

REPUBLIC OF KENYA



COUNTY GOVERNMENT OF KIRINYAGA
P.O. BOX 260 - 10304,
KUTUS.

DEPARTMENT OF MEDICAL SERVICES, PUBLIC HEALTH & SANITATION

OPEN TENDER DOCUMENT

FOR
PROPOSED CONSTRUCTION OF KIANDAI DISPENSARY IN KIINE
WARD, KIRINYAGA COUNTY PHASE 3.

TENDER NO: CGK/MP&S/ONT/001/2023-2024

TENDER NEGOTIATION NO: 1356924-2023/2024

(Reserved for AGPO)

County Government of Kirinyaga
P.O. Box 260-10304
KUTUS
Website: www.Kirinyaga.go.ke

SEPTEMBER, 2023

TABLE OF CONTENTS

INVITATION TO TENDER	3
PART 1 - TENDERING PROCEDURES	5
SECTION I: INSTRUCTIONS TO TENDERERS	6
A GENERAL PROVISIONS	6
B. CONTENTS OF TENDER DOCUMENTS	10
C. PREPARATION OF TENDERS	11
D.SUBMISSION AND OPENING OF TENDERS	17
SECTION II - TENDER DATA SHEET (TDS)	27
SECTION III - EVALUATION AND QUALIFICATION CRITERIA	30
MATERIALS AND WORKS	Error! Bookmark not defined.
GENERAL SPECIFICATIONS OF MATERIALS AND WORKS	Error! Bookmark not defined.
PART III - CONDITIONS OF CONTRACT AND CONTRACT FORMS	20
SECTION VIII - GENERAL CONDITIONS OF CONTRACT	21
SECTION IX - SPECIAL CONDITIONS OF CONTRACT	Error! Bookmark not defined.

INVITATION TO TENDER

PROCURING ENTITY: COUNTY GOVERNMENT OF KIRINYAGA

TENDER NEGOTIATION NO: 1356924-2023/2024

CONTRACT NAME AND DESCRIPTION: PROPOSED CONSTRUCTION OF KIANDAI DISPENSARY IN KIINE WARD, KIRINYAGA COUNTY PHASE 3

1. The County Government of Kirinyaga invites sealed tenders for the **PROPOSED CONSTRUCTION OF KIANDAI DISPENSARY IN KIINE WARD, KIRINYAGA COUNTY PHASE 3**
2. Tendering will be conducted under open competitive method National using a standardized tender document. Tendering is open to all qualified and interested *Small and Medium Enterprises registered appropriately with YOUTH Enterprises, Women Enterprises and Enterprises of persons living with disability.*
3. Qualified and interested tenderers may obtain further information and inspect the Tender Document at Supply Chain Office 1st floor, Kirinyaga County Headquarters during office between **8.00am** and **5.00pm** Kenyan Time, Monday to Friday except lunch time between **1.00 pm** to **2:00 pm** and on public holidays.
4. A complete set of tender documents may be obtained by interested tenders for free. Tender documents may be obtained electronically from the County Website www.Kirinyaga.go.ke or <https://tenders.go.ke>. Tender documents obtained electronically will be free of charge.
5. A complete set of tender documents may be obtained by interested tenders for free.
6. Tender documents may be viewed and downloaded for free from the website www.Kirinyaga.go.ke. Tenderers who download the tender document must forward their particulars immediately to procurement@kirinyaga.go.ke to facilitate any further clarification or addendum.
7. All Tenders must be accompanied by a ***“Tender - Securing Declaration,”***
8. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
9. Completed tenders **MUST** be submitted **electronically** on or before **11th October 2023 at 10:00 AM**
10. 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.
11. Late tenders will be rejected.
12. The addresses referred to above are:

Address for obtaining further information and for purchasing tender documents.

County Government of Kirinyaga
Physical address 1st Floor County Headquarters Kutus, County
P.O Box 260 – 10304 KUTUS
Director Supply Chain Services

Address for Submission of Tenders.

Name of Procuring Entity County Government of Kirinyaga

P.O Box 260 – 10304 KUTUS,

Physical address for the location (1st Floor Kirinyaga County Headquarters, Kutus)

Address for Opening of Tenders.

County Government of Kirinyaga

Physical address for the location (1st Floor Kirinyaga County Headquarters, Kutus)

P.O Box 260 – 10304 KUTUS,

HEAD SUPPLY CHAIN MANAGEMENT.

FOR: COUNTY SECRETARY & HEAD OF PUBLIC SERVICE

PART 1 - TENDERING PROCEDURES

SECTION I: INSTRUCTIONS TO TENDERERS

A GENERAL PROVISIONS

1. 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**.

2. 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 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.

- 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 being tendered for. The Procuring Entity shall indicate in the **TDS** firms (if any) that provided consulting services for the contract being tendered for. The Procuring Entity shall check whether the owners or controllers of the Tenderer are same as those that provided consulting services. The Procuring Entity shall, upon request, make available to any tenderer information that would give such firm unfair competitive advantage over competing firms.

3. Eligible Tenderers

- 3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT

3.7 or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. Public employees and their close relatives (*spouses, children, brothers, sisters and uncles and aunts*) are not eligible to participate in the tender. 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. 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 another tenderer; or
- b) Receives or has received any direct or indirect subsidy from another tenderer; or
- c) Has the same legal representative as another tenderer; or
- d) 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; or
- e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender; or
- f) any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as Engineer for the Contract implementation; or
- 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 or
- h) Has a close business or family relationship with a professional staff of the Procuring Entity who:
 - 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) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.

3.4 A tenderer shall not be involved in corrupt, coercive, obstructive, collusive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified.

3.5 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. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender. 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.

3.6A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.8.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 subcontractors or sub- consultants for any part of the Contract including related Services.

3.7Tenderer 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.

3.8Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are accredited by PPRA to be (i) a legal public entity of the state 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.

3.9A Firms and individuals may be ineligible if their countries of origin (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country, or (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.

3.10Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, subcontracts and labor) from national 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 to determine if this condition is met shall be provided in for this purpose is be provided in *“SECTION III - EVALUATION AND QUALIFICATION CRITERIA, Item 9”*.

3.11 Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan.

Citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan citizens. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

3.12The 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

3.14 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a valid tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4. Eligible Goods, Equipment, and Services

4.1 Goods, equipment, and services to be supplied under the Contract may have their origin in any country that is not eligible 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.

4.2 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.

5. Tenderer's Responsibilities

5.1 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.

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

5.3 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 all 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 inspection.

5.4 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.

B. CONTENTS OF TENDER DOCUMENTS

6. Sections of Tender Document

6.1 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 8.

PART 1 Tendering Procedures

- i) Section I - Instructions to Tenderers (ITT)
- ii) Section II - Tender Data Sheet (TDS)
- iii) Section III - Evaluation and Qualification Criteria
- iv) Section IV - Tendering Forms

PART 2 Works Requirements

- i) Section V - Drawings
- ii) Section VI - Specifications
- iii) Section VII - Bills of Quantities

PART 3 Conditions of Contract and Contract Forms

- i) Section VIII - General Conditions of Contract (GCC)
- ii) Section IX - Special Conditions of Contract (SC)
- iii) Section X - Contract Forms

6.2 The Invitation to Tender Document (ITT) issued by the Procuring Entity is not part of the Contract documents.

6.3 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 the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 8. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

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.

7. Site Visit

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

8. Pre-Tender Meeting

8.1 The Procuring Entity shall specify in the **TDS** if a pre-tender meeting will be held, when and where. The Procuring Entity shall also specify in the **TDS** if a pre-arranged pretender site visit will be held and when. The Tenderer's designated representative is invited to attend a pre-arranged pretender visit of the site of the works. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

8.2 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.

8.3 Minutes of the pre-Tender meeting and the pre-arranged pretender site visit of the site of the works, 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 in accordance with ITT 6.3. Minutes shall not identify the source of the questions asked.

8.4 The Procuring Entity shall also promptly publish anonym ized (*no names*) Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the works at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-tender meeting and the pre-arranged pretender site visit, 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. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

9. Clarification and amendments of Tender Documents

9.1 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 and the pre- arranged pretender visit of the site of the works if provided for in accordance with ITT 8.4. 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 6.3, including a description of the inquiry but without identifying its source. If 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 appropriately following the procedure under ITT 8.4.

10. Amendment of Tendering Document

10.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tendering document by issuing addenda.

10.2 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tendering document from the Procuring Entity in accordance with ITT 6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's web page in accordance with ITT 8.4.

10.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity shall extend, as necessary, the deadline for submission of Tenders, in accordance with ITT 25.2 below.

C. PREPARATION OF TENDERS

11. Cost of Tendering

11.1 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.

12. Language of Tender

12.1 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.

13. Documents Comprising the Tender

13.1 The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT 14;
- b) Schedules including priced Bill of Quantities, completed in accordance with ITT 14 and ITT 16;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 21.1;
- d) Alternative Tender, if permissible, in accordance with ITT 15;
- e) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 22.3;
- f) Qualifications: documentary evidence in accordance with ITT 19 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
- g) Conformity: a technical proposal in accordance with ITT 18;
- h) Any other document required in the **TDS**.

13.2 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 Agreement. The Tenderer shall chronologically serialize pages of all tender documents submitted.

13.3 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.

14. Form of Tender and Schedules

14.1 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 without 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.

15. Alternative Tenders

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

15.2 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.

15.3 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. 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.

16. Tender Prices and Discounts

16.1 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.

16.2 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.

16.3 The price to be quoted in the Form of Tender, in accordance with ITT 14.1, shall be the total price of the Tender, including any discounts offered.

16.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 14.1.

16.5 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 in cases 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.

16.6 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 16.4, provided the Tenders for all lots (contracts) are opened at the same time.

16.7 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.

17. Currencies of Tender and Payment

17.1 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 Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya shall device own ways of getting foreign currency to meet those expenditures.

18. Documents Comprising the Technical Proposal

18.1 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, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

19. Documents Establishing the Eligibility and Qualifications of the Tenderer

19.1 Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.

19.2 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.

19.3 A margin of preference will not be allowed. Preference and reservations will be allowed, individually or in joint ventures. Applying for eligibility for Preference and reservations shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.

19.4 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 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.

19.5 The purpose of the information described in ITT 19.4 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.

19.6 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 6.3. 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

19.7 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.

19.8 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 tendered pursuant to these requirements, then the tender will be rejected.

19.9 If information submitted by a tendered 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,
- iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.

19.10 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 6.7 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.

20. Period of Validity of Tenders

20.1 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 24). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

20.2 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 21.1, 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, except as provided in ITT 20.3.

20.3 If the award is delayed by a period exceeding the number of days to be specified in the **TDS** days beyond the expiry of the initial tender validity period, the Contract price shall be determined as follows:

- a) in the case of **fixed price** contracts, the Contract price shall be the tender price adjusted by the factor specified in the **TDS**;
- b) in the case of **adjustable price** contracts, no adjustment shall be made; or in any case, tender evaluation shall be based on the tender price without taking into consideration the applicable correction from those indicated above.

21. Tender Security

21.1 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.

21.2 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:

- a) an unconditional Bank Guarantee issued by reputable commercial bank); or
- b) an irrevocable letter of credit;
- c) a Banker's cheque issued by a reputable commercial bank; or
- d) another security specified in the **TDS**,

21.3 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 20.2.

21.4 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.

21.5 If a Tender Security is specified pursuant to ITT 21.1, 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 nonresponsive or a bidder declines to extend tender validity period.

21.6 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**.

21.7 The Tender Security may be forfeited or the Tender-Securing Declaration executed:

- e) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension thereto provided by the Tenderer; or
- f) if the successful Tenderer fails to:

- i) sign the Contract in accordance with ITT 50; or
- ii) furnish a Performance Security and if required in the **TDS**, and any other documents required in the **TDS**.

21.8 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debars the Tenderer from participating in public procurement as provided in the law.

21.9 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.

21.10 A tenderer shall not issue a tender security to guarantee itself.

22. Format and Signing of Tender

22.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 13 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 15, 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 original and the copies, the original shall prevail.

22.2 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.

22.3 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.

22.4 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 to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

22.5 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

23. Sealing and Marking of Tenders

23.1 Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. 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 15, 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.

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 that are misplaced or opened prematurely will not be accepted.

24. Deadline for Submission of Tenders

24.1 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**.

24.2 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 thereafter be subject to the deadline as extended.

25. Late Tenders

25.1 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 24. 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.

26. Withdrawal, Substitution, and Modification of Tenders

26.1 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 22.3, (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 22 and ITT 23 (except that withdrawals 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 24.

26.2 Tenders requested to be withdrawn in accordance with ITT 26.1 shall be returned unopened to the Tenderers.

26.3 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.

27. Tender Opening

- 27.1 Except in the cases specified in ITT 23 and ITT 26.2, 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 24.1, shall be as specified in the **TDS**.
- 27.2 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.
- 27.3 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.
- 27.4 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.
- 27.5 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.
- 27.6 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 Bills of Quantities are to be initialed by the members of the tender opening committee attending the opening. The number of representatives of the Procuring Entity to sign shall be specified in the **TDS**.
- 27.7 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 25.1).
- 27.8 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 one was required.
 - e) number of pages of each tender document submitted.

27.9 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 upon request.

A. Evaluation and Comparison of Tenders

28. Confidentiality

28.1 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 46.

28.2 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.

28.3 Notwithstanding ITT 28.2, 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.**

29. Clarification of Tenders

29.1 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 33.

29.2 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.

30. Deviations, Reservations, and Omissions

30.1 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.

31. Determination of Responsiveness

31.1 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 13.

31.2 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:**

- a) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
- b) limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract; or
- c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

31.3 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 18, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

31.4 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.

32. Non-material Non-conformities

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

32.2 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, to rectify nonmaterial 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.

32.3 Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable nonmaterial 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**.

33. Arithmetical Errors

33.1 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.

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

- a) 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.
- b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, and 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. and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail

33.3 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

34. Currency provisions

34.1 Tenders will be priced in Kenya Shillings only. Tenderers quoting in currencies other than in Kenya shillings will be determined non-responsive and rejected.

35. Margin of Preference and Reservations

35.1 No margin of preference shall be allowed on contracts for small works.

35.2 Where it is intended to reserve the contract to specific groups under Small and Medium Enterprises, or enterprise of women, youth and/or persons living with disability, 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/firms belonging to those specified groups are the only ones eligible to tender. Otherwise if no so stated, the invitation will be open to all tenderers.

36. Nominated Subcontractors

36.1 Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Procuring Entity.

36.2 Tenderers may propose subcontracting 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.

36.3 The 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 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.

37. Evaluation of Tenders

37.1 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 Best Evaluated Tender in accordance with ITT 40.

37.2 To evaluate a Tender, the Procuring Entity shall consider the following:

- a) price adjustment due to discounts offered in accordance with ITT 16;
- b) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 39;
- c) price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 30.3; and
- d) any additional evaluation factors specified in the **TDS** and Section III, Evaluation and Qualification Criteria.

37.3 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.

37.4 In the case of multiple contracts or lots, Tenderers shall be allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the **Form of Tender**, is specified in **Section III, Evaluation and Qualification Criteria**.

38. Comparison of Tenders

38.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 38.2 to determine the Tender that has the lowest evaluated cost.

39. Abnormally Low Tenders

39.1 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.

39.2 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.

39.3 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.

40. Abnormally High Tenders

40.1 An abnormally high 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.

40.2 In case of an abnormally high tender 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.

40.3 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.

41. Unbalanced and/or Front-Loaded Tenders

41.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or front loaded, 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.

41.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

- a) accept the Tender; or
- 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; or
- c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works; or
- d) reject the Tender,

42. Qualifications of the Tenderer

42.1 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.

42.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 19. 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 Subcontractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

42.3 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.

42.4 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.

42.5 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.

42.6 After evaluation of the price analyses, if 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.

43. Best Evaluated Tender

43.1 Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Best Evaluated Tender. The Best 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.

44. Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders.

44.1 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 thereby incurring any liability to Tenderers. In case of annulment, all Tenderers shall be notified with reasons and all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

B. AWARD OF CONTRACT

45. Award Criteria

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

46. Notice of Intention to enter into a Contract

46.1 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) instructions on how to request a debriefing and/or submit a complaint during the standstill period;

47. Standstill Period

47.1 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.

47.2 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.**

48. Debriefing by the Procuring Entity

48.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 46, 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.

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

49. Letter of Award

49.1 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 within 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 21days of the date of the letter.

50. Publication of Procurement Contract

50.1 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.

51. Procurement Related Complaints and Administrative Review

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

ITT Reference	Particulars Of Appendix To Instructions To Tenders
A. General	
ITT 1.1	The name of the Tender is: <i>As per Invitation to Tender in this Tender Document</i> Procuring Entity is: County Government of Kirinyaga The reference number of the Tender is: <i>As per Invitation to Tender in this Tender Document</i> The number and identification of lots (contracts) comprising this Tender are: <i>N/A</i>
ITT 1.2(a)	Electronic –Procurement System- Applicable in this Tender
ITT 2.3	The Information made available on competing firms is as follows: <i>N/A</i> The firms that provided consulting services for the contract being tendered for are: <i>Not Applicable</i>
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: <i>Not Applicable</i>
ITT 3.7	A list of debarred firms and individuals is available on the PPRA's website: www.ppra.go.ke Tenderers shall be required to be registered with: <i>Not Applicable</i>
ITT 3.11	B. Contents of Tendering Document
ITT 6.1	For Clarification of Tender purposes, for obtaining further information for the tender document, the Procuring Entity's address is: (1) Name of Procuring Entity County Government of Kirinyaga (2) Physical address for hand Courier Delivery to an office or Tender Box Tender documents to be deposited in the Tender Box provided at the first floor Kutus Headquarters COUNTY OFFICES within Kutus Town <i>N/A Tenders will be submitted electronically</i> (3) Postal Address County Secretary, P. O. Box 260-10304, Kutus - Insert name, telephone number and e-mail address of the officer to be contacted. Director, SupplyChain Management, procurement@kirinyaga.go.ke
C. Preparation of Tenders	
ITT 12.1	Alternative Tenders shall not be considered.
ITT 13.5	The prices quoted by the Tenderer shall not be subject to adjustment during the performance of the Contract.
ITT 13.8 (a) (iii)	Final Destination - County Government of Kirinyaga headquarters
ITT Reference	Particulars Of Appendix To Instructions To Tenders
ITT 13.8 (b) (ii)	The price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their destination which is <i>Not Applicable</i>
13.8 (c) (iv)	place of final destination is County Government of Kirinyaga headquarters
ITT 14.2	Foreign currency requirements not allowed.
ITT 15.4	Period the Goods are expected to be functioning: Immediately
ITT 16.2 (a)	Manufacturer's authorization is: Not Required
ITT 16.2 (b)	After sales service is: Not Required
ITT 17.1	The Tender validity period shall be (180) One hundred and Eighty days.

ITT 17.3	<p>(a) The Number of days beyond the expiry of the initial tender validity period will be 30Days.</p> <p>(b) The Tender price shall be adjusted by the following percentages of the tenderprice:</p> <p>(i) By _____% of the local currency portion of the Contract price adjusted to reflect local inflation during the period of extension - Not Applicable</p> <p>(ii) By _____% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension - Not Applicable</p>
ITT 18.1	A Tender Security shall not be required
ITT 19.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: The power attorney.
	D. Submission and Opening of Tenders
ITT 21.1	<p>Tenders shall submit tenders electronically: Tenderer MUST respond only electronically through the IFMIS Supplier Portal</p> <p>The deadline for Tender submission is: Date: 11th October 2023 Time: 10:00 A.m.</p> <p>Manual Tendering submission procedures shall NOT apply</p>
ITT 24.1	The Tender opening shall take place at: 3 rd floor Conference room, Kirinyaga County Headquarters, Kutus
ITT Reference	Particulars Of Appendix To Instructions To Tenders
	<p>Date: 11th October 2023 Time: 10:00 A.m.</p> <p>The electronic Tender opening procedures shall apply</p>
	E. Evaluation and Comparison of Tenders
ITT 29.3	The manner of rectifying quantifiable nonmaterial nonconformities described below: Not Applicable
ITT 31.1	<p>The currency that shall be used for Tender evaluation and comparison purposes to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is Kenya Shillings.</p> <p>The source of exchange rate shall be: N/A.</p> <p>The date for the exchange rate shall be: N/A</p>
ITT 32.3	<p>A margin of preference and/or reservation shall not apply.</p> <p>If a margin of preference applies, the application methodology shall be defined in Section III – Evaluation and Qualification Criteria Not Applicable</p>
ITT 32.5	The invitation to tender is extended to the following group that qualify for Reservations: AGPO .
ITT 33.2	Price evaluation will be done for: PROPOSED CONSTRUCTION OF KIANDAI DISPENSARY IN KIINE WARD, KIRINYAGA COUNTY PHASE 3
ITT 33.2 (d)	Additional evaluation factors are: Not Applicable.
ITT 33.6	<p>The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria: [refer to Section III, Evaluation and Qualification Criteria; insert complementary details if necessary]</p> <ul style="list-style-type: none"> a. Deviation in Delivery schedule: N/A b. Deviation in payment schedule: N/A c. Life cycle costs: the costs during the life of the goods or equipment. N/A <p>The performance and productivity of the equipment offered; N/A.</p>

	F. Award of Contract
ITT 41.1	The maximum percentage by which quantities may be increased is: N/A The maximum percentage by which quantities may be decreased is: N/A
ITT 41.2	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
ITT Reference	Particulars Of Appendix To Instructions To Tenders
	<p>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 PPRA: For the attention:</p> <ol style="list-style-type: none"> 1) County Government of Kirinyaga 2) Physical address 1st Floor County Headquarters Kutus, County 3) P.O Box 260 – 10304 KUTUS 4) Director Supply Chain Services <p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none"> 1. The terms of the Tendering Documents; and <p>Authority’s decision to award the contract.</p>

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1. General Provisions

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:

- a) 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.
- b) Value of single contract - Exchange rate prevailing on the date of the contract signature.
- c) 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.

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 should use the Standard Tender Evaluation Document for Goods and Works for evaluating Tenders.

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. 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 requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements of “Part 2 – Procuring Entity's Works Requirements”, including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. 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 irresponsive and will not be considered further.

PRELIMINARY EVALUATION CRITERIA

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

STAGE 1: PRELIMINARY/ MANDATORY EVALUATION		
No.	Criteria	Yes/ No
MR1	Copy of Certificate of Incorporation/Business Name certified by commissioner of oaths.	
MR2	Certificate A copy of valid Tax Compliance Certificate certified by commissioner of Oaths (will be checked with KRA TCC.)	
MR3	Certified Copy of Certificate of Registration in a target group issued by the Ministry of Finance (Treasury) for the preferences and reservations - (30%) group (Youth Access to Government Opportunities, AGPO.	
MR4	Certified CR12 Certificate from the Registrar of Companies. This should be provided with Identification Documents of Directors and all individuals listed on the CR12. (ID or Passport). For Corporate Directors, CR12 or list equivalent for the corporate directors, Identification Documents for the corporate Director and its directors MUST be provided. (valid within 12 months of tender submission date)	
MR5	Copy of Registration with National Construction Authority (NCA) 8 and above as a Building Works contractor valid at the date of tender of submission;	
MR6	Copy of Valid Contractors Annual Practicing License from National Construction Authority (NCA) as a Building Works contractor;	
MR8	Valid certified Current Single Business permit (for the year 2023)	
MR9	Submit a written power of attorney authorizing the signatory of the bid to commit the Bidder Witnessed by a Commissioner of Oaths	
MR10	Chronologically Serialize all the pages (this should be sequential in the format of 1, 2, 3, 4, 5.....) from the first page to the last page.	
MR11	Duly filled, signed and stamped Form of Tender	
MR12	Duly filled, signed and stamped Confidential Business Questionnaire .	
MR13	Duly filled, signed and stamped Tender-Securing Declaration Form	

N/B Only bidders who meet all of the above mandatory requirements will be subjected to technical evaluation.

3. **Tender Evaluation (ITT 35) Price evaluation:** in addition to the criteria listed in ITT 35.2 (a) –
- (c) the following criteria shall apply:
- i) **Alternative Completion Times**, if permitted under ITT 13.2, 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(d):
.....N/A.....

4. Multiple Contracts

Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and the 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 tenderer will be awarded contracts for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the Lots. The tenderer will be awarded the combination of Lots for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION 2

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

5. Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 13.1, 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.

6. Margin of Preference is not applicable

7. Post qualification and Contract award (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 Five Million (Kshs. 5,000,000)**

- ii) Minimum average annual construction turnover of **Kenya Shillings Thirty Million (Kshs. 30,000,000)**, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last **Three (3) years**.
- iii) At least **Three (3)** of contract(s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings Kenya Shillings Ten Million (Kshs.10,000,000), equivalent.

