black Steel	m	275		
C	25mm dia Black Steel	m	40		
D	20mm dia Black Steel	m	10		
	Extra Over GMS Tubing for the following: -				
E	25 mm diameter GCI Bend	No.	6		
F	50 mm diameter GCI Bend.	No.	4		
G	25 x 20 mm diameter GCI Tee.	No.	2		
H	50 mm diameter GCI Equal Tees	No.	3		
I	50 x 25mm diameter GCI Tees	No.	4		
J	25x20 mm diameter GCI Reducer.	No.	4		
K	50 x 25mm diameter GCI reducer.	No.	1		
	Brass valves etc. including adaptor couplings				
L	50 DN Gate valve	No.	1		
M	20 DN gate valve.	No.	8		
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. G1/14					

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
A	Supply & Install Fire Hose Reels (30m long) c/w chromium plated 25mm valve, fittings, fixings, etc.	No.	8		
	Supply and Install Portable Fire Extinguishers c/w mounting brackets fixed inside cabinets, signage and surface mounted where required mounted inside cabinets for the following types and capacities:				
B	5kg CO2 Fire Extinguisher	No.	8		
C	9 kg Dry Powder Fire Extinguisher	No.	8		-
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. G1/14					

ITEM	DESCRIPTION	AMOUNT
		Kshs
	COLLECTION PAGE	
A	Total Brought Forward From Page No.G1/12	
B	Total Brought Forward From Page No.G1/13	
	TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.	

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
5.00	<u>COMPRESSED AIR SYSTEM.</u>				
A	<p>Re-location of existing 2No. Compressed air system.</p> <p>Allow for relocating of existing compressed air system as described below-:</p> <p>a) Belt Driven - 15 Hp - Rotary Screw Air Compressor w/Refrigerated Dryer & Tank - Airhourse AHB-15A</p> <p>_Type: Single Screw Compressor</p> <p>_Configuration: Stationary</p> <p>_Power Source: AC Power</p> <p>_Lubrication Style: Lubricated</p> <p>_voltage: 380v/3ph/50hz</p> <p>_Motor power: 11kw/15hp</p> <p>_Air flow: 1.9m3/min-2.3m3/min</p> <p>_Dimension(L*W*H):2000*800*1800mm</p> <p>_Weight: 510kg Discharge pressure: 7 bar-10bar</p> <p>_Noise level: 63-67db</p> <p>_Lubricant: 18L</p> <p>_Tank: 1000 liters.</p> <p>_Cooling System: Air Cooling</p> <p>b) Single-stage, oil-injected screw compressor atlas copco GA7 with the following as described below-:</p> <p>_Operating pressure 8.3bar/120psi/0.83mpa.</p> <p>_Qv :18.6/s or 39.4cfm or 1.12m3/min.</p> <p>_P motor 7.5kw or 10hp.</p> <p>_n motor/ Revolutions2940r/min.</p> <p>_ Weight 352kg.</p> <p>ACCESSORIES FOR BOTH COMPRESSORS.</p> <p>Pressure reducing assembly comprising the following: -</p> <ul style="list-style-type: none"> Ø Stop valve Ø Strainer Ø Pressure gauge-100mm dial with syphon and cock to suit upstream pressure Ø Pressure reducing valve Ø Stop valve to suit pressure control pipe Ø Safety valve Ø Pressure gauge-100mm dial . <p>Note-: The contractor is advised to visit the site (at Ruaraka) to familialize herself/himself on the kind of systems to be relocated.</p>	Item	1		
B	Allow for dismantling and assembling/installation of the above systems.	Item	1		
C	Allow for dismantling and installation of existing compressed air system pipework and all accessories.	Item	1		
D	Allow a PC sum for additional pipework and accessoris as may be instructed by the engineer/architect based on site conditions.	Item	1	850,000.00	850,000.00
TOTAL CARRIED FORWARD TO COLLECTION PAGE No. G1/15					

ITEM	DESCRIPTION	AMOUNT Kshs
	<p>COLLECTION PAGE.</p> <p>A Total Brought Forward From Page No.G1/15</p>	
	TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.	

