

REPUBLIC OF KENYA

COMPETITION AUTHORITY OF KENYA PROPOSED STRUCTURED CABLING WORKS AT PENSION TOWERS

TENDER DOCUMENT

TENDER NO. CAK/TEND/007/2022-2023

PROJECT MANAGER WORKS SECRETARY STATE DEPARMENT FOR PUBLIC WORKS 30743 – 00100 NAIROBI <u>CLIENT</u> DIRECTOR GENERAL COMPETITION AUTHORITY OF KENYA P.O BOX P.O BOX 36265 – 00200 NAIROBI

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DEFINITIONS

The terms and expressions used in the contract document shall have the following meanings:

The Employer	Competition Authority of Kenya,
	P.O. Box 36265 – 00200,
	NAIROBI
Employer's representative	The Director General,
	Competition Authority of Kenya,
	P.O. Box 14448 – 00800,
	NAIROBI.
The Project Manager	Work Secretary,
	State Department for Public Works,
	P.O. Box 30743 – 00100,
	NAIROBI.
Contractor	The firm appointed to carry out The Works
Site	The site for the proposed works is at Pension Towers

INVITATION TO TENDER

PROCURING ENTITY: Competition Authority of Kenya. P.O. Box 36365 - 00200

CONTRACT NAME AND DESCRIPTION: Proposed Structured Cabling Works at Pension Towers

- 1. Competition Authority of Kenya invites sealed tenders for Structured Cabling Works
- 2. Tendering will be conducted under open competitive method (National) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
- 3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours [0800 to 1700 hours] at the address given below.
- 4. A complete set of tender documents may be purchased or obtained by interested tenders upon payment of a non- refundable fees of (KSh. 1000) in cash or Banker's Cheque and payable to the address given below. Tender documents may be obtained electronically from the Website(s) www.cak.go.ke or www.tenders.go.ke . Tender documents obtained electronically will be free of charge.
- Tender documents may be viewed and downloaded for free from the websites (<u>www.tenders.go.ke</u>). Tenderers who download the tender document must forward their particulars immediately to (<u>tenders@cak.go.ke</u>) to facilitate any further clarification or addendum.
- 6. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for 150 days from the date of opening of tenders.
- 7. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
- 8. Completed tenders must be delivered to the address below on or before (As indicated in the advertisement). Electronic Tenders will not be permitted.
- 9. Tenders will be opened immediately after the deadline date and time specified above or any dead line date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.
- 10. Late tenders will be rejected.
- 11. The addresses referred to above are:
- A. Address for obtaining further information and for purchasing tender documents

Director General Competition Authority of Kenya P.O BOX 36265 - 00200, Nairobi B. Address for Submission of Tenders.

Director General Competition Authority of Kenya P.O BOX 36265 - 00200, Nairobi Kenya Railways Staff Retirement Benefit Scheme Block "D" Ground Floor

C. Address for Opening of Tenders.

Director General Competition Authority of Kenya P.O BOX 36265 - 00200, Nairobi Kenya Railways Staff Retirement Benefit Scheme Block "D" Ground Floor

[Authorized Official (name, designation, Signature and date)]

Name

Designation

Signature

Date

SECTION A INSTRUCTIONS TO TENDERERS

Note: The tenderer must comply with the following conditions and instructions and failure to do so is liable to result in rejection of the tender.

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.
 - 1.2 Throughout this tendering document:

- a. The term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the TDS, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;
- b. if the context so requires, "singular" means "plural" and vice versa;
- c. "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.
- 2. 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 <u>collusive practices</u> in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the "Certificate of Independent Tender Determination" annexed to the Form of Tender.
 - 2.3 Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, pre-qualification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.
 - 2.4 Unfair Competitive Advantage Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the Data Sheet and make available to all the firms together

with this tender document all in formation that would in that respect give such firm any 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 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agree mentor with the intent to enter in to such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate

tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the TDS.

- 3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 3.3 A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:
 - a. Directly or indirectly controls, is controlled by or is under common control with an other tenderer;
 - b. Receives or has received any director indirect subsidy from another tenderer;
 - c. Has the same legal representative as an other tenderer;
 - d. Has a relationship with an other tenderer, directly or through common third parties, that puts it in a position to influence the tender of an other tenderer, or influence the decisions of the Procuring Entity regarding this tendering process;
 - e. Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods or works that are the subject of the tender;
 - f. Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation;
 - g. Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document;
 - h. Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:
 - i. Are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
 - ii. May be involved in the implementation or supervision of such Contract unless the conflicts temming 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 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. Members of a joint venture may not also make an individual tender, be a sub-contractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A

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

- 3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services.
- 3.7 A Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.ke.
- 3.8 A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:
- i. A legal public entity of Government and/or public administration,
- ii. Financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and;
- 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.
- 3.9 Firms and individuals shall be ineligible if their countries of origin are:
 - a. As a matter of law or official regulations, Kenya prohibits commercial relations with that country;
 - b. By an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

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

- 3.10 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, local sub-contracts and labor) from citizen suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided for this purpose in "SECTIONI II - EVALUATION AND QUALIFICATION CRITERIA, Item 9".
- 3.11 Pursuant to the eligibility requirements of ITT 3.10, a tender is considered a foreign tenderer, If it is registered in Kenya and has less than 51 percent ownership by nationals of Kenya and if it does not subcontract to foreign firms or individuals more than 10 percent of the contract price, excluding provisional sums. JVs are considered as foreign tenderers if the individual member firms registered in Kenya have less 51 percent ownership by nationals of Kenya. The JV shall not subcontract

to foreign firms more than 10 percent of the contract price, excluding provisional sums.

- 3.12 The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website www.nca.go.ke.
- 3.13 The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke.
- 3.14 A kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing valid tax compliance certificate or tax exemption certificate issued by the Kenya Revenue Authority.
- 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 ineligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.
 - 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 and inspect the Site of the Works and its surroundings and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall beat 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 again stall liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection

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 10.

PART 1: Tendering Procedures Section I – Instructions to Tenderers Section II – Tender Data Sheet (TDS) Section III- Evaluation and Qualification Criteria Section IV – Tendering Forms

PART 2: Works' Requirements Section V - Bills of Quantities Section VI - Specifications Section VII – Drawings

PART 3: Conditions of Contract and Contract Forms Section VIII - General Conditions (GCC) Section IX - Special Conditions of Contract Section X- Contract Forms

- 6.2 The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents. Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. Incase of any contradiction, documents obtained directly from the Procuring Entity shall prevail.
- 6.3 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. Clarification of Tender Document, Site Visit, Pre-Tender Meeting
 - 7.1 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 if provided for in accordance with ITT 7.2. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the TDS prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 7.4, including a description of the inquiry but without identifying its source. If so specified in the TDS, the Procuring Entity shall also promptly publish its response at the

web page identified in the TDS. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 8 and ITT 22.2.

- 7.2 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a tender. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the TDS if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.3 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.
- 7.4 Minutes of a pre-arranged site visit and those of the pre-tender meeting, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents. Minutes shall not identify the source of the questions asked.
- 7.5 The Procuring Entity shall al so promptly publish anonymized (no names) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the TDS. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.
- 8. Amendment of Tender Documents
 - 8.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tender Documents by issuing addenda.
 - 8.2 Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.
 - 8.3 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity should extend the dead line for the submission of Tenders, pursuant to ITT 22.2.
 - C. PREPARATION OF TENDERS

9. Cost of Tendering

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

10. Language of Tender

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

- 11. Documents Comprising the Tender
 - 11.1 The Tender shall comprise the following:
 - a. Form of Tender prepared in accordance with ITT 12;
 - b. Schedules including priced Bill of Quantities, completed in accordance with ITT 12 and ITT 14;
 - c. Tender Security or Tender-Securing Declaration, in accordance with ITT 19.1;
 - d. Alternative Tender, if permissible, in accordance with ITT 13;
 - e. Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordancewithITT20.3;
 - f. Qualifications: documentary evidence in accordance with ITT 17 establishing the Tenderer's qualifications to per form the Contract if its Tender is accepted;
 - g. Conformity: a technical proposal in accordance with ITT 16;
 - h. Any other document required in the TDS
 - 11.2 In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed JV Agreement. Change of membership and conditions of the JV prior to contract signature will render the tenderliable for disqualification.
- 12. Form of Tender and Schedules
 - 12.1 The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed with out any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
 - 12.2 The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

13. Alternative Tenders

- 13.1 Unless otherwise specified in the TDS, alternative Tenders shall not be considered.
- 13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the TDS, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.
- 13.3 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.
- 13.4 When specified in the TDS, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the

TDS, as will the method for their evaluating, and described in Section VII, Works' Requirements.

14. Tender Prices and Discounts

- 14.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Billof Quantities shall conform to the requirements specified below.
- 14.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.
- 14.3 The price to be quoted in the Form of Tender, in accordance with ITT 12.1, shall be the total price of the Tender, including any discounts offered.
- 14.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.

- 14.5 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 incases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.
- 14.6 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 14.4, provided the Tenders for all lots (contracts) are opened at the sametime.
- 14.7 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
- 15. Currencies of Tender and Payment
 - 15.1 The currency(ies) of the Tender and the currency(ies) of payments shall be the same.
 - 15.2 Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings.
 - a. A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya (referred to as "the foreign currency requirements") shall (if so allowed in the TDS) indicate in the Appendix to Tender the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to no more than two foreign currencies.
 - b. The rates of exchange to be used by the Tenderer in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Tenderer in the Appendix to Tender and shall be based on the exchange rate provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening. Such exchange rate shall apply for all foreign payments under the Contract.
 - 15.3 Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed break down of the foreign currency requirements shall be provided by Tenderers.
- 16. Documents Comprising the Technical Proposal

The Tenderer shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Tender Forms, insufficient

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

- 17. Documents Establishing the Eligibility and Qualifications of the Tenderer
 - 17.1 Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.
 - 17.2 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.
 - 17.3 If a marg in of preference applies as specified in accordance with ITT 33.1, nation al tenderers, individually or in joint ventures, applying for eligibility for national preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.
 - 17.4 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, <u>a particular contractor or group of contractors</u> 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.
 - 17.5 The purpose of the information described in ITT 17.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
 - 17.6 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to owner ship and control which in formation on any changes to the information which was provided by the tenderer under ITT 6.4. The obligations to require this information shall continue for the duration Of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract
 - 17.7 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.

- 17.8 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 tenderer pursuant to these requirements, then the tender will be rejected.
- 17.9 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
- a. If the procurement process is still ongoing, the tenderer will bed is qualified from the procurement process,
- b. if the contract has been awarded to that tenderer, the contract award will be set as idepending the outcome of (iii),
- c. the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person shave committed any criminal offence.
- 17.10 If a tenderer submits information pursuant to these requirements that is in complete, in accurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tender
- 18. Period of Validity of Tenders
 - 18.1 Tenders shall remain valid for the Tender Validity period specified in the TDS. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 22). At ender valid for a shorter period shall be rejected by the Procuring Entity as nonresponsive.
 - 18.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 19, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender
- 19. Tender Security
 - 19.1 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the TDS, in original form and, in the case of a Tender Security, in the amount and currency specified in the TDS. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

19.2 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:

I) cash; ii) a bank guarantee; iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority;

- (iii) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.
- 19.3 If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 18.2.
- 19.4 If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.
- 19.5 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined nonresponsive or a bidder declines to extend tender validity period.
- 19.6 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security, and any other documents required in the TDS.
- 19.7 The Tender Security may be forfeited or the Tender-Securing Declaration executed:
- a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension there to provided by the Tenderer; or
- b) if the successful Tenderer fails to: -

i) signthe Contract in accordance with ITT47; or ii) furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.

- 19.8 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA to debars the Tenderer from participating in public procurement as provided in the law.
- 19.9 The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender

Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

- 19.10 A tenderer shall not issue a tender security to guarantee itself.
- 20. Format and Signing of Tender
 - 20.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the TDS and clearly mark them "COPY." In the event of any discrepancy between the origin a landthe copies, the original shall prevail.
 - 20.2 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.
 - 20.3 Theoriginal and all copies of the Tender shall be typed or writtenvin indelible ink andshallbesignedby aperson duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in theTDS 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.
 - 20.4 Incase the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
 - 20.5 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

- 21. Sealing and Marking of Tenders
 - 21.1 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 a nenvelope or package or container marked "COPIES", all required copies of the Tender; and

- c. if alternative Tenders are permitted in accordance with ITT 13, and if relevant:
 - i. in an envelope or package or container marked "ORIGINAL -
 - ALTERNATIVE TENDER", the alternative Tender; and ii.

in the envelope or package or container marked "COPIES-

ALTERNATIVE TENDER", all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:

- a. bear the name and address of the Procuring Entity,
- b. bear the name and address of the Tenderer; and
- c. bear the name and Reference number of the Tender.
- 21.2 If an envelope or package or container is not sealed and marked as required, the Procuring Entity will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.
- 22. Deadline for Submission of Tenders
 - 22.1 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.
 - 22.2 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 there after be subject to the deadline as extended.
 - 23.

Late Tenders

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

- 24. Withdrawal, Substitution and Modification of Tenders
 - 24.1 A Tenderer may withdraw, substitute, or modify its Tenderafterith as been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:
 - a. prepared and submitted in accordance with ITT 20 and ITT 21 (except that 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 22.
- 24.2 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.
- 24.3 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.
- 25. Tender Opening
 - 25.1 Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified in the TDS, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the TDS.
 - 25.2 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.
 - 25.3 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.
 - 25.4 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 authorizationtorequestthemodificationandisreadoutatTenderopening.
 - 25.5 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.
 - 25.6 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 Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.

- 25.7 At the Tender Opening, the Procuring Entitys hall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 25.8 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum: -
- a) the name of the Tendere rand whether there is a withdrawal, substitution, or modification;
- b) the Tender Price, per lot (contract) if applicable, including any discounts;
- c) any alternative Tenders;
- d) the presence or absence of a Tender Security, if new as required;
- e) number of pages of each tender document submitted.
- 25.9 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.

E. EVALUATION AND COMPARISON OF TENDERS

- 26. Confidentiality
 - 26.1 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderersorany other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 43.
 - 26.2 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.
 - 26.3 Not withstanding ITT 26.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any matter related to the tendering process, it shall do so in writing.
- 27. Clarification of Tenders
 - 27.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for aresponse. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shallnot be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 31.
 - 27.2 If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.
- 28. Deviations, Reservations and Ommissions

- 28.1 During the evaluation of tenders, the following definitions apply: -
- a. "Deviation" is a departure from the requirements specified in the tender document;
- b. "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
- c. "Omission" is the failure to submit part or all of the information or documentation required in the Tender document.
- 29. Determination of Responsiveness
 - 29.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.
 - 29.2 A substantially responsive Tender is one that meets the requirements of the Tender document withoutmaterial 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;
 - 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;
 - c. if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsivetenders.
 - 29.3 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 16, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.
 - 29.4 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.
- 30. Non-Material and Non-Conformities
 - 30.1 Provided that a tender is substantially responsive, the Procuring Entity may waive any non-conformities in the tender.
 - 30.2 Provided that a Tender is substantially responsive, the Procuring Entity may request that the tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non- conformities in the tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the tender. Failure of the tenderer to comply with the request may result in the rejection of its tender.
 - 30.3 Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified in the TDS.
- 31. Arithmetic Errors

- 31.1 The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.
- 31.2 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: -
- 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, 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
- 31.3 Tenderers shall be notified of any error detected in their bid during the notification of award.
- 32. Conversion to Single Currency For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in to a single currency as specified in the TDS.
- 33. Margin of Preference and Reservations
 - 33.1 A margin of preference may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.
 - 33.2 A margin of preference shall not be allowed unless it is specified so in the TDS.
 - 33.3 Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.
 - 33.4 Where it is intended to reserve a contract to as pecific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the TDS, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender. No tender shall be reserved to more than one group. If not so stated in the Invitation to Tender and in the Tender documents, the invitation to tender will be open to all interested tenderers.
- 34. Nominated Subcontractors
 - 34.1 Unless otherwise stated in the TDS, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. Incase the ProcuringEntity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and the Procuring Entity. The main contract shall specify the working arrangements between the main contractor and the nominated subcontractor.
 - 34.2 Tenderers may propose sub-contracting up to the percentage of total value of contracts or the volume of works as specified in the TDS. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.
 - 34.3 Domestic subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were

previously designated so by the Procuring Entity in the TDS a scan be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractorsproposed by the Tenderer may be added to the qualifications of the Tenderer

35. Evaluation of Tenders

35.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Lowest Evaluated Tender in accordance with ITT 40

- 35.2 To evaluate a Tender, the Procuring Entity shall consider the following:
- a) priceadjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Daywork items, where priced competitively;
- b) price adjustment due to discounts offered in accordance with ITT 14.4;
- c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;
- d) pricea djustment due to quantifiable non materialnon-conformities in accordance with ITT 30.3; and
- e) any additional evaluation factors specified in the TDS and Section III, Evaluation and Qualification Criteria.
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.
- 35.4 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 35.2. The methodology to determine the lowest evaluated tenderer or tenderers base done lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.
- 36. Comparison of Tenders The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.2 to determine the Tender that has the lowest evaluated cost.
- 37. Abnormally Low Tenders and Abnormally High Tenders Abnormally Low Tenders
 - 37.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.

- 37.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.
- 37.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Abnormally High Tenders

- 37.4 An abnormally high tender price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.
- 37.5 In case of a nab normally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:
- i. If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not a ccept the tender depending on the Procuring Entity's budget considerations.
- ii. If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.
 - 37.6 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (often due to collusion, corruption or other manipulations), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.
- 38. Unbalanced and/or Front Loaded Tenders
 - 38.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.
 - 38.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate: a. accept the Tender;

- require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price;
- c. agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works;
- d. reject the Tender
- 39. Qualifications of the Tenderer
 - 39.1 The Procuring Entity shall determine to its satisfaction whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
 - 39.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 17. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Sub-contractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.
 - 39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the

ProcuringEntityshallproceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

40. Lowest Evaluated Tender

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

- a. Most responsive to the Tender document; and
- b. The lowest evaluated price.
- 41. Procuring Entity's Right To Accept Any Tender and To Reject Any or all Tenders The Procuring Entity reserves the right to accept or reject any Tender and to annul the Tender process and reject all Tenders at any time prior to Contract Award, without there by incurring any liability to Tenderers. Incase of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

F. AWARD OF CONTRACT

42. Award Criteria

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

43. Notice of Intention to Enter into a Contract

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

- a. the name and address of the Tenderer submitting the successful tender;
- b. the Contract price of the successful tender;
- c. a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;
- d. the expiry date of the Standstill Period; and
- e. instruction son how to request a debriefing and/ or submit a complaint during the stand still period
- 44. Standstill Period
 - 44.1 The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.
 - 44.2 Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer
- 45. Debriefing By The Procuring Entity
 - 45.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.
 - 45.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.
- 46. Letter of Award

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

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

- 47.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.
- 47.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

48. Performance Security

- 48.1 Within twenty-one (21) days of the receipt of the Letter of Award from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the TDS, in accordance with the General Conditions of Contract, subject to ITT 38.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required
- 48.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and otherdocuments required in the TDS or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.
- 48.3 Performance security shall not be required for contracts estimated to cost less than the amount specified in the Regulations.

49. Publication of Procurement Contract

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

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

50. Procurement Related Complaint

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

SECTION B

TENDER DATA SHEET

SECTION II – TENDER DATASHEET (TDS)

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 the ITT.