(iv.) Contractor's Representative and Key Personnel, which are specified as:

No	Position	Total Work Experience (years)	Experience In Similar Works(years)
1	Project Manager/Site Agent Degree in Engineering (Civil/Structural)	3	2
2	2 No Builders with diploma or degree in Building Construction	5	3

(v) Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed as:

No.	Equipment Type and Characteristics	Minimum Number required
1.	Concrete Mixer Type 5/3.5	1
2.	Concrete vibrator poker type N.D. 50 mm	1
3.	Lorry	1
4.	Wielding Equipment	1
5.	Crane	1

(vi) Further Evaluation shall be conducted after Preliminary examination for Determination of Responsiveness. The said further evaluation shall comprise of the following:

- a. **Technical evaluation to determine compliance with mandatory technical specifications as provided in *Section VI*. Tenderers failing to comply with the mandatory technical specification shall not proceed to Detailed technical evaluation (scoring)**
- b. **Detailed technical evaluation (scoring)**
- c. **Financial evaluation.**

The Procuring Entity will make a determination on the best solution to choose between the two offers proposed. Consideration will be based on cost, sustainability, renewal of the prototype system proposed and the location of the flood masts.

(vii.) Tenders attaining the minimum score of 70 points in detailed technical evaluation shall be subjected to financial evaluation and comparison to determine the lowest evaluated price of the tender.

iv) Other conditions depending on their seriousness.

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 (***Three years***). The required information shall be furnished in the appropriate form. **Contractors for similar works with the County Government exceeding the contract period will undergo further due diligence before they are recommended for award to ascertain their delivery within the stipulated timelines.**

a) Pending Litigation

Financial position and prospective long-term profitability 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.

b) Litigation History

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last (Three years). All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing under its 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.

DUE DILIGENCE

Pursuant to Section 83 of the Public Procurement and Assets Disposal Act, 2015 and the attendant regulations, due diligence shall be conducted on the lowest recommended bidder before award. The due diligence shall be conducted on the following basis inter alia:

(i) The bidder shall be assessed on the financial and the technical to carry out the project. In carrying out the due diligence the Contractor shall be requested to authorize or provide their current Bank statements to assess their financial capacity and capability.

(ii) The bidder if currently or previously engaged on other projects in the County Government shall be assessed on their current performance and delivery on those projects. Contractors with a poor performance record shall not be recommended for award.

(iii) The Bidder shall be required to further demonstrate that they can deliver on the project milestones within the stipulated timelines.

i) The County Government shall make its recommendations on the basis of multiple Contracts as stipulated under Clause 4 Multiple Contracts section III-Evaluation and Qualification Criteria.

Technical Examination

Award of points for the **Technical Evaluation** will be as follows: -

No	Parameter	Maximum Points
1.	Legal Capacity	5
2.	Audited Financial Report for the for the last 3 years	15
3.	Evidence of Financial Resources	10
4.	Key personnel	20
5.	General Experience	10
6.	Specific Construction Experience	15
7.	Detailed works plan and methodology	10
8.	Schedules of contractor's equipment	15
Total		100

DETAILED TECHNICAL EXAMINATION

Item	Description	Max. Points	Points Scored
A)	Legal Capacity (Must Be Registered Company (Partnership, Sole Etc.))		
i.	Non-performance of a contract did not occur as a result of contractor default since 1 st February, 2023 <i>Fill information on non-completed works.</i>	2.5	
ii.	No consistent history of court/arbitral award decisions against the Tenderer since 1 st February, 2023. <i>Attach- Provide Current Sworn affidavit taken in the last 3 months from the tender opening gate.</i>	2.5	
	Total point Scored	5	
B)	Financial Performance		
i.	Submission of Audited Financial reports for the last Two [2] years (2021 & 2022).		
ii.	The current soundness of the applicant's financial position and its prospective long-term profitability – last two (2) years audited reports Attach a copy of auditor practicing license Audited accounts All pages must be initialed and stamped by both a practicing Auditor registered with ICPAK and one of the Directors. Auditor's practicing membership number from ICPAK must be indicated and a valid practicing license shall be provided or any documentary evidence showing renewal in process.	15	
iii.	Attach Copy of Line of credit	5	
iv.	Attach Copy of Bank statement (Last six months to the date of tender)	5	
	Total point Scored	25	
C.	Key Personnel as Detailed Under Clause 4 B (Iv) Of The Evaluation Criteria Nb: Attach Curriculum Vitae And Certificates		
i.	Head Office staff: Project Manager/Site Agent for the firm Qualification = With relevant qualifications (Degree in Engineering (Civil/Structural) Specific Experience - 6 marks General Experience – 4 marks	10	
ii.	2 No. Builders with the relevant Qualifications (the overall in charge person(s) to be assigned for the site) with at least five years' experience in works of an equivalent nature and volume. Minimum National Diploma in Building Construction related field. HND – 10%; ND – 8% Qualification = Dip. in Civil Engineering Specific Experience – 6 marks General Experience – 4 marks	10	
	Total point Scored	20	

D	General Experience		
	Experience in any contract in the role of contractor, subcontractor, or management contractor for at least the last 2 years prior to the applications submission deadline. Provide list showing project name, contract period, contract sum, commencement date, completion date, and percentage currently.	10	
	Specific Construction Experience		
	Participation as contractor, management contractor or subcontractor, in at least three (3) public (government) contracts within the last two (2) years, each with a value of at least KShs. 3,000,000.00), that have been successfully and substantially completed and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, Methods/technology, or other characteristics as described in Scope of Works. Attach certified copies of completion certificates	15	
	Total point Scored	25	
E	Construction Equipment Capacity		
	Proof of essential Building works Construction equipment ownership or proposal for timely acquisition. Attach evidence of either (owned, leased, hired etc) including Models, photos, capacities, current working conditions, etc		
I.	Building works Plant & Equipment, Concrete Mixers/Vibrator etc	10	
II.	Reliable Transport – Tipper/ Lorry. Pick up	5	
	Total point Scored	15	
F.	Work methodology/Work plan		
i	Detailed Work plan for implementing of works during the construction period and Proposed Equipment Scheduling/Work	5	
ii	Proposed Equipment Scheduling/Work statement.....	2.5	
iii	Work Methodology during the construction period.....	2.5	
	Total point Scored	10	
	TOTAL POINTS	100	
	MINIMUM POINTS	70	

NB: Tenders attaining the minimum score of 70 points in detailed technical evaluation shall be subjected to financial evaluation and comparison to determine the lowest evaluated price of the tender. This shall be carried out in accordance to other criteria provided in the bid document.

3.0 Financial Evaluation Stage

- 1) This will include the following: -
 - a) Confirmation of and considering Bill of Quantities completed and signed.
 - b) Conducting a financial comparison
 - c) The lowest evaluated tender shall be awarded the tender.

3.1 Post Qualification

- The lowest evaluated tender having passed stage 1 above shall be the winning bid subject to the

employer's right to exercise due diligence relating to confirmation of information submitted by the bidder. **The CGK may conduct post-qualification as it deems necessary** in accordance with "The Public Procurement & Disposal Act 2015 Section 83 (1), which provides that *"An evaluation committee may, after tender evaluation, but prior to the award of the tender, conduct due diligence and present the report in writing to confirm and verify the qualifications of the tenderer who submitted the lowest evaluated responsive tender to be awarded the contract in accordance with this Act"*. Any bidder who shall be found to have supplied false or misleading information shall be disqualified and the next lowest tender that has passed stage 1 shall be considered.

□ To be eligible for award, in addition to the requirements given, the tenderer if previously contracted by CGK to offer similar services or any other contract, must not have had any negative evaluation for poor performance and/or delayed delivery of contract. In addition, any contract terminated on grounds of integrity and/or fraud or corruption is ineligible to tender. These bidders shall be disqualified and the next lowest tender that has passed stage 1 shall be considered.

□ ***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.***

□ **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 three (3) years. The required information shall be furnished in the appropriate form.

□ **Pending Litigation**

Financial position and prospective long-term profitability 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.

□ **Litigation History**

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last three (3) years. All parties to the contract shall furnish the information in the appropriate

8. MANUFACTURES FORMS

1. MANUFACTURER'S AUTHORIZATION FORM

[The tenderer shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The tenderer shall include it in its Tender, if so indicated in the TDS.]

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

ITT No.:.....*[insert number of ITT process]* Alternative

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

To *[Insert complete name of Procuring Entity]* WHEREAS

We..... *[insert complete name of Manufacturer]*, who are official manufacturers of.....*[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of tenderer]* to submit a Tender the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed..... *[Insert signature(s) of authorized representative(s) of the*

Manufacturer] Name.....*[Insert complete name(s) of authorized*

representative(s) of the Manufacturer] Title *[Insert title]*

Dated on __ day of __, _____ *[insert date of signing]*

2. MANUFACTURER'S WARRANTY FORM

{The tenderer shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.}

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

ITT No.:.....*[insert number of ITT process]* Alternative

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

To *[Insert complete name of Procuring] Entity* WHEREAS

WE HEREBY WARRANT THAT:

- a) The goods to be supplied under the contract are new, unused, of the most recent or current specification and incorporate all recent improvements in design and materials unless provided otherwise in the Tender.
- b) The goods in the Tenderer's bid have no defect arising from manufacture, materials or workmanship or from any act or omission of the Tenderer that may develop under normal use of the goods under the conditions obtaining in Kenya.

The Warranty will remain valid for *[Insert no. years]* year after the goods, or any portion thereof as the case may be, have been delivered to the final destination indicated in the contract.

Signed..... *[Insert signature(s) of authorized representative(s) of the*

Manufacturer] Name.....*[Insert complete name(s) of authorized*

representative(s) of the Manufacturer] Title *[Insert title]*

Dated on __ day of __, _____ *[insert date of signing]*

3. MANUFACTURER'S CONTACT DETAILS

FORM

To: (To Be Submitted on Manufacturer's Letterhead)

County Government of Kirinyaga,
P.O BOX 260-10304
KUTUS

Manufacturer Details:

Company Legal Name

Company Trading

Name_____

(Write the names in full)

Manufacturer Contacts:

Telephone No. _____

_____ Postal Address

Email

_____ Website_____

Physical

address_____

Main Contact:

Full

Name_____ Email_____

Position_____

Telephone_____cellular

Describe your field of specialization.____

Signed (Authorized Signatory) _____

Name:_____

Stamp/Seal here

QUALIFICATION FORMS

1. TENDERER'S QUALIFICATION WITHOUT PRE-QUALIFICATION

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.

1.1 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• Establishing that the Tenderer is not under the supervision of the Procuring Entity
2. Included are the organizational chart and a list of Board of Directors.

OTHER FORMS

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 (s) 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]*

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 sum of Kenya Shillings *[[Amount in figures]*

_____Kenya Shillings
*[amount in words]*_____.

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

The percentage or amount quoted above does not include provisional sums, and only allows not more than two foreign currencies.

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager's 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 anytime before that date.
4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us. We further understand that you are not bound to accept the lowest or any tender you may receive.

5. We, the undersigned, further declare that:
- i) No reservations: We have examined and have no reservations to the tender document, including 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 subcontractor, 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, Project Manager, 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 processor 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 thereof 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 hereby 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;
- 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:
- Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest.
 - Certificate of Independent Tender Determination – to declare that we completed the tender without colluding with other tenderers.
 - Self-Declaration of the Tenderer – to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.
 - 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]

Date signed _____ day of _____, _____

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			

ii) **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 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.		

f) 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].

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/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 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 deposed to herein above is true to the best of my knowledge, information and belief.

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

Bidder Official Stamp

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 the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any corrupt or fraudulent 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 herein above is true to the best of my knowledge information and belief.

.....
.....

) (Date)

(Title)
(Signature)

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 hereby 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.....

APPENDIX 1- FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

2. 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.

3. Requirements

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.

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 asset 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 into, take part in any decision relating to the procurement or contract; and
- c) shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders 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.

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;
- iv) "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;
- v) "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 sanction or 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 ineligibility 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 forTenders 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]

[Signature of the Guarantor]

[Witness]

[Seal]

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

TENDER-SECURING DECLARATION FORM

[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

FORM OF WRITTEN POWER-OF-ATTORNEY

The Bidder shall state here below the name(s) and address of his representative(s) who is/are authorized to commit the bidder and receive on his behalf correspondence in connection with the Bid. The Tender document shall be signed by the Person(s) with the Power of Attorney.

.....
(Name of Bidder's Representative in
block letters)

.....
(Address of Bidder's Representative)

.....
(Signature of Bidder's Representative)

Alternate.....

.....
(Name of Bidder's Representative in
block letters)

.....
(Address of Bidder's Representative)

.....
(Signature of Bidder's Representative)

*To be filled by all Bidders.

*Both representative and alternate must attach copy of National Identification card or Passport.

*Where the representative is not a Director of the Firm, At least one Director must sign below.

	Name of Director	Signature	Date
1.
2.
3.
4.

BILLS OF QUANTITIES

NOTES FOR BILLS OF QUANTITIES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
2. The prices quoted shall be deemed to include for all obligations under the contract including but not limited to supply of materials, labour, delivery to site, storage on site, installation, testing, commissioning and all taxes (including **16% V.A.T and 3 % Withholding tax**).

In accordance with Government policy, the 3% withholding Tax **shall be deducted** from all payments made to the tenderer, and the same shall be forwarded to the **Kenya Revenue Authority (KRA)**.

3. All prices omitted from any item, section or part of the Bills of Quantities shall be deemed to have been included to another item, section or part.
4. The brief description of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the sub-contractor shall adhere to. Otherwise alternative brands of **equal** and **approved** quality will be accepted.

Should the contractor install any material not specified here in before receiving **approval** from the Project Manager, the contractor shall remove the material in question and **at his own cost**, install the proper material.

5. The grand total of prices in the price summary page must be carried forward to the **Form of Tender**.
6. Tenderers must enclose, together with their submitted tenders, **detailed manufacturer's brochures** detailing Technical Literature and specifications on the following fittings they intend to offer.

- a) Consumers units
- b) Contactors
- c) MCBs
- d) Floodlights
- e) Photocell
- f) Pilot Lamp

This shall be used in the tender evaluation to determine the first line aesthetics, quality, performance, maintenance and cost-in -use of fittings offered.

SECTION VII -IX: SPECIFICATIONS

Notes for preparing Specifications

- 1.0 Specifications must be drafted to present a clear and precise statement of the required standards of materials, and workmanship for tenderers to respond realistically and competitively to the requirements of the Employer 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.

Specifications from previous similar projects are useful and may not be necessary to re-write specifications for every Works Contract.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, 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.

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.

- 2.0 The Employer 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.

The Employer 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.

Such alternative solutions shall be accompanied by all information necessary for a complete evaluation by the Employer, 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 Employer each on its own merits and independently of whether the tenderer has priced

SECTION VII: SPECIFICATIONS AND PRICING NOTES FOR BUILDER'S WORKS

The Contractor should read carefully the following specification for workmanship prepared in accordance with standard specifications for building works 1976 Edition prepared by the Ministry of Roads, Public Works and Housing.

A.0 GENERAL ITEMS

A.1 MATERIALS GENERALLY

All materials used on the works shall be new and of the qualities and kinds specified herein and equal to approved samples. Deliveries shall be made sufficiently in advance to enable samples to be taken and tested if required. No materials shall be used until approved and all materials which are not approved or which are damaged, contaminated or have deteriorated in any way or do not comply in any way with the requirements of this specification shall be rejected and shall be immediately removed from the site at the contractors expense.

A.2 MATERIAL FOR WHICH THERE IS A KENYA BUREAU OF STANDARD SPECIFICATION

All materials used in the works for which a Kenya Bureau of Standards (K.S.) specification has been published shall conform to the latest edition hereof in every way. The Architect reserves the right to demand that the Contractor shall obtain at his own expense a certificate in respect of any materials to state that is in accordance with the Kenya Bureau of Standard specifications.

A.3 MATERIALS FOR WHICH THERE IS NO KENYA BUREAU OF STANDARDS SPECIFICATION

All materials used in the works for which no Kenya Bureau of Standards specification has been published shall conform to the British Standards (B.S.) specification for such materials. If there are no published standards as specified for any materials, the quality of such materials shall be generally of a standard equal to those for which there is a Kenya Bureau of Standards or British Standard Specification.

B.0 EXCAVATION AND EARTHWORK

B.1 SITE CLEARANCE

Site clearance shall include the cutting down of all trees, stumps, bushes, vegetation and rubbish, burning the debris arising in approved locations and cutting remaining materials to a tip provided by the Contractor.

B.2 NATURE OF THE SOIL

The Contractor is advised to visit the site and ascertain the nature of the ground to be excavated and he shall price accordingly and no claim will be allowed for want of knowledge in this respect.

Rates for excavation shall include for excavation in soil, earth, black cotton, sandy soil, murram, turf, soft rock, boulders or whatever other subsoil is encountered except hard rock as defined below.

B.3 FOUNDATION EXCAVATIONS

The foundation trenches and column bases shall be excavated to widths and depths of the concrete foundations shown on the drawings or to such widths and depths as the Engineer may instruct after examination of the excavations. Quantities of all excavations shall be measured and valued by the Quantity Surveyor and any difference between such measurement and the measurements herein given shall be dealt with as a variation to the Contract.

If however, the Contractor excavates to any greater depths than shown in the drawing or as instructed by the Engineer, then he shall at his own expense fill such extra depth of excavation with concrete as specified for the foundations to the satisfaction of the Engineer. The Contractor shall not be paid for the cost of any excavation executed deeper or wider than shown on the drawings or instructed by the Engineer or the cost of back filling such excavation or disposing of surplus.

B.4 SURPLUS SOIL DISPOSAL

Excavated material not required for subsequent refilling shall be removed to areas off site which shall be approved by the Architect.

B.5 TOP SOIL FOR SPREADING

Where required in the Bills of Quantities, top soil required for subsequent spreading over finished work shall be especially selected and shall be dumped in special heaps as indicated by the Architect. Such top soil shall be reasonably free from vegetation to the satisfaction of the Architect and shall be compacted as little as possible in the heaps.

B.6 FILLING UNDER SURFACE BEDS IN BUILDINGS

i) MURRAM FILLING

Murram for filling as base course shall be from an approved source and of the highest quality. It shall be laid in layers not less than 150mm thick and not greater than 230mm thick prior to compaction. Water will be applied to O.M.O. and each layer will be thoroughly compacted by at least 8 passes of a 10 ton smooth wheeled roller or a 2 ton vibrating roller until all movement ceases and 100% California Bearing Ratio (C.B.R.) is obtained.

ii) HARDCORE FILLING

Hardcore filling shall be crushed rock, broken concrete or other approved hard granular materials broken to pass not greater than a 150mm ring or to be 75% of the finished thickness of the layers being compacted whichever is the less and graded so that it can be easily and thoroughly compacted by rolling. The filling is to be laid in layers each of a consolidated thickness not exceeding 230mm.

B.7 ANTI-TERMITE TREATMENT

Where described the top surface of filling shall be treated with Gladiator T.C. pesticides to be supplied and applied by Rentokil Ltd. P.O Box 44360, Nairobi or other equal and approved firm strictly in accordance with the satisfaction of the Architect. The Contractor must destroy the termite nests found within the perimeter of the building and within 20 meters from the building externally and take out and destroy queens, impregnate holes and

tunnels with approved insecticide and backfill with hard material, well rammed and consolidated. The specialist shall be required to issue a 10 year guarantee to the Employer.

B.8 POLYTHENE SHEETING

Polythene sheeting shall be produced by an approved manufacturer. Joints in sheeting shall be treble folded with a 150mm fold and taped at 300mm intervals with 50mm wide back plastic adhesive tapes. The sheeting shall not stretch but shall be laid with sufficient wrinkles to permit shrinkage up to 15%.

The Contractor shall ensure that the membrane is not pierced by laying and concerting.

B.9 EXISTING SERVICES

Before commencing works, the Contractor shall at his own expense ascertain in writing from the relevant Local authorities and all other public bodies, companies and persons who may be affected, the position and depths of their respective ducts, cables, mains or pipes and appurtenance. He shall there upon search for and locate such services.

Active existing services shall be adequately protected from damage or relocated as directed by the Architect. Inactive services shall be removed or sealed off in accordance with the direction of the Architect.

B.10 PROTECTION

The Contractor shall protect all graded and filled areas from the actions of the elements. Any settlement or washing away that occur prior to acceptance of the works shall be repaired and grades re-established to the required elevations and slopes.

C.0 CONCRETE WORK

C.1 CODES OF PRACTICE

All workmanship, materials, tests and performances in connection with reinforced concrete shall be in conformity with the latest edition of the British Standard for concrete works B.S. 8110 parts 1&2, B.S. 8004, B.S. 8007) and any other approved Local and International standards.

Where inconsistency exists between these preambles and these standards, the Contractor shall notify the Engineer in good time for his clarification as to which of the two implications on the Contract.

C.2 SUPERVISION

A competent person approved by the Engineer shall be employed by the Contractor whose duty will 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 on consultation with the Engineer.

C.3 CEMENT

Cement unless otherwise specified shall be Ordinary Portland cement or a brand and source approved by the Engineer and shall comply with the requirements of K.S.02-21. A manufacturer’s certificate of test in accordance with K.S.02.21 shall be supplied for each consignment delivered to the Site.

C.4 AGGREGATE

Aggregates shall conform to the requirement K.S.02-95 and all the proposed sources, types and grading test results of all aggregates are to be approved in all respects by the Engineer before work commences.

If in the opinion of the Engineer the aggregate meets with the above requirement but is dirty or altered in any manner it shall be screened and/or washed in clean water at the Contractor’s expense.

Aggregate shall be delivered to the site in their prescribed sizes or gradings and shall be stock-piled on paved areas to boarded platforms in separate units to avoid intermixing. On no account shall premixed cores aggregates be brought to the patching plant. On no account shall aggregates be stock-piled on the ground.

C.5 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.

C.6 QUALITY CONTROL AT WORKS STAGE

Once the concrete mix is accepted form preliminary to works stage, the principal basis of control shall be analysis of the cube test results at 28 days.

C.7 CEMENT

The quantity of cement shall be measured by weight. Where delivered in bags, each batch of concrete is to contain one or more bags of cement in accordance with the proportions specified.

For non-structural concrete, volume batching may be used as indicated below:

Class of concrete	15	10
Nominal mix by volume	1:3:6	1:4:8
Cubic metres of coarse aggregate per 50kg bag of cement	0.12	0.16
Cubic metres of coarse aggregate per 50kg bag of cement	0.24	0.32
Maximum size of coarse aggregate 40mm x 40mm or 20mm for blinding concrete where described.		

Where batching is by volume, approved gauge boxes as such a size as will give the correct proportions shall be used, and full account shall be taken of bulking due to high moisture content.

C.8 CONSTRUCTION JOINTS

Construction joints shall be permitted only at the positions predetermined on the drawings or as instructed on the Site by the Engineer. In general they shall be located at points of maximum shear, viz, vertical at, or near midspans of slabs, ribs and deems.

C.9 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 batch; 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 instruction. 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.

C.10 STEEL REINFORCEMENT

The steel reinforcement shall comply with the latest requirements of the following Kenyan and British Standards:

Hot rolled MS for the Reinforcement Concrete	KS 02-22
Hot rolled MS for the Reinforcement Concrete	KS 4449
Cold worked H.Y. steel for the reinforcement concrete	BS 4461
Hard drawn steel wire	BS 4482

C.11 FABRIC REINFORCEMENT

Fabric reinforcement shall be electrically cross-welded steel wire mesh reinforcement to B.S. 4483 and of the size and weight specified and made of wire to B.S 4482.

C.12 FIXING STEEL REINFORCEMENT

Reinforcement shall be accurately bent to the shapes and dimensions shown on the drawings and schedules and in accordance with B.S 4466 and B.S 8110. Reinforcement must be cut and bent cold and no welded joints will be permitted unless detailed or directed by the Engineer.

C.13 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, steel, plastic, precast concrete or other approved materials.

All timber formwork shall be good, sound, clean, sawn, well-seasoned timber free from warps and loose knots and of scantlings sufficiently strong for their purpose.

D. WALLING

D.0 MATERIALS

D.1 CEMENT

Cement used for making mortar shall be as described in concrete work.

D.2 LIME

The lime for making mortar shall be obtained from an approved source and shall comply with B.S. 890 Class A for non-hydraulic lime. The lime can be run to putty in an approved lined pit or container. The water to be first run into the pit or container and the lime to be added until it is completely submerged, stirred vigorously until all lumps are disintegrated and shall be kept constantly covered with water and regularly stirred for at least four weeks. The resulting milk–lime then to be run through a fine sieve and run into a pit or other container and kept clean and moist for not less than two weeks before being used in the works.

D.3 SAND

Sand used for making mortar shall be clean, well graded siliceous sand of good sharp hard quality equal to samples which shall be deposited with and approved by the Architect. It shall be free from lumps of stone, earth, loam, dust, salt, organic matter and other deleterious substances, passed through a fine sieve and washed with clean water if so directed by the Architect.

D.4 WATER

Shall be as described in Concrete work.

D.5 STONE

All stones shall comply with the requirement of CP 121.202 for masonry and rubble walls respectively except where amended or extended by the following clauses.

D.6 REINFORCED WALLS

Steel reinforcing bars in walls shall be carefully placed and spacers used to ensure that a minimum of 20mm cover is given to the reinforcement unless otherwise specified.

Horizontal reinforcement in mortar joints shall be laid such that the reinforcement is not in contact with the blocks or stone.

D.7 WALL TIES

Wall ties shall be provided to connect walls to steel or concrete columns and beams to connect two unbound leaves of wall.