ITEM	DESCRIPTION	AMOUNT Kshs
MAIN SUMMARY PAGE		
A	Total Brought Forward From Preliminary Page No. A/19	
B	Total Brought Forward From Page No. G1/4	
C	Total Brought Forward From Page No. G1/8	
D	Total Brought Forward From Page No. G1/11	
E	Total Brought Forward From Page No. G1/14	
F	Total Brought Forward From Page No. G1/16	
G	Add contingency	500,000.00
TOTAL CARRIED TO GRAND SUMMARY PAGE GS/1		

Amount in Words: Kenya Shillings.....

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Sub-Contractor's Official Stamp & Address:.....

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Sub-Contractor's Signature:.....Date:.....

Witness' Name:.....Witness' Signature:.....

Address:.....

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Date:.....

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**AIR CONDITIONING AND MECHANICAL
VENTILLATION**

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED COMPANY LIMITED ON NAIROBI/BLOCK165/69
NAIROBI COUNTY,MECHANICAL VENTILATION AND AIR CONDITIONING INSTALLATIONS.**

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
	<p><u>Supply, deliver, install, test and commission the following equipment as described:-</u></p> <p>FUME EXHAUST FANS.</p> <p>A Exhaust axial fan, flow rate 90 l/s or 324 CMH against a total fan static pressure of 150 N/m².</p> <p>Fan to be complete with supports, flexible connections and anti-vibration mountings.</p> <p>Fan as "SYSTEMAIR" Code:AXC 315, power supply of 0.75 KW,240V, 50Hz, sound pressure level of 90 dBA or equal and approved equivalent.</p> <p>Ductwork</p> <p>B Galvanised mild steel ductwork 0.6mm (24G) thick for ducts less than 600mm complete with bends, transformation pieces, offsets, branch duct take offs, flanges, hangers, supports, sleeves, flexible connections, access doors, test holes with plugs, stiffeners, expanders, reducers, turning vanes etc and any other for completion.</p> <p>C Large format single or double deflection aluminium grilles with individually adjustable vanes at 38mm pitch, screw fixed through nylon bearings to prevent vane vibration and rattle. The grill to be as Waterloo Ozonair heavy duty adjustable grilles Series K, Model 2HK/OBD/200/200 or equal approved equivalent.</p> <p>Silencer</p> <p>D Splitter silencer, casing constructed of lock formed pre-galvanised sheet steel and absorbent material of acoustic grade resin bonded mineral fibre with an erosion resistant lining. Silencer to be of size 200 x 200 mm with 100 mm wide airways Silencer to be as "Waterloo duct silence series WDS/P splitter silencer model No.WDS/500/P/200/200 or equal and approved with the same performance characteristics</p> <p>External Weather Louvre</p> <p>E External weather louvre suitable for duct mounting with a weather resistant cover for extract opening complete with galvanised coated wire mesh and insect/bird screen on the front face.Frames and blades fabricated from extruded aluminium sections. Shall be as " Waterloo Ozonair, Ref: YG/EF/300/300/SF or equal approved equivalent.</p> <p>F Allow a PC sum for relocating existing ductwork of the following machines, pre-cleaner, fine cleaner and gravity separator table to the satisfaction of the engineer/architect.</p>	No.	1		
		SM	30		
		No	2		
		No.	2		
		No.	1		
		Item	1	450,000.00	450,000.00
	TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.				