A. GENERAL	
	The Name of the Contract is: PROPOSED STRUCTURED CABLING WORKS AT PENSION TOWERS
ITT1.1	The Reference Number of the Contract is: CAK/TEND/007/2022-2023
	The Number and Identification of Lots (Contracts) Comprising this Tender are: None
	The Information Made Available on Competing Firms is as Follows
	a. Bank Statements
	b. Audited Bank Accounts
ITT2.3	c. Personnel Academic and Professional Qualifications
ITT2.4	The firms that provided consulting services for the contract being tendered for are: State Department for Public Works
ITT3.1	Maximum Number of Members in the Joint Venture (JV) Shall Be Two
B. C	ONTEN 'S OF TENDER DOCUMENT
ITT7.1	 i. The Tenderer will submit any request for clarifications in writing at the address procurement@cak.go.ke to reach the Procuring Entity no later than the date of submission of the tenders. ii. The Procuring Entity shall publish its response at the website www.cak.go.ke
ITT7.2	 i. ii. A pre-arranged pretender visit shall take place. As per the advertisement A pre-tender meeting shall take place at the following date, time and place. As per the advertisement
ITT7.3	The tenderer will submit any question in writing to reach the procuring entity not later than two (2No.) working days before the meeting.
ITT7.5	The procuring entity website where minutes of the pre-tender meeting and the pre- arranged pretender will be published is As per the advertisement

ITT9.1	For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is:
	Attention: Director General
	Building: Kenya Railways Staff Retirement Benefit Scheme Block "D"
	Address: P. O. Box 36265 – 00200
	E-Mail Address: procurement@cak.ac.ke

C. PRE	PARATION OF TENDERS
ITT11.1 (h)	 The Tenderer shall submit the following additional documents in its Tender: a. Technical brochures b. NCA Valid Annual Practicing Licence c. Evidence of Personnel Academic and Professional Qualifications d. Audited Financial Reports
ITT13.1	Alternative tenders shall not be considered
ITT13.2	Alternative times for completion shall not be permitted
ITT13.2	Alternative technical solutions shall not be permitted
ITT14.5	The prices quoted by the Tenderer shall be fixed
ITT15.2(a)	Foreign currency requirements not allowed.
ITT18.1	The tender validity period shall be 150 days.
ITT18.3	 (a) The Tender price shall be adjusted by the following percentages of the tender price: i. By 0% the local currency portion of the Contract price adjusted to reflect local inflation during the period of extension, and ii. By 0%, the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension.
ITT19.1	Tender shall provide Tender Security. The type of Tender security shall be Bank Guarantee in the amount of Kenya Shillings 530,000
ITT20.1	In addition to the original of the tender, the number of copies is one
ITT20.3	The written confirmation of authorization to sign on behalf of the tenderer shall consist of a properly executed power of attorney
D. SUB	MISSION AND OPENING OF TENDERS
ITT22.1	For tender submission purposes only, the Procuring Entity's address is: Director General Competition Authority of Kenya P.O BOX 36265 - 00200, Nairobi Date and time as per invitation to tender Tenderers shall not submit tenders electronically.

ITT25.1	The Tender opening shall take place at the time and the address for Opening of Tenders Provided below:
	Director General
	Competition Authority of Kenya
	P.O BOX 36265 - 00200, Nairobi
	Date and time as per invitation to tender
ITT25.5	The number of representatives of the Procuring Entity to sign is a minimum of two
E. EVA	LUATION AND COMPARISON OF TENDERS
ITT30.3	The adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
ITT33.2	A margin of preference shall not apply.
ITT33.4	The invitation to tender is extended to the following group that qualify for Reservations N/A
	(These groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be;
	describe precisely which group qualifies).
ITT34.1	describe precisely which group qualifies).At this time, the Procuring Entity does not intend to execute certain specific parts of the Works by subcontractors selected in advance.
ITT34.1 ITT34.2	At this time, the Procuring Entity does not intend to execute certain specific parts of
	At this time, the Procuring Entity does not intend to execute certain specific parts of the Works by subcontractors selected in advance. Contractors may propose subcontracting: Maximum percentage of subcontracting permitted is 50% of the total contract amount. Tenderers planning to subcontract more than 25% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be sub contracted along with complete details
ITT34.2	At this time, the Procuring Entity does not intend to execute certain specific parts of the Works by subcontractors selected in advance. Contractors may propose subcontracting: Maximum percentage of subcontracting permitted is 50% of the total contract amount. Tenderers planning to subcontract more than 25% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be sub contracted along with complete details of the subcontractors and their qualification and experience. The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: AC & FIRE SUPPRESSION WORKS For the above-designated parts of the Works that may require Specialized Subcontractors, the relevant qualifications of the proposed Specialized Subcontractors

ITT50	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 <u>www.ppra.go.ke</u> or email <u>complaints@ppra.go.ke</u> .
	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 by hand either delivery or email.

SECTION C

EVALUATION AND QUALIFICATION CRITERIA

1.0 GENERAL PROVISIONS

- 1.1 This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity shall use <u>the Standard Tender Evaluation Document for Goods and Works</u> for evaluating Tenders.
- 1.2 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.
 - (a) 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.

1.3 EVALUATION AND CONTRACT AWARD CRITERIA

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

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF RESPONSIVENESS Preliminary examination for Determination of Responsiveness

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

[The Procuring Entity will provide the preliminary evaluation criteria. To facilitate, a template may be attached or clearly described all information and list of documentation to be submitted by Tenderers to enable preliminary evaluation of the Tender]

S/No MANDATORY REQUIREMENTS(MR)

MR1	Valid Copy of Certificate of Incorporation/ Registration.
	Current Certificate of Registration with National Construction Authority (NCA 4 and above in Structured Cabling Works & Air Conditioning Works)
MR3	Current NCA Contractor's Annual Practicing Licence
	Current Licence with The Energy and Petroleum Regulatory Authority and Communications Authority of Kenya
	Bid has been submitted in the format required by the procuring entity as issued by the procuring entity
MR6	Fully filled Form of Tender
MR7	Fully filled and signed Confidential Business Questionnaire
MR8	Fully signed and stamped Statement of Compliance
	Submission of original tender document properly BOUND and sequentially serialised and all pages must be initialled or signed. (NB: Use of Spring or Box Files will not be allowed and will result in automatic disqualification.)
MR10	Valid Copy of Current Single Business permit
MR11	Valid Tax Compliance Certificate
	The Tender Security (Bid Bond) of Kenya Shillings 530,000 in form of Bank Guarantee from a reputable bank or insurance company approved by Public Procurement Regulatory Authority (PPRA).
MR13	Provide proof of authorization (in form of an executed power of attorney) as a Tender Signatory if the signatory is not a Director or partner of the firm.
MR14	Fully filled signed and stamped self-declaration forms as issued by the procuring entity

MR15 Copy of CR12 from the registrar of companies showing the list of directors

3.0 TECHNICAL EVALUATION

TABLE 1: Technical Evaluation

Item	Description	Points Scored	Max. P	oint
1	Compliance with Technical Specifications Compliant40 Non-compliant0 (Note: Tender Evaluation Committee to carryout analysis showing how decision on this requirement has been arrived at)		4	0
2	Tender Questionnaire Form • Completely filled3 • Not filled0		3	3
3	Key Personnel (Attach evidence)			
	 Director of the firm Holder of degree in relevant Engineering field4 Holder of diploma in relevant Engineering field3 Holder of certificate in relevant Engineering field2 Holder of trade test certificate in relevant Engineering field1 No relevant certificate0 		4	12
	 At least 1No. degree/diploma holder of key personnel in relevant field With over 10 years relevant experience		4	12
	At least 1No certificate holder of key personnel in relevant field With over 10 years relevant experience With over 5 years relevant experience With under 5 years relevant experience 		2	

At least 2No artisan (trade test certificate in relevant field)		
 Artisan with over 10 years relevant experience2 Artisan with under 10 years relevant experience1 		
□ Non skilled workers0	2	

Item	Description	Points Scored	Max	x. Point
4	 Contracts completed in the last five (5) years (Max of 3No. Projects)- <u>Provide Evidence</u> Project of similar nature, complexity or magnitude3 Project of similar nature but of lower value than the one in consideration2 No completed project of similar nature0 			9
5	 On-going projects – <u>Provide Evidence</u> No Project of similar nature, complexity and magnitude4 Three and below Projects of similar, nature complexity and magnitude3 Four and above Projects of similar nature, complexity and magnitude2 			4
6	Schedule of contractor's equipment and transport (proof or evidence of ownership/Lease) a) Relevant Transport	_	6	12
	 Means of transport (Vehicle)6 No means of transport0 			

	 b) Relevant Equipment Has relevant equipment for work being tendered6 No relevant equipment for work being tendered0 		6	
Item	Description	Points Scored	Max	x. Point
4	 Contracts completed in the last five (5) years (Max of 3No. Projects)- <u>Provide Evidence</u> Project of similar nature, complexity or magnitude3 Project of similar nature but of lower value than the one in consideration2 No completed project of similar nature0 			9
8	 Financial report a) Audited financial report (last three (3) years) Average Annual Turn-over equal to or greater than the cost of the project6 Average Annual Turn-over above 50% but below 100% of the cost of the project3 Average Annual Turn-over below 50% of the cost of the project1 			6

Item	Description	Points Scored	Max. Point
------	-------------	------------------	------------

	b) Evidence of Financial Resources (cash in hand, lines of credit, over draft facility etc)		9
	 Has financial resources to finance the projected monthly cash flow* for three months9 Has financial resources equal to the projected monthly cash flow*6 Has financial resources less the projected monthly cash flow*3 Has not indicated sources of financial resources0 		
8	 Name, Address and Telephone of Banks (Contractor to provide) Information Provided3 No Information Provided0 		3
9	Litigation History Duly Filled2 Not filled0 	2	2
	TOTAL		

*Monthly Cash Flow =Tender Sum/Contract Period

Any bidder who scores 70 points and above shall be considered for further evaluation.

STAGE 3 - FINANCIAL EVALUATION

Upon completion of the technical evaluation a detailed financial evaluation for the bidder (and all their joint venture partners) shall follow.

The evaluation shall be in three stages

- a) Determination of Arithmetic Errors for the bidder (and all their joint venture partners);
- b) Comparison of Rates for the bidder (and all their joint venture partners);

; and

c) Consistency of the Rates for the bidder (and all their joint venture partners);

A) Determination of the Arithmetic Errors

Arithmetic Errors will be corrected by the Procuring Entity as follows:

i) In the event of a discrepancy between the amount as stated in the form of Tender and the corrected tender figure in the Main summary of the Bills of Quantities, the amount as stated in the Form of tender shall prevail. Pursuant to Section 82 of the Public Procurement and Asset Disposal Act 2015, 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;

- ii) Error correction factor shall be computed by expressing the difference between the amount and the corrected tender sum as a percentage of the corrected contract works
- iii) The Error correction factor shall be applied to all contract works (as a rebate or addition as the case may be) for the purposes of valuations for Interim Certificates and valuations of variations.
- B) Comparison of rates for the bidder

Items that are underpriced or overpriced may indicate potential for non-delivery and front loading respectively. The committee shall promptly write to the tenderer asking for detailed breakdown of costs for any of the quoted items, relationship between those prices, proposed construction/installation methods and schedules.

The evaluation committee shall evaluate the responses and make an appropriate recommendation to the procuring entity's tender committee giving necessary evidence. Such recommendations may include but not limited to:

- a) Recommend no adverse action to the tenderer after a convincing response;
- b) Employer requiring that the amount of the performance bond be raised at the expense of the successful tenderer to a level sufficient to protect the employer against potential financial losses;
- c) Recommend non-award based on the response provided and the available demonstrable evidence that the scope, quality, completion timing, administration of works to be undertaken by the tenderer, would adversely be affected or the rights of the employer or the tenderers obligations would be limited in a substantial way. C) Consistency of the Rates

The evaluation committee will compare the consistency of rates for similar items and note all inconsistencies of the rates for similar items.

STAGE 4 - RECOMMENDATION FOR AWARD

4.0 TENDER EVALUATION (ITT 35)

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

(i) Alternative Completion Times, if permitted under ITT13.2, will be evaluated as follows:

.....

(ii) Alternative Technical Solutions for specified parts of the Works, if permitted under

ITT 13.4, will be evaluated as follows:.....

(iii) Other Criteria; if permitted under ITT 35.2(e):

.....

4 MULTIPLE CONTRACTS

4.0 Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and a lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts. OPTION 1

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

OPTION2

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

5.0 ALTERNATIVE TENDERS (ITT 13.1)

Alternative Tenders (ITT 13.1)

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

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

6.0 MARGIN OF PREFERENCE

6.1 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of share holding of Kenyan citizens is less than fifty- one percent (51%).

- 6.2 Contractors shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference.
- 6.3 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:
- i) Group A: tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty one percent (51%).
- ii) Group B: tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).
- 6.4 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award of contract. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 6.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.
- 7. Post qualification and Contract ward (ITT 39), more specifically,
 - a) In case the tender <u>was subject to post-qualification</u>, 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 <u>was not subject to post-qualification</u>, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to <u>meeting each of the following conditions</u>.
 - 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 Shilling 8,000,000 per month
 - Minimum <u>average</u> annual construction turnover of Kenya Shillings 53,000,000, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last<u>3</u> years.
 - At least <u>5</u> of contract(s) of a similar nature executed within Kenya, or the East African Community or a broad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings_20,000,000, equivalent.

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

Structured Cabling System Installation Works

- 1. At least 1No. <u>Engineer</u> with a degree in electrical engineering and a current license to practice engineering issued by the Engineers Board of Kenya;
- 2. At least 1No. <u>Site supervisor</u> with a diploma in relevant field with a minimum of 10 years relevant experience;
- 3. a) At least 2No <u>Technicians</u> with a certificate in relevant field with a minimum of 5 years relevant experience;

OR

b) At least 2No <u>Artisans</u> with a trade test certificate in relevant field with a minimum of 8 years relevant experience.

 v) Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed as [specify requirements for each lot as applicable]

At least 1No. relevant means of transport (Vehicle) Assorted tools for cable termination, testing and commissioning

- 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 Nonperformance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last 5 Years. The required information shall be furnished in the appropriate form.

b) Pending Litigation

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

c) Litigation History

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last 1 year. All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or on going 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.

SECTION D TENDERING FORMS

QUALIFICATION FORMS

1. FOREIGN TENDERERS 40% RULE

Item	Description of Work Item	Describe Location of Source	Cost in K. Shillings	Comments if Any
А	Local Labour			
1				
2				
3				
4				
5				
В	Sub-Contracts from Loca	1 Sources		
1				
2				
3				
4				
5				
С	Local Materials			
1				
2				
3				
4				
5				
D				
1				
2				
3				
4				
5				
Е				
1				
2				
3				
4				

5			
	TOTAL COST OF LOCA	AL CONTENT	
	PERCENTAGE OF CON	TRACT PRICE	

2. FORM EQU:EQUIPMENT

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

Item of Equipr	nent			
Equipment Information	Name of Manufacturer	Model and Power Rating		
Current	Capacity	Year of Manufacture		
	Current Location			
	Indicate source of the equipment			
	□ Owned □ Rented □ Leased	□ Specially Manufactured		
Omit the follow	wing information for equipment owned by the te	nderer		
	Name of Owner			
Owner	Address of Owner			
	Telephone	Contact Name and Title		
	Fax	Telex		
Agreements	Details of rental/lease/manufacture agreements	specific to the project		

3. FORM PER -1

Contractors Representative and Key Personnel Schedule

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

1.	Title of Position	
	Name of Candidate	
	Duration of Appointment	
	Time Commitment for This Position	
	Expected Time Schedule for This Position	
2.	Title of Position	
	Name of Candidate	
	Duration of Appointment	
	Time Commitment for This Position	
	Expected Time Schedule for This Position	
3.	Title of Position	
	Name of Candidate	

	Duration of Appointment	
	Time Commitment for This Position	
	Expected Time Schedule for This Position	
4.	Title of Position	
	Name of Candidate	
	Duration of Appointment	
	Time Commitment for This Position	
	Expected Time Schedule for This Position	

4. FORM PER -2

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

Name of Tend	Name of Tenderer					
Position [#1]	Position [#1] [title of position from Form Per-1]					
Personell Information						
	E-Mail:					
Professional Qualifications:						
	Academic Qualifications:					
	Language Proficiency: [language and levels of speaking, reading and writing skills]					
	Address of Procuring Entity:					
Telephone: Contact (Manager/Personnel Of						

Fax:	
Job Title:	Years with present Procuring Entity:

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

Project	Role	Duration of Involvement	Relevant Experience
[main [role and responsibilities on the project details]		[time in role]	[describe the experience relevant to this position]

Declaration

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

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

Commitment	Details	
Commitment to duration of contract	[insert period (start and end dates) for which this Contractor's Representative or Key Personnell is available to work in this contract]	
Time commitment	[insert period (start and end dates) for which this Contractor's Representative or Key Personnell is available to work in this contract]	

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

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

Name of Contractor's Representative or Key Personnel:

Signature:

Date: (day month year):

Counter signature of authorized representative of the Tenderer:

Signature:

Date: (day month year):

TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION
 5.1. FORM ELI – 1.1

Tenderer Information Form

Date:

ITT No. and Title:

Tenderer's Name

In case of Joint Venture (JV), Name of Each Member

Tenderer's Actual or Intended Year of Incorporation

Tenderer's Legal Address [in country of registration]

Tenderer's Authorised Representative Information Name:

Address:

Telephone/Fax Numbers:

E-mail Address:

a.	Attach	ed are copies of original documents of:
	•	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
	•	In case of JV, letter of intent to form JV or JV agreement in accordance with
		ITT 3.5
	•	In case of state owned enterprise or institution in accordance with ITT 3.8
		documents establishing:
	a.	Legal and financial autonomy
	b.	Operation under commercial law
	c.	Establishing that the tenderer is not under the supervision of the
		Procuring Entity
b.	Include owners	ed are the organisational chart, a list of Board of Directors and the beneficial ship

5.2. FORM ELI - 1.2

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

Date: _____

ITT No. and Title:_____

Tenderer's JV Name

JV Member's Name

JV Member's Country of Registration

JV Member's Year of Constitution

JV Member's Legal Address in Country of Constitution

JV Member's Authorised Representative Information Name:

Address:

Telephone/Fax Numbers:

E-mail Address:

с.	Attached are copies of original documents of:	
•	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	
•	In case of state owned enterprise or institution in accordance with ITT 3.8	
	documents establishing:	
d.	Legal and financial autonomy	
e.	Operation under commercial law	
f.	Establishing that the tenderer is not under the supervision of the	
	Procuring Entity, in accordance with ITT 3.5	
d. Include owners	d are the organisational chart, a list of Board of Directors and the beneficial ship	

5.3. FORM CON - 2

Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's

Name:___

_____Date:_____

JV Member's Name_____ ITT No. And

Title_____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria

Contract non-performance did not occur since 1st January [insert year] specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1

Contract(s) non-performance since 1st January [insert year] specified in Section III, Evaluation and Qualification Criteria, Requirement 2.1

Contract(s) withdrawn did not occur since 1st January [insert year] specified in Section III, Evaluation and Qualification Criteria, Requirement 2.1

Year	Nonperformed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
------	--	-------------------------	---

[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/number and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Name of Procuring Entity: [insert street/city/country] Reason(s) for non-performance: [indicate main reasons]	[insert amount]
------------------	--------------------------------------	--	-----------------

Pending Litigation in accordance with Section III, Evaluation and Qualification Criteria

No Pending Litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub Factor 2.3

Pending Litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.

Year of dispute Amount in dispute (currency)		Contract Identification	Total Contract Amount (currency), Kenya Shilling	
			Equivalent (exchange rate)	
[insert year]	[insert percentage]	Contract Identification:	[insert amount]	
[insert year]	[insert percentage]	Contract Identification: Name of Procuring Entity: Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of Dispute:	[insert amount]	
Litigation in accordance with Section III, Evaluation and Qualification Criteria				

No Litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub Factor 2.4

Total Contract Amount Outcome (currency), Kenya as percentage Year of **Contract Identification** Shilling award of Net Equivalent Worth (exchange rate) Contract Identification: [indicate complete contract name/number and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] [insert [insert Matter in dispute: [indicate main issues in [insert amount] year] percentage] dispute] Party who initiated the dispute: [indicate "Procuring Entity" or " Contractor"] Reason(s) for Litigation and Award Decision: [indicate main reasons]

Pending Litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.