Wall ties shall be provided at 450mm centres both vertically and 900mm centres horizontally and shall be staggered when used to connect two leaves of unbound wall. Wall ties shall be embedded into each material by a minimum of 50mm

D.8 FAIR FACE

All concrete and hollow blockwork described as finished with a fair face is to be built to a true and even face with the joints finished as specified hereinafter.

D.9 POINTING

Pointing of walls shall be prepared for pointing by raking out all loose or friable material to a minimum of 15mm to form a square recess. The joints shall then be wetted and new mortar shall be forced into the joints and finished as directed.

E. GLAZING

E.0 MATERIALS

E.1 GENERAL

Glass used in glazing and for mirrors shall be best quality clear glass free from visible defects so that to afford uninterrupted vision or reflection as appropriate and without obvious distortion.

E.2 STANDARDS

Glass for glazing and mirrors shall be approved manufacture and is to comply with B.S. 952 in all respects free from flaws, bubbles, specks and other imperfections. E.3. CLEAR SHEET GLASS ETC.

The clear sheet glass shall be ordinary glazing (OG) quality.

F. METALWORK

F.0 MATERIALS

F.1 GENERALLY

All materials shall be the best of their respective kinds free from defects and all work is to be carried out in the most workmanlike manner and strictly as directed by an Architect. The materials in all stages of transportation, handling and stacking shall be kept clean and prevented from injury by breaking, bending or distortion and weather action.

F.2 MILD STEEL

Mild steel shall comply with B.S. 15.

F.3 HOLLOW SECTION TUBING

Square and rectangular hollow section tubing shall be hot rolled mild steel in accordance with Grade 43C of B.S. 4360.

F.4 BOLTS, NUTS AND WASHERS

These shall be fabricated from materials which comply with B.S.15 and each manufactured item shall comply with the appropriate B.S.

F.5 GALVANIZED SHEET STEEL

Stainless steel tube shall be Austenic steel B.S. comparable to B.S. 1449 Type 316 S 16\.

F.7 STEEL GRILLES

Steel grilles shall be manufactured from section conforming to B.S.990 of heavy duty sections of the metric W20 range of approved manufacture and design approved by the Architect.

After manufacture and before delivery to site steel windows are to be hot galvanized by dipping in a bath of molten zinc or painted with one coat primer.

WORKMANSHIP

F.8 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.

F.9 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 printing paint shall be made good to the Architect's satisfaction.

F.10 FIXING OF STEEL GRILLES

Fixing of metal grilles shall include for assembling and fixing, including screwing to sub-frames or cutting mortices for lugs in concrete or walling and running with cement mortar 91:4, bedding frames in similar mortar, pointing in mastic, bedding sills, transoms and mullions in mastic, making good finishing around both sides and fixing, and adjusting all fittings and frames.

G. FLOOR, WALL AND CEILING FINISHING

G.0 PLASTERWORK

G.1 GENERALLY

Render, both internal and external shall be cement and sand in the proportions 1:4 finished to the thickness specified.

Plaster shall consist of an undercoat of 1 part cement to 6 parts sand by volume, and a finishing coat of 1 part cement to 10 parts lime putty. Each coat shall be finished to the thickness specified.

G.2 CEMENT

Ordinary Portland Cement and shall comply with K.S. 02-21. White and coloured cements shall comply with B.S. 12 and be obtained from an approved manufacturer.

G.3 LIME

Lime shall be prepared from hydrated lime complying with B.S. 890, Part 2. G.4

SANDS

Sands for cement and lime mixes shall comply with B.S. 1199, Table 1. G.5

WATER

Water shall be clean and kept free from all impurities.

G.6 MIXING OF MATERIALS

All materials shall be thoroughly mixed in the proportions described. No mixes of plasters, other than described shall be used.

G.7 PERIOD BETWEEN COATS

Cement – lime undercoats shall be allowed to dry out thoroughly before a further coat is applied.

G.8 SURFACES OF BEDS AND BACKINGS

Screeded beds for in-situ finishings of floor finishings bedded in mortar shall be left rough from the screeding board. Floated beds for inflexible floor finishing bedded in mastic, shall be left with a plain untextured surface. Trowelled beds for flexible finishings shall be finished smooth and free from score marks, grooves or depressions. Screeded backings for in-situ wall finishings or wall finishings bedded in mortar shall be scratched for key. Floated backings for inflexible wall finishings shall be finished smooth and free from score marks or depressions. Beds and backings for finishings by specialists shall be to the approval of the specialist.

G.9 PREPARATION OF SURFACES

All surfaces to receive the finishing in this section shall be thoroughly cleaned. Screeds to receive finishing bedded in mortar shall be well wetted before laying is commenced.

H. PAINTING AND DECORATING

H.0 MATERIALS

H.1 COLOUR RANGE

Painting and decorative schemes shall be carried out in colours selected by the Architect from the approved range of colours.

H.2 APPROVAL OF BRANDS

The contractor shall seek, in writing, approval from the architect for all brands of paint he wishes to use.

H.3 QUALITY OF PRODUCTS

Where a type of paint is produced by the manufacturer in more than one quality, only paints and materials of the first or best quality shall be used in the works. The container label shall indicate clearly the quality of the paint being used.

Where it is not event that the first or best quality of paint is being used, the Architect will order the removal of such materials from the site and rectification of any work executed with those materials, all at the Contractor's expense.

H.5 SAME MAKERS' MATERIALS USED FOR COATING

While materials for the work may be obtained from several makers, undercoats and finishing coats for a particular surface must be obtained from the same maker, (i.e. one makers' undercoat).

H.8 REMEDYING DEFECTS DUE TO DEFECTIVE MATERIALS

All materials, which in the opinion of the Architect are unsatisfactory, shall be immediately removed from the site and any work executed with such defective materials shall be made good by the Contractor, at his expense, to the satisfaction of the Architect.

H.15 BLACK BITUMINOUS PAINT

Black bituminous paint shall comply with B.S. 3416, Type 1 for general use, Type II for drinking water tanks.

H.20 PRIMER FOR IRON AND STEELWORK

Primer for iron and steelwork shall be:-

- i) Lead based priming paint complying with B.S. 2523, Type B.
- ii) Calcium plumbate priming paint complying with B.S. 3698, Type A.

H.25 PRIMER FOR WOODWORK

Primer for internal woodwork, other than the internal surfaces of external doors, windows and their frames and backs of frames and linings, etc., in contact with masonry, concrete or plaster, shall be leadless white or light grey priming paint not darker than 9-093 of B.S. 4800 which shall be compatible with the subsequent coats and obtained from the same maker.

H.26 OIL PAINTS

Hard gloss, semi-gloss matt and flat oil paints, and respective undercoats, shall be approved quality, as appropriate.

H.27 POLYURETHANE LACQUER

Polyurethane lacquer shall be an approved single pack or two pack lacquer as described of interior or exterior quality, as appropriate.

H.31 PLASTER, RENDERING, CONCRETE BLOCK WORK AND BRICKWORK

All plaster or mortar splashes, etc., shall be removed from plaster rendering, concrete, block work and brickwork by careful scraping; all holes, cracks, etc., shall be stopped and the whole of the surfaces shall be brushed down to remove dust and loose materials. In addition, all traces of mould, oil shall be removed from concrete surfaces by scrubbing with water and detergent and rinsing with clean water to remove all detergent.

H.35 IRON AND STEEL

Before fixing, all rust and scale shall be removed from iron and steel surfaces by wire-brushing, scraping, hammering, flame cleaning etc.

H.37 HARDWOOD

All dirt and grease shall be removed from hardwood surfaces. After priming, all nail holes and other imperfections shall be stopped.

H.38 FIBREBOARD

All dirt shall be brushed off from fibreboard surfaces. After priming all nail holes and other imperfections shall be stopped.

H.39 PLYWOOD

Surfaces of plywood to be filled as required with a plaster based filler for internal work, and a filler as described in stopping here before for external work, and then rubbed down and all dust and loose materials brushed off.

H.40 WOODWORK TO BE PAINTED

Before fixing woodwork, all surfaces which will be visible after fixing shall be rubbed down and all knots and resin pockets shall be scorched back and coated with knotting.

After priming and fixing, all nail holes and other imperfections shall be stopped and whole surface shall be rubbed down and all dust brushed off.

H.41 WOODWORK TO RECEIVE CLEAR FINISH

All holes and other imperfections in surfaces to receive a clear finish shall be stopped and the whole surface shall be rubbed down to a fine satin finish and all dust brushed off.

WORKMANSHIP

H.42 STANDARD OF WORKMANSHIP

Prior to the commencement of internal or external decoration, (areas not exceeding 50sq.m. in total area), and designated by the Architect, shall be completely decorated, and after approval shall be used as a standard for the whole of the works. Any additional cost involved in carrying out such decoration in advance of the general work shall be deemed to be included in the contract sum. Such decorated surfaces shall be made good and touched up as necessary prior to the handing over of the works.

H.43 STIRRING OF MATERIALS

The contents of all cans and containers of all materials must be properly and thoroughly stirred before and during use and shall be suitably strained as and when necessary.

H.44 MANUFACTURER'S INSTRUCTIONS

All materials shall be used strictly in accordance with instructions issued by the manufacturers concerned. The addition of thinners, driers or other materials will only be permitted when specially required by the maker and the procedure approved by the Architect.

H.45 BRUSH WORK

Unless otherwise described, all coatings shall be applied by brush. Written permission must be obtained from the Architect for the application of coatings by spray or roller where not as described, and if permission is granted, such application shall not result in extra cost to the Employer.

DRAWINGS

Note 1. The tender drawings including Site plans should be annexed in a separate booklet and issued To bidders during the Pre Tender Site meeting.

SECTION VIII:

GENERAL SPECIFICATIONS OF MATERIALS AND WORKS FOR ELECTRICAL WORKS

- 2.1 General
- 2.2 Standard of Materials
- 2.3 Workmanship
- 2.4 Procurement of Materials
- 2.5 Shop Drawings
- 2.6 Record Drawings
- 2.7 Regulations and Standards
- 2.8 Setting out Works
- 2.9 Position of Electrical Plant and Apparatus
- 2.10 M.C.B Distribution Panels and Consumer Units
- 2.11 Fused Switchgear and Isolators
- 2.12 Conduits and Conduit Runs
- 2.13 Conduit Boxes and Accessories
- 2.14 Labels
- 2.15 Earthing
- 2.16 Cables and Flexible Cords
- 2.17 Armoured PVC Insulated and Sheathed Cables
- 2.18 Cable Supports; Markers and Tiles
- 2.19 PVC Insulated Cables
- 2.20 Heat Resisting Cables

- 2.21 Flexible Cords
- 2.22 Cable Ends and phase Colours
- 2.23 Cable Insulation Colours
- 2.24 Sub-circuit Wiring
- 2.25 Space Factor
- 2.26 Insulation
- 2.27 Lighting Switches
- 2.28 Sockets and Switched sockets
- 2.29 Fused Spur Boxes
- 2.30 Cooker Outlets
- 2.31 Connectors
- 2.32 Lampholders
- 2.33 Lamps
- 2.34 lighting Fittings Street lighting Lanterns
- 2.35 Position of Points and Switches
- 2.36 Street/Security Lighting Columns
- 2.37 Timing Control Switch
- 2.38 Wiring System for Street Lighting
- 2.39 Metal control Pillar
- 2.40 Current Operated Earth leakage circuit breaker
- 2.41 MV Switchboard
- 2.42 Steel Conduits and Steel Trunking

2.1 SHOP DRAWINGS

Before manufacture or Fabrication is commenced the sub-contractor shall submit Two copies of detailed drawings of all control pillars, meter cubicles, medium voltage switchboards including their components showing all pertinent information including sizes, capacities, construction details, etc, as may be required to determine the suitability of the equipment for the approval of the Engineer.

Approval of the detailed drawings shall not relieve the sub-contractor of the full responsibility of errors or the necessity of checking the drawings himself or of furnishing the materials and equipment and performing the work required by the plans and specifications.

2.2 RECORD DRAWINGS

These diagrams and drawings shall show the completed installation including sizes, runs and arrangements of the installation. The drawings shall be to scale not less than 1 :50 and shall include plan views and section.

The drawings shall include all the details which may be useful in the operation, maintenance or subsequent modifications or extensions to the installation.

Three sets of diagrams and drawings shall be provided, all to the approval of the Engineer.

One coloured set of line diagrams relating to operating and maintenance instructions shall be framed and, mounted in a suitable location.

2.3 REGULATIONS AND STANDARDS

All work executed by the Sub-contractor shall comply with the current edition of the “Regulations” for the Electrical Equipment of Buildings, issued by the Institution of Electrical Engineers, and with the Regulations of the Local Electricity Authority.

Where the two sets of regulations appear to conflict, they shall be clarified with the Engineers. All materials used shall comply with relevant Kenya Bureau of Standards Specification.

SETTING OUT WORK

The sub-contractor at his own expenses; is to set out works and take all measurements and dimensions required for the erection of his materials on site; making any modifications in details as may be found necessary during the progress of the works, submitting any such modifications or alterations in detail to the Engineer before proceeding and must allow in his Tender for all such modifications and for the provision of any such sketches or drawings related thereto.

2.4 POSITIONS OF ELECTRICAL PLANT AND APPARATUS

The routes of cables and approximate positions of switchboards etc, as shown on the drawings shall be assumed to be correct for purpose of Tendering, but exact positions of all electrical Equipment and routes of cables must be agreed on site with the Engineer before any work is carried out.

2.5 MCB DISTRIBUTION PANELS AND CONSUMER UNITS

All cases of MCB Panels and consumer units shall be constructed in heavy gauge sheet with hinged covers.

Removable undrilled gland plates shall be provided on the top and bottom of the cases. Miniature circuit breakers shall be enclosed in moulded plastic with the tripping mechanism and arc chambers separated and sealed from the cable terminals.

The operating dolly shall be tripfree with a positive movement in both make and break position. Clear indication of the position of the handle shall be incorporated.

The tripping mechanism shall be on inverse characteristic to prevent tripping in temporary overloads and shall not be affected by normal variation in ambient temperature.

A locking plate shall be provided for each size of breaker; A complete list of circuit details on typed cartridge paper glued to stiff cardboards and covered with a sheet of perspex, and held in position with four suitable fixings, shall be fitted to the inner face of the lids of each distribution panel. The appropriate MCB ratings shall be stated on the circuit chart against each circuit in use: Ivorine labels shall be secured to the insulation barriers in such a manner as to indicate the number of the circuits shown on the circuit chart.

Insulated barriers shall be fitted between phases, and neutrals in all boards, and to shroud live parts.

Neutral cables shall be connected to the neutral bar in the same sequence as the phase cables are connected to the MCB's. This shall also apply to earth bars when installed.

FUSED SWITCHGEAR AND ISOLATORS

All fused switchgear and isolators whether mounted on machinery, walls or industrial panels shall conform to the requirements of KS 04 – 226 PART: 1: 1985.

All contacts are to be fully shrouded and are to have a breaking capacity on manual operations as required by KS 04 – 182 : 1980.

Fuse links for fused switches are to be of high rupturing capacity cartridge type, conforming to KS 04 – 183 : 1978.

Isolators shall be load breaking/fault making isolators.

Fused switches and isolators are to have separate metal enclosures. Mechanical interlocks are to be provided between the door and main switch operating mechanism so arranged that the door may not be opened with the switch in the 'ON' position. Similarly; it shall not be possible to close the switch with the door open except that provision to defeat the mechanical interlock and close the switch with the door in the open position for test purposes. The 'ON' and 'OFF' positions of all switches and isolators shall be clearly indicated by a mechanical flag indicator or similar device. In T.P & N fused switch units, bolted neutral links are to be fitted.

2.6 CONDUITS AND CONDUIT RUNS

Conduit systems are to be installed so as to allow the loop-in system of wiring:

All conduits shall be black rigid super high impact heavy gauge class 'A' PVC in accordance with KS 04 – 179: 1988 and IEE Regulations. No conduit less than 20mm in diameter shall be used anywhere in this installation.

Conduit shall be installed buried in plaster work and floor screed except when run on wooden or metal surface when they will be installed surface supported with saddles every 600mm. Conduit run in chases shall be firmly held in position by means of substantial pipe hooks driven into wooden plugs.

The Sub-contractors attention is drawn to the necessity of keeping all conduits entirely separate from other piping services such as water and no circuit connections will be permitted between conduits and such pipes. All conduits systems shall be arranged wherever possible to be self-draining to switch boxes and conduit outlet points for fittings:

The systems, when installed and before wiring shall be kept plugged with well fitting plugs and when short conduit pieces are used as plugs, they shall be doubled over and tied firmly together with steel wire; Before wiring all conduit systems shall be carried out until the particular section of the conduit installation is complete in every respect.

The sets and bends in conduit runs are to be formed on site using appropriate size bending springs and all radii of bends must not be less than 2.5 times the outside diameter of the conduit. No solid or inspection bends, tees or elbows will be used.

Conduit connections shall either be by a demountable (screwed up) assembly or adhesive fixed and water tight by solution. The tube and fittings must be clean and free of all grease before applying the adhesive. When connections are made between the conduit and switch boxes, circular or non-screwed boxes, care shall be taken that no rough edges of conduit stick out into the boxes.

Runs between draw in boxes are not to have more than two right angle bends or their equivalent . The sub-contractor may be required to demonstrate to the Engineers that wiring in any particular run is easily withdrawable and the sub-contractor may, at no extra cost to the contract; be required to install additional draw-in boxes required. If conduit is installed in straight runs in excess of 6000mm, expansion couplings as manufactured by Egatube shall be used at intervals of 6000mm.

Where conduit runs are to be concealed in pillars and beams, the approval of the Structural Engineer, shall be obtained. The sub-contractor shall be responsible for marking the accurate position of all holes, chases etc, on

site, or if the Engineer so directs, shall provide the Main Contractor with dimensional drawings to enable him to mark out and form all holes and chases. Should the subcontractor fail to inform the main contractor of any inaccuracies in this respect they shall be rectified at the sub-contractors expense.

It will be the Sub-contractors responsibility to ascertain from site, the details of reinforced concrete or structural steelwork and check from the builder's drawings the positions of walls, structural concrete and finishes. No reinforced concrete or steelwork may be drilled without first obtaining the written permission of the Structural Engineer.

The drawings provided with these specifications indicate the appropriate positions only of points and switches, and it shall be the Sub-Contractors responsibility to mark out and centre on site the accurate positions where necessary in consultation with the Architect and the Engineer. The sub-contractor alone shall be responsible for the accuracy of the final position.

2.13 CONDUIT BOXES AND ACCESSORIES

All conduit outlets and junction boxes are to be either malleable iron and of standard circular pattern of the appropriate type to suit saddles being used or super high impact PVC manufactured to KS 04 – 179 : 1983.

Small circular pattern boxes are to be used with conduits up to and including 25mm outside diameter. Rectangular pattern adaptable boxes are to be used for conduits of 32mm outside diameter and larger. For drawing in of cables in exposed runs of conduit, standard pattern through boxes are to be used:

Boxes are to be not less than 50mm deep and of such dimensions as will enable the largest appropriate number of cables for the conduit sizes to be drawn in without excessive bending.

Outlet boxes for lighting fittings are to be of the loop-in type where conduit installation is concealed and the sub-contractor shall allow one such box per fitting, except where fluorescent fittings are specified when two such boxes per fitting shall be fitted flush with ceiling and if necessary fitted with break joint rings. Pattresses shall be fitted where required to outlets on surface conduit runs.

Adaptable boxes are to be of PVC or mild steel (of not less than 12swg) and black enamelled or galvanised finish according to location. They shall be of square or oblong shape location. They shall be of square or oblong shape complete with lids secured by four 2 BA brass roundhead screws; No adaptable box shall be less than 75mm x 75mm x 50mm or larger than 300mm x 300mm x 75mm and shall be adequate in depth in relation to the size of conduit entering it. Conduits shall only enter boxes by means of conduit bushes.

2.14 LABELS

Labels fitted to switches and fuseboards;-

- (i) Shall be Ivorine engraved black on white.

- (ii) Shall be secured by R.H brass screws of same manufacturing throughout.
- (iii) Shall be indicated on switches:-
 - a) Reference number of switch
 - b) Special current rating
 - c) Item of equipment controlled
- (iv) Shall indicate on MCB panels
 - a) Reference number
 - b) Type of board, i.e., lighting, sockets, etc.,
 - c) Size of cable supplying panel
 - d) where to isolate feeder cable
- (v) Shall be generally not less than 75mm x 50mm.

2.15 EARTHING

The earthing of the installation shall comply with the following requirements;-

- (i) It shall be carried out in accordance with the appropriate sections of the current edition of the Regulations, for the Electrical Equipment of Buildings issued by Institute of Electrical Engineers of Great Britain.
- (ii) At all main distribution panels and main service positions a 25mm x 3mm minimum cross sectional area Copper tape shall be provided and all equipment including the lead sheath and armouring of cables, distribution boards and metal frames shall be bonded thereto.
- (iii) The earth tape in Sub-clause (ii) shall be connected by means of a copper tape or cable of suitable cross sectional area to an earth electrode which shall be a copper earth rod (see later sub-clause).
- (iv) All tapes to be soft high conductivity copper, untinned except where otherwise specified and where run underground on or through walls, floors, etc., it shall be served with corrosion resisting tape or coated with corrosion compound and braided
- (v) Where the earth electrode is located outside the building a removable test link shall be provided inside the building as near as possible to the point of entry to the tape, for isolating the earth electrode for testing purposes.
- (vi) Earthing of sub-main equipment shall be deemed to be satisfactory where the sub-main cables are M.I.C.S. or conduit with separate earth wire, and installation is carried out in accordance with the figures stated in the current edition of the I.E.E Regulations.
- (vii) Where an earth rod is specified (see Sub-clause (iii) it shall be proprietary manufacture, solid hand drawn copper of 15mm diameter driven into the ground to a minimum depth of 3.6m . It shall be made up to 1.2m sections with internal screw and socket joints and fitted with hardened steel tip and driving cap.
- (viii) Earth plates will not be permitted

- (ix) Where an earth rod is used the earth resistance shall be tested in the manner described in the current edition of the IEE Regulations, by the Sub-Contractor in the presence of the Engineer and the Sub-Contractor shall be responsible for the supply of all test equipment.
- (x) Where copper tape is fixed to the building structure it shall be by means of purpose made non-ferrous saddles which space the conductor away from the structure a minimum distance of 20mm. Fixings, shall be made using purpose made plugs; No fixings requiring holes to be drilled through the tape will be accepted.
- (xi) Joints in copper tape shall be tinned before assembly riveted with a minimum of two copper rivets and seated solid.
- (xii) Where holes are drilled in the earth tape for connection to items of equipment the effective cross sectional area must not be less than required to comply with the IEE regulations.
- (xiii) Bolts, nuts and washers for any fixing to the earth tape must be of non-ferrous material.
- (xiv) Attention is drawn to the need for the earthing metal parts of lighting fittings and for bonding ball joint suspension in lighting fittings.

2.16 CABLES AND FLEXIBLE CORDS

All cables used in this Sub-Contract shall be manufactured in accordance with the current appropriate Kenya standard Specification which are as follows:-

P.V.C. Insulated Cables and Flexible Cords	-	Ks 04-192:1988
PVC Insulated Armoured Cables	-	Ks 04-194:1990
Armouring of Electric cables	-	Ks 04-290:1987

The successful Sub-Contractor will, at the Engineers discretion be required to submit samples of cables for the Engineers approval; the Engineer reserves the right to call for the cables of an alternative manufacture without any extra cost being incurred.

P.V.C. insulated cables shall be 500/1000 volt grade. No cables smaller than 1.5mm² shall be used unless otherwise specified. The installation and the finish of cables shall be as detailed in later clauses. The colour of cables shall conform with the details stated in the "Cable Braid and insulation Colours" Clause.

2.17 ARMoured P.V.C. INSULATED AND SHEATHED CABLES:

Shall be 600/1000 volt grade manufactured to Ks 04-194:1988 and Ks 04-187/188 with copper stranded conductors.

The wire armour of the cable shall be used wholly as an earth continuity conductor and the resistance of the wire armour shall have a resistance not more than twice of the largest current carrying conductor of the cable.

P.V.C./S.W.A./P.V.C. cables shall be terminated using “Telecom” “B” type or approved equal or approved equal glands and a P.V.C. tapered sleeve shall be provided to shroud each gland.

Where cables rise from floor level to switchgear etc., they shall be protected by P.V.C. conduit, to a height of 600mm from finished floor level, whether the cable is run on the surface or recessed into the wall.

2.18 CABLE SUPPORTS, MARKERS AND TILES

All PVC/SWA/PVC cables run inside the building shall be fixed in rising ducts or on ceilings by means of die cast cables hooks or clamps, or appropriate size to suit cables, fixed by studs and back nuts to their channel sections.

Alternatively, fixing shall be by BICC claw type cleating system with die-cast cleats and galvanised mild steel back straps or similar approved equal method. For one or two cables run together the cleats shall be fixed a special channel section supports or backstraps described above which shall in turn be secured to walls or ceilings of ducts by rawbolts.