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED COMPANY LIMITED ON NAIROBI/BLOCK165/69
NAIROBI COUNTY,MECHANICAL VENTILATION AND AIR CONDITIONING INSTALLATIONS.**

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
	Relocating of existing Splits units air conditioners.				
A	Allow for relocating of existing 1No. 6.3KW carrier split unit and 5No. 6.3KW Trane air conditioning split units. The units to be relocated together with their refrigeration pipeworks, insulations,refrigerants, thermostats, wall brackets etc.				
	It is recommended that, the contractor to do a site visit to familiarize herself/himself before pricing for this item.	Item	1		
	<u>Supply, deliver, install, test and commission the following equipment as described:-</u>				
2.00	<u>Indoor Ceiling Mounted Air Conditioning units</u>				
B	Ceiling mounted 4 way cassette (570x256x570 mm) indoor air Conditioners complete with direct Expansion Unit, room thermometer and Infrared remoted control device. Three fan speeds even air distribution, easily cleanable reusable filters , drain pan, direct expansion cooling coil with copper tubes and aluminium fins, anti-vibration mountings for fans and the unit, refrigeration pipework and circuit panel control with LED, Automatic shut off, filter-drier and sight glass, of a cooling load 18,000Btu/hr (5.6KW) operating on R 410A.				
	The unit shall be such that if the power supply goes off, it will restart automatically after power is restored.				
	The Unit shall be as "LG ARNU18GTQC2" suitable for ceiling mounting installation or equal and approved.	No.	8		
C	7.1KW ditto.	No.	1		
	Mounting Support				
D	Allow for suitable wall mounting supports for the above Indoor units and wall brackets suitable for outdoor condensing units	Item	1		
	<u>Air Cooled Outdoor Unit</u>				
E	VRF system Outdoor heat pump shall be suitable for operation on R410A refrigerant and of cooling/heating capacity 56.0 kW of LG MUILT V IV, Model ARUV2200LTS4 or equal and approved. Unit to be complete with mounting brackets, anti vibration mountings and refrigerant R410A charge.	Item	1		
	Controls				
F	Allow for the controls of the Variable Air Cooled Condensing Units including wiring, connectors, terminal block, etc	No.	1		
	Electrical Works for the Air Cooled Condensing Unit				
G	Allow for all electrical works including conduits and wiring from equipment to isolators and from the terminal block to the outdoor unit or the local DP/switches	item	1		
TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.					

**PROPOSED WAREHOUSES AND OFFICES FOR KENYA SEED COMPANY LIMITED ON NAIROBI/BLOCK165/69
NAIROBI COUNTY,MECHANICAL VENTILATION AND AIR CONDITIONING INSTALLATIONS.**

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				Kshs	Kshs
Refrigeration Pipework					
A	6.35 mm (1/4") diameter high quality copper refrigeration pipework including pipework fittings, isolating valves, holderbats, trays, etc	LM	30		
B	9.52 mm (3/8") diameter ditto	LM	150		
C	12.7 mm (1/2") diameter ditto	LM	35		
D	15.88 mm (5/8") diameter ditto	LM	150		
E	22.2 mm (7/8") diameter ditto	LM	10		
F	28.58 mm (1 1/8") diameter ditto	LM	10		
Refrigeration Pipework Insulation					
G	25 mm Armaflex insulation for suction refrigerant pipe complete with Gauge 20 Aluminium cladding.	LM	385		
Drainage Pipework					
H	32 mm diameter Class 41 uPVC condensate pipe	LM	240		
I	32 mm diameter Class 41 uPVC Sweep bend	No	24		
Electrical Works					
J	Allow for all electrical works including conduits and wiring from equipment to local DP switches and isolators				
	Allow for suitable Surge protector and the accessories for the above units	Item	1		
Instruction Period					
K	Allow for instruction period, necessary stock of spare parts and maintenance during the 6 months defects liability period	Item	1		
L	Factory acceptance test as necessary for various mechanical equipments.	Item	1	450,000.00	450,000.00
Operating Manuals and Drawings					
M	Allow for the preparation of operating manuals and "As Installed Drawings"	Item	1		
Testing and Commissioning					
N	Allow for any necessary items for complete installations, setting to work, air balancing, testing and commissioning of the air conditioning system to the satisfaction of the Engineer.	Item	1		
TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.					

NAIROBI COUNTY,MECHANICAL VENTILATION AND AIR CONDITIONING INSTALLATIONS.