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

5.4. FORM FIN – 3.1

Tenderer's Name:

Date:

JV Member's Name:

ITT No. and Title: _____

5.4.1. FINANCIAL DATA

Type of	Historic Information for Previous Years
Financial Information in	(amount in currency, currency exchange rate*, USD equivalent)
(currency)	

	Year 1	Year 2	Year 3	Year 4	Year 5		
Sta	Statement of Financial Position (Information from Balance Sheet)						
Total Assets (TA)							
Total Liabilities (TL)							
Net Worth (NW)							
Current Assets (CA)							
Current Liabilities (CL)							
Working Capital (WC)							
Information from	Income Stateme	nt					
Total Revenue (TR)							
Profits Before Taxes (PBT)							
Cash Flow Information							
Cash Flow from Opening Activities							

*Refer to ITT 15 for the exchange rate

5.4.2. Sources of Finance

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

No.	Source of Finance	Amount (Kenya Shilling Equivalent)
1		
2		

3	

5.4.3. Financial Documents

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

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

Attached are copies of financial statements for the _____ years required above and complying with the requirements.

5.5. FORM FIN – 3.2

Average Annual Construction Turnover

Tenderer's Name:

Date:

Г

Annual Turnover Data (Construction Only)					
Year	Amount Currency	Exchange Rate	Kenya Shilling Equivalent		
[Indicate year]	[Insert amount and indicate currency]				

Average		
Annual		
Construction		
Turnover *		

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

5.6. FORM FIN – 3.3

Financial Resources

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

No.	Source of Finance	Amount (Kenya Shilling Equivalent)
1		
2		
3		

5.7. FORM FIN – 3.4

Current Contract Commitments / Works in Progress

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

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

3			
4			
5			

5.8. FORM EXP – 4.1

General Construction Experience

Tenderer's Name: _____ Date: _____

JV Member's Name: _____ ITT No. and Title: _____

Page		_ofpages	
Starting Year	Ending Year	Contract Idenfication	Role of Tenderer
		Contract Name:	
		Contract Name:	
		Contract Name:	

5.9. FORM EXP – 4.2(a)

Specific Construction and Contract Management Experience

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

Similar Contract No.	Information			
Contract Identification				
Award Date				
Completion Date				
Role in Contract	Prime Contractor □	Member in JV □	Management Contractor	Sub- Contractor
Total Contract Amount			Kenya Shilling	
If Member in a JV or SubContractor, Specify Participation in Total Contract Amount				
Procuring Entity's Name:				
Address: Telephone/Fax Number: E-Mail:				
Description of the similarity in accordance with Sub- Factor 4.2(a) of Section III:				
Amount				
Physical Size of Required Works Items				
Complexity				
Methods/Technology				
Construction Rate for Key Activities				
Other Characteristics				

5.10. FORM EXP – 4.2(b)

Specific Construction and Contract Management Experience

Tenderer's Name:	Date:	
JV Member's Name:	ITT No. and Title:	
Sub-Contractor's Name ² (as per ITT 34)		
ITT No. and Title		

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

Similar Contract No.	Information				
Contract Identification					
Award Date					
Completion Date					
Role in Contract	Prime Contractor □	Member in JV □	Management Contractor	Sub- Contractor □	
Total Contract Amount			Kenya Shilling		
Quantity (Volume, Number of Rate of Production as applicable) performed under the contract per year or part of the year	Total Quantity in the Contract (i)	Percentage Participation (ii)	Actual Quantity Perfomed (i) x (ii)		
Year 1					
Year 2					
Year 3					
Year 4					
Procuring Entity's Name:					
Address: Telephone/Fax Number: E-Mail:					
Description of the similarity in accordance with Sub-Factor 4.2(b) of Section III:					

6. FORM OF TENDER

INSTRUCTIONS TO TENDERERS

The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.

All italicized text is to help Tenderer in preparing this form.

Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION OF THE TENDERER attached to this Form of Tender.

The Form of Tender shall include the following Forms duly completed and signed by the Tenderer.

- Tenderer's Eligibility- Confidential Business Questionnaire
- Certificate of Independent Tender Determination
- Self-Declaration of the Tenderer

Date of this Tender submission:

Request for Tender No.:____

Name and description of Tender

Alternative No.:_____

To: [insert complete name of Procuring Entity]

Dear Sirs,

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 under take, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer 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.
- 4. We understand that you are not bound to accept the lowest or any tender you may receive.
- 5. We, the under signed, further declare that:
 - i. No reservations: We have examined and have no reservations to the tender document, including 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.....

(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)

.....

...

. . .

vii. Discounts: The discounts offered and the methodology for their application are: viii.

The discounts offered are: [Specify in detail each discount offered.] ix. The exact method of calculations to determine the net price after application of discounts is shown below: [Specify in detail the method that shall be used to apply the discounts];

- x. Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- xi. Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
- xii. One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

- xiii.Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.
- xiv.State-owned enterprise or institution: [select the appropriate option and delete the other][We are not a state- owned enterprise or institution]/[We are a state-owned enterprise or institution but meet the requirements of ITT3.8];
- xv. Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity].

Name of Recipient	Address	Reason	Amount

- xvi. Binding Contract: We understand that this Tender, together with your written acceptance there of included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- xvii.Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;
- xviii. Fraud and Corruption: We here by certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and

Corruption; and xix. Collusive practices: We hereby certify and confirm that the tender is genuine, noncollusive 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. We, the Tenderer, have completed fully and signed the following Forms as part of our Tender:

a)Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are not in any conflict to interest.

(b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.

(a)Self-Declaration of the Tenderer - to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.

(d) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

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

Name of the Tenderer:	
Name of the person duly authorized to sign the T	
Title of the person signing the Tender:	
Signature of the person named above:	
Date signed day of	
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.

TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

Tender is in structed to complete the particulars required in this Form, one form for each entity if Tender is a JV. Tenderer isfurtherreminded 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	
2	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contract Details of the Tenderer. (Country, city, location, building, floor, postal address and name and email of contact person)	
6	Current Trade License Registration Number and Expiring date	
7	Name, Country and full address (postal and physical addresses, email, and telephone number) of Registration 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 (postal and physical addresses, email, and telephone number) of state which stock exchange.	

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 hus a tendronship 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,	
	nonconsulting services or consulting services during	
	implementation of the contract	
	Specified in this Tender Document.	
_		
	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.	
/		
	in item 7 and 8 above been resolved in a manner	
	acceptable to the Procuring Entity throughout the	
	tendering process and execution of the Contract.	

Certification

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

Full Name ______

Title or Designation _____

(Signature)

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

belief.

FORM SD1

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

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

(Title)	(Signature)	(Date)

FORM SD2

- 2. THAT theafore said Bidder, its servants and/oragents/subcontractorswillnotengageinanycorruptorfraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of (insert name of the Procuring entity) which is the procuring entity.
- 4. THAT the aforesaid Bidder will not engage /has not engaged in any corrosive practice with other bidders participating in the subject tender
- 5. THAT what is deponed to here in above is true to the best of my knowledge information and belief.

(Title) (Signature) (Date)

Bidder's Official Stamp

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I (person) on behalf of (Name of the Business/

Company/Firm)

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

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

	Name of Authorized signatory
	Sign
	Position
	Office address
	Telephone E-
	mail
	Name of the Firm/Company
	Date
	(Company Seal/ Rubber Stamp where applicable)
	Witness
	Name
	Sign
	Date
(c) APPENDIX 1 – FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

- 1.1 The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (no. 33 of 2015) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.
- 2. Requirements
- 2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Subcontractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.
- 2.2 Kenya's public procurement and asset disposal act (no. 33 of 2015) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:
 - 1) A person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or as set disposal proceeding;
 - 2) A person referred to under subsection (1) who contravenes the provisions of that subsection 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 whohas a conflict of interest with respect to a procurement:
 - a) Shall not take part in the procurement proceedings;
 - b) shall not, after a procurement contract has been entered in to, take part in any decision relating to the procurement or contract; and

- c) shall not be a subcontract or for the tender to whom was awarded contract, or a member of the group of tenderers to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.
- 6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflictofinteresttotheprocuringentity;
- 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.
- 3. In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:
 - a) Defines broadly, for the purposes of the above provisions, the terms setf orth 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;
 - "fraudulent practice" is any act or omission, including is representation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party; "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - iv) "obstructive practice" is:
 - Deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent,

coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

• acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.

b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal processorthe 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 subconsultants, 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;
- Pursuant to the Kenya's above stated Acts and Regulations, may recommend to appropriate authority(ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
- e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring(i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Subconsultants, 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.

FORM OF TENDER SECURITY-DEMAND BANK GUARANTEE

Beneficiary: forTenders	Request
No:	Date:
TENDER	
GUARANTEE No.:	

- 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)]

4. FORM OF TENDER SECURITY (TENDER BOND)

[The Surety shall fill in this Tender Bond Form in accordance

with the instructions indicated.] BOND NO._____

of.....

......... [amount of Bond][amount in words], for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and as signs, jointly and severally, firmly by these presents.

2. WHERE AS the Principal has submitted or will submit a written Tender to the Purchaser dated the day of

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

a) Has with drawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender ("the Tender Validity Period"), or any extension there to provided by the Principal; or

b) Having been notified of the acceptance of its Tender by the Purchaser during the Tender Validity Period or any extension there to provided by the Principal;(i) failed to execute the Contract agreement; or (ii) hasfailed to furnish the Performance Security, in accordance with the Instructions to tenderers ("ITT") of the Purchaser's Tendering document.

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

4. The Surety here by agrees that its obligation will remain in full force and effect upto and including the date 30 days after the date of expiration of the Tender Validity Period set forth in the Principal's Letter of Tender or any extension thereto provided by the Principal.

IN TESTIMONY WHEREOF, the Principal and the Surety have caused these presents to be executed in their respective names this day of _____20.

Principal:	Surety:			
Corporate Seal (where appropriate)				
Principal:	Surety:			
(Signature)	(Signature)			
(Printed name and title)	(Printed name and title			
FORM OF TENDER - SECURING DECLARATION				
[The Bidder shall complete this Form in accordance wi	th the instructions indicated]			
Date:[insert date (as c	lay, month and year) of Tender Submission]			
Tender No.:				

То:	[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 ourobligation(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 Iam /we are/ in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:.....Capacity/title (director or partner or sole proprietor, etc.) Name:......Duly authorized to sign the bid for and on behalf of: [insert complete name of Tenderer]

Dated on day of [Insert date of signing] Seal or stamp Appendix to Tender

Schedule of Currency Requirements

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

Name of Currency	Amounts Payable
Local Currency	
Foreign Currency #1	
Foreign Currency #2	
Foreign Currency #3	

SECTION E BILLS OF QUANTITIES

BILLS OF QUANTITIES

PRICING OF PRELIMINARIES ITEMS

Prices will be inserted against item of preliminaries in the Contractor's Bills of Quantities and specification. These Bills are designated as Bill No.1 in this Section. Where the Contractor fails to insert his price in any item, he shall be deemed to have made adequate provision for this on various items in the Bills of Quantities. The preliminaries form part of this contract and together with other Bills of Quantities covers for the costs involved in complying with all the requirements for the proper execution of the whole of the works in the contract.

The Bills of Quantities are divided generally into three sections:

(a) <u>Preliminaries – Bill No.1</u>

Contractor's preliminaries are as per those described in Section K –General Conditions of Contract. The Contractor shall study the conditions and make provision to cover their cost in this Bill. The number of preliminary items to be priced by the Tenderer has been limited to tangible items such as site office, temporary works and others. However, the Tenderer is free to include and price any other items he deems necessary taking into consideration conditions he is likely to encounter on site.

(b) <u>Installation Items – Other Bills</u>

The brief description of the items in these Bills of Quantities should in no way modify or supersede the detailed descriptions in the contract Drawings, conditions of contract and specifications.

(c) <u>Summary</u>

The summary contains tabulation of the separate parts of the Bills of Quantities carried forward with provisional sum, contingencies and any prime cost sums included. The Contract shall insert his totals and enter his grand total tender sum in the space provided below the summary.

This grand total tender sum shall be entered in the Form of Tender_provided elsewhere in this document.

SPECIAL NOTES TO THE BILLS OF QUANTITES

- 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
- 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 descriptions of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the 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 coloured manufacturer's Brochures detailing Technical Literature and specifications on all the equipment they intend to offer.

Statement of Compliance

- 1. I confirm compliance of all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
- 2. 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: _____

Item	Description	Qty	Unit	Rate	Amount
				(KShs)	(KShs)
1.1.01	This is a Firm-Price Contract and the contractor must allow in his tender for the increase in the cost of labour and/or materials during the duration of the contract. No claims will be allowed for increased costs arising from the fluctuations in duties and/or day to day currency fluctuations.				
1.1.02	The Contractor shall, when required, provide for approval at no extra cost, samples of all materials to be incorporated in the works. Such samples, when approved, shall be retained by the Engineer and shall form the standard for all such materials incorporated.	1	Item		
1.1.03	The Contractor shall carry out such tests of the Contract Works as required by British Standard Specifications as customary. No testing or commissioning shall be undertaken except in the presence of and to the satisfaction of the Engineer. (Contractor's own preliminary and proving tests excempted).	1	Item		
1.1.04	The Contractor shall allow for Working Drawings as may be necessary. The Working Drawings shall be complete in such detail not only that the Contract Works can be executed on site but also that the Engineer can approve the Contractor's proposals, detailed designs and intentions in the execution of the Contract Works.		Item		
1.1.05	The Contractor shall allow for Record Drawings and Maintenance Manual of the installed Contract	1	Item		
1.1.06	Works. Allow for project manager's team cost for approval of sample fittings,equipment and associated work requirements off the project site	1	Item		
		1	Item	500,000.00	500,000.00

1.1.07	Allow for profits and attendance for the above-	1	Item		
	%				
	Total Amount Carried Forward to Tl	ne Sumr	nary Pag	ge	

Item	Description	Qty	Unit	Rate	Amount
	*			(KShs)	(KShs)
	Decommission, Relocate, Install, Test and Commission the Following:				
	C C				
2.1.01	Existing LV Distribution Board and Associated				
	Accessories.	1	Item		
2.1.02	Existing Voltage Regulator and Associated				
	Accessories.	1	Item		
2.1.03	Existing 40kVA UPS and Associated				
	Accessories.	2	No.		
2.1.04	Allow for Cabling between Items 2.1.01,				
	2.1.02 and 2.1.03	1	Item		
	Sub-Total Amount For Power Relocation	on Car	ried Fo	orward	
	Decommission, Relocate, Install, Test and				
	Commission the Following: Existing Data				
	Cabinets and Associated				
2.1.05	Accessories and Equipment. Existing	3	No.		
	Server Room UPSs and Associated				
2.1.06	Accessories.	1	Item		
	Sub-Total Amount For Data Relocation	n Carr	ied Fo	rward	
	Install, Test and Commission the Following:				
	Client Supplied 40kVA UPS and				
	Associated Accessories and Equipment.				
2.1.07		1	Item		
	Sub-Total Amount For UPS Installatio	rward			

		1			1	
	Supply, Install, Test and Commission the					
	Following:					
2.1.08	Submains comprising 3C 50 mm ² PVC/PVC CU					
	cable drawn in Ceiling Void and Complete with Tap					
	Off Unit from the LV Busbar to Server Room LV					
	Board.	30	LM.			
2.1.09	Submains comprising 3C 25 mm ² PVC/PVC CU					
	cable drawn in Ceiling Void from the UPS Output					
	to Data DB.	30	LM.			
2.1.10	Submains comprising 3C 25 mm ² PVC/PVC CU					
	cable drawn in Ceiling Void from the UPS Output					
	to AC DB.	30	LM.			
	Sub-Total Amount For Cabling Ca	rried I	Forwar	ď		
	Sub-Total Amount for Power Relocation Broug	ht For	ward			
	Sub-Total Amount for Data Relocation Brought	t Forw	ard			
	Sub-Total Amount for UPS Installation Brough	t Forw	vard			
	Sub-Total Amount for Cabling Brought Forwar	d				
	Total Amount Carried Forward to	o Nex	t Page			
			8-			

Item	Description	Qty	Unit	Rate (KShs)	Amount (KShs)
	Brought Forward From Previous Page Supply, Install, Test and Commission the Following:				
2.1.11	4-way 100A TPN AC DB surface mounted complete with 125A TP integral isolator and lockable cover and all accessories excluding MCBs as SCHNEIDER or Approved Equivalent.				
2.1.12	The following MCBs as SCHNEIDER or Approved Equivalent Type B. i) 40A SP	1	No.		
	ii) Blanking Plates POWER POINTS Radial Power Points wired in 4C 6.0 mm ²	5 13	No. No.		
	PVC/SWA/PVC CU cables drawn cable trays complete with all the necessary accessories excluding 20A Three Phase Industrial Socket for AC Outdoor Units.	25	LM		

2.1.14	Radial Power Points wired in 3 x 4.0 mm ² SC				
	PVC insulated CU cables drawn in 25 mm Ø HG				
	PVC conduits concealed in building fabric complete				
	with all the necessary accessories excluding 20A				
	Dual Pole Switch for AC				
	Indoor Units.				
	POWER SOCKETS	15	No.		
2.1.15	20A Three Phase Industrial Socket Outlet with				
	Backbox and Integral Isolator as SCHNEIDER or				
	Approved Equivalent for the incoming and outgoing UPS Supplies.				
	outgoing 015 Supplies.	10	No.		
2.1.16	20A Ivory DP Switch Plate with Neon Light as				
	SCHNEIDER or Approved Equivalent for DP				
	Switch.				
	POWER DISTRIBUTION	10	No.		
2.1.17	400mm x 25mm perforated, steel, hot dip				
	galvanised, cable tray for Power Cables complete				
	with all accessories.	140	LM		
2.1.18	400mm x 25mm perforated, steel, hot dip	140	LM		
	galvanised, cable tray for Data Cables complete	_			
	with all accessories.				
	Total Amount Carried Forward to	o Nez	kt Page		
	1				

Item	Description	Qty	Unit	Rate	Amount
				(KShs)	(KShs)
	Brought Forward From Previous Page Supply,				
	Install, Test and Commission the				
	Following: CLEAN POWER				
2.1.19	13A Ring Mains Clean Socket Outlet Points wired in 3 x 2.5 mm ² SC PVC insulated CU cables outlet				
	plate.	170	No.		
2.1.20	13A Twin Switched Ivory Non-Standard Socket Outlet Plates as SCHNEIDER or Approved				
	Equivalent.	170	No.		
2.1.21	13A Fused Non-Standard top plug as MK or Approved Equivalent.	170	No.		