In excessively damp or corrosive atmospheric conditions special finishes may be required and the Subcontractor shall apply to the Engineer for further instructions before ordering cleats and channels for such areas.

The above type of hooks and clamps and channels or cleats and blackstraps shall also be used for securing cables in vertical ducts.

Cables supports shall be fixed at 600mm maximum intervals, the supports being supplied and erected under this Sub-contract. Saddles shall not be used for supporting cables nor any other type of fixing other than one of the two methods described above or other system which has received prior approval of the Engineer;

Cables are to be kept clear of all pipe work and the Sub-contractor shall work in close liaison with other services Sub-contractors.

The Sub-Contractor shall include for the provision of fixing of approved type coloured slip on cables end markers to indicate permanently the correct phase and neutral colours on all ends.

Provision shall be made for supplying and fixing approved non-corrosive metal cable markers to be attached to the outside of all PVC/SWA/PVC cables at 15mm intervals indicating cable size and distinction.

Where PVC/SWA/PVC cables are outside the building they shall be laid underground 750mm deep with protecting concrete interlocking cover tiles laid over which shall be provided and laid under this Sub- contract.

All necessary excavations and reinstatement of ground including sanding or trenches will be carried out by the Sub-Contractor, unless otherwise stated.

2.19 PVC INSULATED CABLES

Shall be of non-braided type as CMA reference 6491 x 600/1000/1000 volt grade cables, or equal approved.

PVC cables shall conform to the details of the “Cables and Flexible cords” and “Cable Braid and Insulation Colours” clauses.

2.20 HEAT RESISTING CABLES

Final connections to cookers, water heaters, etc., shall be made using butyl rubber insulated cable as CMA reference 610 butyl (Single core 600/1000 Volt).

This type of cable shall be used in all instances where a temperature exceeding 100°F, but not exceeding 150°F is likely to be experienced. Final connections to all lighting fittings (and other equipment where a temperature in excess of 150°C likely to be experienced) shall be made using silicon rubber insulated cable or equal and approved.

2.21 FLEXIBLE CORDS

Shall be in accordance with the “Cable and Flexible Cords” clause. No cord shall be less than 24/0.2mm in size unless otherwise specified.

Circular white twin TRS flex shall be used for plain pendant fittings up to 100 watts. For all other types of lighting fittings the flexible cable shall be silicone rubber insulated.

No polythene insulated flexible cable shall be used in any lighting fitting or other appliance (see “Heat Resisting Cables” Clause 30).

2.22 CABLE ENDS AND PHASE COLOURS

All cable ends connected up in switchgear, MCB panels etc., shall have the insulation carefully cut back and the ends sealed with Hellerman rubber slip on cable end markers.

The markers shall be of appropriate phase colour for switch and all other live feeds to the details of the “Cable Insulation Colours” clause. Black cable with black end markers shall only be used for neutral cables.

2.23 CABLE INSULATION COLOURS

Unless otherwise stated in later clauses the insulation colours shall be in accordance with the following table.

Where other systems are installed the cable colours shall be in accordance with the details stated in the appropriate clause.

<u>SYSTEM</u>	<u>INSULATION COLOUR</u>	<u>CABLE END MARKER</u>
Main and Sub-Main		
a) Phase	Red	Red
b) Neutral	Black	Black

1) Sub-Circuits Single Phase

a) Phase	Red	Red
b) Neutral	Black	Black

2.24 SUB-CIRCUIT WIRING

For all lighting and sockets wiring shall be carried out in the “looping in” system and there shall be no joints whatsoever. No lighting circuits shall comprise more than 20 points when protected by 10A MCB. Cables with different cross-section area of copper shall not be used in combination.

Lighting circuits P. V.C. cable 1.5mm² for all lighting circuits indicated on the drawing.

Power circuits P.V.C cable (minimum sizes).

- (i) 2.5mm² for one, two or three 5Amp sockets wired in parallel.
- (ii) 2.5mm² for one 15Amp socket.
- (iii) 2.5mm² for maximum of ten switched 13 Amp sockets wired from 30 Amp MCB.

The wiring sizes for lighting circuits and sockets are shown on the drawings. In such cases, the sizes shown on the drawings shall prevail over the sizes specified.

Wiring sizes for other appliances shall be shown on the drawing or specified in later clauses of this specification.

2.25 SPACE FACTOR

The maximum number of cables that may be accommodated in a given size of conduit or trunking or duct is not to exceed the number in Tables B.5 and B.6 or as stated in Regulation B.91, B.117 and B.118 of the I.E.E Regulations whichever is appropriate.

2.26 INSULATION

The insulation resistance to earth and between poles of the whole wiring system, fittings and lumps, shall not be less than the requirements of the latest edition of the I.E.E Regulations. Complete tests shall be made on all circuits by the Sub-contractor before the installations are handed over.

A report of all tests shall be furnished by the Sub-Contractor to the Engineer. The Engineer will then check test with his own instruments if necessary.

2.27 LIGHTING SWITCHES

These shall be mounted flush with the walls, shall be contained in steel or alloy boxes and shall be of the gangs ratings and type shown in the drawings. They shall be as manufactured by M.K. Electrical Ltd., or other equal and approved to KS 04 – 247: 1988

2.28 SOCKETS AND SWITCHED SOCKETS

These shall be flush pattern in steel/pvc box and shall be of the gangs and type specified in the drawings.

They shall be 13- Amp, 3-pin, shuttered, switched and as manufactured by “M.K. Electrical Co. Ltd.”, or other approved equal to KS 04 – 246: 1987

2.29 FUSED SPUR BOXES

These shall be flush, D.P switched as in steel/pvc box and of type and make specified in the drawings complete with pilot light and as manufactured by “M. K. Electrical Company Ltd”, or other approved equal. KS 04 – 247: 1988

2.30 COOKER OUTLETS

These shall be flush mounted with 13-A switched socket outlet and neon indicator Lamps. The cooker control units shall be as manufactured by “M.K. Electrical Company Ltd”, or other approved equal KS 04 – 247: 1988

2.31 CONNECTORS

Shall be specified in the drawings and appropriate rating. These shall be fitted at all conduit box lighting point outlets for jointing of looped P.V.C cables with flexible cables of specified quality.

2.32 LAMPHOLDERS

Shall be of extra heavy H.O skirted and shall be provided for every specified lighting fitting and shall be B.C., E.S., or G.E.S as required. All E.S. and G.E.S. holders shall be heavy brass type (except for plain pendants where the reinforced bakelite type shall be used). The screwed cap of the E.S and G.E.S. holders shall be connected to the neutral.

Where lampholders are supported by flexible cable, the holders shall have “cord grip” arrangements and in the case of metal shades earthing screws shall be provided on each of the holders.

The Sub-Contractor must order the appropriate type of holder when ordering lighting fittings, to ensure that the correct types of holders are provided irrespective of the type normally supplied by the manufacturers.

2.33 LAMPS

All lamps shall be suitable for normal stated supply voltage and the number and sizes of lamps detailed on the drawings shall be supplied and fixed. The Sub-Contractor must verify the actual supply voltage with the supply authority before ordering the lamps.

Tungsten filament lamps shall be manufactured in accordance with KS 04 – 112:1978 for general service lamps and KS 04 – 307:1985 for lamps other than general services. Tubular fluorescent lamps shall comply with KS 04 – 464:1982

Pearl lamps shall be used in all fittings unless otherwise specified.

2.34 LIGHTING FITTINGS AND STREET LIGHTING LANTERNS

This Sub-Contract shall include for the provision, handling charges, taking the delivery, safe storage, wiring (including internal wiring) assembling and erecting of all lighting fittings shown on the drawings.

All fittings and pendants shall be fixed to the conduit boxes with brass R/H screws. These to be in line with metal finish of fittings. The lighting fittings are detailed for the purpose of establishing a high standard of finish and under no circumstances will substitute fittings be permitted. In case of rectangular shaped ceiling fittings, the extreme ends of the fittings shall be secured to suitable support in addition to the central conduit box fittings. Supports shall be provided and fixed by the Sub-Contractor.

The whole of the metal work of each lighting fittings shall be effectively bonded to earth. In the case of ball and/or knuckle joints short lengths of flexible cable shall be provided, bonded to the metal work on either side of the joints. If the above provisions are not made by the manufacturers -, the Subcontractor shall include cost of additional work necessary in his tender. See "Flexible Cords" clause for details of internal wiring of lighting fittings. Minimum size of internal wiring shall be 20/0.20mm (23/0067). Each lighting fitting shall be provided with number type and size of lamps as detailed on the drawings. It is to be noted that some fittings are suspended as shown on the drawings.

Where two or more points are shown adjacent to each other on the drawings, e.g socket outlet and telephone outlet, they shall be lined up vertically or horizontally on the centre lines of the units concerned.

Normally, the units shall be lined up on vertical centre lines, but where it is necessary to mount units at low level they shall be lined up horizontally.

2.35 POSITIONS OF POINTS AND SWITCHES

Although the approximate positions of all points are shown on the drawings, enquiry shall be made as to the exact positions of all M.C.B panels, lighting points, socket outlets etc, before work is actually commenced. The Sub-contractor must approach the Architect with regard to the final layout of all lights on the ceiling and walls.

The Sub-contractor must consult with the Engineer in liaison with the Clerk of Works, or the General Foreman on site regarding the positions of all points before fixing any conduit etc. The Sub-Contractor shall be responsible for all alterations made necessary by the non-compliance with the clause.

2.36 STREET/SECURITY OUTDOOR LIGHTING COLUMNS:

The column shall be at a minimum of 225mm in the ground on 75mm thick concrete foundations and the pole upto 150mm shall be surrounded with concrete. The top bracket and plain section of the columns shall be common to and interchangeable with all brackets with maximum mismatching tolerance of 3mm between any pole and bracket. After manufacture and before erection the columns shall be treated with an approved mordant solution which shall be washed off and the whole allowed to dry. Thereafter, the columns shall be painted with

one undercoat and two coats of gloss paint to an approved colour. All columns shall be complete with fused cut-outs.

2.37 TIMING CONTROL SWITCH

These shall be installed where shown on the drawings. Photocell timing control circuits which will operate 'on' with a specified level of darkness and 'off' with a given level of light. The initial adjustment will be done with approval of the Electrical Engineer.

2.38 WIRING SYSTEM FOR STREETLIGHTING

Cables shall be as indicated on the drawings, and shall be laid in a cable trench 450mm deep along the road sides and 600mm deep across the roads and 900mm away from the road kerb or 1500mm away from the edges of the road. 'Loop-in' and 'Loop-out' arrangement shall be used at every pole. Wiring to the lanterns on each pole shall be with 1.5mm² PVC twin insulated and sheathed cable with earth wire shall be laid at least 600mm below the finished road level on a compact bed of murram at least 50mm thick and covered with a concrete surrounded 150mm thick.

2.39 METAL CONTROL PILLAR

These shall be metal clad and fabricated as per contract drawings and specification. The SubContractor shall supply, install, test and commission control pillars including supplying, fixing connecting switchgears as detailed on the appropriate drawings.

2.40 CURRENT OPERATED EARTH LEAKAGE CIRCUIT BREAKER

Current operated earth leakage circuit breaker shall conform to B.S.S. 4293:68 rated at 240 volts D.P. 50 cycles A.C. Mains.

The breaker shall be provided with test switch and fitted in weather proof enclosure for surface mounting. The rated load current and earth fault operating current shall be as specified in the drawings. These shall be as manufactured by Crabtree, Siemens or other equal and approved.

2.41 M.V. SWITCHBOARD AND SWITCHGEAR

The switchboard shall be manufactured in accordance with KS04-226 which co-ordinates the requirements for electrical power switchgear and associated apparatus. It is not intended that this K.S. should cover the requirements for specified apparatus for which separate Kenyan Standard exist. All equipment and material used in the switchboard shall be in accordance with the appropriate Kenya Standard.

The switchboard shall comprise the equipment shown on the drawings together with all current transformers, auxiliary fuses, labels, small wiring and interconnections necessary for the satisfactory operation of the switchboard. Switchboard shall be of the flush fronted, enclosed, metal clad type with full front or rear access as

called for in the particular specifications, suitable for indoor use, sectionalized as necessary to facilitate transport and erection. The maximum height of the switchboard is to be approximately 2.0 meters. A suitable connection chamber containing all field terminals shall be provided at the top or bottom of the switchboard as appropriate.

Before manufacture, the Sub-Contractor shall submit to the consulting Engineer for approval of detailed drawings showing the layout, construction and connection of the switchboard.

All bus-bars and bus-bar connections shall consist of high conductivity copper and be provided in accordance with KS 04-226: 1985. The bus-bars shall be clearly marked with the appropriate phase and neutral colours which should be red, yellow, blue for the phases and black for neutral. The busbars shall be so arranged in the switchboard that the extensions to the left and right may be made in the future with ease should the need arise.

Small wiring, which will be neatly arranged and cleated, shall be executed in accordance with B.S. 158 and the insulation of the wiring shall be colored according to the phase or neutral connection.

Switches and fuse switches, shall be in strict accordance with KS04-183:1978 Class 2 switches. Means of locking the switch in the “OFF” position shall be provided.

All fuse switches shall comply with KS04-183:1978, PARTS 2 and 3 a fault rating at least equal to the fault rating of the switchboard in which they are installed. Cartridge fuse links to KS 04-183:1978 category A.C. 46, class Q1 and fusing factor not exceeding 1.5 shall be supplied with each fused switch.

Mounting arrangements shall be such that individual complete fuse switches may be disconnected and withdrawn when necessary without extensive dismantling work. When switches are arranged in their formation all necessary horizontal and vertical barriers shall be provided to ensure segregation from adjacent units. Means of locking the switch in the “OFF” position shall be provided.

2.42 STEEL CONDUITS AND STEEL TRUNKING

Conduits shall be of heavy gauge class “B” welded to Standard specification KS 04-180:1985. In no case will conduit smaller than 20mm diameter be used on the works. Conduits installed within buildings shall be black enameled finish except where specified otherwise. Where installed externally or in damp conditions they shall be galvanised. Conduit fittings, accessories or equipment used in conjunction with galvanised conduits shall also be galvanised or otherwise as approved by the service engineer.

Metal trunking shall be fabricated from mild steel of not less than 18 swg. All sections of trunking shall be rigidly fixed together and attached to the framework or fabric of the building at intervals of not less than 1.2m. Joint trunking shall not overhang fixing points by more than 0.5m.

All trunking shall be made electrically continuous by means of 25 x 3mm copper links across each joint and where the trunking is galvanised, the links shall be made by galvanised flat iron strips.

All trunking fittings (i.e. bends, tees, etc) shall leave the main through completely clear of obstructions and continuously open except through walls and floors at which points suitable fire resisting barriers shall be

provided as may be necessary. The inner edge of bends and tees shall be chamfered where cables larger than 35mm² are employed.

Where trunking passes through ceilings and walls the cover shall be solidly fixed to 150mm either side of ceilings and floors and 50mm either side of walls.

Screws and bolts securing covers to trunking or sections of covers together shall be arranged so that damage to cables cannot occur either when fixing covers or when installing cables in the trough.

Where trunking is used to connect switchgear or fuseboards, such connections shall be made by trunking fittings manufactured for this purpose and not by multiple conduit couplings.

Where vertical sections of trunking are used which exceed 4.5m in length, staggered tie off points shall be provided at 4.5m intervals to support the weight of cables.

Unless otherwise stated, all trunking systems shall be painted as for conduit.

Where a wiring system incorporates galvanized conduit and trunking, the trunking shall be deemed to be galvanized unless specified otherwise.

The number of cables to be installed in trunking shall be such as to permit easy drawing in without damage to the cables, and shall in no circumstances be such that a space factor of 45% is exceeded.

Conduit and trunking shall be mechanically and electrically continuous. Conduit shall be tightly screwed between the various lengths so that they butt at the socketed joints. The internal edges of conduit and all fittings shall be smooth, free from burrs and other defects. Oil and any other insulating substance shall be removed from the screw threads; where conduits terminate in fuse-gear, distribution boards, adaptable boxes, non-spouted switchboxes, etc., they shall, unless otherwise stated, be connected thereto by means of smooth bore male brass bushes, compression washers and sockets. All exposed threads and abrasions shall be painted using an oil paint for black enamelled tubing and galvanising paint for galvanised tubing immediately after the conduits are erected. All bends and sets shall be made cold without altering the section of the conduit. The inner radius of the bend shall not be less than four (4) times the outside diameter of the conduit. Not more than two right angle bends will be permitted without the inter-position of a draw-in-box. Where straight runs of conduit are installed, draw-in-boxes shall be provided at distances not exceeding 15m. No tees, elbows, sleeves, either of inspection or solid type, will be permitted.

Conduit shall be swabbed out prior to drawing in cables, and they shall be laid so as to drain of all condensed moisture without injury to end connections.

Conduits and trunking shall be run at least 150mm clear of hot water and steam pipes, and at least 75mm clear of cold water and other services unless otherwise approved by the services engineer.

All boxes shall conform to KS 04 – 668: 1986, to be of malleable iron, and black enamelled or galvanised according to the type of conduit specified. All accessory boxes shall have threaded brass inserts.

Box lids where required shall be heavy gauge metal, secured by means of zinc plated or cadmium plated steel screws.

All adaptable boxes and lids of the same size shall be interchangeable.

Boxes used on surface work are to be tapped or drilled to line up with the conduit fixed in distance type saddles allowing clearance between the conduit and wall without the need for setting the conduit. Where used in conjunction with mineral insulated copper sheathed cable, galvanised boxes shall be used and painted after erection.

Draw-in boxes in the floors are generally to be avoided but where they are essential they must be grouped in positions approved by the services engineer and covered and by the suitable floor traps, with non-ferrous trays and covers.

The floor trap covers are to be recessed and filled in with a material to match the floor surface.

The Sub-contractor must take full responsibility for the filling in of all covers, but the filling in material will be supplied and the filling carried out by the main building contractor.

Where buried in the ground outside the building the whole of the buried conduit is to be painted with two coats of approved bitumastic composition before covering up.

Where run on the surface, unpainted fittings and joints shall be painted with two coats of oil bound enamel applied to rust and grease free metalwork.

2.43 TESTING ON SITE

The Sub-contractor shall conduct during and at the completion of the installation and, if required, again at the expiration of the maintenance period, tests in accordance with the relevant section of the current edition of the Regulations for the electrical equipment of buildings issued by the I.E.E of Great Britain, the Government Electrical Specification and the Electric Supply Company's By-Laws.

- (a) Tests shall be carried out to prove that all single pole switches are installed in the 'live' conductor.
- (b) Tests shall be carried out to prove that all socket outlets and switched socket outlets are connected to the 'live' conductor in the terminal marked as such, and that each earth pin is effectively bonded to the earth continuity system. Tests shall be carried out to verify the continuity of all conductors of each 'ring' circuit.
- (c) Phase tests shall be carried out on completion of the installation to ensure that correct phase sequence is maintained throughout the installation. Triplicate copies of the results of the above tests shall be provided within 14 days of the witnessed tests and the Sub-contractor will be required to issue to the service engineer the requisite certificate upon completion as required by the regulations referred to above.

- (d) Any faults, defects or omissions or faulty workmanship, incorrectly positioned or installed parts of the installation made apparently by such inspections or tests shall be rectified by the Sub-contractor at his own expense.
- (e) The Sub-contractor shall provide accurate instruments and apparatus and all labour required to carry out the above tests. The instruments and apparatus shall be made available to the services engineer to enable him to carry out such tests as he may require.

The Sub-contractor shall generally attend on other contractors employed on the project and carry out such electrical tests as may be necessary.

The Sub-contractor shall test to the services engineer's approval and as specified elsewhere in this specification or in standards and regulations already referred to, all equipment, plant and apparatus forming part of the works and before connecting to any power or other supply and setting to work.

Where such equipment, etc., forms part of or is connected to a system whether primarily or of an electrical nature or otherwise (e.g. air conditioning system) the Sub-contractor shall attend on and assist in balancing, regulating testing and commissioning, or if primarily an electrical or other system forming part of works, shall balance, regulate, test and commission the system to the service engineer's approval.

APPENDIX TO GENERAL SPECIFICATIONS OF MATERIALS AND WORKS

The electrical sub-contractor shall comply with the following:-

1. Government Electrical Specifications No. 1 and No. 2.
2. All requirements of Kenya Power Company Limited, and Communications Commission of Kenya (CCK).

SECTION VII: C: GENERAL MECHANICAL SPECIFICATION

<u>CLAUSE</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
2.01	GENERAL	D-1
2.02	QUALITY OF MATERIALS	D-1
2.03	REGULATIONS AND STANDARDS	D-1
2.04	ELECTRICAL REQUIREMENTS	D-2
2.05	TRANSPORT AND STORAGE	D-2
2.06	SITE SUPERVISION	D-3
2.07	INSTALLATION	D-3
2.08	TESTING	D-3
2.09	COLOUR CODING	D-4

2.10 WELDING SPECIFICATIONS

D-5 SECTION IX: GENERAL MECHANICAL

2.01 General

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

2.02 Quality of Materials

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings shall be supplied by the Sub-contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub-contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

2.03 **Regulations and Standards**

The Sub-contract Works shall comply with the current editions of the following:

- a) The Kenya Government Regulations.
- b) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- c) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- d) British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- e) The Local Council By-laws.
- f) The Electricity Supply Authority By-laws.
- g) Local Authority By-laws.
- h) The Kenya Building Code Regulations.
- i) The Kenya Bureau of Standards

2.04 **Electrical Requirements**

Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor starters, control boards, and other control apparatus. Where control panels incorporating several starters are supplied they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor.

The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer's approval.

The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described in the Kenya Power and Lighting Company (KPLC) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase.

Any equipment that is not rated for the above voltages and frequencies shall be rejected by the Engineer.

2.05 **Transport and Storage**

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimise the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned. If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub-contractor shall replace this equipment at his own cost.

2.06 **Site Supervision**

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

2.07 **Installation**

Installation of all special plant and equipment shall be carried out by the Sub-contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 2.03 of this Section.

2.08 **Testing**

2.08.1 **General** - The Sub-contractor's attention is drawn to Part 'C' Clause 1.38 of the "Preliminaries and General Conditions".

2.08.2 **Material Tests**

All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned.

For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned.

The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived.

Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

2.08.3 Manufactured Plant and Equipment – Work Tests

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer.

The Sub-contractor shall give two week's notice to the Engineer of the manufacturer's intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections. The cost of such tests and inspections shall be borne by the Sub-contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections.

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor's own risk and should the test and inspection certificates not be approved, new tests may be ordered by the Engineer at the Sub-contractor's expense.

2.08.4 Pressure Testing

All pipework installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub-contractor shall give 48 hours notice to the Engineer of his intention to carry out such tests.

Any pipework that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

2.09 **Colour Coding**

Unless stated otherwise in the Particular Specification all pipework shall be colour coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.

2.10 **Welding**

2.10.1 **Preparation**

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

2.10.2 **Method**

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639. Gas welding may be employed in certain circumstances provided that prior approval is obtained from the Engineer.

2.10.3 **Welding Code and Construction**

All welded joints shall be carried out in accordance with the following Specifications:

- a) **Pipe Welding** - All pipe welds shall be carried out in accordance with the requirements of B.S.806.
- b) **General Welding** - All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

2.10.4 **Welders Qualifications**

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya. The Engineer may require to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications the Engineer may instruct the Sub- contractor to replace him by a qualified welder.

SECTION IX-A: PARTICULAR SPECIFICATIONS FOR PLUMBING AND DRAINAGE

CLAUSE No.	DESCRIPTION	PAGE
3.1	General.....	E-1
3.2	Materials and standards.....	E-1
3.2.1	Pipework and Fittings.....	E-1
3.2.2	Valves.....	E-3
3.2.3	Waste Fitment Traps.....	E-4
3.2.4	Pipe Supports.....	E-4
3.2.5	Sanitary Appliances.....	E-6
3.2.6	Pipe Sleeves.....	E-6
3.3	Installation.....	E-6
3.3.1	General.....	E-6
3.3.2	Above Ground Installation.....	E-6
3.4	Testing Inspection.....	E-8
3.4.1	Site Tests – Pipework Systems.....	E-8
3.4.2	Site Test – Performance.....	E-8
3.5	Sterilisation of Hot and Cold Water System.....	E-9

SECTION IX-B: PARTICULAR SPECIFICATIONS FOR PLUMBING AND DRAINAGE

3.1 GENERAL

This section specifies the general requirements for plant, equipment and materials forming part of the plumbing and drainage installations.

3.2 MATERIALS AND STANDARDS

3.2.1 Pipework and Fittings

Pipework materials are to be used as follows:

a) Galvanized Steel Pipework

Galvanized steel pipe work up to 65mm nominal bore shall be manufactured in accordance with B.S. 1387 Medium Grade, with tapered pipe threads in accordance with B.S. 21. All fittings shall be malleable iron and manufactured in accordance with B.S. 143.

Pipe joints shall be screwed and socketed and sufficient coupling unions shall be allowed so that fittings can be disconnected without cutting the pipe. Running nipples and long screws shall not be permitted unless exceptionally approved by the Engineer.