ITEM	DESCRIPTION	AMOUNT Kshs
SUMMARY PAGE		
A	Total Brought Forward From Preliminary Page No. A/19	
B	Total Brought Forward From Page No. E1/1	
C	Total Brought Forward From Page No. E1/2	
D	Total Brought Forward From Page No. E1/3	
E	Allow for contingency	250,000.00
TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE GS/1		

Amount in Words: Kenya Shillings.....

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Sub-Contractor's Official Stamp & Address:.....

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Sub-Contractor's Signature:.....Date:.....

Witness' Name:.....Witness' Signature:.....

Address:.....

.....

Date:.....

WASTE WATER TREATMENT EQUIPMENT

Item	Description	Unit	Qty	Rate	Amount (Kshs)
1	<p>WASTE WATER TREATMENT PLANT EQUIPMENTS. Supply, deliver,install, test and comission a waste water treatment plant as described below-:</p> <p>A supply, deliver, test and commission packaged waste water treatment plant equipments-Sequential Batch reactor sewage (SBR) treatment plant or equal equivalent approved capable of treating 12m³/day of waster water. The Plant shall be capable of treating the waster water to achieve NEMA effluent standards for irrigation purposes.</p> <p>B Factory acceptance test as necessary for various mechanical equipments As installed drawings</p> <p>C Allow for preparation of "As installed and record drawings" Training Period</p> <p>D Allow for Training of the client staff on the operation and maintenance of the Water treatment equipment. Testing & Commissioning</p> <p>E Allow for setting to work, testing and commissioning of the system.</p>	Item	1		
	TOTAL CARRIED FORWARD TO MAIN SUMMARY PAGE M/S.				

PROPOSED WAREHOUSES AND OFFICES FOR SIMLAW SEEDS CO. LTD ON LR 209/20269
 AT KYANGOMBE NAIROBI COUNTY WASTE WATER TREATMENT PLANT.

ITEM	DESCRIPTION	AMOUNT SHS.
A	MAIN SUMMARY COLLECTION PAGE Total Brought Forward From Page No.D 1/1	
	TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE GS/1	

Amount in Words: Kenya Shillings.....

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Sub-Contractor's Official Stamp & Address:.....

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Sub-Contractor's Signature:.....Date:.....

Witness' Name:.....Witness' Signature:.....

Address:.....

.....

Date:.....

GRAND SUMMARY

**PROPOSED WAREHOUSES AND OFFICES FOR
SIMLAW SEED CO. LTD ON LR. NO. 209/202269 AT
KYANGOMBE NAIROBI**

GRAND SUMMARY PAGE

1	Preliminaries	- Page 20
2	Bill No. 1 Go Downs	- Page 1/18
3	Bill No. 2 Gate House	- Page 2/13
4	Bill No. 3 Generator Room	- Page 3/13
5	Bill No. 4 External works	- Page 4/8
6	Bill No. 5 Area for Future Extension	- Page 5/1
7	Bill No. 6 Landscaping	- Page 6/4
8	Bill No. 7 Underground Water Tank	- Page 7/3
9	Bill No. 8 Biodigester Civil Works	- Page 8/2
12	BILL 9 . Prime Cost and Provisional Sums	- Page 9/1
10	Electrical Installations	- Page 29
11	Structured Cabling	- Page 3
12	CCTV installations	- Page 3
13	Plumbing, Drainage, Fire Fighting and Compressed Air Installations	- Page G1/17
14	Air Conditioning and Mechanical Ventillation	- Page E1/4
15	Waste Water Treatment Equipment	- Page D1/2

Sub- Total A

**Add: Contingency Sum at 2.5% of Sub Total A
above**

**TOTAL TENDER SUM CARRIED TO FORM OF
TENDER**

Submitted by:

Contractors Name.....

Address.....

Signature.....				
Date.....				
Witnessed by:				
Contractors Name.....				
Address.....				
Signature.....				
Date.....				