2.1.22	12-way 125A TPN DB surface mounted complete with 125A TP integral isolator and lockable cover and all accessories excluding MCBs as SCHNEIDER or Approved Equivalent.					
2.1.23	The following MCBs as SCHNEIDER or Approved Equivalent Type B. i) 40A TP	2	No.			
	ii) Blanking Plates	8 12	No. No.			
		12	110.			
2.1.24	Radial Power Points wired in 4C 50.0 mm ²					
	PVC/SWA/PVC CU cables drawn cable trays complete with all the necessary accessories excluding 100A Three Phase Industrial Socket for UPS Units.	15	LM			
2.1.25	6-way 100A TPN DB surface mounted complete with 100A TP integral isolator and lockable cover and all accessories excluding MCBs as SCHNEIDER or Approved Equivalent.	15				
		8	No.			
2.1.26	The following MCBs as SCHNEIDER or Approved Equivalent Type B. i) 32A SP					
	ii) Blanking Plates	32 112	No. No.			
2.1.27	Submains comprising 3C 16 mm ² PVC/PVC CU cable drawn in PVC HG Ducts for Clean Power Distribution Boards.					
		240	LM.			
	Total Amount Carried Forward to Pr	ice Su	mmary	Page		

Item	Description	Qty	Unit	Rate	Amount
				(KShs)	(KShs)
	Supply, Install, Test and Commission the Following: HORIZONTAL CABLING				
2.2.01	RJ45 CAT 6A STP Face Plates as described in the Particular Specifications.	170	No.		
2.2.02	3M RJ45- RJ45 CAT 6A STP Factory Terminated Patch Cord as as described in the	170	110.		
2.2.03	Particular Specifications. 1M RJ45- RJ45 CAT 6A STP Factory Terminated Patch Cord as as described in the	170	No.		
2.2.04	Particular Specifications. CAT 6A STP Cable as as described in the	170	No.		
	Particular Specifications pulled between Items 2.2.01 and 2.2.05.				
2.2.05	CABINETS CAT 6A Patch Panel as described in the Particular Specifications.	11900 8			
2.2.06	Fibre Optic Patch Panel as described in the Particular Specifications.		No. No.		
2.2.07	Cable Manager as described in the Particular Specifications.	8	No.		
2.2.08	ACTIVE COMPONENTS Wireless Access Point as described in the				
0.0.00	Particular Specifications. BACKBONE CABLING	8	No.		
2.2.09	8 Core Multimode Fibre Optic Cable pulled between Item 2.2.06 and the Server Room.	100	LM.		
2.2.10	LC-LC Fibre Patch Cable between Item 2.2.06 and Switches.	12	No.		

BILL No. 2 SCHEDULE No. 2: STRUCTURED CABLING -TYPICAL FLOOR

	Total Amount Carried For 4 No. T	ypical	Floors		
	Total Amount Carried Forward to S	umma	ry Page		
BILL 2	2: SCHEDULE 3: ACCESS CONTROL				
Item	Description	Qty	Unit	Rate (KShs)	Amount (KShs)
	Supply, Install, Test and Commission the Following:				
2.3.01	Door Controller complete with mounting accessories and as described in the Particular Specifications.	1	No.		
2.3.02	Biometric Reader as described in the Particular Specifications.	1	No.		
	Electric Strike as described in the Particular Specifications.	1	No.		
2.3.04	Door Closer as described in the Particular Specifications.	1	No.		
	Request to Exit Switch as described in the Particular Specifications.	1	No.		
	Emergency Breakglass as described in the Particular Specifications.	1	No.		
	Override Key Switch as described in the Particular Specifications.	1	No.		
	Batteries as described in the Particular Specifications	1	No.		
2.3.09	CAT 6A Cable pulled between Item 2.3.01 and Item 2.2.05. Total Amount For 1 No. 1	80	LM		
			20)		
	Total Amount for 20 No. Doo Sub-Total Amount Carried I				
		Jiwa			
	Sub-Total Brought Forward				
	Network Video Recorder as described in the Particular Specifications.	1	No.		
2.3.11	Display Monitor as described in the Particular Specifications.	2	No.		

2.3.12 CCTV Camera as described in the Particular Specifications.	40 N	Jo.	
Total Amount Carried Forward to Pr	ice Summ	nary Page	

Item	Description	Qty	Unit	Rate (KShs)	Amount (KShs)
				(IX5IIS)	(KSII3)
	Supply, Install, Test and Commission the Following:				
	Close Control Air Conditioning Unit as described in the Particular Specifications	2	No.		
2.4.02	Refrigeration Liquid Line Pipework				
	Including 25mm Amaflex Insulation	100	LM		
2.4.03	Refrigeration Gas Line Pipework				
	Including 25mm Amaflex Insulation	100	LM		
2.4.04	R410A Refrigerant for Charging Air				
	Conditioning Systems	2	Item		
2.4.05	25mm PVC Condenstate Drainage				
	Pipework Class D c/w Bends, Clips, Joints and Tees	20	LM		
2.4.06	Power Surge Protector for Item 2.4.01 as described in the Particular Specifications	2	No.		
2.4.07	Mounting Bracket complete with	2	110.		
	Anchoring Accessories for the Outdoor				
	Unit to Engineer's Approval	2	No.		
2.4.08	Indoor Unit as described in the Particular				
	Specifications	2	No.		
2.4.09	Power Surge Protector for Item 2.4.01 to				
	Engineer's Approval	2	No.		
2.4.10	Mounting Bracket complete with	[⁻	1,0,		
	Anchoring Accessories for the Outdoor				
	Unit to Engineer's Approval	2	No.		

2.4.11	Remote Controller for Item 2.4.01 to				
	Engineer's Approval	1	No.		
2.4.12	Allow for 6No.Officers Factory Inspection.				
	The contractor to allow for domestic travel				
	within the country of travel, accomodation for 3				
	days and return air tickets. The contractor to				
	allow for an allowance of 553 dollars per day				
	per officer as per the SRC guidelines.				
		1	Item	3,000,000.00	3,000,000.00
2.4.13	Allow for taxes, profits and attendance for the	1	Item		
	above inspection%				
	Total Amount Carried Forward to	Next	t Page		

Item	Description	Qty	Unit	Rate (KShs)	Amount (KShs)
	Brought Forward From Previous Page Supply, Install, Test and Commission the Following:				
2.4.14	80 Litre (32.1 KG) Containers as described in the Particular Specifications.	2	No.		
2.4.15	Test Container as described in the Particular Specifications.	3	No.		
2.4.16	Cylinder Support Bracket System for Item 2.4.05 as to Engineer's Approval.		Item		
2.4.17	Manifold Kit to Engineer's Approval.	1	Item		
2.4.18	Actuation Package c/w Solenoid Switch and Manual Activation Lever.	1	Item		
2.4.19	Pneumatic Actuator Hose for Item 2.4.16 to Engineer's Approval	1	Item		
2.4.20	Discharge Nozzles for Item 2.4.15 to Engineer's Approval	5	No.		
2.4.21	Pressure Relief/Vent for Item 2.4.15 to Engineer's Approval	1	No.		
2.4.22	Discharge Pressure Switch Item 2.4.15 to Engineer's Approval				
2.4.23	Flexible Discharge Hose Item 2.4.15 to	1	No.		
2.4.24	Engineer's Approval Controls c/w Standby Batteries to Engineer's Approval.	2	No.		
2.4.25	Maintenance Switch Item 2.4.12 to	1	Item		
2.4.26	Engineer's Approval Double Action Manual Releasing Switch asto	1	No.		
2 1 27	Engineer's Approval. Abort Switch to Engineer's Approval.	1 1	No. No.		
	Ionization Sensors as to Engineer's Approval.	1	110.		
2.7.20	Tomzation Bensors as to Engineer's Approval.	5	No.		
2.4.29	PhotoElectric Sensors to Engineer's Approval.	5	No		
2.4.30	Audible Alarm as to Engineer's Approval.	5 5	No. No.		

2.4.31	Visual Alarm as to Engineer's Approval.	1	No.		

Item	Description	Qty	Unit	Rate (KShs)	Amount (KShs)
	Brought Forward From Previous Page Supply,				
	Install, Test and Commission the				
	Following:				
2.4.32	PIPEWORK 25mm Ø Seamless Black Pipe Schedule 40	18	No.		
2.4.33	20mm Ø Seamless Black Pipe Schedule 40	30	No.		
2.4.34	15mm Ø Seamless Black Pipe Schedule 40	30	No.		
2.4.35	20mm Pipe Bend/Elbow	2	No.		
2.4.36	15mm Pipe Bend/Elbow	4	No.		
2.4.37	25mm x 20mm Pipe Reducer	2	No.		
2.4.38	25mm x 15mm Pipe Reducer	2	No.		
2.4.39	20mm x 15mm Pipe Reducer	2	No.		
2.4.40	25mm Equal Tee	2	No.		
2.4.41	20mm Equal Tee	1	No.		
2.4.42	Allow for Pipework Anchorge	1	Item		
2.4.43	Allow for Pipework Painting	1	Item		
2.4.44	Allow for Labelling	1	Item		
2.4.45	Allow for Training of 3 No. Personell	1	Item		
2.4.46	Allow for Testing and Commissioing	1	Item		
2.4.47	5KG CO ₂ Portable Fire Extinguisher c/w				
	Initial Charge and Mounting Brackets RAISED FLOOR	2	No.		
2.4.48	Perforated Floor Panel c/w all necessary supports and accessories as described in the				
	Particular Specifications.	24	No.		

2.4.49	Floor Panel c/w all necessary supports and accessories as described in the Particular Specifications.	50	SM		
BILL : Item	Total Amount Carried Forward to 2 2: SCHEDULE 5: AUDIO VISUAL Description	Price Sur	mmary I Unit	Page Rate (KShs)	Amount (KShs)
2.5.01	Supply, Install, Test and Commission the Following: Meeting Room System as follows: (i) Video Bar as described in the Particular Specifications. (ii) Interactive Screen as described in the Particular Specifications (iii) Room Controller as described in the Particular Specifications.	1 1 2	No. No. No.		
	<u>^</u>				
	Total Amount For 1 No. Me Total Amount for 2 No. Meeti	eeting Ro			

2.5.02 Sub-Total Brought Forward	9	No.	
Display Screens as described in the Particular			
2.5.03 Specifications.	1	No.	
Audio Production Console as described in the			
2.5.04 Particular Specifications.	4	No.	
Boom Arm as described in the Particular			
2.5.05 Specifications.	4	No.	
Dynamic Microphone as described in the			
2.5.06 Particular Specifications.	4	No.	
Over Ear Headphone as described in the			
2.5.07 Particular Specifications.			
Camera c/w 28-70mm Interchangeable Lens	1	No.	
and Tripod as described in the Particular			
2.5.08 Specifications.	13	SM	
Acoustic Panels as described in the			
2.5.09 Particular Specifications.	7	SM	
Bass Traps as described in the Particular			
Specifications.			
Total Amount Carried Forward to Pri	ce Su	nmary Page	
			I

MAIN SUMMARY PAGE

ItemNo.	Description	Amount(KShs)
1.00	Bill No. 1 Schedule No. 1 Preliminaries	
2.00	Bill No. 2 Schedule No. 1 Server Room	
3.00	Bill No. 2 Schedule No. 2 Stuctured Cabling	
4.00	Bill No. 2 Schedule No. 3 CCTV & Access Control	
5.00	Bill No. 2 Schedule No. 4 Air Conditioning	
6.00	Bill No. 2 Schedule No. 5 Audio Visual	
7.00	Contingency	
		2,000,000.00
	Total Amount for Structured Cabling Installations Carried to	
	The Form of Tender	
	AMOUNT IN WORDS	Ш

AMOUNT IN WORDS

Kenya Shillings

.....

Bidder's Official Stamp

P.O. Box	
Signature	
PIN	VAT

SECTION F

GENERAL SPECIFICATONS

OF

MATERIALS AND WORKS

GENERAL SPECIFICATIONS OF ELECTRICAL MATERIALS AND 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	Positions of Electrical Plant and Apparatus
2.10	MCB Distribution Panels and Consumer Units
2.11	Fused Switchgear and Isolators 2.12
Cor	nduits and Conduit Runs
2.13	Conduit Boxes and Accessories
2.14	Labels
2.15	Earthing
2.16	Cables and Flexible Cords
2.17	Armoured P.V.C. 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	Lamp holders
2.33	Lamps
2.34	Lighting Fittings and Street Lighting Lanterns
2.35	Positions of Points and Switches
2.36	Street/Security Outdoor 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 and Switchgear
2.42	Steel Conduits and Steel Trunking
2.43	Testing on Site
2.44	Ductwork Generally
2.45	Brackets and Supports

2.46	Joints
2.47	Finish Painting
2.48	Air Intakes and Outlets
2.49	Fans
2.50	Dampers
2.51	Grilles
2.52	Attenuators
2.53	Instruments
2.54	Vibration, Noise and Sound Insulation
2.55	Thermal Insulation
2.56	Electrical Equipment and Wiring
2.57	Inspection, Commissioning and Testing
2.58	Control System
2.59	Noise and Sound Control
2.60	Operating and Maintenance Instruction 2.61
Spar	re Parts

2.1 GENERAL

This specification is to be read in conjunction with the drawings which are issued with it. Bills of quantities shall be the basis of all additions and omissions during the progress of the works.

2.2 STANDARD OF MATERIALS

Where the material and equipment are specifically described and named in the Specification followed by approved equal, they are so named or described for the purpose of establishing a standard to which the contractor shall adhere.

Should the contractor install any material not specified herein before receiving approval from the proper authorities, the Engineer shall direct the contractor to remove the material in question immediately. The fact that this material has been installed shall have no bearing or influence on the decision by the Engineer.

All materials condemned by the Engineer as not approved for use, are to be removed from the premises and suitable materials delivered and installed in their place at the expense of the contractor. All materials required for the works shall be new and the best of the respective kind and shall be of a uniform pattern.

2.3 WORKMANSHIP

The workmanship and method of installation shall conform to the best standard practice. All work shall be performed by a skilled tradesman and to the satisfaction of the Engineer. Helpers shall have qualified supervision.

Any work that does not in the opinion of the Engineer conform to the best standard practice will be removed and reinstated at the contractor's expense.

Permits, Certificates or Licenses must be held by all tradesmen for the type of work; in which they are involved where such permits, certificates or licenses exist under Government legislation.

2.4 PROCUREMENT OF MATERIALS

The contractor is advised that no assistance can be given in the procurement or allotment of any materials or products to be used in and necessary for the construction and completion of the work.

Contractors are warned that they must make their own arrangements for the supply of materials and/or products specified or required.

2.5 SHOP DRAWINGS

Before manufacture or Fabrication is commenced the 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 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.

2.6 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.

2.7 REGULATIONS AND STANDARDS

All work executed by the 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.

2.8 SETTING OUT WORK

The 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.

2.9 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.

2.10 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.

2.11 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.

2.12 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 subcontractor 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 sub-contractor 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 fuse boards;-

- (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 submain 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 SubContractor 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 nonferrous 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 P.V.C 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 to 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.

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 cable hooks or clamps, of 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 Sub-contractor 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 $6491 \ge 600/1000/1000$ 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.

SYSTEM CABLE END

INSULATION COLOUR

MARKER

1) Main and Sub-Main

a) Pha	ase		Red		Red
b) Ne	utral		Black		Black
2) Su	b-Circu	its Single Phase	e		
	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.

(i) 1.5mm² for all lighting circuits indicated on the drawing.

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

- (ii) 2.5mm² for one, two or three 5Amp sockets wired in parallel.
- (iii) 2.5mm² for one 15Amp socket.
- (iv) 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 SubContractor 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 Sub-contractor 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 noncompliance 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 STREET LIGHTING

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 Sub-Contractor 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 coordinates 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.

The 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 metres. 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 bus-bars 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 coloured 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 04180:1985. In no case will conduit smaller than 20mm diameter be used on the works. Conduits installed within buildings shall be black enamelled 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 or 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 of 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 galvanised conduit and trunking, the trunking shall be deemed to be galvanised 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, nonspouted 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 enameled tubing and galvanizing 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 bed 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, drawin-boxes shall be provided at distances not exceeding 15mm. 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, galvanized 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.

The 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.

2.43 TESTING ON SITE

- (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 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 contractor at his own expense.
- (e) The 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.
- (f) The contractor shall generally attend on other contractors employed on the project and carry out such electrical tests as may be necessary.
- (g) The 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.
- (h) 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 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.

GENERAL SPECIFICATIONS FOR FIRE SUPPRESSION SYSTEM

1.1 General

The specifications described here make reference to Argonite fire suppression system. However, alternative systems utilizing inert gases may be used subject to the condition that they meet all the requirements of this specification.

The Argonite shall be used to extinguish fires in the rooms to be specified.

The gas shall be stored under pressure in liquefied form inside cylinders and piped to fire protected areas. Each Argonite system in a given zone shall be supplied complete with its control Unit that shall receive the signal from smoke detectors or break glass and automatically release the gas after sounding an alarm bell and switching off any existing Ventilation systems . The fire detection system in all areas where Argonite gas system is not installed shall be supplied and installed by, but the Sub-Contractor shall liaise with him and extend detection signal outputs into the Master Alarm Control Panel.

The Design, equipment, installation, testing and maintenance of the system shall be made in accordance with these specifications, drawings and the following standards:

- a) NFPA 2001-Clean Agent Fire Extinguishing systems
- b) NFPA 70-National Electrical Code
- c) NFPA 72-National Fire Alarm Code
- d) Local authority requirements

The fire suppression systems shall be designed by competent personnel who are trained and authorized by the equipment manufacturer for design of total flooding Argonite systems and the integrated detection systems. Working Drawings shall be provided in sufficient detail to indicate the type, size, and arrangement of component materials and devices; and the dimensions needed for installations and correlation with other materials and equipment.

All Working Drawings shall be submitted for review and approval prior to installation. Detailed literature outlining the operation, recharge and service of the system, Maintenance procedures for the owner shall be provided.

Equipment manufacturer shall provide a 12-month warranty Details of this warranty shall be furnished upon request.

All devices, components and equipment shall be products of the same manufacturer and shall be U.L listed or FM approved.

1.1 SYSTEM ARRANGEMENT

Argonite fire suppression system shall be of the engineered, permanently piped, fixed nozzle type with all pertinent components of the same manufacturer. All agent storage containers shall be

centrally located as vertical, free-standing cylinders with wall mounted retaining brackets. Where multiple cylinders are required for the same hazard, a common manifold should be employed.

Manifolds shall be constructed from seamless schedule 80 piping. They shall be complete with a safety relief valve. Manifolded cylinders shall employ a flexible discharge hose to facilitate installation and system maintenance. Each cylinder on a manifold shall also include an agent check valve installed to the manifold inlet.

Where a set of manifolded cylinders shall be required to serve multiple zones, selector valves shall be used to direct the extinguishing agent to the respective zone.

Detection system shall be of the engineered type, suitable for direct interface with the Argonite fire suppression system. Detectors shall be wired in Sequential Detection method of operation or standard Cross-Zoned detection.

For each hazard, both Ionization and Photoelectric type smoke detectors shall be used to provide automatic input to the control panel.

In addition, manual pull station(s) shall be provided for the direct electric release of the Argonite Fire Suppression System.

Automatic operation of each protected area shall be as follows: a)

Actuation of one (1) detector, within the system to:

i) Illuminate the "ALARM" LED on the control panel face.

 Energize the audible notification appliances within the protected space with a unique pattern to indicate a first alarm condition iii) Transfer sets of 5 Amp rated auxiliary contacts which can perform auxiliary system functions such as: Operate door holder/closures on access doors, Transmit a signal to the fire alarm system,

Shutdown HVAC equipment, etc iv) Light an individual LED on an optional graphic annunciator.

- b) Actuation of a 2nd detector, within the system, to:
 - Illuminate the "PRE-DISCHARGE" LED on the control panel face; energize the audible notification appliances within the protected space with a unique pattern to indicate a second alarm (predischarge) condition, Shut down the HVAC system and/or close dampers, Start time-delay sequence (not to exceed 60 seconds), enable System abort sequence, Light an individual LED on a graphic annunciator.
 - ii) After completion of the time-delay sequence, the system shall activate and the following shall occur: Illuminate a "RELEASE" LED on the control panel face, Energize the audible notification appliances within the protected space with a continuous on pattern to indicate a release condition, Shutdown of all power to high-voltage equipment, Energize a visual indicator(s) outside the hazard in which the discharge occurred, Energize a "System Fired" audible device.

The system shall be capable of being actuated by manual discharge devices located at each hazard exit. Operation of a manual device shall duplicate the sequence description above except that the time delay and abort functions SHALL be bypassed. The manual discharge station shall be of the electrical actuation type and shall be supervised at the main control panel.