Galvanized steel pipe work, 80mm nominal bore up to 150mm nominal bore shall be manufactured to comply in all respects with the specification for 65mm pipe, except that screwed and bolted flanges shall replace unions and couplings for the jointing of pipes to valves and other items of plant. All flanges shall comply with the requirements of B.S. 10 to the relevant classifications contained hereinafter under Section 'C' of the Specification.

Galvanizing shall be carried out in accordance with the requirements of B.S. 1387 and B.S. 143 respectively.

b) Copper Tubing

All copper tubing shall be manufactured in accordance with B.S. 2871 from C.160 'Phosphorous De-oxidized Non-Arsenical Copper' in accordance with B.S. 1172.

Pipe joints shall be made with soldered capillary fittings and connections to equipment shall be with compression fittings manufactured in accordance with B.S. 864.

Short copper connection tubes between galvanized pipe work and sanitary fittings shall not be used because of the risk of galvanic action.

If, as may occur in certain circumstances, it is not possible to make the connection in any way than the use of copper tubing, then a brass straight connector shall be positioned between the galvanized pipe and the copper tube in order to prevent direct contact.

c) **P.V.C. (Hard) Pressure Pipes and Fittings**

All P.V.C. pipes and fittings shall be manufactured in accordance with B.S. 3505: 1968.

Jointing

The method of jointing to be employed shall be that of solvent welding, using the pipe and manufacturer's approved cement. Seal ring joint shall be introduced where it is necessary to accommodate thermal expansion.

Testing

Pipelines shall be tested in sections under an internal water pressure normally one and a half times the maximum allowable working pressure of the class of pipe used. Testing shall be carried out as soon as practical after laying and when the pipeline is adequately anchored. Precautions shall be taken to eliminate all air from the test section and to fill the pipe slowly to avoid risk of damage due to surge.

d) **A.B.S. Waste System**

Where indicated on the Drawings and Schedules, the Sub-contractor shall supply and fix A.B.S. waste pipes and fittings.

The pipes, traps and fittings shall be in accordance with the relevant British Standards, including B.S. 3943, and fixed generally in accordance with manufacturer's instructions and B.S. 5572: 1978.

Jointing of pipes shall be carried out by means of solvent welding, the manufacturer's instructions and B.S. 5572: 1978.

Jointing of pipes shall be carried out by means of solvent welding. The manufacturer's recommended method of joint preparation and fixing shall be followed.

Standard brackets, as supplied for use with this system, shall be used wherever possible. Where the building structure renders this impracticable the Sub-contractor shall provide purpose made supports, centers of which shall not exceed one meter

Expansion joints shall be provided as indicated. Supporting brackets and pipe clips shall be fixed on each side of these joints.

e) **PVC Soil System**

The Sub-contractor shall supply and fix PVC soil pipes and fittings as indicated on the Drawings and Schedules.

Pipes and fittings shall be in accordance with relevant British Standards, including B.S. 4514 and fixed to the manufacturer's instructions and B.S. 5572.

The soil system shall incorporate synthetic rubber gaskets as provided by the manufacturer whose fixing instructions shall be strictly adhere to.

Connections to WC pans shall be effected by the use of a WC connector, gasket and cover, fixed to suit pan outlet.

Suitable supporting brackets and pipe clips shall be provided at maximum of one metre centres.

The Sub-contractor shall be responsible for the joint into the Gully Trap on Drain as indicated on the Drawings.

3.2.2 **Valves**

a) **Draw-off Taps and Stop Valves (Up to 50mm Nominal Bore)**

Draw-off taps and valves up to 50mm nominal bore, unless otherwise stated or specified for attachment or connection to sanitary fitment shall be manufactured in accordance with the requirements of B.S.1010.

b) **Gate Valves**

All gate valves 80mm nominal bore and above, other than those required for fitting to buried water mains shall be of cast iron construction, in accordance with the requirements of B.S. 3464. All gate valves required for fitting to buried water mains shall be of cast iron construction in accordance with the requirements of B.S.1218.

All gate valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S. 1952.

The pressure classification of all valves shall depend upon the pressure conditions pertaining to the site of works.

c) **Globe Valves**

All globe valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S.3061.

The pressure classification of all globe valves shall depend upon the pressure conditions pertaining to the site of works.

3.2.3 **Waste Fitment Traps**

a) **Standard and Deep Seal P & S Traps**

Where standard or deep seal traps are specified they shall be manufactured in suitable non-ferrous materials in accordance with the full requirements of B.S. 1184.

In certain circumstances, cast iron traps may be required for cast iron baths and in these instances bath traps shall be provided which are manufactured in accordance with the full requirements of B.S.1291.

b) Anti-Syphon Traps

Where anti-syphon traps are specified, these shall be similar or equal to the range of traps manufactured by Greenwood and Hughes Limited, Deacon Works Littlehampton, Sussex, England.

The trade name for traps manufactured by this company is ‘Grevak’.

3.2.4 Pipe Supports

a) General

This sub-clause deals with pipe supports securing pipes to the structure of buildings for above ground application. The variety and type of support shall be kept to a minimum and their design shall be such as to facilitate quick and secure fixings to metal, concrete, masonry or wood.

Consideration shall be given, when designing supports, to the maintenance of desired pipe falls and the restraining of pipe movements to a longitudinal axial direction only.

The Sub-contractor shall supply and install all steelwork forming part of the pipe support assemblies and shall be responsible for making good damage to builders work associated with the pipe support installation.

The Sub-contractor shall submit all his proposals for pipe supports to the Engineer for approval before any erection works commence.

b) Steel and Copper Pipes and Tubes

Pipe runs shall be secured by clips connected to pipe angers, wall brackets, or trapeze type supports. ‘U’ bolts shall not be used as a substitute for pipe clips without the prior approval of the Engineer. An approximate guide to the maximum permissible supports spacing in metres for steel and copper pipe and tube is given in the following table for horizontal runs.

<u>Size Nominal Bores-</u>	<u>Copper Tube to B.S. 659</u>	<u>Steel Tube to BS 1387</u>
15mm	1.25m	2.0m
20mm	2.0m	2.5m

25mm	2.0m	2.5m
32mm	2.5m	3.0m
40mm	2.5m	3.0m
50mm	2.5m	3.0m
65mm	3.0m	3.5m
80mm	3.0m	3.5m
100mm	3.0m	4.0m
125mm	3.0m	4.5m
150mm	3.5m	4.5m

The support spacing for vertical runs shall not exceed one and a half times the distances given for horizontal runs.

c) Expansion Joints and Anchors

Where practicable, cold pipework systems shall be arranged with sufficient bends and changes of direction to absorb pipe expansion providing that the pipe stresses are contained within the working limits prescribed in the relevant B.S. specification.

Where piping anchors are supplied, they shall be fixed to the main structure only. Details of all anchor design proposals shall be submitted to the Engineer for approval before erection commences.

The Sub-contractor when arranging his piping shall ensure that no expansion movements are transmitted directly to connections and flanges on pumps or other items of plant.

The Sub-contractor shall supply flexible joints to prevent vibrations and other movements being transmitted from pumps to piping systems or vice versa.

3.2.5 Sanitary Appliances

All sanitary appliances supplied and installed as part of the Sub-contract works shall comply with the general requirements of B.S. Code of Practice 305 and the particular requirements of the latest B.S. Specifications.

3.2.6 Pipe Sleeves

Main runs of pipework are to be fitted with sleeves where they pass through walls and floors. Generally the sleeves shall be of P.V.C. except where they pass through the structure, where they shall be mild steel. The sleeves shall have 6mm – 12mm clearance all around the pipe or for insulated pipework all around the installation. The sleeve will then be packed with slag wool or similar.

3.3 **INSTALLATION**

3.3.1 **General**

Installation of all pipework, valves, fittings and equipment shall be carried out under adequate supervision from skilled staff to the relevant codes and standards as specified herein. The Subcontractor shall be responsible to the Main Contractor for ensuring that all builders work associated with his piping installation is carried out in a satisfactory manner to the approval of the Engineer.

3.3.2 **Above Ground Installation**

a) **Water Services**

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.

Where falls are not shown on the Contract Drawings or stated elsewhere in the Specification, pipework shall be installed parallel to the lines of the buildings and as close to the walls, ceilings, columns, etc., as is practicable.

All water systems shall be provided with sufficient drain points and automatic air vents 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 position as to be difficult to reach from a small step ladder, extension spindles with floor or wall pedestals shall be provided.

Screwed piping shall be installed with sufficient number of unions to facilitate easy removal of valves and fittings, and to enable alterations of pipework to be carried out without the need to cut the pipe.

Full allowances shall be made for the expansion and contraction of pipework, precautions being taken to ensure that any force produced by the pipe movements are not transmitted to valves, equipment or plant.

All screwed joints to piping and fittings shall be made with P.T.F.E. tape.

The test pressure shall be maintained by the pump for about one hour and if there is any leakage, it shall be measured by the quantity of water pumped into the main in that time. A general leakage of 4.5 litres per 25mm of diameter, per 1.6 kilometres per 24 hours per 30 metres head, may be considered reasonable but any visible individual leak shall be repaired.

b) **Sanitary Services**

Soil, waste and vent pipe system shall be installed in accordance with the best standard of modern practice as described in B.S. 5572 to the approval of the Engineer.

The Sub-contractor shall be responsible for ensuring that all ground waste fittings are discharged to a gully trap before passing to the sewer via a manhole.

The Sub-contractor shall provide all necessary rodding and inspection facilities within the draining system in positions where easy accessibility is available.

Where a branch requires rodding facilities in a position to which normal access is unobtainable, then that branch shall be extended so as to provide a suitable purpose made rodding eye in the nearest adjacent wall or floor to which easy access is available.

The vent stacks shall terminate above roof level and where stack passes through roof, a weather skirt shall be provided. The Sub-contractor shall be responsible for sealing the roof after installation of the stacks.

The open end of each stack shall be fitted with a plastic coated or galvanised steel wire guard.

Access for rodding and testing shall be provided at the foot of each stack.

c) Sanitary Appliances

All sanitary appliances associated with the Sub-contract works shall be installed in accordance with the best standard of modern practice as described in C.P. 305 to the approval of the Engineer.

1.1. **TESTING AND INSPECTION**

3.4.1 **Site Tests – Pipework Systems**

a) Above Ground Internal Water Services Installation

All water service pipe system installed above ground shall be tested hydraulically for a period of one hour to not less than one and half times to design working pressure.

If preferred, the Sub-contractor may test the pipelines in sections. Any such section found to be satisfactory need not be the subject of a further test when system has been completed, unless specifically requested by the Engineer. During the test, each branch and joint shall be examined carefully for leaks and any defects revealed shall be made good by the Sub-contractor and the section re-tested.

The Sub-contractor shall take all necessary precautions to prevent damage occurring to special valves and fittings during the tests. Any item damaged shall be repaired or replaced at the Sub-contractor's expenses.

b) Above Ground Soil Waste and Ventilation System

All soil, waste and ventilating pipe system forming part of the above ground installation, shall be given appropriate test procedures as described in B.S. 5572, 1972.

Smoke tests on above ground soil, waste and ventilating pipe system shall not be permitted.

Pressure tests shall be carried out before any work which is to be concealed is finally enclosed.

In all respects, tests shall comply with the requirements of B.S. 5572.

3.4.2 **Site Test – Performance**

Following satisfactory pressure test on the pipework system operational tests shall be carried out in accordance with the relevant B. S. Code of practice on the systems as a whole to establish that special valves, gauges, control, fittings, equipment and plant are functioning correctly to the satisfaction of the Engineer.

All hot water pipework shall be installed with pre-formed fibre glass lagging to a thickness of 25mm where the pipe runs above a false ceiling or in areas where the ambient temperature is higher than normal with the result that pipe “sweating”, due to condensation will cause nuisance.

All lagged pipes which run in a visible position after erection shall be given a canvas cover and prepared for painting as follows:

- i) Apply a coating of suitable filler until the canvas weave disappears and allow to dry.
- ii) Apply two coats of an approved paint and finish in suitable gloss enamel to colors approved by the Engineer.

All lagging for cold and hot water pipes erected in crawlways, ducts and above false ceiling which after erection are not visible from the corridors of rooms, shall be covered with a reinforced aluminium foil finish banded in colours to be approved by the Engineer.

In all respects, unless otherwise stated, the hot and cold water installation shall be carried out in accordance with the best standard of modern practice and described in C.P.342 and C.P.310 respectively to the approval of the Engineer.

The test pressure shall be applied by means of a manually operated test pump or, in the case of long main or mains of large diameter, by a power driven test pump which shall not be left unattended. In either case precautions shall be taken to ensure that the required pressure is not exceeded.

Pressure gauges should be recalibrated before the tests.

The Sub-contractor shall be deemed to have included in his price for all test pumps, and other equipment required under this specification.

The test pressure shall be one and a half times the maximum working pressure except where a pipe is manufactured from a material for which the relevant B.S. specification designates a maximum test pressure.

3.5 STERILISATION OF COLD WATER SYSTEM

All water distribution system shall be thoroughly sterilised and flushed out after the completion of all tests and before being fully commissioned for handover.

The sterilisation procedures shall be carried out by the Sub-contractor in accordance with the requirements of B.S. Code of Practice 301, Clause 409 and to the approval of the Engineer.

SECTION IX - C: PARTICULAR SPECIFICATION FOR PORTABLE FIRE EXTINGUISHER BOOSTED HOSE REEL SYSTEM, HOSE REEL, AND FIRE HYDRANT INSTALLATIONS

6.1 GENERAL

The particular specification details the requirements for the supply and installation and commissioning of the Portable Fire Extinguishers and Boosted Hose Reel System. The Sub-contractor shall include for all appurtenances and appliances not necessarily called for in this specification or shown on the contract drawings but which are necessary for the completion and satisfactory functioning of the works.

If in the opinion of the Sub-contractor there is a difference between the requirements of the Specifications and the Contract Drawings, he shall clarify these differences with the Engineer before tendering.

6.2 SCOPE OF WORKS

The Sub-contractor shall supply, deliver, erect, test and commission all the portable fire extinguishers and Hose Reel which are called for in these Specifications and as shown on the Contract Drawings.

6.3 WATER/CO2 EXTINGUISHERS

These shall be 9-litre water filled CO2 cartridge operated portable fire extinguishers and shall comply with B.S. 1382: 1948 and to the requirements of B.S.4523: 1977. Unless manufactured with stainless steel, bodies shall have all internal surfaces completely coated with either a lead tin, lead alloy or zinc applied by hot dipping. There shall be no visibly uncoated areas.

The extinguishers shall be clearly marked with the following:

- a) Method of operation.
- b) The words 'WATER TYPE' (GAS PRESSURE) in prominent letters.
- c) Name and address of the manufacturer or responsible vendor.
- d) The nominal charge of the liquid in imperial gallons and litres.

- e) The liquid level to which the extinguisher is to be charged.
- f) The year of manufacture.
- g) A declaration to the effect that the extinguisher has been tested to a pressure of 24.1 bar (350 psi.).
- h) The number of British Standard 'B.S' 1382 or B.S. 5423: 1977.

6.4 PORTABLE CARBON DIOXIDE FIRE EXTINGUISHERS

These shall be portable carbon dioxide fire extinguishers and shall comply with B.S. 3326: 1960 and B.S. 5423: 1977.

The body of extinguisher shall be a seamless steel cylinder manufactured to one of the following British Standards; B.S. 401 or B.S. 1288.

The filling ratio shall comply with B.S. 5355 with valves fittings for compressed gas cylinders to B.S.341. Where a hose is fitted it shall be flexible and have a minimum working pressure of 206.85 bar (3000 p.s.i.). The hose is not to be under internal pressure until the extinguisher is operated.

The nozzle shall be manufactured of brass gunmetal, aluminium or stainless steel and may be fitted with a suitable valve for temporarily stopping the discharge if such means are not incorporated in the operating head.

The discharge horn shall be designed and constructed so as to direct the discharge and limit the entrainment of air. It shall be constructed of electrically non-conductive material.

The following markings shall be applied to the extinguishers:-

- a) The words "Carbon Dioxide Fire Extinguisher" and to include the appropriate nominal gas content.
- b) Method of operation.
- c) The words "Re-charge immediately after use".
- d) Instructions for periodic checking.
- e) The number of the British Standard B.S. 3326: 1960 or B.S. 5423.
- f) The manufacturers name or identification markings

DRY CHEMICAL POWDER PORTABLE FIRE EXTINGUISHER

The portable dry powder fire extinguishers shall comply with BS3465: 1962 and BS 5423. The body shall be constructed to steel not less than the requirements of BS 1449 or aluminium to BS 1470: 1972 and shall be suitably protected against corrosion.

The dry powder charge shall be not-toxic and retain its free flowing properties under normal storage conditions. Any pressurizing agent used as an expellant shall be in dry state; in particular compressed air.

The discharge tube and gas tube if either is fitted shall be made of steel, brass, copper or other not less suitable material. Where a hose is provided it shall not exceed 1,060mm and shall be acid and alkali resistant. Provision shall be made for securing the nozzle when not in use.

The extinguisher shall be clearly marked with the following information

- a) The word “Dry Powder Fire Extinguisher”
- b) Method of operation in prominent letters.
- c) The working pressure and the weight of the powder charge in Kilogramme.
- d) Manufacturers name or identification mark
- e) The words “RECHARGE AFTER USE” if rechargeable type.
- f) Instructions to regularly check the weight of the pressure container (gas Cartridge) or inspect the pressure indicator on stored pressure types when fitted, and remedy any loss indicated by either.
- g) The year of manufacture.
- h) The Pressure to which the extinguisher was tested.
- i) The number of this British Standard BS 3465 or BS 5423: 1977.
- j) When appropriate complete instructions for charging the extinguisher shall be clearly marked on the extinguisher or otherwise be supplied with the refill.

6.6 AIR FOAM FIRE EXTINGUISHER

These shall be of 9 litres capacity complete with refills cartridges and wall fixing brackets and complying with B.S. 5423 with the following specifications:-

Cylinder: to B.S. 1449

Necking: to be 76mm outside diameter steel EN 3A 2³/₄ X 8TPI female thread.

Head cap: to be plastic moulding acetyl resin.

CO₂ Cylinder: to be 75gm P.V.C coated.

Internal Finish: to be polythene lining on phosphate coating.

External finish: to be phosphated - One coat primer paint and one coat stove enamel B.S. 381 C.

6.7 FIRE BLANKET

The fire blanket shall be made from cloth woven with pre-asbestos yarn or any other fire proof material and to measure 1800 x 1210 mm and shall be fitted with special tapes folded so as to offer instantaneous single action to release blanket from storing jacket.

6.8 BOOSTED HOSE REEL SYSTEM

6.8.1 General

The Particular Specification details the requirements for the supply, installation and commissioning of the hose reel installation. The hose reel installation shall comply in all respects to the requirements set out in C.O.P 5306 Part 1: 1976, B.S 5041 and B.S 5274. The System shall comprise of a pumped system.

6.8.2 Hose Reel Pumps

The fire hose reel pumps shall consist of a duplicate set of multi-line centrifugal pumps from approved manufacturers. The pumps shall be capable of delivering 0.76 lit/sec at a running pressure of 2 bars.

The pump casing shall be of cast iron construction with the impeller shaft of stainless steel with mechanical seal.

6.8.3 Control Panel

The control panel shall be constructed of mild steel 1.0mm thick sheet, be moisture, insect and rodent proof and shall be provided complete with circuit breakers and a wiring diagram enclosed in plastic laminate.

The pump shall be controlled by a flow switch therefore; the control panel shall include the following facilities:

- (a) 'On' push button for setting the control panel to live.
- (b) Green indicator light for indicating control panel live.
- (c) Duty / Stand-by pump auto change over.
- (d) Duty pump run green indicator light.
- (e) Stand-by pump run green indicator light.
- (f) Duty pump fail red indicator light.
- (g) Stand-by pump fail red indicator light.
- (h) Low water condition pump cut-out with red indicator light.

The pumps are to be protected by a low level cut-out switch to prevent dry pump run when low level water conditions occur in the water storage tank.

6.8.4 Hose Reel

The hose reel to the installation shall consist of a recessed, swing-type hose reel as Angus Fire Armour Model III or from other approved manufacturers.

The hose reel shall comply with B.S. 5274: 1975 and B.S 3161: 1970 and is to be installed to the requirements of C.P. 5306 Part 1: 1976.

The hose reel shall be supplied and installed complete with a first-aid Non-kinking hose 30 meters long with a nylon spray / jet / shut-off nozzle fitted. A screw down chrome - plated globe valve to B.S 1010 to the inlet to the reel is to be supplied.

The orifice to the nozzle is to be not less than 4.8mm to maintain a minimum flow of 0.4 lit / sec to jet.

The hose reels shall be installed complete with electro-galvanised cabinet recessed on the wall.

The hose reels shall be installed at 1.5 metres centre above the finished floor level in locations shown in the contract drawings.

6.8.5 Pipe Work

The pipe work for the hose reel installation shall be galvanised wrought steel tubing heavy grade Class C to B.S 1387: 1967 with pipe threads to B.S 21. The pipe work and all associated fittings shall be in approved colour for fire fittings.

6.8.6 Pipe Fittings

The pipe fittings shall be wrought steel pipe fittings, welded or seamless fittings conforming to B.S. 1740 or malleable iron fittings to B.S 143.

All changes in direction will be with standard bends or long radius fittings. No elbows will be provided.

6.8.7 Non-return Valves

The non-return valves up to and including 80mm diameter shall be to B.S. 5153: 1974. The valves shall be of cast iron construction with gunmetal seat and bronze hinge pin.

6.8.8 Gate Valves

The gate valves up to and including 80mm diameter shall be non-rising stem and wedge disc to B.S 5154: 1974 with screwed threads to B.S. 21 tapes thread

6.8.9 Sleeves

Where pipe work passes through walls, floors or ceilings, a sleeve shall be provided one diameter larger than the diameter of the pipe, the space between them to be packed with mineral wool, to the Engineer's approval.

6.8.10 Earthing

The hose reel installation shall be electrically earthed by a direct earth connection. The installation of the earthing shall be carried out by the Electrical Sub- contractor.

6.8.11 Finish Painting

Upon completion of testing and commissioning the hose reel installation, the pipework shall be primed and finish painted with 2 No. coats of paints to the Engineer's requirements.

6.8.12 Testing and Commissioning

The hose reel installation shall be flushed out before testing to ensure that no builder's debris has entered the system. The installation is to be then tested to one and half times the working pressure of the installation to the approval of the Engineer. Simulated fault conditions of the pumping equipment are to be carried out before acceptance of the System by the Engineer.

6.8.13 Instruction Period

The Sub-contractor shall allow in his contract sum for instructing of the use of the equipment to the Client's maintenance staff. The period of instruction may be within the contract period but may also be required after the contract period has expired.

The period of time required shall be stipulated by the Client but will not exceed two days in which time the Client's staff shall be instructed on the operation and maintenance of the equipment.

6.8.14 Signage-Fire Instruction /Fire Exit

6.8.14.1 Fire Instruction Notice

Print fire instruction on the Perspex plates with White Colour

Background measuring 510mm length x 380mm width x 4mm thick as follows;

FIRE INSTRUCTION NOTICE

In the event of fire;

1. Raise the alarm by actuating the nearest alarm system point,
Sound Siren /gong or **Shout Fire**
2. Attack fire using the nearest available equipment
3. Call nearest fire Brigade or Police 999 and inform your switchboard
(PABX) Operator
4. Ensure that all personnel not involved in fire fighting evacuation to
safety outside the building.
5. Close but **DO NOT LOCK** doors behind as you leave.
6. Evacuate the building using stairs or fire escapes. Do not use
Lifts/escalators. Walk calmly. Avoid panic. Do not stop or return for
personal belongings.
7. Assemble as per floor outside the building for roll call.

6.8.14.2 Fire Exit Sign

Print Fire Exit signs on the Perspex plate, 4mm thick, with white colour background as follows:-

1. Lettering **IN RED COLOUR** of not less than 50mm in height.
2. A pendant sign bearing words, **FIRE EXIT** and with a directional arrow.

The sign must be capable of being read from both approaches to exit and so is double sided.

6.8.14.3 Hose Reel Label

Print Fire Exit signs on the Perspex plate, 4mm thick, with white colour background as follows:-

1. Lettering **IN RED COLOUR** of not less than 50mm in height.
2. A pendant sign bearing words, **HOSE REEL** and with a directional arrow.

The sign must be capable of being read from both approaches to exit and so is double sided.

SECTION IX - D: PARTICULAR SPECIFICATION FOR L.P. GAS INSTALLATIONS

A GENERAL

The specification and sub-contract drawings detail the requirements of the Sub-contract works.

The specification and sub-contract drawings shall be read together and are meant to explain each other.

The sub-contract drawings do not purport to show minor details of equipment, fixtures, pipe work or fixings, but are intended to indicate the intent and extent of the installations as designed, together with the sufficient information for the tenderer to include in his pricing any other items he deems necessary for the satisfactory completion and correct functioning of the sub-contract works.

If in the opinion of the tenderer, there is any ambiguity or any difference in the requirements of the specifications and the sub-contract drawings, he shall clarify these with the Engineer before tendering. No claims for extra payment shall be entertained because of non-compliance of this requirement.