1.2 DESIGN PARAMETERS – ARGONITE

Design of the total flooding Argonite system shall be based upon the enclosure being sufficiently tight against agent leakage with all ventilation shut down and or fire dampered or provide for static air condition upon discharge.

Agent quantity calculations shall be determined from dimensions furnished on the construction drawings and or in the particular specification using a design concentration based on fire hazard class of the protected zone and the NFPA 2001 standards. As a minimum a concentration of 38% at the minimum anticipated hazard temperature of 20 $^{\circ}$ C shall be used.

Calculation for the maximum design concentration shall be based upon maximum anticipated hazard temperature of 32 $^{\circ}$ C.

When applicable, agent quantity shall be adjusted for:

- i) Altitudes of more than (915m) above sea level.
- Non-flooded false ceiling volume. iii)
 Multiple hazards from a common agent supply. iv)
 Manufacturer standard tanks and fill increments
 - v) Duct volume for HVAC system.

The system shall be designed to discharge the calculated agent quantity in a nominal 60 second period.

Nozzle spacing shall be in accordance with the listed approved coverage for each nozzle type. In all cases, the need for additional nozzle shall be considered based upon site conditions and manufacturer's recommendations.

Hydraulic calculations for each system shall be used upon two-phase flow equations for unbalanced systems as defined by NFPA regardless if a single nozzle or balanced piping network is used.

Computerized verification of hydraulic calculations shall be submitted for each Argonite system. The contractor shall provide data to indicate the free venting area required per NFPA standards for each hazard volume.

1.2.1 DESIGN PARAMETERS – DETECTION

The design of the detection/control system shall be based on a clean, vibration free, electrical nonhazardous environment

As a minimum detector spacing shall be based upon NFPA recommended practices for ceiling construction, air flow and manufacturer recommendations.

At least one smoke detector of each type (ionization and photoelectric) shall be used in each protected area. Where multiple detectors are used, detection shall alternate such that ionization are adjacent to photoelectric.

Unless otherwise stated on the drawings manual pull station(s) shall be located at all points of exit from the protected area.

Unless otherwise stated on the drawings at least one alarm device shall be located within the protected area for the general alarm function.

Battery capacity shall be sufficient to permit normal non-alarm condition for 24 hours with subsequent general alarm for 5 minutes after loss of primary line power. The contractor shall be required to furnish calculations to back up the battery capacity to be installed.

1.3 EQUIPMENT AND MATERIAL

1.3.1 General

All materials and equipment shall be of new, unused, and undamaged condition in strict accordance with the requirement of this section. Equipment shall be required to meet the specified standards; ISO 14520, NFPA.

All equipment's and materials shall only be used for their intended application, in locations for which they were designed, and installed in accordance with the manufacturer's instructions and or recognized standard trade practice.

1.3.2 Pipe Material – Argonite 200 bar System.

Argonite 200 bar system piping shall be of non –combustible materials having physical and chemical characteristics such that its integrity under stress can be predicted with reliability. Materials other than listed below, such as stainless steel or nonferrous piping or tubing, may be used if the materials satisfy the applicable requirements of NFPA.

As a minimum, piping materials and manifolds shall be schedule 40 seamless steel pipes conforming To BS specifications and capable of 65 bar operating pressure (ASTM Grade A106B). Under no conditions shall ordinary cast iron pipe, steel pipe or non- metallic pipe be used.

Argonite system piping joints shall be suitable for the design conditions and shall be selected with consideration of joint tightness and mechanical strength.

As a minimum, fittings shall be black class 300 malleable iron fittings. Ordinary cast iron fittings shall not be permitted.

Piping shall be installed accordance with good commercial practice to the appropriate codes, securely supported with Listed hangers, and arranged with close attention to the design layout since deviations may alter the design flow performance as hydraulically calculated.

All Piping must be reamed, blown clear, and swabbed with appropriate solvent to remove mill varnish and cutting oils before assembly. The piping shall also be finished off with two coats of red paint after testing. Multi- outlet fittings other than tees shall not be permitted. Assembly of all joints shall conform to the appropriate standards. Threaded pipe joints shall utilize Teflon tape applied to male thread s only.

1.3.3 Agent Storage Tank

Argonite agent storage containers shall be of welded steel construction in accordance with NFPA Specification and finished in (baked red enamel) (red epoxy) paint.

Tank assemblies shall be filled with Argonite pressurized to 200 bar at (15 $^{\circ}$ C).

Initial filling of the cylinders and recharge shall be done in accordance with the manufacturer's established procedures and shall not require replacements components for normal service.

The size and fill weights of all cylinders shall be of the following nominal sizes: _ i)

80 litre 22.8kg ii) 80 litre 32.1kg

Nominal 270kg tank assembly shall be equipped with an internal liquid level measuring rod, marked in ¹/₄ inch increments to allow direct reading of the liquid level and conversation to the weight of Argon within the tank.

Tank assembles shall be vertical, free standing modules employing suitable wall mounted retaining brackets. Tank assemblies shall be listed or approved to perform in the temperature range -20C to 50C.

Aluminum name plates indicating manufacturer's name and part number, agent fill weight, total charged weight date of fill, shall be permanently bonded to each tank.

Each tank assembly shall have the means to accommodate lifting devices to facilitate weighing removal and replacing.

Tank assembly shall include a pressure gauge and a low pressure switch that operates at approximately 180 bar to facilitate continuous supervision of tank pressure.

1.3.3.1 Tank Valve

Agent storage tank assemblies shall include an integral, high flow valve assembly connected to the tank by a machined thread and sealed by an 0-ring.

Valve outlet sizes shall be based on the nominal tank capacity with a one inch size for 18,33,54 and 72 pound assemblies, and three inch for 600 pound assemblies.

The valve design shall be of the differential pressure type which utilizes tank pressure to seal the valve assembly. The valve shall be compatible with separate, removable, stackable type actuators for electric, pneumatic, and or manual actuation.

Operation of the valve by the stackable type actuator shall be such actuation. Operation of the valve by the stackable type actuator shall be such that pressure is relieved from the upper chamber of the valve causing the valve to open. Valves shall be forged brass construction with an o-ring sealed brass spool incorporating the main electrometric seal surface.

The valve assembly shall include recessed pressure gauge 0 to 250 bar, overpressure safety relief disc assembly, normally pressurized connection port for an optional low pressure switch, normally unpressurized connection port used as pneumatic source for a slave cylinder valve actuation, and brass shipping caps on exposed thread connection. When pneumatically operated main/reserve systems are used, pilot valves shall be equipped with actuation isolators.

All tank valves shall be F.M or LPCB Approved.

1.4.3.2 Tanks Brackets

Each Argonite tank shall be furnished with a stainless steel, two part, strap type retaining bracket designed to secure the cylinders to the wall or any other suitable surface as may be recommended by the system manufacturer.

1.4.3.3 Valve Actuator system

Argonite valve actuator system shall consist of a pneumatically operated cylinder actuator assembly and a and a solenoid type Electric actuator package.

The solenoid actuator package shall consist of the solenoid valve mounted either on a rechargeable slave nitrogen cylinder or on the Argon gas cylinder. A signal from the control panel shall operate the solenoid valve to discharge the gas in the pilot cylinder. The discharged gas shall then open the cylinder actuator assembly mounted on the Argonite cylinder discharge valve. This process shall release the stored Argonite gas for fire extinguishing.

Where multiple zones are protected from the same storage system, selector valves shall be used. These valves shall be actuated by the Nitrogen gas from the actuation package.

Manual override actuators shall be designed to attach to electric actuator or directly to the valve assembly and permit manual operation of the pilot cylinder tank assembly. Manual actuator positions shall be clearly marked and operating instructions provided. All actuators shall be LPCB Approved.

1.4.3.4 Discharge Nozzles

Argonite discharge nozzles shall be of one piece (brass) construction sized to provide flow rates in accordance with system design hydraulics.

Orifice (s) shall be machined in the nozzle body to provide a horizontal discharge in 90° , 180° , or 360° patterns based upon the approved coverage arrangements. Separate, interchangeable orifice plates are not acceptable.

Nozzles shall be permanently marked with the manufacturer's part number, number of orifice and orifice code. The nozzle shall be threaded directly to the discharge piping without the use of special adaptors.

Nozzles shall be LPCB Approved.

1.4 Warning Signs

Etched aluminum Warning Signs shall be provided at all Entrance and Exits of the protected area. Entrance sign shall read: "WARNING DO NOT ENTER ROOM WHEN ALARM SOUNDS, ARGONITE BEING RELEASED."

Exit sign shall read: "WHEN ALARM SOUNDS, VACATE AT ONCE, ARGONITE BEING RELEASED."

GENERAL SPECIFICATIONS FOR AIR CONDITIONING

The AC Units should have high sensible heat ratios, to match the low latent loads of Computer/Server Rooms/ Switch room/UPS. A Microprocessor controlled package AC system with R-407C / R-410A refrigerant shall have de-humidified air quantity of minimum 500 to 650 CFM/TR.

The room temperature shall be maintained at 24 0 C +/- 1 Deg C return air temp and 50% +/- 5% RH at ambient temperature of 38 0 C D.B.T. The floor grill outlet temperature should be less than 20 deg C. Noise level 65+/-5 dB A.

The Indoor unit complete with fixed /Inverter / Digital Scroll compressor with individual circuit (Mandatory), Evaporator blower & coil, Heater, Humidifier, Microprocessor controller, electrical switchgear components and Thermostatic expansion valve (TXV) and shall be housed in a single cabinet. The outdoor unit shall be comprised of Condenser fan, motor, fan speed controller & cooling coil.

3. EQUIPMENT SELECTION:

Server room: Nominal Cooling Capacity as per BOQ.

The air-conditioner shall be with fixed / inverter / Digital Scroll compressor, Plug type fan with EC Motor, air-cooled condenser, evaporator, microprocessor controller, EU4/G4 fine filters Heaters, Ultrasonic / Infrared / Steam based -Humidifiers. The working refrigerant shall be ecofriendly R-407C refrigerant / R-410A refrigerant. The unit shall be floor mounted and compressors shall be with fixed / inverter / digital Scroll type. The air-conditioner shall be installed within conditioned space while the condenser(s) are placed on terrace level or floor balcony. Hard drawn 18G copper refrigerant piping shall be used for interconnection. The equipment shall be designed / suitable for 24/7 operation in all respects.

3.1 The Air-cooled Precision Package unit shall be designed as per following conditions •

Inside Design condition :24 0 C ± 1 Deg C and 50% \pm 5% RH

Ambient air design temperature :38 Deg C

Actual Capacity: As per BoQ

Flow Direction: Bottom discharge, top return; based on the requirement

Air inlet Temp & RH: Set point ± 1 °C (DB) & Set point $\pm 5\%$ (Return Air)

Air Quantity : As per BoQ CFM / TR

Filters: Filter to be provided on the Package unit, having 95% efficiency down to 5 Microns (EU4/G4)

No of Compressor with: One Compressor / One Circuit

Face velocity across Coil :< 2.5 meters /sec cooling coil

Type of load: High sensible heat load (Sensible heat factor above 0.95) External static pressure :20 Pa.

The Units shall be designed for 65+/-5 dB A at 1 meter from the unit outlet quiet operation with all moving parts mounted on anti-vibration mounting and carefully balanced to ensure minimum vibration.

Each unit shall be factory tested for performance rating before shipment.

Test certificate shall be submitted along with each consignment. Engineer may choose to witness factory test at its own discretion.

TECHNICAL SPECIFICATION OF AIR-CONDITIONING SYSTEM

The client proposes to have High Performance Precision type DX air-cooled units, which is of Floor discharge type. The Air-conditioning system will be designed based on the following Parameters: General Design Data

Location: Nairobi, Kenya

Nearest Airport: JKIA, Nairobi Outdoor

design conditions Summer:

35 Deg C DB

Inside design conditions: Air-conditioning system shall be designed for 24 hours operation with following inside design condition.

DB Temperature: 24 deg C +/- 1 deg C (Return air to CRAC Unit)

Relative Humidity: 50% +/- 5%

Dust Content: 5 microns

Other Basis of Design along with Equipment Schedule will be as under: Served Premises:

Data Server Equipment Room Equipment Heat Load : 50 KW

Working Personnel: 2 Nos

Lighting (Watt): 1.5watt/sq.ft

Equipment Proposed capacity: As per BoQ X 2 No. (1 Working + 1 Stand By).

The capacity of Equipment, specified above, is actual capacity at operating condition during peak summer. Bidder is requested to check and confirm the Capacity, before submission of the quotation. Bidder is requested to select the air-cooled condenser for 35 deg C ambient condition to avoid any de-ration during peak summer condition.

Bidder to note the following, while calculation of Refrigeration heat load: - True floor and Ceiling will be insulated with min. 13 mm thick closed cell foam (By Bidder) if required. Scheme: The air-conditioning system consists of Precision Packaged air-conditioners as indicated in the Equipment schedule above. Precision AC units shall be of Variable capacity type. The cold & de-humidified air shall be pumped into the space between true floor and false floor and fed to the Equipments thru' floor grilles with Volume control damper.

System Description:

Room shall be air-conditioned with Variable Capacity Precision Air-conditioning Unit each of AS PER BoQ capacity & De-humidified air quantity of AS PER BoQ Cfm.

The air conditioning unit shall be designed specifically for high sensible heat ratio (>0.90) applications.

The system shall contain fixed / inverter/ digital compressor, Evaporator blower (Backward curved Centrifugal Fan with EC Motor) & coil, Heater, Humidifier, Specific Dehumidification cycle, Microprocessor & electrical and Expansion valve all of which shall be contained within the cabinet of the unit. The outdoor condenser unit shall be air-cooled type comprising of coil, fan, motor and fan speed controller.

The Technical specifications of the construction of unit are as under: The Precision Environmental Control Systems shall be of self-contained factory assembled unit with down flow air delivery. The Precision Air conditioner shall be High sensible cooling capacity and high Sensible Heat Ratio (i.e. the sensible to total cooling capacity ratio.

Each unit shall be a complete assembly of all components viz. Heating, Humidifying arrangement, Electric motor driven fully-hermetic (scroll) compressor, evaporator coils, protective devices, microprocessor panel and local electrical panel, etc. mounted on the unit. The Air cooled condensers of the units shall be complete with condenser coil assembly, fans, drive motor, etc., complete with interconnecting refrigerant piping, controls as per standards, the drain tray shall be of SS 304 type & unit shall have liquid receiver inbuilt.

All rotating parts shall be statically and dynamically balanced.

In addition to the features specified, if the packaged units require any additional features for safe and efficient operation, the same shall be included in the scope of supply and shall be clearly indicated and described.

The entire unit shall be a fully factory assembled and tested prior to dispatch and test certificates shall be submitted.

Return air to the cooling unit shall be drawn directly from the room into the Precision Air conditioner in case of floor discharge or room discharge units.

Painted Tubular hallow section floor stands shall be provided under the units to support the weight of the unit independently.

Frame & Casing:

The frame shall be constructed of 2.5, 2.0 and 1.2 mm folded galvanized steel. The external panels shall be constructed of 1.2mm zinc coated sheet steel. Front, rear and end panels shall be fitted with 25 mm glass fiber insulation, fire rated to Australian Standard 1530 (indices 0,0,0,3). The cabinet shall powder coated with charcoal grey color and have a texture finish. The hinged front panels shall be removable and include captive ¹/₄ turn fasteners. The cabinet shall be assembled with pop rivets providing ease of disassembly.

Indoor unit shall have hinged quick-opening insulated access door on fan and filter sections.

Access doors shall be double skin type and shall be of same construction as the wall panels. Indoor unit shall constitute inbuilt Electrical panel with necessary switch gear and electrical protection devices as per Air conditioner capacities in accordance with Electrical rules and standards. Four (4) lifting lugs shall be bolted to each base section for lifting or placing of indoor unit in place. Filter:

The filter chamber shall be an integral part of the system and withdraw able from the front of the unit. Filtration shall be provided by dry media disposable filters capable of filtering air to 95% down to 5 micron efficiency and shall be replaceable from the top of the unit.

Filtration shall be provided by deep V form G4 performance dry disposable media to ASI324. Evaporator Fan:

Units should be offered with backward curve direct drive Fan, High efficiency, external rotor electronically commutated (EC) motor with integrated electronics, True soft start characteristics (inrush current lower than operating current), Backward curve, corrosion resistant aluminum fan wheel, Maintenance free design and construction. The fan section shall be designed for higher air flow. The unit shall be fitted with one (two, three) direct driven, high efficiency, single inlet, backward curved; the fan motors shall be Electronically Commutated (EC), IP54, with internal protection and speed regulation via controller signal. They shall be statically and dynamically balanced.

Evaporator Cooling Coil:

The evaporator coil shall be incorporating draw-through air design for uniform air distribution. The coil shall be constructed of rifled bore copper tubes and louvered aluminum fins, with the frame and drip tray fabricated from heavy gauge aluminum. All metal parts in contact with condensate shall be the same material to prevent electrolytic corrosion. The drip trays shall ensure the collection of condensate and be accessible for cleaning. The cooling coil shall be maximum of 4 rows and minimum 11 fins per inch and the face velocity shall not be more than 2.5 m/s.

Coil should be hydrophilic coating to minimize/eliminate water carry over into the airflow stream. Drain pan of SS 304 shall be factory insulated with at least 9 mm thick closed cell elastomeric insulation, joints sealed with self adhesive tape of same material. Fixing of coil section and drain pipe shall be done in such a way to avoid direct metal contact with any other uninsulated metal part in order to avoid condensation.

Drain piping & refrigerant piping within the unit shall be insulated with at least 9mm thick closed cell elastomeric insulation in tubing form.

The computerized selection and test certificates for the cooling coil shall be submitted by the manufacturer.

Remote Air-cooled Condenser:

The Air-cooled condenser shall be the low profile, weatherproof type incorporating high efficiency, direct drive, external rotor motors with axial blade fans & fan speed controller. The condenser shall be constructed from heavy duty aluminum and corrosion resistant through special anti corrosive epoxy coatings for any specific polluted areas.

Heavy duty mounting legs and all assembly hardware shall be included. Condensers shall be suitable for 24 hours operation and be capable of providing vertical or horizontal discharge.

The condenser shall be fully factory wired and require a 230 volt, single phase, 50 Hz electrical service. The high performance heat exchanger shall include mechanically expanded cross-hatched copper tubes and louvered aluminum fins for maximum heat transfer.

Humidifier:

The humidifier shall be of the ultrasonic/infrared or/ steam type. It should be fast response, suitable for any water quality. Auto flush type & cleanable. The complete humidifier section shall be prepiped, ready for field connection to water supply. The humidifier shall be equipped with an automatic water supply system and shall have an adjustable wateroverfeed to prevent mineral precipitation. A high-water detector shall shut down the humidifier to prevent overflowing.

Electrical Heating:

The electrical heating elements shall not operate at a level exceeding 60 W/Sq. m. The low watt density elements shall be of finned tubular construction. The heating circuit shall include dual safety protection through loss of air and high temperature controls. Electric heating shall be provided in a single stage/ Multi Stage . The elements shall be low watt density, 304/304 stainless steel fin tubular construction, protected by thermal safety switches. The heating system shall include dual safety protection through loss of air and manual reset high temperature controls.

Unit Size:

Precision AC Indoor units shall be placed inside the Equipment room only. Hence the Footprint area of the Unit is extremely important to accommodate the same inside the Equipment Room. The unit shall require front access only for routine service and installation work.

MICRO PROCESSOR CONTROLLER:

Each Air-conditioner should have single microprocessor with following controls. The controllers shall be microprocessor based, PID based Programmable.

All units shall be with network able controller and controller shall be with RS 485 communication port & necessary interface card with an output of Modbus RTU Open Comm as required for longer distances communication on BMS for Monitoring / operating.