B REGULATIONS AND STANDARDS

Material, equipment, installations and workmanship shall comply with the requirements of the latest Editions of the following:

- (a) Kenya Government By-laws.
- (b) Relevant standards published by the Kenya Bureau of Standards.
- (c) Relevant British Standards, Specifications & Codes of Practice; referred to as B.S. & B.S.C.P respectively in this document.
- (d) Requirements of the clients proposed local L.P Gas Supplier for the sub-contract.
- (e) This specification and the sub-contract drawings.

C L.P.GAS BULK STORAGE TANKS

The L.P Gas bulk storage tank shall be of horizontal cylindrical mild steel construction manufactured in compliance with the requirements of BS 5500 or ASME (American Society of mechanical Engineers) Codes. The storage tank shall have a nominal gas capacity of one ton.

The storage tank shall have the following minimum pressure requirements:-

Test Pressure:	26 bars
Working pressure:	17.5 bars

The tank shall be supplied complete with:

- (a) Filling valve, magnetic float gauge, multi-valve and first stage regulator **all housed under a lockable-hinged cover**, forming integral part of the tank.
- (b) Safety relief valve.
- (c) Drain plug.
- (d) Main isolating Valve.
- (e) Lifting lug and mounting feet.

The tank shall be pickled and primed on the outside and painted with two coats of weather resistant paint in yellow ochre.

Apart from the above minimum specification for the bulk L.P Gas storage tank, the tenderer shall ensure that he has allowed for in his pricing of the tank any additional requirements needed by L.P. Gas supplier.

D PIPEWORK

The L.P. Gas pipe work installation shall comply with the requirements of B.S.C.P. 331: Part 3.

Pipes for L.P. Gas installations shall be galvanized mild steel tubing to B.S. 1387: Class C with Pipe threads to B.S. 21.

Pipe fittings shall be either welded or seamless wrought steel pipe fittings to B.S. 1740: Class C.

All joint in the pipework shall be made using non hardening jointing compound suitable for L.P gas. A union shall be provided on all straight runs of pipe work at a maximum interval of six meters.

Pipe work laid under ground shall be wrapped with pipe wrapping material having vapour permeability of less than 0.11g/m²/d at 25⁰C and 75% relative humidity. The pipe wrapping material shall have high resistance to mineral acids, alkalis and salts and shall be on non-cracking and non-hardening characteristics.

Under ground L.P. Gas distribution pipe work shall be laid to a slope of 1 in 200. Gas service pipes, from the gas distribution pipes to the parts of building they service, shall be laid to rise from the distribution pipe at a slope of 1 in 200. All pipes under the ground shall rest throughout their length on a 150mm deep, flue sand topping, follow by an approved backfilling.

Where the pipe passes through the building fabric, it shall be located within a galvanized steel pipe sleeve, one diameter larger than the pipe passing through it. The void between the pipe and the sleeve shall be packed with bitumen or approved equal material.

Horizontal and vertical pipes within the building shall be fixed off the walls with brass built in brackets or spacer type steel pipe clips. The pipe supports spacing intervals for both the horizontal and vertical pipe runs shall be as follows:

Pipe nominal diameter:	15mm	Interval: 1.82 metres
	: 20 & 25mm	: 2.44 metres
	: 32 & 40mm	: 2.75 metres
: 50mm	: 3.00 metres	
	: 65mm	: 3.65 metres

The pipe work underneath the tables worktops to which shall be connected the gas outlets shall be made from gas quality copper.

E **CHAINLINK FENCE**

It shall be the responsibility of others to construct a concrete plinth of 150 mm thickness to support the tank and erect a 1.2m high chain link fence with lockable gates around the cylinders to protect them.

F **GAS ISOLATION VALVE**

The L.P. Gas isolation valves shall be quarter turn; lever operated ball valve of stainless steel construction. The valve shall have “open” and “closed” positions clearly marked on the valve body. The valves shall be as ‘Saunders’ or equal and approved.

G **TESTING AND COMISSIONING**

The whole pipe work system shall be pressure tested using compressed air. The test pressure shall be 7.0 bars, which shall be maintained for a period of six hours. If the pressure drops during this period, leaks in the pipe work shall be made good and the pressure test repeated for a further six hours.

The pressure test on pipe work shall be made before any part of the pipe work is concealed in any manner.

The bulk gas storage tank shall be pressure tested using water and compressed air. Test pressure of 25 bars shall be maintained for a period of six hours.

After completion of pressure tests and installation, the L.P. Gas installations shall be balanced to give the required gas flows at each gas user’s point.

SECTION X: SCHEDULE OF UNIT RATES

CLAUSE No.

1.

GENERAL NOTES TO TENDERERS.....
2.

STATEMENT OF COMPLIANCE.....
5.

TECHNICAL SCHEDULE TO BE SUPPLIED.....

NOTES
- SPECIAL**
1.

The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
2.

The prices quoted shall be deemed to include for all obligations under the sub-contract including but not limited to supply of materials, labour, delivery to site, storage on site, installation, testing, commissioning and all taxes (**including 16% VAT**).
- 3

All prices omitted from any item, section or part of the Bills of Quantities shall be deemed to have been included to another item, section or part there of.
4.

The brief description of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the sub-contractor shall adhere. Otherwise alternative brands of **equal and approved** quality will be accepted.

Should the sub-contractor install any material not specified here in before receiving **written approval** from the Project Manager, the sub-contractor shall remove the material in question and, **at his own cost**, install the proper material.

5. The grand total of prices in the price summary page must be carried forward to the **Form of Tender for the tender to be deemed valid.**

6. Tenderers must enclose, together with their submitted tenders, detailed manufacturer's Brochures detailing Technical Literature and specifications on all the equipment they intend to offer

1. Statement of Compliance

- a) I confirm compliance of all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
- b) I confirm I have not made and will not make any payment to any person, which can be perceived as an inducement to win this tender.

Signed:*for and on behalf of the Tenderer*

Date:

Official Rubber Stamp:

TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO THE TENDERER.....	I-1
2. TECHNICAL SCHEDULE.....	I-2
3. TECHNICAL DATA	I-3 to I-4

PREAMBLES AND PRICING NOTES

A. GENERALLY

All work to be carried out in accordance with the Ministry of Roads, Public Works and Housing General Specifications for Building Works issued in 1976 or as qualified or amended.

B. MANUFACTURERS' NAMES

Where manufacturers' name(s) and catalogue references are given, it is for guidance to quality and standard only. Alternative manufacturer of equal quality will be accepted at the discretion of the Project Manager.

C. WALLING

All precast concrete blocks shall be manufactured by the methods and to the sizes specified in the Ministry of Roads, Public Works and Housing "Specification for Metric Sized Concrete Blocks for Building (1972)"

Walling shall be reinforced with hoop iron at every alternate course.

Prices for walling must allow for all costs in preparing, packing and sending sample blocks for testing as and when required by the Project Manager.

D. CARPENTRY

The grading rules for cypress shall be the same as for podocarpus and all timber used for structural work shall be select (second grade).

All structural timber must conform to the minimum requirements for moisture content and preservative treatment and timber prices must allow for preparing, packing and sending samples for testing when required.

Prices must also include for all nails and fasteners.

A. JOINERY

Cypress for joinery shall be second grade in accordance with the latest grading rules of the Kenya Government.

Where Mahogany is specified, this refers to prime grade only. The Contractor may with the approval of the Project Manager, use either Msharagi or Mvuli in lieu of Mahogany but such approval will be given only in the case of shortages of the hardwoods specified.

Plugging shall be carried out by drilling walling or concrete with masonry drill and filling with propriety plugs of the correct sizes. Cutting with hammer and chisel will not be allowed.

Prices for joinery must include for pencil rounded arrises, protection against damage, nails, screws, framing and bedding in cement mortar as required.

Sizes given for joinery items are nominal sizes and exact dimensions of doors, etc, must be ascertained on site.

B. IRONMONGERY

Ironmongery shall be as specified in the Bills of Quantities or equal and approved.

Prices must include for removing and re-fixing during and after painting, labeling all keys, and for fixing to hardwood, softwood, concrete or blockwork.

Catalogue references given for ironmongery are for purposes of indicating quality and size of item(s). Should the Contractor wish to substitute the specified item(s) with others of equal quality, he must inform the Project Manager and obtain approval in writing.

C. STRUCTURAL STEELWORK

All structural steelwork shall comply with the Ministry of Roads, Public Works and Housing "Structural Steelwork Specification (1973) and shall be executed by an approved Sub-contractor.

A. PLASTERWORK AND OTHER FINISHES

All finishings shall be as described in the general specifications and in these Bills of Quantities.

Prices for pavings are to include for brushing concrete clean, wetting and coating with cement and sand grout 1:1.

Rates for glazed wall tiling are to include for a 12 mm cement and sand (1:4) backing screed unless otherwise specified in these Bills of Quantities.

B. GLAZING

Where polished plate glass is specified, this refers to general glazing quality.

Prices for glazing shall include for priming of rebates before placing putty.

The Contractor will be responsible for replacing any broken or scratched glass and handing over in perfect condition.

C. PAINTING

Painting shall be applied in accordance with the manufacturers' instructions.

Prices for painting are to include for scaffolding, preparatory work, priming coats, protection of other works and for cleaning up on completion. Prices for painting on galvanized metal are to include for mordant solution as necessary.

ITEM	DESCRIPTION	AMOUNT (KSHS.)
	<u>PARTICULAR PRELIMINARIES</u>	
A	<p><u>PRICING ITEMS OF PRELIMINARIES</u></p> <p>Prices SHALL BE INSERTED against items of “Particular and General Preliminaries” in the tenderer’s priced Bills of Quantities.</p> <p>Preliminaries to the contract are mandatory conditions and responsibilities the contractor is required to fulfill for the complete and proper execution of the contract. The contractor is advised to read and understand all his obligations under preliminaries. Should he find that fulfillment of any of the items will lead to him incurring any cost not covered under measured works he shall price such works accordingly. Items for which no price is entered will not be paid for but shall be deemed covered by other rates and prices in these Bills of Quantities. Value Added Tax (V.A.T.) shall be included in the individual prices or rates at the rate of 16%.</p>	
B	<p><u>DESCRIPTION OF THE WORKS AND SCOPE OF CONTRACT</u></p> <p>The works to be carried out under this contract involves; The Third Phase of Construction of a Dispensary involving completion works to the Dispensary Block at Kiandai Dispensary, Kiine Ward, Kirinyaga County generally comprising Builder's Works, Electrical, Mechanical and External Works as described in the Tender Bills of Quantities</p> <p>These are works in Construction of a Dispensary involving completion works to the Dispensary Block at Kiandai Dispensary, Kiine Ward, Kirinyaga County as described generally comprising of builder's works, electrical, mechanical and external works</p>	
C	<p><u>LOCATION OF SITE</u></p> <p>The site of the works is located at Kiandai Dispensary in Kiine Ward, Kirinyaga County. The Contractor is advised to visit the site to familiarize with the nature and position of the site. No claims arising from the Contractor’s failure to do so will be entertained.</p>	

D	<p><u>MEASUREMENTS</u></p> <p>In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the PROJECT MANAGER in accordance with Clause 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>TENDER DOCUMENTS</u></p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's Page STD/8</p>	
B	<p><u>VIEWING OF DRAWINGS</u></p> <p>Any tenderer interested in viewing the drawings related to this project before submission of the tenders may do so by contacting the Director of Public Works, County Department of Transport and Infrastructure Head Office, Prisons Road, Kerugoya.</p>	
C	<p><u>PRICING RATES</u></p> <p>The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, taxes, and all other incidental expenses, all to comply with the said Conditions of Contract.</p>	
D	<p><u>FIRM PRICE CONTRACT</u></p> <p>This is a firm price contract and, therefore the tenderer shall not be reimbursed for any increases in the costs of materials and/or labour in the execution of the works except as provided under the fluctuations clause.</p>	

E	<p><u>VALUE ADDED TAX</u></p> <p>The Contractor's attention is drawn to the Legal Notice in the Finance Act part 3 Section 21(b) operative from 1st September, 1993 which requires payment of VAT on all contracts. The contractor should therefore include allowance for V.A.T and other Government taxes currently in force for all his rates, provisional items and prime cost sums in this tender.</p> <p>The tenderer is advised that in accordance with Government public notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, VAT will be deducted against the contract sum at the prevailing rate by the Employer and remitted directly to the Commissioner of VAT through all interim certificates. It should however be noted that this is not additional tax but a new mode of payment for VAT, any excess payment will be refundable once the Contractor has submitted monthly returns to the Commissioner of VAT who will do the refunds when satisfied that the VAT regulations have been complied with. NB: The tenderers shall allow for for 16% V.A.T. in their rates</p>	
F	<p><u>STANDARD FORMS</u></p> <p>Any tender with standard forms not filled as appropriate will be treated as non-responsive.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>DELIVERY OF TENDER</u></p> <p>Tenders and all documents in connection therewith, as specified above must be delivered in the addressed envelope which should be properly sealed and deposited in the tender box as specified in the tender advertisement and or letter of invitation to tender.</p> <p>Tenders will be opened at the time specified in the advertisement and/or letter of invitation to tender. Tenders arriving later than the specified time will not be considered.</p>	
B	<p><u>CORRECTION OF ERRORS IN TENDER</u></p> <p>Arithmetical errors will be rectified on the following basis.</p> <p>If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and the quantity, the unit price shall prevail and the total price shall be corrected.</p> <p>If there is a discrepancy between words and figures, the amount in words will prevail.</p>	

C	<p><u>BID SECURITY</u></p> <p>The Bidder shall furnish, as part of his bid, a security as specified in the tender advertisement or letter of invitation to tender.</p> <p>The bid security shall, at the bidder's option, be in the form of a certified cheque, bank draft, standby letter of credit or guarantee duly signed, sealed and stamped from a bank or Insurance company which has been determined by the bidder to be acceptable to the Government. The format of the bid security shall be in accordance with the sample forms of bid security included in the post qualification forms, other formats may be permitted, subject to the prior approval of the Government.</p> <p>Bid Security shall be valid for a period of Thirty (30) days beyond the tender validity period.</p>	
D	<p><u>TENDER VALIDITY</u></p> <p>"Clause 3.6 of the Instructions to Tenderers has been amended to read: "Tenders shall remain valid for a period of Ninety (90) days from the date of Tender Opening. All Tenderers are advised to note this amendment when filling the Form of Tender".</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>PERFORMANCE BOND</u></p> <p>A bond of 5% of the contract sum will be required in accordance with Clause 28 on award of contract of the Instructions to Tenderer's. No payment on account for the works executed will be made to the contractor until he has submitted valid Performance Bond to the EMPLOYER duly signed, sealed and stamped from an approved Bank or Insurance Company.</p>	
B	<p><u>CONTRACT COMPLETION PERIOD</u></p> <p>The contract completion period in accordance with condition 31 of the Conditions of contract must be adhered to.</p> <p>The PROJECT MANAGER shall strictly monitor the Contractors progress in relation to the progress chart and should it be found necessary the PROJECT MANAGER shall inform the Contractor in writing that his actual performance on site is not satisfactory. In all such cases the Contractor shall accelerate his rate of performance production and progress by all means such as additional labour, plant, e.t.c and working overtime all</p>	

C	<p><u>URGENCY OF THE WORKS</u></p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in Contract Agreement. The Contractor shall allow in his rates for any costs he/ she deems that he/she may incur by having to complete these works within the stipulated contract period.</p>	
D	<p><u>PROGRESS CHART.</u></p> <p>The Contractor shall provide within two weeks of Possession of Site and in agreement with the PROJECT MANAGER a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors; one copy to be handed to the PROJECT MANAGER and a further copy to be retained on Site. Progress to be recorded and chart to be amended as necessary as the work proceeds.</p>	
E	<p><u>INSURANCE</u></p> <p>The Contractor shall insure as required in Condition No.30 of the Conditions of contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the PROJECT MANAGER either by production of an insurance Policy or and Insurance Certificate that the provision of the foregoing Insurance Clause have been complied with in all respects. Thereafter the PROJECT MANAGER shall from time to time ascertain that the premiums are duly paid up by the Contractor, who, if called upon to do so, shall produce receipted premium renewals for the PROJECT MANAGER's inspection.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>WORKING CONDITIONS</u></p> <p>The Contractor shall allow in his rates for any interference that he may encounter in the course of the works for the Client may in some cases ask the Contractor not to proceed with the works until some activities within the site are completed, as the offices will be operational as usual during the course of the contract.</p>	

B	<p><u>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</u></p> <p>The Contractor is notified that these works are to be carried out on a restricted site where the client is going on with other normal activities. The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>	
C	<p><u>EXISTING BUILDINGS AND SERVICES</u></p> <p>Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned for the support, maintenance and protection of such services.</p>	
D	<p><u>ADJOINING PROPERTY</u></p> <p>The contractor is advised to take all necessary precautions to prevent damage to adjoining property. Any damage occurring must be made good to the satisfaction of the PROJECT MANAGER and/or owner(s) of the adjoining property at the contractor's expense.</p>	
E	<p><u>LABOUR CAMPS</u></p> <p>The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract.</p>	
F	<p><u>NCA, NEMA, WELFARE, OCCUPATIONAL HEALTH AND SAFETY STATUTORY REQUIREMENTS</u></p> <p>The Contractor must take all necessary measures to ensure total compliance in all respects with the current statutory requirements in relation to the National Construction Authority, National Environment Management Authority, Public/ Occupational Health and Safety and Staff / Workers Welfare during the both the contract and defects liability periods.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)

A	<p><u>HOARDING</u></p> <p>The Contractor shall enclose all the site under construction with a hoarding 2400 mm high consisting of iron sheets gauge 30 on 100 x 50 mm 2nd grade treated sawn cypress timber posts firmly secured at 1800 mm centres with two 75 x 50 mm 2nd grade treated sawn cypress timber rails. The Contractor is in addition required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.</p> <p>Advertisements shall not be displayed on the hoarding unless the prior permission of the PROJECT MANAGER in writing has been obtained.</p>	
B	<p><u>USE OF SITE</u></p> <p>The contractor shall not use the site for any other purpose other than carrying out the contract works.</p>	
C	<p><u>PAYMENTS</u></p> <p>The tenderer's attention is drawn to the fact that the COUNTY GOVERNMENT SHALL NOT MAKE ANY ADVANCE PAYMENTS.</p> <p>Payments are shall only be made for work done and materials delivered to site: all in accordance with Clause 23 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to</p>	
D	<p><u>PAYMENT FOR MATERIALS ON SITE</u></p> <p>All materials for incorporation in the works must be stored on site before payment is effected, unless specifically exempted by the PROJECT MANAGER. This is to include materials of the Contractor, nominated subContractors and nominated suppliers.</p>	
E	<p><u>CLAIMS</u></p> <p>It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the PROJECT MANAGER in accordance with Clauses 19 and 24 of the conditions of contract within the contract period. No claim shall be entertained if the contractor has not complied with the said conditions or upon the expiry of the said contract</p>	

	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>PROJECT IDENTIFICATION AND PUBLICITY SIGNBOARD</u></p> <p>The Contractor shall provide, erect and maintain throughout the contract period and remove on completion when so directed by the PROJECT MANAGER 1No. Project Identification and Publicity Signboard of approved size and construction showing the following information in approved lettering / signage as designed, detailed, specified, and approved by the PROJECT MANAGER.</p> <ul style="list-style-type: none"> (i) The Project Title (ii) The Client (County Government of Kirinyaga) (iii) The location of the Project (County Ward) (iv) The Financial Year applicable (v) The Project Initiator/Sponsor (vi) The Authorised Client Representative (vii) Overall Responsibililty (viii) The Project Manager (ix) The Contractor (x) The Nominated Subcontractors (if applicable) 	

	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
II	<p><u>PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT</u></p> <p>The following are the insertions to be made in the appendix to the Contract Agreement: -</p> <p>Period of Final Measurement 3 Months From Practical completion</p> <p>Defects Liability Period 6 Months from Practical completion</p> <p>Date for Possession To be agreed with the Project Manager</p> <p>Date for Completion To be 10 Weeks from the date of Site Possession</p> <p>Liquidated and Ascertained damages At the rate of Kshs: 5,000 per week or part thereof</p> <p>Period of Interim Certificates Monthly</p> <p>Period of Honouring Certificates 30 days</p> <p>Percentage of Certified Value Retained 10%</p> <p>Limit of Retention Fund 10%</p> <p>The Price Adjustment Clause SHALL NOT apply</p> <p>Price for VAT should be included in the tenderer's rates</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	AMOUNT (KSHS.)
	<p><u>COLLECTION</u></p> <p>Brought forward from page PP/1</p> <p>Brought forward from page PP/2</p> <p>Brought forward from page PP/3</p> <p>Brought forward from page PP/4</p> <p>Brought forward from page PP/5</p> <p>Brought forward from page PP/6</p> <p>Brought forward from page PP/7</p> <p>Brought forward from page PP/8</p>	-
	TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO SUMMARY OF PRELIMINARIES	

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

	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>METHOD OF MEASUREMENT</u></p> <p>Notwithstanding any contrary provision in the conditions of contract all quantities shall be deemed to have been prepared in accordance with current edition of the Standard Method of Measurement of Building Works for the Republic of Kenya. The rates set down by the contractor against each item in the particular specifications shall, unless otherwise expressly provided to the contrary, or unless there is a separate item for extra labour, cutting or waste, be held to include for waste of materials, carriage and cartage, carrying in and return of empties, hoisting, setting, fitting and fixing in position, making and all other labour and everything else necessary for the proper completion of each item and for establishment charges and profit. Each items of cutting shall include for consequent waste.</p>	
B	<p><u>EXCEPTIONS TO THE STANDARD METHOD OF MEASUREMENT</u></p> <p><u>Attendance:</u> Clause B19(a) of the Standard Method of Measurement is deleted and the following clause is substituted:-</p> <p>Attendance on nominated Sub-Contractors shall be given as an item in and shall be deemed to include: allowing use of standing scaffolding, messrooms, sanitary conditions and welfare facilities; provision of special scaffolding where necessary, office accommodation and for storage of plant and materials; providing light and water for their work: clearing away rubbish; unloading checking and hoisting: providing electric power: and removing and replacing duct covers, pipe casings and and the like necessary for the execution and testing of Sub- Contractors' work and being responsible for the <u>Fix Only:-</u></p> <p>"Fix Only" shall mean take delivery at nearest major supply centre, pay all demurrage charges, load and transport to site where necessary, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.</p>	
C	<p><u>ALTERATIONS TO BILLS, PRICING, ETC.</u></p> <p>Any unauthorised alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted.</p>	

	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>EMPLOYER</u> The "Employer" is the COUNTY GOVERNMENT OF KIRINYAGA. The term "Employer" and "Government" wherever used in the contract document shall be synonymous</p>	
B	<p><u>PROJECT MANAGER</u> The term "PROJECT MANAGER" wherever used in these Bills of Quantities shall be deemed to imply the person defined in Condition 1 of the Conditions of Contract hereby attached or such person or persons as may be duly authorised to represent him on behalf of the Government.</p>	
C	<p><u>ARCHITECT</u> The term "Architect" shall be deemed to mean "The PROJECT MANAGER" as defined above whose address unless otherwise notified is the County Department of Transport, Roads and Public Works, P.O. Box 390, KERUGOYA.</p>	
D	<p><u>QUANTITY SURVEYOR</u> The term "Quantity Surveyor" shall be deemed to mean "The PROJECT MANAGER" as defined above whose address unless otherwise notified is the County Department of Transport, Roads and Public Works, P.O. Box 390, KERUGOYA.</p>	
E	<p><u>ELECTRICAL ENGINEER</u> The term "Electrical Engineer" shall be deemed to mean "The PROJECT MANAGER" as defined above whose address unless otherwise notified is the County Department of Transport, Roads and Public Works, P.O. Box 390, KERUGOYA.</p>	
F	<p><u>MECHANICAL ENGINEER</u> The term "Mechanical Engineer" shall be deemed to mean "The PROJECT MANAGER" as defined above whose address unless otherwise notified is the County Department of Transport, Roads and Public Works, P.O. Box 390, KERUGOYA.</p>	

G	<p><u>STRUCTURAL ENGINEER</u></p> <p>The term "Structural Engineer" shall be deemed to mean "The PROJECT MANAGER" as defined above whose address unless otherwise notified is the County Department of Transport, Roads and Public Works, P.O. Box 390, KERUGOYA.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>FORM OF CONTRACT</u></p> <p>The form of contract will be the one included in the Republic of Kenya's (PPOA) Standard Tender Document for Procurement of Works (2006 Edition) hereby attached and Conditions of Contract are those attached thereto. If the Contractor considers that compliance with any of the Conditions of Contract involves any expenses distribute them among his rates for the various items in the Bills of Quantities. No claim shall be allowed arising from the Contractors compliance with <u>any of the Conditions of Contract</u>. These are numbered from 1 to 37 as set out on pages 18 to 40 of these tender documents. Particulars of the insertion to be made in the Appendix of the Appendix of the Contract Agreement will be found in the The Conditions of Contract are also included herein</p> <p><u>Conditions of Contract</u></p> <p>These are as contained in these tender documents. Particulars of insertions to be made in the Appendix to the Contract Agreement will be found in the Particular Preliminaries part of these Bills of</p>	
B	<p><u>GENERAL SPECIFICATIONS.</u></p> <p>For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the Ministry of Roads, Public Works and Housing General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries, Trade Preambles or other items in these Bills of Quantities.</p>	
C	<p><u>WORKS</u></p> <p>Except as amplified under the item "Insurance" in these Preliminaries, the word "Works" in the Particular Specification shall include the work of all sub contractors and shall include all the approved variations.</p>	