The complete necessary Software & Hard ware to export the unit data on to BMS controller shall be part of Microprocessor. Proportional and Tunable PID shall also be user selectable options. Internal unit component control shall include the following:

System Auto Restart

The auto restart feature will automatically restart the system after a power failure. Time delay is programmable.

Sequential Load Activation

On initial startup or restart after power failure, each operational load is sequenced with a

minimum of one second delay to minimize total inrush current

Predictive Humidity Control

Calculates the moisture content in the room and prevents unnecessary humidification and dehumidification cycles by responding to changes in dew point temperature.

The control shall be compatible with all remote monitoring and control devices. The control processor shall be microprocessor based with a 128x64 dot matrix graphic front monitor display and control keys for user inputs mounted in an ergonomic, aesthetically pleasing housing.

The controls shall be menu driven. The display & housing shall be viewable while the unit panels are open or closed. The display shall be organized into three main sections: User Menus, Service Menus and Advanced Menus.

The system shall display user menus for: active alarms, event log, graphic data, unit view/status overview (including the monitoring of room conditions, operational status in % of each function, date and time), total run hours, various sensors and display setup and service contacts.

A password shall be required to make system changes within the service menus. Service menus shall include: set points, standby settings (lead/lag), timers/ sleep mode, alarm setup, sensor calibration, maintenance/wellness settings, options setup, system/network setup, auxiliary boards and diagnostics/service mode. A password shall be required to access the advanced menus. DISPLAY:

In normal operating mode the screen should display, temperature and relative humidity set points and actual, operating status.

The Microprocessor shall constitute Menu driven user friendly cursor keys with pass word protection to scroll the data on indoor unit screen. Same time Microprocessor shall be capable of exporting data to BMS controller

The controller shall have separate indication of operating modes (cooling, heating, humidifying and dehumidifying), alarm conditions with mute option (temperature high, compressor HP & LP, wet floor, no air flow and), Semi Graphical display of set temperature and achieved temperature, status on temperature and humidity, Date, time Unit identification number display, Battery backup charge level status display, Maintenance schedules status and alarm display.

The display and indication shall be visible on the front without removing any external panels. Local and remote alarms will be triggered if an alarm condition is reached.

ALARMS

The alarm should operate with audible signal for the following: -

- Compressor High/Low pressure
- Wet floor
- No air flow
- Filter clog
- Temperature High/Low
- Humidity High/Low

The control should have an auto-restart feature which will return the unit to normal operation resumption of mains power.

User Menus shall be defined as Follows:

Active Alarms

Unit memory shall hold the 200 most recent alarms with time and date stamp for each alarm Event Log

Unit memory shall hold the 400 most recent events with id number, time and date stamp for each event

Graphic Data View

Two graphic records shall be available: return air temperature and return air humidity Unit View - Status Overview

Simple or Graphical. Unit View summary displays shall include temperature and humidity values, active functions (and percent of operation) and any alarms of the host unit.

Total Run Hours

Menu shall display accumulative component operating hours for major components including compressors, fan motor, humidifier and reheat.

Microprocessors should be intelligent enough to do the following task:

- Save Energy using Predictive Humidity Control
- Built-in Lead/Lag Functions for enhanced system reliability
- Wellness Calculation alerts service personnel before problems occur
- Unit to Unit (U2U) Communications allows Lead/Lag and optional teamwork settings for maximum flexibility and control
- IntelliSlot cards offer external monitoring through Modbus RTU

Standby Settings/Lead-Lag

Menu shall allow planned rotation or emergency rotation of operating and standby units.

Timers/Sleep Mode

Menu shall allow various customer settings for turning on/off unit.

Teamwork Modes of Operation

It saves energy by preventing operation of units in opposite modes multiple units.

Auxiliary Boards

Menu shall allow setup of optional expansion boards.

Diagnostics/Service Mode

Control input and output values and status shall be displayed to aid in unit diagnostics and troubleshooting.

Control inputs shall be indicated as on or off at the front display. Control outputs shall be able to be turned on or off from the front display without using jumpers or a service terminal.

Each control output shall be indicated by an LED on a circuit board.

The unit shall also incorporate the following protections: \Box Single phasing preventers. \Box Reverse phasing \Box Phase unbalancing \Box Phase failure \Box Overload tripping (MPCB) of all components Safety Interlocks:

Operation of heaters & humidifiers shall be possible only when blower fan is in operation. Fire detection signal from fire detector system shall be able to switch off the package unit operation in event of fire in conditioned space.

Refrigerant Piping: Each refrigerant circuit shall be suitable for operation on R-410 A and shall include the following items:

- Expansion valve with pressure equalization; \Box Removable liquid line drier / filter.
- Liquid line sight glass with moisture indicator.
- Hand shut off valves.
- Leak proof coating/lining on pipes.

Sequencing of Operation of Unit: The Precision AC units for the room shall be clubbed in individual group, so that Stand-by unit should start on after specific time of operation of working unit, as well as during break down of working unit. This sequencing operation feature should be integral part Electrical Work: Each Precision AC unit should be provided with in-built electrical panel having all safety equipments with main isolator. Necessary 415 Volts +/- 10%, 3 Phase, 4 Wire (With Neutral), 50 Hz +/- 5% Power shall be provided by Customer at each unit's electrical panel. Balance distribution of Power is in the Scope of Bidder. All Electrical cabling should be of Copper. All electrical wiring, interconnection, main connections in bidders scope of work.

APPENDIX TO GENERAL SPECIFICATIONS OF MATERIALS AND WORKS

The contractor shall comply with the following: -

- a) Government Electrical Specifications No. 1 and No. 2.
- b) All requirements of Kenya Power and Lighting Company Limited, and Communications Commission of Kenya (CA).

SECTION G

PARTICULAR SPECIFICATIONS OF MATERIAL AND WORKS

1. SITE LOCATION

The site of the proposed works is at Pension Towers - Nairobi

2. DESCRIPTION OF THE PROJECT

The works to be carried out comprise the following;

i) Supply, installation, testing and commissioning of Electrical Works,

Structured Cabling, CCTV, Access Control System and Audio Visual System ii) Produce test result, warranty certification, reports and as installed drawings.

3. **REGULATIONS**

The contractor shall, in execution and completion of the works in the detailed design for which he is responsible, comply with the provisions of the following as necessary and relevant;

- a. International Standards Organization
- b. Communications Authority of Kenya
- c. Latest Edition of IEE Wiring Regulation
- d. Kenya Bureau of Standards
- e. Electric Power Act and Rules made there under.

4. WORKING DRAWINGS

The Contractor shall submit to the Project Manager working drawings for the proposed system for approval. The drawings will show the locations of and identifiers for all cable routing and terminations, telecommunication outlets/connectors. Location of core switch and Edge switches.

5. NETWORK CABINETS

To be located inside the podium. Must be metallic (appropriately sized) with a front clear glass, freestanding, complete with lock and key and the following accessories;

- a. Cable Management channel rack
- b. Cable support hooks
- c. Cable support rings and straps
- d. Cable duct cover
- e. Feed through cable panels
- f. Vented equipment shelving
- g. Blank filler panels
- h. Hinged wall mounted brackets
- i. Glass viewing window
- j. Colored Designation strips
- k. Management lock and key
- 1. Cooling extractor fans
- m. Caster wheels

6. CCTV CAMERA

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess					
their conformit	their conformity/compliance with each of the technical specifications.				
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION			
Туре	Bullet				

Image Sensor	5MP 1 / 3" Progressive CMOS
Frames Rate	30 Frames Per Second
Compression	H.265+
Connectivity	Wired PoE 802.3af Class 3
Focal Length	Fixed 2.8 mm
Illumination	30 m IR Illuminator
Storage	Local Storage with 64GB SD Card
Protection	IP67
Max Power	6.5W
Wide Dynamic Range	120dB
Interoperability	ONVIF

7. CAT 6A PATCH PANEL

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.

ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Port Density	48 No.	
Port Type	RJ45 Connector	
Cable Type	CAT 6A Shielded Twisted Pair	

8. FIBRE PATCH PANEL

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.				
ITEM MINIMUM SPECIFICATIONS PROPOSED SOLUTION				
Port Density	12 No.			
Port Type	LC Connector			
Cable Type 8 Core Multimode Fibre Cable				

9. DISPLAY MONITOR

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.			
ITEM MINIMUM SPECIFICATIONS PROPOSED SOLUTION			
Size	60"		
Туре	LED		
Aspect Ratio	16:9		
Resolution	4K (3840 x 2160)		

10. NETWORK VIDEO RECORDER

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.				
ITEM	MINIMUM SPECIFICATIONS PROPOSED SOLUTION			
Mounting	Rack Mount			
Channels	128 No. (16 Synchronous Playback)			
Storage	80 TB Hot Swappable Storage			
Configuration	RAID 10 (Mirror + Stripe)			
Fault Tolerance	1 Drive Failure			
Record Resolution	5MB			
In Bandwidth	576 Mbps			
Out Bandwidth	512 Mbps			
Output	2 No. HDMI			
	1 No. RCA			
	2 No. VGA			
Interface	2 No. RJ45 10/100/1000 Mbps			
Power Supply	1+1 Hot Plug Redundant			
OS	Windows 10 IoT Enterprise			

11. DOOR CONTROLLER

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.				
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION		
Packaging	Steel Housing			
Reader Modules	2 No. Wiegand Reader Ports			
	2 No. 10A SPDT Relay Outputs			
	4 No. Dry Contact Digital Inputs			
Connectivity	IP Link to System Software			
Features	Full Anti-Pass back Access			
	Status LEDs			
Power Supply	12V DC, 37mA			
Backup Supply	1 Hour Battery Backup			

12. ELECTRIC STRIKE

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.			
ITEM MINIMUM SPECIFICATIONS PROPOSED SOLUTION			
Frame Application Wooden Door			
Power	0.24 A @ 12 VDC		

Features	Stainless Steel Construction	
	Tamper Resistant	
	Non-Handed	
Endurance	1,000,000 Cycles	
Static Strength	680 KG	
Dynamic Strength	95 Nm	
13. DOOR CLOSER		

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.				
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION		
Frame Application	Wooden Door			
Closing Speed	Adjustible 170° - 10°			
Latching Speed	Adjustible 10° - 0°			
Backcheck Effect	Adjustible Above 75°			
Door Width	900			
Closing Force	Adjustible EN 3-6			

14. ROOM CONTROLLER

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.				
ITEM	EM MINIMUM SPECIFICATIONS PROPOSED SOLUTION			
Display	10.1 Inch Touch Screen			
Display Type	IPS (In-Plane Switching)			
Resolution	WXGA (1280 X 800)			
Ports	Ethernet (PoE)			
	WiFi 802.11a/b/g/n/ac			
Accessories	Glass Mullion Mount			
	Tabletop Stand			
	Dry Wall/J-Box Mount			
	RJ45 Cable			
Compatibility	Zoom Rooms			
Colour	Black			
Security	Kensington Lock			

15. DISPLAY SCREENS

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.

ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Size	65"	
Туре	LED	
Aspect Ratio	16:9	
Resolution	4K (3840 x 2160)	
Operating System	Android 8.0	
RAM	3GB DDR4	

16. INTERACTIVE SCREEN

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Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Size	86"	
Туре	DLED	
Resolution	4K	
Aspect Ratio	16:9	
OS	Android Operating System	
RAM	32GB	
Features	20 Multi-touch Points	
	Wireless Screen Sharing	
	Multiple Cast	
	Bluetooth Capability	
	Wireless Capability	
	Smartboard Capability	
I/O	4 HDMI, 1DP, 2 LAN, 4USB	
Dimensions	1989 x 1180 x 120mm	

17. AUDIO PRODUCTION CONSOLE

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	ITEM MINIMUM SPECIFICATIONS PROPOSED SOLUTION	
Processor	1.5GHz Quad Core Audio Engine	
Bit Depth	24 Bit	
Sample Rate/s	48 kHz	
Equivalent Noise	-131.5 dBV	
Gain Range	76 dB	

USB Connectivity	2 x USB-C Connectors	
Bluetooth	Wide-band Speech Bluetooth	
Micro SD Transfer	USB 3.0 130 MB/s	
Screen	HDR with Haptic Feedback	
Power	USB-C 30W PD	

18. BOOM ARM

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.

MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
360°	
820 mm	
840 mm	
Velcro Cable Wraps	
Desk Clamp	
Desk Insert	
Compatible with Dynamic Microphone	
	360°820 mm840 mmVelcro Cable WrapsDesk ClampDesk Insert

19. DYNAMIC MICROPHONE

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.

ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Acoustic Principle	Dynamic	
Polar Pattern	Cardioid	
Frequency Range	20 Hz – 20kHz	
Output Impedance	320 Ω	
Output Connection	XLR	
Colour	Black	

20. OVER EAR HEADPHONES

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Transducer Size	40 mm	
Acoustic Principle	Dynamic	
Frequency Response	5Hz – 35kHz	
Impedance	32 Ω	
Sensitivity	110 dB	
Max SPL	126dBSPL	

Ear Coupling	Circumaural	
Ambient Noise Attenuation	20 dBA	
Accessories	1 No. 2.4m Headphone Cable	
	1 No. 3.5mm to ¼ inch Adaptor	

21. CAMERA

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Туре	SLR Mirrorless	
Sensor Resolution	7008 x 4672	
Sensor Type	BSI CMOS	
Sensor Size	Full Frame (35.6 x 23.8)	
Processor	Bionz XR	
Focus	Manual & Auto	
Lens Mount	Sony E	
Screen Type	TFT LCD	
Video Format	MPEG-4 H.265 XAVC	
Microphone	Stereo	
Wireless	802.11ac + Bluetooth	
22. WIRELESS ACCES	S POINT	

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.

ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Antenna Patterns per Band	4000+	
Antenna Gain	4 dBi	
Beam Flex	Yes	
Channel Fly	Yes	
Concurrent Users	1536	
Controller Support	RUCKUS Cloud [™] RUCKUS SmartZone Standalone	
Ethernet Ports	1 x 1 / 2.5 / 5 /10 GbE 1 x 1 GbE	
WiFi Bands	2.4 GHz 5 GHz 6 GHz	
WiFi Interface Standard	IEEE 802.11a/b/g/n/ac/ax	

23. INERT GAS SYSTEM

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Capacity	80 Litre (32.1KG)	
Туре	Argonite	
Charge Pressure	300 Bar	
Accessories	Discharge Valve Gauges	
	Manifold Connection Hoses	
	Schedule 40 Manifold Kit	

24. CLOSE CONTROL AIR CONDITIONING

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Capacity	15kW	
Туре	Air Cooled Direct Expansion	
Inlet	Тор	
Outlet	Bottom	
Control	Microprocessor C/W Signaling Alarms	
Refrigerant	R410A	
Certifications	Energy Star	

25. INDOOR AIR CONDITIONING

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Capacity	7.1kW	
Туре	High Wall	
Control	Room Thermostat c/w Remote Control	
Refrigerant	R410A	
Certifications	Ocean Black Anti Rust	

26. FLOOR PANEL

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Tile Size	600 x 600 mm	
Core Material	Heavy Duty Calcium Sulphate	
Top Finish	Antistatic HPL	
Construction	Core Glued to Steel Bottom	
Uniform Load	20 kN/M ²	
Sub-Structure	Galvanized Steel Pedestal	
Fire Rating	Class 0	
Edge Protection	PVC Edging	

27. PERFORATED FLOOR PANEL

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Tile Size	600 x 600 mm	
Core Material	Steel	
Top Finish	Antistatic HPL	

Construction	Steel Tubes Welded to Top Sheet
Uniform Load	16 kN/M ²
Sub-Structure	Galvanized Steel Pedestal
Fire Rating	Class 0
Edge Protection	PVC Edging
Air Flow Adjustment	Flow Control Damper
Air Flow Level	20,30 or 40%

28. ACOUSTIC PANEL

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Size	50 x 50 mm	
Profile	Pyramid	
Core Material	Foam	
Density	11 Kg/M ³	
Thickness	101 mm	
N.R.C	0.95	

29. BASS TRAP

Bidders MUST fill the proposed solution and attach HIGHLIGHTED datasheets/brochures to assess their conformity/compliance with each of the technical specifications.		
ITEM	MINIMUM SPECIFICATIONS	PROPOSED SOLUTION
Size	300 x 1100 mm	
Core Material	Foam	
Density	29 Kg/M ³	
Thickness	50 mm	
N.R.C	1.15	

VIDEO INPUT

• 1x HDMI

VIDEO OUT

- 2x HDMI
- Touch display compatible

PEOPLE VIDEO RESOLUTION

- 4K, 30 fps (TX and RX) from 2048 Kbps
- 1080p, 60 fps from 1740 Kbps
- 1080p, 30 fps from 1024 Kbps
- 720p, 60 fps from 832 Kbps
- 720p, 30 fps from 512 Kbps

CONTENT VIDEO RESOLUTION

- Input
- UHD (3840 x 2160)
- HD (1920 x 1080p)
- WSXGA+ (1680 x 1050)
- UXGA (1600 x 1200)
- SXGA (1280 x 1024) WXGA (1280 x 768)
- HD (1280 x 720p) XGA (1024 x 768)
- SVGA (800 x 600)
- Output
- UHD (3840 x 2160)
- WUXGA (1920 x 1200)
- HD (1920 x 1080)
- WSXGA+ (1680 x 1050)
- SXGA+ (1400 x 1050)
- SXGA (1280 x 1024)
- HD (1280 x 720)
- XGA (1024 x 768)
- Content frame rate
- 5-60 fps (up to 4K resolution at 15 fps in call)

CONTENT SHARING

- Apple Airplay
- Miracast
- HDMI input
- Whiteboarding

CAMERA

- 121° DFOV, 110° HFOV
- 5x digital zoom
- UHD 2160p (4K) capture resolution
- Automatic meeting experience including group framing and speaker framing
- Secondary cameras can be added via USB and HDMI

AUDIO

- NoiseBlockAI technology
- Acoustic Fence technology

AUDIO INPUT

- 3x MEMS microphones, plus 2x 2nd order microphones
- 1x HDMI
- 1x 3.5 mm line-in
- Input for optional expansion microphone MICROPHONES
- 3x MEMS microphones, plus 2x 2nd order microphones
- Up to 25 ft of microphone pick up range
- Optional expansion microphone

AUDIO OUTPUT

- Stereo speakers
- Power Handling (RMS) 20 Watts
- Power Handling (MAX) 40 Watts
- Sensitivity 86.1 dB
- 3.5 mm audio output 1x HDMI

OTHER INTERFACES

- 2x USB-A (3.0)
- 1x USB-C
- Bluetooth® 5.0*
- WiFi 802.11a/b/g/n/ac (MIMO) Multi-channel Concurrency*

AUDIO STANDARDS AND PROTOCOLS

- 22 kHz bandwidth Siren 22 technology
- 20 kHz bandwidth with G.719(M- Mode)and Siren 22 technology
- 14 kHz bandwidth with Siren 14 technology, G.722.1 Annex C
- 7 kHz bandwidth with G.722, G.722.1
- 3.4 kHz bandwidth with G.711,G.728, G.729A

NETWORK

- IPv4
- IPv6
- 1x 10/100/1G Ethernet
- Auto-MDIX
- H.323 and/or SIP up to 6 Mbps
- Lost Packet Recovery (LPR) technology
- Dynamic bandwidth allocation
- Reconfigurable MTU size
- Web proxy support—Basic, Digest and NTLM

SECURITY

- Media encryption (H.323, SIP):AES-128, AES-256
- H.235.6 support
- · Authenticated access to admin menus, web interface, and API
- BFCP
- Local account password policy configuration
- Security profiles
- Local account and login port lockout
- Secure defaults
- Remote logging with support for TLS
- Active directory external authentication OPTIONS
- Mount kit
- Stand
- Bluetooth remote control
- Studio Extension Microphone

INTEROPERABILITY

- Zoom Certified
- Microsoft Teams Certified
- Google Meet Certified
- All cloud service providers
- USB device mode
- Support for native 3rd party applications includes Zoom, Microsoft Teams, Google Meet, BlueJeans, Dialpad, GoToRoom, RingCentral.

DIGITAL SIGNAGE

- Raydiant
- Appspace

ELECTRICAL

- Auto sensing power supply
- Typical operating voltage/power
- 37 VA @ 120 V @ 60 Hz
- 37 VA @ 230 V @ 50/60 Hz
- Typical BTU/h: 65

ENVIRONMENTAL SPECIFICATION

- Operating temperature: 0 to 40 °C
- Operating humidity (non-condensing):15 to 80%
- Non-operating temperature:-40 to 70 °C
- Non-operating humidity (noncondensing): 5 to 95%
- Maximum altitude: 16,000 ft

PHYSICAL CHARACTERISTICS

• 30 W x 4 H x 4 D (Inches)

762 W x 102 H x 102 D (MM)

• 5.6 lbs/2.54 kg

WARRANTY

- One-year return to factory parts and labour
- **31. BIOMETRIC READER**

Forced mask wearing alert: If the recognizing face does not wear a mask, the device will prompt a voice reminder. At the same time, the authentication or attendance will be failed

Max.3000 faces capacity, Max.3000 fingerprints capacity, and Max.3000 cards

Face Recognition Terminal, 4.3-inch LCD touch screen,2 Mega pixel wide-angle lens, built-in Mifare card reading module

Two-way audio with client software, indoor station, and master station

Supports TCP/IP

Supports ISUP5.0, ISAPI

Configuration via the web client/IVMS

Face recognition. Distance: 0.5 m to 1.5 m

Duration <0.2 s/User

Accuracy rate \geq 99%; IP65

Specifications

General button Touch Screen Power supply method 2 pin connecter Working temperature -30 °C to 60 °C (-22 °F to 140 °F) Working humidity 0 to 90% (No condensing) Dimensions 172.5 mm × 83.2 mm × 22.7 mm (6.79" × 3.27" × 0.89") Protective level IP65

Display - Dimensions 4.3-inch Type LCD - Operation method Capacitive touch screen Video - Pixel 2 MP, Lens × 2 Audio - Tone quality Noise suppression and echo cancellation Network - Wired network 10 M/100 M/1000 M self-adaptive Interface

Network interface 1 Lock output 1 Exit button 1 Door contact input 1 Power interface 2-pin Capacity:

Card capacity 3,000 Face capacity 3,000 Fingerprint capacity 3,000 Event capacity 150,000 Authentication: Card type Mifare 1 card Card reading frequency 13.56MHz Face recognition duration <0.2 s Face recognition accuracy rate >99% Face recognition distance 0.3 to 1.5 m Fingerprint recognition duration <1s Function: QR code recognition Support Face anti-spoofing Support Audio prompt Support Time synchronization Support

32. CABLES

32.1. STP CABLE

The STP cable shall be category 6A compliant STP cable, with the following specifications;

- a. 4-pair cables with 100-ohm impedance.
- b. Compliant to standards such as TIA/EIA 268-B. 2-1 and IEC 61156-5
- c. Made of polyethylene insulation
- d. Pulling force should support up to 50N/mm2
- e. Low Smoke Zero Halogen outer sheath

32.2. OPTICAL FIBRE CABLE

The fibre cable shall be 8 core multimode fibre with the following specifications: -

- a. Cable size: 8 core.
- b. Termination: SC Duplex connectors.

a. Rated Index: Nominal 62.5/125 micro. m

33. TESTING AND COMMISSIONING OF THE SYSTEM

Upon completion of the installation, all cabling links must be tested for the following parameters, using Level Three testers: - a. Category 6A Cable Tests

- i. Wire Map
- ii. Length
- iii. Insertion Loss (Attenuation) iv. NEXT Loss
- v. PSNEXT Loss
- vi. ELFEXT Loss, pair-to-pair vii.
- PSELFEXT Loss
- viii. Return Loss
- ix. ACR (Attenuation to crosstalk ratio)
- x. PSACR
- xi. Propagation Delay
- xii. Delay Skew
- b. Fibre Optic Cable Tests
 - i. Link attenuation (insertion loss)
 - ii. Length

Any failing link must be diagnosed and corrected. The corrective action shall be followed with a new test to prove that the corrected link meets the performance requirements.

The results should be recorded in one or several measure books showing test results of the cable components. In addition, the measurements must be recorded on two soft copies (CD-ROM).

All components must be tested and a Completion Certificate issued stating the following:

- i. Number of outlets
- ii. Type of cable
- iii. Date completed iv. Type of Warranty

In addition, an "as-built" package must be submitted with the following information

- i. Updated floor plans
- ii. Wire/cable routing schematic
- iii. Facility assignment records iv. Horizontal cable test results
- v. Fibre Backbone test results

34. CAT 6 PATCH PANELS

The Contractor shall provide factory made CAT 6 patch panels, complete with cable management and front designation strips, 110 PCB mounted connectors and integral RJ mounted jack sockets.

35. FIBER PATCH PANELS

All Backbone Fiber links to individual floors should be terminated on Fiber Patch Panels. Connector interfaces should support LC Connectors.

36. BACK BONE

Backbone cabling inclusive of switches and all necessary accessories shall be carried out in readiness for the termination of edge switches.

The Backbone cabling shall be flexible and allow for easy 'add on's' for future expansions. Hence enough capacity shall be allowed for future expansion.

37. DOCUMENTATION

The contractor shall avail documentation (2 copies) detailing the layout and devices or components of the system and must include all information for maintenance technicians to run, service, extend or maintain the network. In particular, the documentation must be structured and contain the following:

- a. Synopsis of the cabling (primary and secondary)
- b. Charts of the distribution highlighting the details of the elements that have been installed
- c. Detailed map of socket layout (2 Soft copies on CD-ROM should be availed)
- d. Reports on measurements (2 Soft copies on CD-ROM should be availed)

The CD-ROMs provided shall include the software tools required to view, inspect and print any selection of test reports.

38. WARRANTY AND SUPPORT

The Contractor will be required to give a per link warranty of at least fifteen (15) years for the structured cabling infrastructure and must provide a site certification certificate from the manufacturer of the cabling infrastructure not more than 30 days after completion of tests.

In the event of failure of the core switch, the contractor will be required to deliver any necessary parts on the next business day after determining that parts replacement is required, during the standard work week (8 hours a day, 5 days a week). This support will be carried out by a field engineer and will run for a period of Twelve Months from the date of commissioning of the LAN.

39. ADDITIONAL NOTES

Tenderers should take note of the following

- a. The network should be capable of carrying data, voice and video. QoS should be considered as part of installation and configuration of the network.
- b. All active LAN equipment should be from the same manufacturer for seamless integration, management and maintenance.
- c. Each floor should have a telecommunication Closet to house the necessary structured cabling components and active equipment.

40. BROCHURES AND TECHNICAL LITERATURE

Tenderers MUST enclose together with their submitted bids brochures detailing technical Literature and specifications of ALL components of the system. The brochures shall be used to evaluate the suitability of these components.

Any bid submitted without the brochures shall be considered technically nonresponsive, and will subsequently be disqualified.

SECTION H SCHEDULE OF CONTRACT DRAWINGS

SCHEDULE OF CONTRACT DRAWINGS

DRAWING NO. DRAWING TITLE

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NOTE:

Tenderers are advised to inspect the electrical drawings at the office of the Chief Engineer (Electrical) – State Department for Public Works, at Chief Engineer's (Electrical) Office, 5th Floor Hill Plaza Building, Community area, Nairobi along Ngong road, during normal working hours.

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SECTION I TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED

TECHNICAL SCHEDULE

- The technical schedule shall be submitted by tenderers to facilitate and enable the Project Manager to evaluate the tenders, especially where the tenderer intends to supply or has based his tender sum on equipment which differs in manufacture, type or performance from the specifications indicated by the Project Manager.
- 2. This schedule shall form part of the technical evaluation criterion, and tenderers are therefore advised to complete the schedule as they shall be considered non responsive.

NB. The tenderer must complete in full the technical schedule. Apart from the information required in the technical schedule, the tenderer MUST SUBMIT LEGIBLE comprehensive manufacturer's technical brochures and performance details for all items listed in this schedule and CLEARLY HIGHLIGHT THE SPECIFIC REQUIRED ITEM ONLY.

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NO.	DESCRIPTION	MAKE	MODEL NO

1.	CCTV Camera	
2.	Network Video Recorder	
3.	Fibre Patch Panel	
4.	CAT 6A STP Patch Panel	
5.	Wireless Access Point	
6.	Display Monitor	
7.	Door Controller	
8.	Biometric Reader	
9.	Electric Strike	
10.	Door Closer	
11.	Exit Switch	
12.	Emergency Break glass	
13,	CAT 6A STP Cable	
14.	Close Control Air Conditioning	
15.	Indoor Unit	
16.	Inert Gas System	
17.	Perforated Floor Panel	
18.	Floor Panel	
19.	Video Bar	
20.	Conferencing PC	
21.	Speakerphone	
22.	Room Controller	
23.	Display Screens	
24.	Interactive Whiteboard	
25.	Audio Production Console	
26.	Boom Arm	
27.	Dynamic Microphone	
28.	Over Ear Headphone	
29.	Acoustic Panels	
30.	Bass Traps	
31.	Floor Underlay	
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SECTION J SCHEDULE OF UNIT RATES

SCHEDULE OF UNIT RATES

- 1. The tenderer shall insert unit rates against the items in the following schedules and may add such other items as he considers appropriate.
- 2. The unit rates shall include for supply, transport, insurance, delivery to site, storage as necessary, assembling, cleaning, installing, connecting, profit and maintenance in defects liability and any other obligation under this contract.
- 3. The unit rates will be used to assess the value of additions or omissions arising from authorized variations to the contract works.
- 4. Where trade names or manufacturer's catalogue numbers are mentioned in the specification, the reference is intended as a guide to the type of article or quality of material required. Alternative brands of equal and approved quality will be accepted.

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SCHEDULE OF UNIT RATES

NO.	DESCRIPTION	UNIT RATE (KSHs)

1	
1.	PVC/SWA/PVC Copper cables per meter
	a) 4.0 mm sq. 3 core
2.	b) 6.0 mm sq. 3 corec) 10.0 mm sq. 4 core
	d) 35.0 mm sq. 4 core
3.	IP 65 rated Isolators as SCHNEIDER, 3 Phase
4	a) 32A
4.	IP 65 rated Isolators as SCHNEIDER, Single Phase
	a) 32A
5.	Distribution Boards
	a) 8 Ways TPN
6.	b) 12 Ways TPN
7.	c) 16 Ways TPN
	Industrial Sockets outlets, 5 pin
8.	a) 32A
0.	Cas Capling Unit
	Gas Cooling Unit
	Industrial Sockets outlets, 3 pin
	a) 32A
	10kw Close Control Air Conditioning
-	L-2

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SECTION K

GENERAL CONDITIONS OF CONTRACT

1. GENERALPROVISIONS

1.1 Definitions

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

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

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

"Bill of Quantities" means the priced and completed Bill of Quantities forming part of the tender. "Completion Date" means the date of completion of the Works as certified by the Engineer.

"Contract Price" means the price defined in the contract and thereafter as adjusted in accordance with the provisions of the Contract.

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

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

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

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

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

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

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

"Day" means a calendar day and "year" means 365 days.

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

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

"Defects Liability Certificate" means the certificate issued by Engineer upon correction of defects by the Contractor.

"Defects Liability Period" means the period named in the Special Conditions of Contract and calculated from the Completion Date, within which the contractor is liable for any defects that may develop in the handed over works. "Defects Notification Period" means the period for notifying defects in the Works or a Section (as the case maybe) under Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects], which extends over the days stated in the Special Conditions of Contract.

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

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

"Final Statement" means the statement defined in Sub-Clause 14.11 [Application for Final Payment Certificate]. "Force Majeure" is defined in Clause19 [Force Majeure].

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

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

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

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

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

"Local Currency" means the currency of Kenya.

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

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

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

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

"Payment Certificate" means a payment certificate issued under Clause 14 [Contract Price and Payment]. "Performance Certificate" means the certificate issued under Sub-Clause 11.9 [Performance Certificate]. "Performance Security" means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security]. "Permanent Works" means the permanent works to be executed by the Contractor under the Contract.

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

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

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

"Procuring Entity" means the Entity named in the Special Conditions of Contract.

"Engineer" is the person named in the Appendix to Conditions of Contract (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract and shall be an "Engineer" registered under the Engineers Act 2011.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"Unforeseeable" means not reasonably foreseeable by an experienced contractor by the Base Date. "Variation" means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

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

1.2 Interpretation

In the Contract, except where the context requires otherwise:

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

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

- 1.3 Communications
 - 1.3.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:
 - a) In writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Special Conditions of Contract; and
 - b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Special Conditions of Contract. However:

i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

- 1.3.2 Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Engineer or the other Party, as the case may be.
- 1.4 Law and Language
- 1.4.1 The Contract shall be governed by the laws of Kenya.
- 1.4.2 The ruling language of the Contract shall be English.

1.5 Priority of Documents

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

- b) The Letter of Acceptance,
- c) The Special Conditions Part A,
- d) The Special Conditions Part B

- e) The General Conditions of Contract
- f) The Form of Tender,
- g) The Specifications and Bills of Quantities
- h) The Drawings, and
- i) The Schedules and any other documents forming part of the Contract.

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

1.6 Contract Agreement

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

1.7 Assignment

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

- a) May as sign the whole or any part with the prior consent of the Procuring Entity, and
- b) may, as security in favor of a bank or financial institution, assign its right to moneys due, or to become due, under the Contract.
- 1.8 Care and Supply of Documents
 - 1.8.1 The Specifications and Drawings shall be in the custody and care of the Procuring Entity. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawings and Bills of Quantities shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.
 - 1.8.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Procuring Entity. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer two copies of each of the Contractor's Documents.
 - 1.8.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Procuring Entity's Personnel shall have the right of access to all these documents at all reasonable times.
 - 1.8.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

1.9 Timely provision of Drawings or Instructions

- 1.9.1 The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.
- 1.9.2 If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details,

the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any other associated costs accrued, which shall be included in the Contract Price.
- 1.9.3 After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 1.9.4 However, if and to the extent that the Engineer failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, or costs accrued.
- 1.10 Procuring Entity's Use of Contractor's Documents
- 1.10.1As agreed between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.
- 1.10.2The Contractor shall be deemed (by signing the Contract) to give to the Procuring Entity a nonterminable transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:
 - a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
 - b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
 - c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

1.10.3 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Procuring Entity for purposes other than those permitted under Sub-Clause 1.10.2. 1.11 Contractor's Use of Procuring Entity's Documents

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

- 1.12 Confidential Details
- 1.12.1The Contractor's and the Procuring Entity's Personnel shall ensure confidentiality at all times. The confidentiality shall survive termination or completion of the contract. They shall disclose all such confidential and other information as may be reasonably required in order to verify compliance with the Contract and allow its proper implementation.

- 1.12.2The Contractor's and the Procuring Entity's Personnel shall also treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.
- 1.13 Compliance with Laws

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

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

1.14 Joint and Several Liability

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

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

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

2. THE PROCURING ENTITY

- 2.1 Right of Access to the Site
 - 2.1.1 The Procuring Entity shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Special Conditions of Contract. The right and possession

may not be exclusive to the Contractor. If, under the Contract, the Procuring Entity is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Procuring Entity shall do so in the time and manner stated in the Specification. However, the Procuring Entity may withhold any such right or possession until the Performance Security has been received.

- 2.1.2 If no such time is stated in the Special Conditions of Contract, the Procuring Entity shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under SubClause 8.3 [Programme].
- 2.1.3 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Procuring Entity to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 - 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 2.1.4 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 2.1.5 However, if and to the extent that the Procuring Entity's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.
- 2.2 Permits, Licenses or Approvals
 - 2.2.1 The Procuring Entity shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly:
 - a) Copies of the Laws of Kenya which are relevant to the Contract but are not readily available, and
 - b) any permits, licenses or approvals required by the Laws of Kenya:
 - i) which the Contractor is required to obtain under Sub-Clause 1.13 [Compliance with Laws], ii)

for the delivery of Goods, including clearance through customs, and iii) for the export of

Contractor's Equipment when it is removed from the Site.

2.3 Procuring Entity's Personnel

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

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

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

3. THE ENGINEER

- 3.1 Engineer Duties and Authority
 - 3.1.1 The Procuring Entity shall appoint the Engineer who shall carry out the duties as signed to him in the Contract. The Engineer staff shall include suitably qualified Assistants and other professionals who are competent to carry out these duties. The Engineer Name and Address shall be provided in the Special Conditions of Contract.
 - 3.1.2 The Engineer shall have no authority to amend the Contract.
 - 3.1.3 The Engineer May exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Procuring Entity before exercising a specified authority, the requirements shall be as stated in the Special Conditions of Contract. The Procuring Entity shall promptly inform the Contractor of any change to the authority attributed to the Engineer.
 - 3.1.4 However, whenever the Engineer exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the contractor shall require the Engineer to provide evidence of such approval before complying with the instruction.
 - 3.1.5 Except as otherwise stated in these Conditions:
 - a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Procuring Entity;
 - b) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract;
 - any approval, check, certificate, consent, examination, inspection, instruction, notice,
 proposal, request, test, or similar act by the Engineer (including absence of disapproval)
 shall not relieve the Contractor from any responsibility he has under the Contract, including
 responsibility for errors, omissions, discrepancies and non-compliances; and

any act by the Engineer in response to a Contractor's request shall be notified in writing to the Contractor within 14 days of receipt.

3.1.6 The following provisions shall apply:

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

- a) Sub-Clause 4.12: agreeing or determining an extension of time and/or additional cost.
- b) Sub-Clause 13.1: instructing a Variation, except;
- i) In an emergency situation as determined by the Engineer, or
- ii) If such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Special Conditions of Contract.
 - c) Sub-Clause 13.3: Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2.
 - d) Sub-Clause13.4: Specifying the amount payable in each of the applicable three currencies.

3.1.7 Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forth with comply, despite the absence of approval

of the Procuring Entity, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Procuring Entity.

- 3.2 Delegation by the Engineer
 - 3.2.1 The Engineer may from time to time assign duties and delegate authority to assistants and may also revoke such assignment or delegation. These assistants may include a resident Engineer, and/or independent inspectors appointed to inspect and/ or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [Determinations].
 - 3.2.2 Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorized to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:
 - a) Any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials;
 - b) If the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.
- 3.3 Instructions of the Engineer
 - 3.3.1 The Engineer may issue to the Contractor (at anytime) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under Clause 3.2.1.
 - 3.3.2 The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Engineer or a delegated assistant:
 - a) Gives an oral instruction,
 - a) Receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

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

3.4 Replacement of the Engineer

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

3.5 Determinations

3.5.1 Whenever these Conditions provide that the Engineer shall proceed in accordance with this SubClause3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both Parties of each agree mentor determination, with supporting particulars, within 30 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].

4. THE CONTRACTOR

- 4.1 Contractor's General Obligations
 - 4.1.1 The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer instructions, ands hall remedy any defects in the Works.
 - 4.1.2 The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.
 - 4.1.3 All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country.
 - 4.1.4 The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.
 - 4.1.5 The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.
 - 4.1.6 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Special Conditions:
 - a) The Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
 - b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language], and shall include additional information required by the Engineer to add to the Drawings for co-ordination of each Party's designs;
 - c) the Contractor shall be responsible for this part and it shall, when the Works are completed, befit for such purposes for which the part is intended as are specified in the Contract; and

prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "asbuilt" documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Procuring Entity to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until these documents and manuals have been submitted to the Engineer.