D	<p><u>VISIT SITE AND EXAMINE DRAWINGS.</u></p> <p>The Contractor is recommended to examine the drawings and visit the site the location of which is described in the Particular Preliminaries hereof. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which may affect his tender his tender. No claim arising from his failure to comply with this recommendation will</p>	
E	<p><u>AREA TO BE OCCUPIED BY THE CONTRACTOR</u></p> <p>The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the PROJECT MANAGER.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>ACCESS TO SITE AND TEMPORARY ROADS.</u></p> <p>Means of access to the site shall be agreed with the PROJECT MANAGER prior to commencement of the work and contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including provision of temporary culverts, crossings, bridges, or any other means of gaining access to the site. Upon completion of the works, the contractor shall remove such temporary access roads, culverts, bridges, etc.and make good and reinstate all works and surfaces disturbed to the satisfaction of the PROJECT MANAGER.</p>	
B	<p><u>WATER AND ELECTRICITY SUPPLY FOR THE WORKS</u></p> <p>The Contractor shall provide at his own risk and cost all necessary water, electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER . The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub-contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use.</p>	

C	<p><u>SANITATION OF THE WORKS</u></p> <p>The Sanitation of the works shall be arranged and maintained by the Contractor in accordance with Public Health and Labour Departments requirements and to the satisfaction of the the PROJECT MANAGER.</p> <p>The Pit latrines shall be enclosed with framing and corrugated iron sheet roof, side and partition. The site of the latrine shall be agreed with the PROJECT MANAGER and the works shall not be commenced before the sanitary accommodation has been approved by the PROJECT MANAGER and the above mentioned authorities.</p> <p>The contractor will be required to pay employ sufficient sewwppers on the site to ensure clean maintenance and daily disinfecting of the latrines and not less than once per week, the whole area and the enclosures shall be sprayed with disinfectant and insecticide and on completion the works, the latrines shall be removed and all works and surfaces disturbed made good and the whole area disinfected and left clean and free from pollution to the satisfaction of the PROJECT MANAGER and local authorities.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>SECURITY OF WORKS ETC.</u></p> <p>The Contractor shall be entirely responsible for the security of all the works stores, materials, plant, personnel, etc., both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.</p>	

B	<p><u>OFFICE FOR THE PROJECT MANAGER</u></p> <p>The contractor shall provide, erect and maintain where directed on site and afterwards dismantle the Site Office of the type noted in the particular preliminaries, complete with furniture. He shall also provide a strong metal trunk complete with strong hasp and staple fastening and two keys. He shall provide, erect maintain a lock-up pedestral type water or bucket closet for the sole use of the PROJECT MANAGER including making temporary connections to the drain where applicable to the satisfaction Government and Medical Officer of Health and pay the services of a cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be complete before the contractor is permitted to commence the works. The Contractor shall make available on site as and when required by the PROJECT MANAGER a modern and accurate level together with levelling staff, ranging rods and 50 metre metallic linen tape.</p>	
C	<p><u>CONTRACTOR'S SUPERINTENDENCE/SITE AGENT</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 experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the PROJECT MANAGER and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.</p>	
D	<p><u>TRANSPORT.</u></p> <p>Allow for transport of workmen, materials, etc., to and from the site at such hours and by such routes as may be permitted by the competent authorities.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>SCAFFOLDING, PLANT, TOOLS AND VEHICLES</u></p> <p>Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated Sub-Contractors as described herein. No timber used for formwork, scaffolding or temporary works of any kind shall be used afterwards in the permanent work.</p>	

B	<p><u>SETTING OUT</u></p> <p>The PROJECT MANAGER shall furnish to the contractor either by way of carefully dimensioned drawings or by personnel supervision at the time of setting out the works such information as shall enable the contractor to set out the enclosing walls of the building at ground level after which the contractor shall be responsible and shall at his own cost amend any errors arising from his own inaccurate setting out unless the PROJECT MANAGER shall state otherwise in writing.</p>	
C	<p><u>MATERIALS AND WORKMANSHIP.</u></p> <p>All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials from local sources as early as necessary to ensure that they are on site when required for use in the the works. The Bills of Quantities shall not be used for the purpose of ordering materials.</p>	
D	<p><u>STORAGE OF MATERIALS</u></p> <p>The Contractor shall provide at his own risk and cost where directed on the site weatherproof lockup sheds for the safe storage and custody of materials for the works and for the use of workmen engaged thereon and shall remove such sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER. Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.</p>	
E	<p><u>MATERIALS ON SITE</u></p> <p>All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected unless specifically exempted by the PROJECT MANAGER. This includes the materials of the Main Contractor, Nominated Sub-Contractors and Nominated Suppliers.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)

A	<p><u>MATERIALS ARISING FROM EXCAVATIONS</u></p> <p>Materials of any kind obtained from the excavations shall be the property of the Government. Unless the PROJECT MANAGER directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the PROJECT MANAGER Should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.</p>	
B	<p><u>MATERIALS FROM DEMOLITIONS</u></p> <p>Any materials from demolitions and not re-used shall become the property of the Client/User. The Contractor shall allow in his rates for the cost of transporting, storing and securing the materials on site as directed by the PROJECT MANAGER.</p>	
C	<p><u>SIGN FOR MATERIALS SUPPLIED.</u></p> <p>The Contractor will be required to sign a receipt for all articles and materials supplied by the PROJECT MANAGER at the time of taking delivery thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and replacements of any such loss or damage with articles and/or materials which will be supplied by the PROJECT MANAGER at the current market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the PROJECT MANAGER.</p>	
D	<p><u>PUBLIC AND PRIVATE ROADS.</u></p> <p>Maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local and other competent authority and the PROJECT MANAGER</p>	
E	<p><u>EXISTING PROPERTY.</u></p> <p>The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the PROJECT MANAGER</p>	

	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>QUALITY OF THE WORKS</u></p> <p>The works should be of high quality and the contractor will be required to make samples of the work to be executed for approval by the PROJECT MANAGER before he commences the carrying out of the works. The contractor should allow for sample works in his rates accordingly. Incase a sample does not meet the standards set by the Project Manager, the contractor shall be expected to make another sample at his cost until it is approved by the PROJECT MANAGER.</p>	
B	<p><u>SAMPLES</u></p> <p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Materials Branch, Ministry of Transport and Infrastructure. The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work.</p>	

C	<p><u>GOVERNMENT ACTS REGARDING WORKPEOPLE ETC.</u></p> <p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople.</p> <p>The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>SUPERVISION AND WORKING HOURS</u></p> <p>The works shall be executed under the direction and to the entire satisfaction in all respects of the "PROJECT MANAGER" who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and sub-Contractors or other places where work is being prepared for the contract. The working hours shall be those generally worked by good employers in the in the Building and Civil Engineering trades in Kenya. No work shall be carried out at night or on gazetted holidays unless the PROJECT MANAGER shall so direct. No work shall be covered up nor shall any concreting be carried out in the in the absence of the Clerk of Works without prior approval of the PROJECT MANAGER in writing.</p>	
B	<p><u>PROTECTION OF THE WORKS.</u></p> <p>Provide protection of the whole of the works contained in the Bills of Quantities, including casing, casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Government.</p>	

C	<p><u>BLASTING OPERATIONS</u></p> <p>Blasting will only be allowed with the express permission of the PROJECT MANAGER in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the PROJECT MANAGER governing the use and storage of explosives.</p>	
D	<p><u>REMOVAL OF RUBBISH AND SITE CLEARANCE ETC.</u></p> <p>The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the PROJECT MANAGER</p>	
E	<p><u>WORKS TO BE DELIVERED UP CLEAN</u></p> <p>Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER.</p>	
	<i>Carried to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<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 Measurement mentioned in Condition No. 16 of the conditions of Contract.</p> <p>Such sums are net and no addition shall be made to them for profit.</p>	

B	<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 PROJECT MANAGER's order added to the Contract Sum. Such work shall be valued as described for variations in condition No. 22 of the Conditions of Contract, but should any part of the contract 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>	
C	<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 Measurement mentioned in Condition No. 16 of the conditions of Contract. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods as stated in Condition No. 20 of the Conditions of Contract are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.</p>	
D	<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 PROJECT MANAGER's order in respect of each of them added to the Contract sum. The Contractor shall provide to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance" (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities, profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p>	
	<i>Total to collection</i>	
ITEM	DESCRIPTION	AMOUNT (KSHS.)

A	<p><u>NOMINATED SUB-CONTRACTORS</u></p> <p>When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts as described in Condition No 8 of the Conditions of Contract and shall thereafter be responsible for such sub contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract contractor's work concerned in the P.C. Sums under the description "Add for Attendance".</p>	
B	<p><u>DIRECT CONTRACTS</u></p> <p>Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In the instances, profit relative to the P.C. Sum the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.</p>	
C	<p><u>ATTENDANCE UPON OTHER TRADESMEN, ETC.</u></p> <p>The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in this Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates</p>	
D	<p><u>PROVISIONAL WORK</u></p> <p>All work described as "Provisional" in these Bills of Quantities is subject to remeasurement in order to ascertain the actual quantity executed for which payment will be made. All "Provisional" and other work liable to adjustment under this Contract shall left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER Immediately the work is ready for measuring, the Contractor shall give notice to the PROJECT MANAGER. If the Contractor makes default in these respects he shall if the PROJECT MANAGER so directs uncover the work to enable all measurements to be taken and afterwards reinstate at his own expense.</p>	
	<p><i>Carried to collection</i></p>	

ITEM	DESCRIPTION	AMOUNT (KSHS.)
A	<p><u>TRAINING LEVY</u></p> <p>Legal notice No. 237 of October, 1971 requires payment by the contractor of a training levy of a quarter percent (1/4 %) of the value of the contract where the contract value exceeds KShs. 50,000/=. The contractor will be required to furnish the PROJECT MANAGER with a receipt showing that he has paid the required Training Levy to the Director of Industrial Training. In case the contractor fails to furnish the said receipt to thePROJECT MANAGER, the Client will pay the amount to the Director of Industrial Training from monies due to the contractor.</p>	
	<i>Carried to collection</i>	
	<p><u>COLLECTION</u></p> <p>Brought forward from page GP/1</p> <p>Brought forward from page GP/2</p> <p>Brought forward from page GP/3</p> <p>Brought forward from page GP/4</p> <p>Brought forward from page GP/5</p> <p>Brought forward from page GP/6</p> <p>Brought forward from page GP/7</p> <p>Brought forward from page GP/8</p> <p>Brought forward from page GP/9</p> <p>Brought forward from page GP/10</p> <p>Brought forward from page GP/11</p> <p>Brought forward from page GP/12</p> <p>Brought forward from page GP/13</p> <p>Brought down from above</p>	
	TOTAL FOR GENERAL PRELIMINARIES CARRIED TO GRAND SUMMARY	

CONSTRUCTION OF KIANDAI DISPENSARY IN KIIINE WARD, KIRINYAGA COUNTY: PHASE THREE

BILL NO. 1: DISPENSARY BLOCK					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)
A	<u>ELEMENT NO. 1</u>				
	<u>SUBSTRUCTURES (ALL PROVISIONAL)</u>				
	<u>Oversite excavation</u>				
	Excavate oversite to remove top soil average 150mm deep	4	sm		
	<u>Filling</u>				
	Hardcore filling to receive concrete ramp(m.s.) maximum 300mm thick in 150mm thick layers handpacked and compacted	4	sm		
B					
C	50mm (average) thick quarry dust blinding to surfaces of hardcore	4	sm		
D	<u>Antitermite treatment</u>				
	Premise 200 SC' or other equal and approved anti-termite insecticide treatment with ten years guarantee, applied strictly in accordance with manufacturer's instructions, to tops of fill and foundation walls	100	sm		
E	<u>Insitu concrete; reinforced; class 25 / (20mm); vibrated (mix 1:1.5:3)</u>				
	100mm thick ramp; laid to slope	4	sm		
F	<u>Fabric Mesh Reinforcement; B.S. 4483</u>				
	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps) including bends, tying wire and distance blocks	4	sm		

	Total Carried to Collection				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)
	<u>SUBSTRUCTURES (CONTINUED)</u>				
	<u>Sawn timber formwork to insitu concrete as described to:-</u>				
A	Sloping edges of ramp; 150 to 300mm wide	5	lm		
	<u>Damp proofing</u>				
B	Polythene sheet; 1000 gauge, 200mm welted laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding	4	sm		
	<u>Insitu Finishings</u>				
	<u>Prepare and apply three coats bituminous paint to:</u>				
C	Wood floated rendered plinths over 300mm girth <u>Paving Slabs.</u>	22	sm		
D	600 x 600 x 50 mm Precast concrete class 20/20 paving slabs, laid to falls on blinded hardcore surface and jointed in cement and sand (1:3) mortar	15	sm		
	Total Carried to Collection Below				
	<u>COLLECTION</u>				
	From page KIA/1 From above				
	Total Carried To Summary				

CONSTRUCTION OF KIANDAI DISPENSARY IN KIIINE WARD, KIRINYAGA COUNTY: PHASE THREE

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)
	<u>ELEMENT NO. 2</u>				
	<u>ROOF (ALL PROVISIONAL)</u>				
	<u>Eaves Painting</u>				
	<u>Prepare and apply one coat of calcium plumbate and two coats of gloss oil paint to:</u>				
A	General surfaces of wood in fascia exceeding 200mm but not exceeding 300mm girth.	43	Lm		
	<u>Rain Water Disposal goods in approved heavy gauge uPVC fittings and accessories:</u>				
B	150mm diameter gutter with socketed joints in the running length fixed to timber fascia board (m/s) with brackets (m/s) at 900mm centers	25	Lm		
C	Extra over gutter for support brackets	30	No		
D	Ditto; for End Stops	4	No		
E	Ditto; for Central Outlet for 75mm diameter downpipe (m/s)	4	No		
F	75mm diameter rainwater downpipe fixed to masonry/ concrete surfaces with compatible strap/clips at 900mm centres	12	Lm		
G	Extra over ditto downpipe for swanneck outlet	4	No		
H	Ditto; for support clips	16	No		
J	Extra over downpipe for water shoe	4	No		
	Total Carried To Summary				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)
A	<u>ELEMENT NO. 3</u> <u>DOORS</u> <u>Steel doors</u> Customize an existing steel single leaf door overall size 900x2400mm high to form 2no. leaves each size 900x1200 mm high. The bottom leaf should be customized to form a purpose made dispensing counter by attaching a steel sheet (3mm thick) supported counter approx size 900x450mm wide complete. All to include the necessary and approved SHS frame supports, hinges, fasteners and locking devices. (1no. door) <u>Ironmongery</u> <u>To concrete or masonry; fixing with bolts; plugging</u>		Item		
B	Rubber door stop complete with 38 mm rawl bolt	4	no		
C	Approved plastic door plates fully engraved with appropriate title	6	No		
D	Brass hat and coat hooks	8	No		
E	<u>Painting and Decorations</u> <u>Clean surface, prepare and apply two finish coats of high gloss oil paint to:-</u> General surfaces of steel (both sides measured flat)	20	sm		
	Total Carried To Summary				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)

CONSTRUCTION OF KIANDAI DISPENSARY IN KIIINE WARD, KIRINYAGA COUNTY: PHASE THREE

A	<u>ELEMENT NO. 4</u> <u>WINDOWS</u> <u>Curtain rods;</u> <u>20mm diameter heavy duty twin brass coated rod complete with and including curtain rings proportionate to the length, end ornaments and all other accessories to PM's approval</u> 2200mm long	4	no		
	<u>Painting and Decorations</u> <u>On Metal work</u> <u>Prepare and apply three coats oil paint full gloss to Crown Solo or other equal and approved to: -</u>				
	B General window surfaces; over 300mm girth internal C General window surfaces; over 300mm girth external	11 11	sm sm		
	Total Carried To Summary				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)

A	<u>ELEMENT NO. 5</u>				
	<u>FINISHES</u>				
	<u>External Finishes</u>				
	<u>Insitu finishes</u>				
B	<u>Clean, prepare and apply one undercoat and three coats of first quality silk vinyl paint as "Crown" or equivalent to the following surfaces</u>	55	sm		
	Rendered surfaces				
	<u>Internal Finishes: Tile Finishing</u>				
C	<u>Approved ceramic tiles to B.S. 1281; local; white glazed wall tiles to regular or approved other pattern; bedding and jointing in cement sand (1:4) mortar, grouting with white cement</u>				
	6mm thick; butt joints straight both ways; to existing cement sand base to walls internal. All including existing surface preparation	22	sm		
D	Aluminium edging (provisional)	30	lm		
	<u>Clean, prepare and apply one undercoat and three coats of first quality silk vinyl paint as "Crown" or equal and approved to the following surfaces</u>				
	Plastered walls; internal	118	sm		
	Total Carried To Collection				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)

CONSTRUCTION OF KIANDAI DISPENSARY IN KIIINE WARD, KIRINYAGA COUNTY: PHASE THREE

A B C D E F	<u>Insitu Finishings</u> <u>Floor tiles</u> <u>300x300x8mm Thick ceramic floor tiles of approved colour as "SAJ" or equivalent applied to existing floor screed in approved adhesive</u> Floor level; internal;all including preparation of existing cement/sand screed base Ditto; but non-slip floor tiles laid to slope in ramps externally 100mm high skirting to match ceramic tile floor finish a.b.d. <u>Screed; cement and sand (1:3)</u> 32 mm thick one coat backings; wood floated to receive ceramic tile floor finish (m/s) to concrete base; to sloping ramps; external <u>Ceiling Finishes: Painting</u> <u>Clean, prepare and apply one undercoat and two coats of first quality emulsion paint as "Duracoat" or equivalent to the following surfaces:</u> Softboard surfaces in ceiling Hardwood surfaces not exceeding 100mm girth.	65 5 78 5 65 81	Sm Sm Lm sm sm lm		
	Total Carried to Collection Below				
	<u>COLLECTION</u> From page KIA/6 From above				
	Total Carried To Summary				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)

	<u>ELEMENT NO. 6</u>				
	<u>FITTINGS AND FIXTURES</u>				
	<u>Worktops</u>				
A	Reinforced concrete (1:2:4/20-20mm aggregate) as described in 100mm thick worktop;complete with approved mesh reinforcement.	4	Sm		
B	50mm thick concrete base mix 1:3:6 laid flush to timber frame (m.s.)	4	Sm		
C	Sawn formwork a.b.d. to edges and soffits of worktop.	4	Sm		
D	150mm thick masonry support walls bedded and jointed in cement/sand mortar (1:3) a.b.d.	2	Sm		
E	15mm Thick cement/sand screed (1:4) as before described to floor.	4	Sm		
F	12mm thick two coats gauged cement, lime and sand (1:2:9) plaster steel trowelled smooth to walls internally.	4	Sm		
G	Ditto; but to soffits of worktops	4	Sm		
H	Ditto but in woodfloated backing to receive ceramic tiles (m.s.)	8	Sm		
J	300x300x6mm thick ceramic tiles applied with approved adhesive as before described	8	Sm		
	Total Carried To Collection				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)

CONSTRUCTION OF KIANDAI DISPENSARY IN KIIINE WARD, KIRINYAGA COUNTY: PHASE THREE

	<u>FITTINGS CONTINUED</u>				
	<u>Fabricate and fix the following in wrot cypress.</u>				
A	75x50mm thick single rebated framing	16	Lm		
B	Ditto; but double rebated	3	Lm		
C	50x25mm thick plugged support bearers	52	Lm		
D	18mm Thick MDF boards nailed and jointed to approval	51	Sm		
E	approved brass door handles	12	No		
F	Prime grade malpha hinges	12	Prs		
G	brass ball catches	12	Prs		
	<u>Prepare and apply one undercoat and three coats of first grade super gloss oil paint as 'Duracoat' or other equal and approved to:</u>				
H	Plastered surfaces	8	Sm		
	<u>Knot,prime,stop,prepare and apply 3 coats prime grade clear vanish as "Crown" or equal and approved to;</u>				
J	General surfaces of wood	84	Sm		
K	Ditto exceeding 100 but not exceeding 200mm girth	71	Lm		
	Total Carried To Summary				
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSH)
	<u>SECTION SUMMARY</u>				
ELEMENT NO.	TITLE	PAGE NO.		K.SHS.	

A	SUBSTRUCTURE WORKS		IA/2	
B	ROOF CONSTRUCTION.		IA/3	
C	DOORS		IA/4	
D	WINDOWS		IA/5	
E	FINISHES		IA/7	
F	FITTINGS AND FIXTURES	K	IA/9	
		K		
		K		
		K		
		K		
		K		
		K		
	Total Carried To Grand Summary			

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
BILL NO.2 - CHAINLINK FENCING					
<u>Site Clearance</u>					
A	Clear site of small bushes, grub up roots, load and cart away.	200	Sm		
<u>Column Excavation</u>					
B	Excavate for column base occuring not exceeding 1.5 metres deep commencing from stripped level.	5	Cm		
<u>Disposal</u>					
C	Load surplus excavated material and cart away from site.	1	Cm		
<u>Filling</u>					
D	Return, fill and ram selected excavated material around foundations. <u>Blinding</u>	4	Cm		
E	50mm thick plain concrete (mix 1:3:6) class Q blinding under foundations	3	Sm		
<u>Insecticide treatment</u>					
F	"TERMIDOR 25 EC" or other equal and approved chemical insecticide treatment according to the manufacturer's printed instructions.	3	Sm		
<u>Vibrated reinforced concrete (1:2:4/20-20mm aggregate) as described in:</u>					
G	800x800x200mm Thick column bases	5	No		
H	300x300x3600mm High columns	5	No		
<u>Precast Concrete Coping</u>					
J	500x500x50mm thick pyramid shaped precast concrete (class 20/20) coping, reinforced with 10mm H.T.S. bars as approved; including hoisting and bedding in cement/sand (1:3) mortar and making flush joints	5	No		
<u>Steel Reinforcement</u>					
<u>Bar/rod reinforcement including bending hooks, tying wire, cutting spacer blocks and supporting all in position.</u>					
<u>(Measured nett-allow for laps.)</u>					
<u>High tensile square twisted bars to B.S. 4461 as described in:</u>					
K	12mm Diameter	154	Kg		
L	8mm Diameter	46	Kg		
TOTAL TO SUMMARY					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<u>Supply and fix sawn formwork as described to:</u>					
A	Edges of column bases exceeding 150 but not exceeding 300mm girth	16	Lm		

B	Columns <u>External finishes</u>	22	Sm		
C	12mm thick cement/sand (1:3) wood floated render to concrete columns	13	Sm		
D	Prepare and apply one undercoat and three coats of prime grade exterior quality paint as "Crown" or equal and approved to rendered surfaces. <u>GATES</u>	13	Sm		
E	Purpose made mild steel gate overall size 4200x2100mm high in two equal leaves each fabricated from 75x50x2mm RHS steel framing all round with 25x25x3mm thick SHS steel vertical members at 150mm centers. With and including 4000x300mm high steel sheets welded to both sides of the gate mid height to 2no. 75x50mm RHS horizontal mid rails 300mm apart. Gate to be complete with approved bolting and locking devices and a heavy duty padlock and chain as "Viro" or equal and approved	1	No		
F	Ditto single leave size 1200x2100mm high ditto. <u>Prepare and apply only three coats of super gloss oil paint to:</u>	2	No		
G	General surfaces of steel gates (both sides measured flat overall).	28	Sm		
TOTAL TO SUMMARY					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>CHAIN LINK FENCING:</u> 14 gauge (heavy duty) galvanized chainlink fence 2.4 metres high complete with and including 5 strands of 12.5 gauge barbed wire all to be as "Ngombe" or equal and approved fastened on and including 100x125mm cranked precast concrete posts at 2500mm centres. Chainlink to be secured in mass concrete class Q surround (100x150mm) at the base. Posts to have matching support struts/strainer posts at 30metre centres and at all bends. Including embedding posts/morticed in 450x450x600mm mass concrete (1:3:6) surround; with and including all necessary excavations, formwork and disposal.	150	Lm		
TOTAL TOSUMMARY					
<u>SUMMARY</u> FROM PAGE CH/01 FROM PAGE CH/02 FROM PAGE CH/03					

TOTAL TO GRAND SUMMARY					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Supply, install, testing & commissioning of the following complete as specified. All cables shall be copper and shall be complete with cable glands, lugs and necessary termination kits.</u>				
A	LIGHTING POINTS				
1.01	Lighting point wired in 3x1.5 mm ² single core PVC cables drawn in 20mm heavy gauge conduits concealed in walls and floors, 1 & 2-way switched but excluding the light fitting itself.				
	One way switching	8	No		
	Two way switching	2	No		
B	<u>LIGHTING FITTINGS.</u>				
1.02	10A Screwless Switch Plates flush mounted on walls as MK or approved equivalent.				
	a) 1 gang 2 way	4	No		
	b) 2 gang 2 way	2	No		
1.03	Light Fittings complete with all accessories and lamps as follows:				
	a) 1200mm x 1x36watts Bare batten fluorescent fitting as NVC or any other approved equivalent	6	No		
	b) 30W LED Floodlight fitting as NVC or any other approved equivalent	4	No		
C	<u>SOCKET OUTLET AND POWER POINTS</u>				
1.04	i) 13A Socket Outlet Points wired in 3 x 2.5 mm ² SC PVC insulated CU cables drawn in 25 mm Ø HG PVC conduits/Trunking concealed in building fabric complete with all the necessary accessories excluding socket outlet plate.	8	No		
	ii) Data Outlet points d in concealed 20mm ² PVC HD conduit and complete with a draw Wire and a Blank cover.	4	No		
1.05	13A Twin Ivory screwless sockets outlets as Power Max or approved equivalent	8	No		
D	<u>CONSUMER UNITS / DISTRIBUTION BOARDS & MAINS AND SUBMAINS</u>				
1.06	i) Sub-mains circuit 3x10mm ² singles core E.A cu cable drawn in PVC conduits from Mains Board to Consumer Unit.	20	Lm		
1.07	Remove the existing CU and Replace with 6Way 100A SP Consumer Unit As Harvels or approved equivalent Complete with 5No SP mcbs, and all other necessary accessories	1	No		
1.08	Remove the existing Meter Box and replace with lockable Heavy gauge Fabricated meter box spray painted grey complete with all accessories for meter connection to Engineers approval.	1	No		
	<u>Earthing</u>				
1.09	Earthing comprising of copper earth electrode of size 1500mm long and 15mm diameter, concrete manhole of size 300X300X450 mm with removable concrete cover and a 25mm diameter PVC heavy gauge lead in duct and bonded to the boards using 6mm sq cable as per the latest IEEE Requirements.	1	Item		
1.10	i) Allow a provision sum of Fourty Thousand for KPLC Single Phase power connection. (Contractor to provide Official KPLC quotation and Payment slip before payment of this Item)	1	Item		
	ii) Allow attendance for item above	1	Item		
	TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE				

ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	AMOUNT KSHS
A	<u>MECHANICAL SERVICES INSTALLATION WORKS</u> <u>SANITARY FITTINGS</u> <u>Supply, install, fix and test the following sanitary fittings including all materials and jointing to supply waste/ soil and overflow pipes.</u> <u>WASH HAND BASIN</u> Wash hand basin size 560 x 440 mm wide in white colour pedestal wash hand basin complete with 15mm diameter Chrome plated tap (Half or Quarter turn) supports, chain waste fittings, bottle trap and any other necessary accessories. To be as 'ORIENT MODEL' OR Equal and approved <u>LABORATORY SINK</u> Laboratory sink Vulcathene black moulded polypropylene sink size 460 x 300 x 125mm deep c/w waste fittings, bottle trap, swivel tap and any other accessory necessary for its proper functioning. <u>MIRROR</u> 6mm Thick polished glass, silverbacked mirror with bevelled edges, size 610 X 497mm plugged and screwed to wall with 4 No chrome plated chrome packed screws and 5mm thick foam back rest. <u>SOAP DISPENSER</u> Install Automatic Liquid soap dispenser in white colour of capacity 700ml complete with plastic rawl plugs, fixing screws, and initial fill of soap gel. The soap dispenser to operate on an infrared sensor operated by 2 No size AA Batteries. To be as LIRLEE LR3552B Model or approved equivalent. <u>Flexible Tubing</u> 15mm Diameter chrome plated flexible tubing 300mm long c/w backnut.	3	No		
		1	No		
		3	No		
		4	No		
		4	No		
Total fo Sanitary Fittings C/F to Collection Page K/4					
ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	AMOUNT KSHS
A	<u>INTERNAL PLUMBING</u> <u>Install tubing fittings in PN 20 PPRC conforming to the current European standards for PPR installation. Pipe jointing shall be by polyfusion or use of electrical coupling.</u> <u>PIPES</u>				
	25 mm diameter ppr pipe	30	LM		

B	20 mm diameter ppr pipe <u>Extra over for pipework</u>	4	LM		
C	25 x 20 mm diameter reducing tee	4	No		
D	25mm diameter bends	16	No		
E	25mm diameter union	4	No		
F	25 mm diameter nipples	6	No		
G	20 mm diameter nipples	4	No		
H	20 mm diameter union	2	No		
I	25 X 20 mm diameter reducer male threaded <u>Taps and Valves</u>	4	No		
J	15 mm diameter angle valve	4	No		
K	20 mm diameter gate valve	1	No		
L	25mm diameter non return valve	1	No		
M	Allow for installation of G.m.s stand pipe 700mm above the ground level complete with 15mm diameter Chrome plated tap. The tap should be firmly held with concrete surround.	1	Item		
	Total For Internal Plumbing C/F to Collection page K/4				
ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	AMOUNT KSHS
	<u>INTERNAL DRAINAGE</u> <u>Supply, deliver, install and fix the following UPVC soil and waste system to BS 4514 and 5255 with fittings fixed to manufactures printed instructions and BS 5572 (1978) and manufactured by "Key Terrain" as described. All PVC branches, tees, reducing tees</u> <u>UPVC soil and Waste systems c/w fittings</u>				
A	100mm diameter heavy duty grey pipe class 'D'	25	Lm		
B	50mm diameter ditto	10	Lm		
C	32mm diameter ditto	5	LM		
	<u>Extra over UPVC pipe for the following</u>				
D	100mm diameter long short radius bend	4	No		

E	100mm diameter inspection bend	4	No		
F	100mm diameter vent cowl	1	No		
G	100 x 50mm diameter floor trap and grating	4	No		
H	50mm diameter sweep tee c/w cap	4	No		
I	32mm diameter sweep Tee c/w cap	4	No		
J	<u>Excavations</u> Allow for excavation of trench for drainage pipe 300mm wide, depth not less than 650mm deep but not exceeding 1250mm deep, lay waste pipe, return soil and ram well.	25	Lm		
K	Allow for excavation of trench for supply pipe 300mm wide, depth not less than 300mm deep but not exceeding 600mm deep, lay waste pipe, return soil and ram well.	20	Lm		
L	Allow for testing and commissioning to the plumbing and drainage system satisfaction of the Engineer	1	Item		
	Total for Drainage works C/F to Collection Page K/4				
ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	AMOUNT KSHS
	<u>COLLECTION PAGE</u>				
1	Total For Sanitary fittings B/F from Page K/1				
2	Total for Internal Plumbing B/F from Page K/2 ...				
3	Total for Internal Drainage B/F from Page K/3 ...				
	TOTAL FOR SANITARY FITTINGS & PIPEWORK C/F TO SUMMARY PAGE S/1				
ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	AMOUNT KSHS
	<u>WATER RETICULATION</u>				
	<u>Ground Level Storage Tank</u>				
A	Supply, deliver, install and fix a P.V.C water storage tank of capacity 5,000 Litres. The tank should be complete with cover, ball float valve, having screwed connections for inlet, outlet and overflow pipes. The Tank to be as 'TOP TANK' or approved equivalent. The tank to rest on a flat concrete base. <u>High Level Water Storage Tank</u>	1	No		

B	Supply, deliver, install and fix a P.V.C water storage tank of capacity 2,000 Litres. The tank should be complete with cover, ball float valve, having screwed connections for inlet, outlet and overflow pipes. The Tank to be as "TOP TANK" or approved equivalent. The tank to rest on a strong support structure provided by others. <u>WATER BOOSTER PUMP</u>	1	No		
C	Supply and install a water booster pump of capacity 1HP, operating on 240V,50Hz power supply. The pump to be complete with float switch, and pressure switch to cut off power when the High level tank is full and protect the pump against dry run. The contractor should allow for electrical wiring to the pump from the nearest power point. The pump to be as "Pedrollo" or equal and approved. <u>PUMP CAGE</u>	1	No		
D	Allow for constructure of a metal grille pump cage with Roof and Lockable door to protect the pump against direct Sunlight, Rain and Vandalism.(Structure to S.E. Details) <u>Supply pipe</u>	1	Item		
E	32mm diameter ppr pipe <u>Extra over for pipes</u>	70	Lm		
F	32mm diameter bends	6	No		
G	32mm diameter nipple	6	No		
H	32mm diameter tee <u>Gate valve</u>	2	No		
I	25mm diameter gate valve as Pegler England <u>Excavation works for supply pipe</u>	5	No		
J	Allow for excavation of trench 300mm wide but not less than 300mm deep lay water supply pipe, return soil and ram well	70	Lm		
K	Allow for water connection to the local water supplier		Sum		
L	Allow for meter deposit and accessories (Gate valve, union, nipples etc)		Sum		
	Total for Water Reticulation C/F to Summary Page S/1				
ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	AMOUNT KSHS
	<u>SUMMARY PAGE</u>				
1	Total For Sanitary fittings and pipework B/F from Page K/4				
2	Total for Water Reticulation B/F from Page K/5				

	MECHANICAL WORKS TOTAL TO GRAND SUMMARY PAGE					
ITEM	DESCRIPTION		QTY	UNIT	RATE	AMOUNT
A <						

CONTRACTOR'S NAME,.....

ADDRESS,.....

DATE ,.....

SIGNATURE ,.....

WITNESS NAME,.....

DESCRIPTION.....

.....

DATE,

SIGNATURE,

GS/1

PART III - CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VIII - GENERAL CONDITIONS OF CONTRACT

These General Conditions of Contract (GCC), read in conjunction with the Special Conditions of Contract (SCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

General Conditions of Contract

A. General

1. Definitions

1.1 Bold face type is used to identify defined terms.

- a) **The 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.
- b) **The Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- c) **The Adjudicator** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.
- d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- e) **Compensation Events** are those defined in GCC Clause 42 hereunder.
- f) **The Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.
- g) **The Contract** is the Contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- h) **The Contractor** is the party whose Bid to carry out the Works has been accepted by the Procuring Entity.
- i) **The Contractor's Bid** is the completed bidding document submitted by the Contractor to the Procuring Entity.
- j) **The Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- k) **Days** are calendar days; months are calendar months.
- l) **Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- m) **A Defect** is any part of the Works not completed in accordance with the Contract.
- n) **The Defects Liability Certificate** is the certificate issued by Project Manager upon corection of defects by the Contractor.

- o) **The Defects Liability Period** is the period **named in the SCC** pursuant to Sub-Clause 34.1 and calculated from the Completion Date.
- p) **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, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- q) **The Procuring Entity** is the party who employs the Contractor to carryout the Works, **as specified in the SCC**, who is also the Procuring Entity.
- r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- s) **“In writing” or “written”** means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- t) The Initial Contract Price is the Contract Price listed in the Procuring Entity's Letter of Acceptance.
- u) **The Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the SCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- v) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- w) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- x) **The Project Manager** is the person **named in the SCC** (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- y) **SCC** means Special Conditions of Contract.
- z) **The Site** is the area of the works as **defined as such in the SCC**.
- aa) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- bb) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- cc) **The Start Date** is **given in the SCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- dd) **A Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- ee) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- ff) **A Variation** is an instruction given by the Project Manager which varies the Works.
- gg) **The Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procuring Entity, **as defined in the SCC**.

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- Agreement,
 - Letter of Acceptance,
 - Contractor's Bid,
 - Special Conditions of Contract,
 - General Conditions of Contract, including Appendices,
 - Specifications,
 - Drawings,
 - Bill of Quantities⁶, and
 - any other document **listed in the SCC** as forming part of the Contract.

⁶*In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."*

3. Language and Law

- 3.1 The language of the Contract is English Language and the law governing the Contract are the Laws of Kenya.
- 3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Procuring Entity's Country when
- as a matter of law or official regulations, Kenya prohibits commercial relations with that country; or
 - 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 from that country or any payments to any country, person, or entity in that country.

4. Project Manager's Decisions

- 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.

5. Delegation

- 5.1 Otherwise **specified in the SCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6. Communications

- 6.1 Communications between parties that are referred to in the Conditions shall be

effective only when in writing. A notice shall be effective only when it is delivered.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Procuring Entity in writing. Subcontracting shall not alter the Contractor's obligations.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the Schedule of Other Contractors, as **referred to in the SCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Procuring Entity may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

9.3 If the Procuring Entity, Project Manager or Contractor determines, that any employee of the Contractor be determined to have engaged in Fraud and Corruption during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above.

10. Procuring Entity's and Contractor's Risks

10.1 The Procuring Entity carries the risks which this Contract states are Procuring Entity's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Procuring Entity's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Procuring Entity's risks:

- a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to
 - i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

- 11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is a Procuring Entity's risk except loss or damage due to
- aa) a Defect which existed on the Completion Date,
 - bb) an event occurring before the Completion Date, which was not itself a Procuring Entity's risk, or
 - cc) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Procuring Entity's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the SCC** for the following events which are due to the Contractor's risks:

- a) loss of or damage to the Works, Plant, and Materials;
- b) loss of or damage to Equipment;
- c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may effect the insurance which the Contractor should have provided and recover the premiums the Procuring Entity has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the SCC**, supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

16. The Works to Be Completed by the Intended Completion Date

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as

updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Approval by the Project Manager

17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.

17.2 The Contractor shall be responsible for design of Temporary Works.

17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18. Safety

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

19. Discoveries

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Entity. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

20. Possession of the Site

20.1 The Procuring Entity shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the SCC**, the Procuring Entity shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to the Site

21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub-consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.

22.3 The Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Procuring Entity and/or persons appointed by the Public Procurement Regulatory Authority 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 Public Procurement

Regulatory Authority. The Contractor's and its Subcontractors' and sub- consultants' attention is drawn to Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Public Procurement Regulatory Authority's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Public Procurement Regulatory Authority's prevailing sanctions procedures).

23. Appointment of the Adjudicator

23.1 The Adjudicator shall be appointed jointly by the Procuring Entity and the Contractor, at the time of the Procuring Entity's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the SCC, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Procuring Entity and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Procuring Entity and the Contractor. In case of disagreement between the Procuring Entity and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the SCC at the request of either party, within 14 days of receipt of such request.

24. Settlement of Claims and Disputes

24.1 Contractor's Claims

24.1.1 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 Project Manager, 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.

24.1.2 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.

24.1.3 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.

24.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager 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 Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

24.1.5 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 Project Manager, the Contractor shall send to the Project Manager a 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 Project Manager 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 Project Manager.

24.1.6 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 Project Manager and approved by the Contractor, the Project Manager 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.

24.1.7 Within the above defined period of 42 days, the Project Manager shall proceed in accordance with Sub-Clause

24.1.8 [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.

24.1.9 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.

24.1.10 If the Project Manager does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Project Manager and any of the Parties may refer to Arbitration in accordance with Sub-Clause 24.4 [Arbitration].

24.1.11 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 24.3.

24.2 Amicable Settlement

24.2.1 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 24.1 above should move to commence arbitration after the fifty-sixth day from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

24.3 Matters that may be referred to arbitration

24.3.1 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) The appointment of a replacement Project Manager upon the said person ceasing to act.
- b) Whether or not the issue of an instruction by the Project Manager is empowered by these Conditions.
- c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- e) Any dispute arising in respect of war risks or war damage.
- f) 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.

24.4 Arbitration

- 24.4.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 24.3 shall be finally settled by arbitration.
- 24.4.2 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.
- 24.4.3 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.
- 24.4.4 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.
- 24.4.5 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 requirement or notice had been given.
- 24.4.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 24.4.7 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.
- 24.4.8 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Project Manager shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 24.4.9 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.

24.5 Arbitration with National Contractors

- 24.5.1 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

24.5.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.

24.6 Alternative Arbitration Proceedings

24.6.1 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.

24.7 Failure to Comply with Arbitrator's Decision

24.7.1 The award of such Arbitrator shall be final and binding upon the parties.

24.7.2 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.

24.8 Contract operations to continue

24.8.1 Notwithstanding any reference to arbitration herein,

- a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) the Procuring Entity shall pay the Contractor any monies due the Contractor.

25. Fraud and Corruption

25.1 The Government requires compliance with the country's Anti-Corruption laws and its prevailing sanctions policies and procedures as set forth in the Constitution of Kenya and its Statutes.

25.2 The Procuring Entity requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

B. Control

26. Program

26.1 Within the time stated in the SCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

26.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

26.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

26.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

27. Extension of the Intended Completion Date

27.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28. Acceleration

28.1 When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

28.2 If the Contractor's priced proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

29. Delays Ordered by the Project Manager

29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

30.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

31.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

31.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Liability Control

32. Identifying Defects

32.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The

Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

33. Tests

33.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

34. Correction of Defects

34.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

35. Uncorrected Defects

35.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

36. Contract Price⁷

36.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price⁸

37.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Entity.

37.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

38. Variations

38.1 All Variations shall be included in updated Programs⁹ produced by the Contractor.

38.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

38.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

38.4 If the Project Manager decides that the urgency of varying the work would prevent a

quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

⁷*In lump sum contracts, replace GCC Sub-Clauses 36.1 as follows:*

36.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for materials on site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

⁸*In lump sum contracts, replace entire GCC Clause 37 with new GCC Sub-Clause 37.1, as follows: The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.*

⁹*In lumpsum contracts, add "and Activity Schedules" after "Programs."*

¹⁰*In lumpsum contracts, delete this paragraph.*

38.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning

38.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work

38.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- a) the proposed change(s), and a description of the difference to the existing contract requirements;
- b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Procuring Entity may incur in implementing the value engineering proposal; and
- c) a description of any effect(s) of the change on performance/functionality.

38.8 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

- a) accelerate the contract completion period; or
- b) reduce the Contract Price or the life cycle costs to the Procuring Entity; or
- c) improve the quality, efficiency, safety or sustainability of the Facilities; or
- d) yield any other benefits to the Procuring Entity, without compromising the functionality of the Works.

38.9 If the value engineering proposal is approved by the Procuring Entity and results in:

- a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the SCC** of the reduction in the Contract Price; or
- b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in
(a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

39. Cash Flow Forecasts

39.1 When the Program¹¹, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

40. Payment Certificates

40.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

40.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

40.3 The value of work executed shall be determined by the Project Manager.

40.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Materials and Bill of Quantities that have been completed¹².

40.5 The value of work executed shall include the valuation of Variations and Compensation Events.

40.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40.7 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 Materials 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: $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$.

41. Payments

41.1 Payments shall be adjusted for deductions for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Project Manager within 30 days of the date of each certificate. If the Procuring Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

42. Compensation Events

42.1 The following shall be Compensation Events:

- d) The Procuring Entity does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
- e) The Procuring Entity modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

- f) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
- g) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- h) The Project Manager unreasonably does not approve a subcontract to be let.
- i) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from visual inspection of the Site.
- j) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons.
- k) Other contractors, public authorities, utilities, or the Procuring Entity does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- l) The advance payment is delayed.
- m) The effects on the Contractor of any of the Procuring Entity's Risks.
- n) The Project Manager unreasonably delays issuing a Certificate of Completion.

42.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

42.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

¹¹In lump sum contracts, add "or Activity Schedule" after "Program."

¹²In lump sum contracts, replace this paragraph with the following: "The value of work executed shall comprise the value of completed activities in the Activity Schedule."

42.4 The Contractor shall not be entitled to compensation to the extent that the Procuring Entity's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

43. Tax

43.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

44. Currency of Payment

44.1 All payments under the contract shall be made in Kenya Shillings

45. Price Adjustment

45.1 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:

$$P = A + B \text{ Im/Io}$$

where:

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

A and B are coefficients¹³ **specified in the SCC**, representing the non-adjustable and adjustable portions, respectively, of the Contract Price payable and Im is the index prevailing at the end of the month being invoiced and IOC is the index prevailing 30 days before Bid opening for inputs payable.

45.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

46. Retention

46.1 The Procuring Entity shall retain from each payment due to the Contractor the proportion stated in the **SCC** until Completion of the whole of the Works.

46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.

47. Liquidated Damages

47.1 The Contractor shall pay liquidated damages to the Procuring Entity at the rate per day stated in the **SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

47.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 41.1.

48. Bonus

48.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

49. Advance Payment

49.1 The Procuring Entity shall make advance payment to the Contractor of the amounts stated in the **SCC** by the date stated in the **SCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

49.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

49.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

50. Securities

50.1 The Performance Security shall be provided to the Procuring Entity no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the SCC**, by a bank or surety acceptable to the Procuring Entity, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 day from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond.

51. Day works

51.1 If applicable, the Day works rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

51.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

51.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

52. Cost of Repairs

52.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

53. Completion

53.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

54. Taking Over

54.1 The Procuring Entity shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

55. Final Account

55.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

¹³The 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 non-adjustable components. The sum of the adjustments for each currency are added to the Contract Price.

56. Operating and Maintenance Manuals

56.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

56.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC pursuant to GCC Sub-Clause 56.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the SCC** from payments due to the Contractor.

57. Termination

57.1 The Procuring Entity or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
- b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
- c) the Procuring Entity or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- d) a payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within 84 days of the date of the Project Manager's certificate;
- e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- f) the Contractor does not maintain a Security, which is required;
- g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the SCC**; or
- h) if the Contractor, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing

for or in executing the Contract, then the Procuring Entity may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

57.3 Notwithstanding the above, the Procuring Entity may terminate the Contract for convenience.

57.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

58. Payment upon Termination

58.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as specified in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.

58.2 If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

59.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default.

60. Release from Performance

60.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

SECTION IX - SPECIAL CONDITIONS OF CONTRACT

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
A. General	
GCC 1.1 (q)	County Government of Kirinyaga Physical address 1st Floor County Headquarters Kutus, County P.O Box 260 – 10304 KUTUS
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be <i>As per work program</i>
GCC 1.1 (x)	The Project Manager is. The Director Public Works & Housing County Government of Kirinyaga P. O. Box 260-10304 KUTUS
GCC 1.1 (cc)	The Start Date shall be immediately after site handing over
GCC 1.1 (gg)	The Works consist of As per the invitation letter
GCC 2.2	Sectional Completions are: <i>Allowed</i>
GCC 5.1	The Project manager <i>may</i> delegate any of his duties and responsibilities.
GCC 8.1	Schedule of other contractors: <i>None</i>
GCC 9.1	<p>Key Personnel</p> <p>GCC 9.1 is replaced with the following:</p> <p>9.1 Key Personnel are the Contractor's personnel named in this GCC 9.1 of the Special Conditions of Contract. The Contractor shall employ the Key Personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.</p> <p>[insert the name/s of each Key Personnel agreed by the Procuring Entity prior to Contract signature.]</p>

GCC 13.1	<p>The minimum insurance amounts and deductibles shall be:</p> <p>(a) for loss or damage to the Works, Plant and Materials: <i>[insert amounts]</i>.</p> <p>(b) For loss or damage to Equipment: <i>[insert amounts]</i>.</p> <p>(c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract <i>[insert amounts]</i>.</p> <p>(d) for personal injury or death:</p> <p>(i) of the Contractor's employees: <i>[amount]</i>.</p> <p>(ii) of other people: <i>[amount]</i>.</p>
GCC 14.1	Site Data are: To be determined
GCC 20.1	The Site Possession Date(s) shall be: <i>As communicated by the Project Manager.</i>
Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 23.1 & GCC 23.2	<p>Appointing Authority for the Adjudicator:</p> <p>Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: to be determined guided by fees guidelines</p>
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within <i>[number]</i> days from the date of the Letter of Acceptance.
GCC 26.3	<p>The period between Program updates is Fourteen (14) days.</p> <p>The amount to be withheld for late submission of an updated Program is <i>[insert amount]</i>.</p>
C. Quality Control	
GCC 34.1	The Defects Liability Period is: 180 days.
D. Cost Control	
GCC 38.9	If the value engineering proposal is approved by the Procuring Entity the amount to be paid to the Contractor shall be: Not applicable
GCC 44.1	The currency of the Procuring Entity's Country is: <i>Kenya Shillings</i>
GCC 45.1	<p>The Contract <i>is not</i> subject to price adjustment in accordance with GCC Clause 45, and the following information regarding coefficients <i>does not</i> apply.</p> <p>The coefficients for adjustment of prices are:</p> <p>(a) percent nonadjustable element (coefficient A).</p> <p>(b) percent adjustable element (coefficient B).</p> <p>(c) The Index I for shall be.</p>
GCC 46.1	The proportion of payments retained is: <i>10% of amount payable.</i>

GCC 47.1	The liquidated damages for the whole of the Works are <i>at the rate of KShs. 0.05</i> per day.
GCC 49.1	The Advance Payments shall be: None and shall be paid to the Contractor no later than <i>Not applicable</i>
GCC 50.1	<p>The Performance Security amount is <i>10% of the Contract Amount</i>.</p> <p>(a) Performance Security – Bank Guarantee: in the amount(s) of <i>10% percent</i> of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.-N/A</p>
E. Finishing the Contract	
GCC 56.1	<p>The date by which operating, and maintenance manuals are required is: Not Applicable</p> <p>The date by which “as built” drawings are required is : Not Applicable</p>
Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 56.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is : <i>Not Applicable</i>
GCC 57.2 (g)	The maximum number of days is: <i>180 days</i> .
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Procuring Entity’s additional cost for completing the Works. As per the applicable law