4.2 Performance Security

- 4.2.1 The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the Special Conditions of Contract and denominated in the currency (ies) of the Contract or in a freely convertible currency acceptable to the Procuring Entity. If an amount is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
- 4.2.2 The Contractor shall deliver the Performance Security to the Procuring Entity within 30 days after receiving the Notification of Award and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank selected by the Contractor and shall be in the form annexed to the Special Conditions, as stipulated by the Procuring Entity in the Special Conditions of Contract, or in another form approved by the Procuring Entity.
- 4.2.3 The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.
- 4.2.4 The Procuring Entity shall not make a claim under the Performance Security, except for amounts to which the Procuring Entity is entitled under the Contract.
- 4.2.5 The Procuring Entity shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Procuring Entity was not entitled to make the claim.
- 4.2.6 The Procuring Entity shall return the Performance Security to the Contractor within 14 days after receiving a copy of the Taking-Over Certificate.
- 4.2.7 Without limitation to the provisions of the rest of this Sub-Clause, whenever the Engineer determines an addition or a reduction to the Contract Price as a result of a change in cost and/ or legislation, or as a result of a Variation, amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Engineer request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage.
- 4.3 Contractor's Representative
 - 4.3.1 The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract. The Contractor's Representative's Name and Address shall be provided in the Special Conditions of Contract.
 - 4.3.2 Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is with held or subsequently revoked in terms of Sub-Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of an other suitable person for such appointment.
 - 4.3.3 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint are placement.

4.3.4 The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Engineer prior consent, and the Engineer shall be notified accordingly.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under SubClause 3.3 [Instructions of the Engineer].

- 4.3.5 The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Engineer has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.
- 4.3.6 The Contractor's Representative shall be fluent in the language for communications defined in SubClause1.4 [Law and Language]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make competent interpreter savailable during all working hours in a number deemed sufficient by the Engineer.

4.4 Sub-contractors

- 4.4.1 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.
- 4.4.2 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Special Conditions:
 - a) The Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
 - b) The prior consent of the Procuring Entity shall be obtained to other proposed Subcontractors;
 - c) the Contractor shall give the Procuring Entity not less than 14 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
 - each subcontract shall include provisions which would entitle the Procuring Entity to require the subcontract to be assigned to the Procuring Entity under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity].
- 4.4.3 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.
- 4.4.4 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from Kenya to be appointed as Subcontractors.

4.5 Assignment of Benefit of Subcontract

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

4.6 Co-operation

- 4.6.1 The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:
 - a) The Procuring Entity's Personnel,
 - b) Any other contractors employed by the Procuring Entity, and
 - c) The personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract.
- 4.6.2 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

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

- 4.7 Setting Out of the Works
 - 4.7.1 The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contractor notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.
 - 4.7.2 The Procuring Entity shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.
- 4.73 If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/ or Cost, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 8.4 [Extension of Time for Completion], and
 - b) payment of any such costs accrued, which shall be included in the Contract Price.

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

4.8 Safety Procedures

The Contractor shall:

- a) Comply with all applicable safety regulations,
- b) Take care for the safety of all persons entitled to be on the Site,
- c) Use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
- d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [Procuring Entity's Taking Over], and

- e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.
- 4.9 Quality Assurance
 - 4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Engineer shall be entitled to audit any aspect of the system.
 - 4.9.2 Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor itself shall be apparent on the document itself.

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

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

To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined

the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- a) The form and nature of the Site, including sub-surface conditions,
- b) the hydrological and climatic conditions,
- c) the extent and nature of the work and Goods necessary for the execution and completion of the

Works and the remedying of any defects,

- d) the Laws, procedures and labour practices of Kenya, and
- e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.
- 4.11 Sufficiency of the Accepted Contract Amount
 - 4.11.1 The Contractor shall be deemed to:
 - a) Have satisfied itself as to the correctness and sufficiency of the Accepted Contract Amount, and
 - b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [Site Data].

- 4.11.2 Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.
- 4.12 Unforeseeable Physical Conditions
 - 4.12.1 In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.
 - 4.12.2 If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.
 - 4.12.3 This notice shall describe the physical conditions, so that they can be inspected by the Engineer and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.
 - 4.12.4 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 - 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost, which shall be included in the Contract Price.
 - 4.12.5 Upon receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

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

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

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

- 4.14 Avoidance of Interference
 - 4.14.1 The Contractor shall not interfere unnecessarily or improperly with:
 - a) The convenience of the public, or
 - b) The access to and use and occupation of all roads and foot paths, irrespective of whether they are public or in the possession of the Procuring Entity or of others.
 - 4.14.2 The Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

4.15 Access Route

- 4.15.1 The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.
- 4.15.2 Except as otherwise stated in these Conditions:
 - a) The Contractor shall (as be tween the Parties) be responsible for any maintenance which may be required for his use of access routes;
 - b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;
 - c) the Procuring Entity shall not be responsible for any claims which may arise from the use or otherwise of any access route;
 - d) the Procuring Entity does not guarantee the suitability or availability of particular access routes; and
 - e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16 Transport of Goods

Unless otherwise stated in the Special Conditions:

- a) the Contractor shall give the Engineer not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and

the Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods and shall negotiate and pay all claims arising from their transport.

4.17 Contractor's Equipment

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

- 4.18 Protection of the Environment
 - 4.18.1 The contractor shall comply with the applicable environmental laws, regulations and policies.
 - 4.18.2 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
 - 4.18.3 The Contractors hall ensure that emissions, surfaced is charges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.
- 4.19 Electricity, Water and Gas
 - 4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.
 - 4.19.2 The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specifications. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.
 - 4.19.3 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Engineert in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and SubClause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.
- 4.20 Procuring Entity's Equipment and Free-Issue Materials
 - 4.20.1 The Procuring Entity shall make the Procuring Entity's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:
 - a) The Procuring Entity shall be responsible for the Procuring Entity's Equipment, except that
 - b) the Contractor shall be responsible for each item of Procuring Entity's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.
- 4.20.1 The appropriate quantities and the amounts due (at such stated prices) for the use of Procuring Entity's Equipment shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.
- 4.20.2 The Procuring Entity shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Procuring Entity shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them and shall promptly give notice to the Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defector default.

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

- 4.21 Progress Reports
 - 4.21.1 Unless otherwise stated in the Special Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.
 - 4.21.2 Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:

a) charts and detailed descriptions of progress, including each stage of design (if any),
 Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing;
 and including these stages for work by each nominated Subcontractor (as defined in
 Clause 5 [Nominated Subcontractors]),

- b) photographs showing the status of manufacture and of progress on the Site;
- c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
- i) commencement of manufacture, ii)

Contractor's inspections, iii) tests, and iv)

shipment and arrival at the Site;

- d) the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];
- e) copies of quality assurance documents, test results and certificates of Materials;
- f) list of notices given under Sub-Clause 2.5 [Procuring Entity's Claims] and notices given under

Sub- Clause 20.1 [Contractor's Claims];

- g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- h) comparison so factual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.22 Security of the Site

Unless otherwise stated in the Special Conditions:

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

- 4.23.1 The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Engineer as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacentl and.
- 4.23.2 During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract

4.24 Fossils

- 4.24.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Procuring Entity. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.
- 4.24.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub- Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 - 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost, which shall be included in the Contract Price.

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

5. NOMINATED SUBCONTRACTORS

5.1 Definition of "nominated Subcontractor"

In this Contract, "nominated Subcontractor" means a Subcontractor:

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

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

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

5.3 Payments to nominated Subcontractors

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

5.4 Evidence of Payments

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

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

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

6. STAFF AND LABOR

6.1 Engagement of Staff and Labor

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

- 6.2 Rates of Wages and Conditions of Labor
 - 6.2.1 The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entity's whose trade or industry is similar to that of theContractor.
 - 6.2.2 The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in Kenya in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of Kenya for the time being in force, and the Contractor shall perform such duties in regard to such deductions there of as may be imposed on him by such Laws.
- 6.3 Persons in the Service of Procuring Entity

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

6.4 Labour Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, employment of children, health, safety,

welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

6.5 Working Hours

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

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

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

- 6.7 Health and Safety
 - 6.7.1 The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Procuring Entity's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.
 - 6.7.2 The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility and shall have the authority to issue instructions and take protective measures to prevent accidents.

Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

- 6.7.3 The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.
- 6.7.4 The Contractor shall conduct an awareness programme on HIV and other sexually transmitted diseases via an approved service provider and shall undertake such other measures taken to reduce the risk of the transfer of these diseases between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.
- 6.8 Contractor's Superintendence

6.8.1 Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.

- 6.8.2 Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.
- 6.9 Contractor's Personnel
 - 6.9.1 The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Contractors Key personnel shall be named in the Special Conditions of Contract. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:
 - a) Persists in any misconduct or lack of care,
 - b) Carries out duties in competently or negligently,
 - c) fails to conform with any provisions of the Contract,
 - d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment, or
 - e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works.
 - 6.9.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

6.10 Records of Contractor's Personnel and Equipment

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

6.11 Disorderly Conduct

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

- 6.12 Foreign Personnel
 - 6.12.1 The Contractor shall not employ foreign personnel unless the contractor demonstrates that there are no Kenyans with the required skills.
 - 6.12.2 The Contractor shall be responsible for the return of any foreign personnel to the place where they were recruited or to their domicile. In the event of the death in Kenya of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

6.13 Supply of Water

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

6.14 Measures against Insect and Pest Nuisance

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

6.15 Alcoholic Liquor or Drugs

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

6.16 Prohibition of Forced or Compulsory Labour

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

6.17 Prohibition of Harmful Child Labor

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

6.18 Employment Records of Workers

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

6.19 Workers' Organizations

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

6.20 Non-Discrimination and Equal Opportunity

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

7. PLANT, MATERIALS AND WORKMANSHIP

7.1 Manner of Execution

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

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

7.2 Samples

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

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

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

7.3 Inspection

- 7.3.1 The Procuring Entity's Personnel shall at all reasonable times:
 - a) Have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
 - b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.
- 7.3.2 The Contractor shall give the Procuring Entity's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.
- 7.3.3 The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and there after reinstate and make good, all at the Contractor's cost.

7.4 Testing

- 7.4.1 This Sub-Clause shall apply to all tests specified in the Contract.
- 7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labor,

materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

- 7.4.3 The Engineer may, under Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.
- 7.4.4 The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.
- 7.4.5 If the Contractor suffers delay and/ or incurs Cost from complying with these instructions or as a result of a delay for which the Procuring Entity is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

b. payment of any such Cost-plus profit, which shall be included in the Contract Price.

- 7.4.6 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 7.4.7 The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5 Rejection

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

7.6 Remedial Work

- 7.6.1 Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:
 - a) Remove from the Site and replace any Plant or Materials which is not in accordance with the

Contract,

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

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

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

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

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

8. COMMENCEMENT, DELAYS AND SUSPENSION

- 8.1 Commencement of Works
 - 8.1.1 Except as otherwise specified in the Special Conditions of Contract, the Commencement Date shall be the date at which the following precedent condition shave all been fulfilled and the Engineer notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:
 - a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of Kenya;
 - except if otherwise specified in the Special Conditions of Contract, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of SubClause 1.13 [Compliance with Laws] as required for the commencement of the Works.

- c) Receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor.
- 8.1.2 If the said Engineer instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under SubClause1 6.2 [Termination by Contractor].
- 8.1.3 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date and shall then proceed with the Works with due expedition and without delay.
- 8.2 Time for Completion

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

- a) Achieving the passing of the Tests on Completion, and
- b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections].
- 8.3 Programme
 - 8.3.1 The Contractor shall submit a detailed time programme to the Engineer within1 4 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:
 - a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,
 - b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated]

Subcontractors]),

- c) the sequence and timing of inspections and tests specified in the Contract, and
- d) a supporting report which includes:
- i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
- ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's

Personnel and of each type of Contractor's Equipment, required on the Site for each major stage

- 8.3.2 Unless the Engineer, within 14 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Procuring Entity's Personnel shall be entitled to rely upon the programme when planning their activities.
- 8.3.3 The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works.

- 8.3.4 If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contractor to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.
- 8.4 Extension of Time for Completion
 - 8.4.1 The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:
 - a Variation (unless an adjustment to the Time for Completion has been agreed under SubClause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract,
 - b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,
 - c) exceptionally adverse climatic conditions,
 - d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
 - e) any delay, impediment or prevention caused by or attributable to the Procuring Entity, the Procuring Entity's Personnel, or the Procuring Entity's other contractors.

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

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

- a) The Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in Kenya,
- b) These authorities delay or disrupt the Contractor's work, and
- c) the delay or disruption was Unforeseeable, then this delay or disruption will be considered as a cause of delay under sub-paragraph (b) of Sub-Clause 8.4 [Extension of Time for Completion]. 8.6 Rate of Progress
- 8.6.1 If, at any time:
 - a) Actual progress is too slow to complete within the Time for Completion, and/or
 - b) Progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme], other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Engineer may instruct the Contractor to submit, under Sub-Clause 8.3
 - c) [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.
 - 8.6.2 Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and

cost of the Contractor. If these revised methods cause the Procuring Entity to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity, in addition to delay damages (if any) under SubClause 8.7 below.

- 8.6.3 Additional costs of revised methods including acceleration measures, instructed by the Engineer to reduce delays resulting from causes listed under Sub-Clause 8.4 [Extension of Time for Completion] shall be paid by the Procuring Entity, without generating, however, any other additional payment benefit to the Contractor.
- 8.7 Delay Damages
 - 8.5.1 If the Contractor fails to comply with Sub-Clause 8.2 [Time for Completion], the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay delay damages to the Procuring Entity for this default. These delay damages shall be the sum stated in the Special
 Conditions of Contract, which shall be paid for everyday which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Special Conditions of Contract.
 - 8.5.2 These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.
- 8.8 Suspension of Work
- 8.8.1 The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.
- 8.8.2 The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.
- 8.9 Consequences of Suspension
 - 8.9.1 If the Contractor suffers delay and/or incurs Cost from complying with the Engineer instructions under Sub-Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 8.4 [Extension of Time for Completion], and
 - b) Payment of any such Cost, which shall be included in the Contract Price.
 - 8.9.2 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause3.5 [Determinations] to agree or determine these matters.
 - 8.9.3 The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [Suspension of Work].
- 8.10 Payment for Plant and Materials in Event of Suspension

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

a) The work on Plant or delivery of Plant and/ or Materials has been suspended for more than 30 days, and

b) the Contractor has marked the Plant and/or Materials as the Procuring Entity's property in accordance with the Engineer instructions.

8.11 Prolonged Suspension

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

8.12 Resumption of Work

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

9. TESTS ON COMPLETION

9.1 Contractor's Obligations

- 9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this Clause and SubClause 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of SubClause 4.1 [Contractor's General Obligations].
- 9.1.2 The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests

on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

9.1.3 In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Procuring Entity on the performance or other characteristics of

the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

- 9.2 Delayed Tests
 - 9.2.1 If the Tests on Completion are being unduly delayed by the Procuring Entity, Sub-Clause 7.4 [Testing] (fifth paragraph) and/ or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.
 - 9.2.2 If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.
 - 9.2.3 If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Procuring Entity's Personnel may proceed with the Test sat the risk and cost of the Contractor. The

Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

9.3 Retesting of related works

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

- 9.4 Failure to Pass Tests on Completion
 - 9.4.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Engineer shall be entitled to:
 - a) Order further repetition of Tests on Completion under Sub-Clause 9.3; or
 - b) if the failure deprives the Procuring Entity of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Procuring Entity shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause1 1.4 [Failure to Remedy Defects].

10. PROCURING ENTITY'S TAKING OVER

- 10.1 Taking Over of the Works and Sections
 - 10.1.1 Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Procuring Entity when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.
 - 10.1.2 The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contract or may similarly apply for a Taking-Over Certificate for each Section.
 - 10.1.3 The Engineer shall, within 30 days after receiving the Contractor's application:
 - a) Issue the Taking-Over Certificate to the Contract or, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor out standing work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
 - b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.
 - 10.1.4 If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 30 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.
- 10.2 Taking Over of Parts of the Works
 - 10.2.1 The Engineer t may, at the sole discretion of the Procuring Entity, issue a Taking-Over Certificate for any part of the Permanent Works.

- 10.2.2 The Procuring Entity shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Engineer has issued a Taking-Over Certificate for this part. However, if the Procuring Entity does use any part of the Works before the Taking-Over Certificate is issued:
 - a) The part which is used shall be deemed to have been taken over as from the date on which it is used,
 - b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Procuring Entity, and
 - c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part.
- 10.2.3 After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.
- 10.2.4 If the Contractor incurs Cost as a result of the Procuring Entity taking over and/or using a part of the Works, other than such use as is specified in the Contractor agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such accrued costs, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this accrued cost.
- 10.2.5 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [Delay Damages] and shall not affect the maximum amount of these damages.
- 10.3 Interference with Tests on Completion
 - 10.3.1 If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Procuring Entity is responsible, the Procuring Entity shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.
 - 10.3.2 The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.
 - 10.3.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Engineer and shall be entitled subject to SubClause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4

[Extension of Time for Completion], and

- b) payment of any such accrued costs, which shall be included in the Contract Price.
- 10.3.4 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 10.4 Surfaces Requiring Reinstatement

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

11. DEFECTS LIABILITY

- 11.1 Completion of Outstanding Work and Remedying Defects
 - 11.1.1 In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:
 - a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
 - b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Procuring Entity on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).
 - 11.1.2 If a defect appears or damage occurs, the Contractor shall be notified accordingly by the Engineer.
- 11.2 Cost of Remedying Defects
 - 11.2.1 All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:
 - a) Any design for which the Contractor is responsible,
 - b) Plant, Materials or workmanship not being in accordance with the Contract, or
 - c) Failure by the Contractor to comply with any other obligation.
 - 11.2.2 If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Procuring Entity, and Sub-Clause 13.3 [Variation Procedure] shall apply.
- 11.3 Extension of Defects Notification Period
 - 11.3.1 The Procuring Entity shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to

the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8

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

- 11.4 Failure to Remedy Defects
 - 11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.
 - 11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2[Cost of Remedying Defects], the Procuring Entity may (at his option):
 - (a) Carry out the work itself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity the costs reasonably incurred by the Procuring Entity in remedying the defect or damage;
 - (b) Require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [Determinations]; or
 - (c) if the defect or damage deprives the Procuring Entity of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contractor otherwise, the Procuring Entity shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.
- 11.5 Removal of Defective Work

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

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

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

11.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defect on parts of the works that have already accepted, under the direction of the Engineer. Unless the defect is to be remedied at the cost of

the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Engineer in accordance with SubClause 3.5 [Determinations] and shall be included in the Contract Price.

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

11.10 Unfulfilled Obligations

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

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

12. MEASUREMENT AND EVALUATION

- 12.1 Works to be Measured
 - 12.1.1 The Works shall be measured, and valued for payment, in accordance with this Clause. The Contractor shall show in each application under Sub-Clauses 14.3 [Application for Interim Payment Certificates], 14.10 [Statement on Completion] and 14.11 [Application for Final Payment Certificate] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.
 - 12.1.2 Whenever the Engineer requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:
 - a) promptly either attend or send another qualified representative to assist the Engineer in making the measurement, and
 - b) supply any particulars requested by the Engineer.
 - 12.1.3 If the Contractor fails to attend or send a representative, the measurement made by the Engineer shall be accepted as accurate.

- 12.1.4 Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agreed records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.
- 12.1.5 If the Contractor examines and disagrees the records, and/ or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Engineer within 14 days after being requested to examine the records, they shall be accepted as accurate.
- 12.2 Method of Measurement

Except as otherwise stated in the Contract:

- a) Measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.
- 12.3 Evaluation
 - 12.3.1 Except as otherwise stated in the Contract, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of work done by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.
 - 12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contractor, if there is no such item, specified for similar work.
 - 12.3.3 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.
 - 12.3.4 However, for a new item of work, a new rate or price shall be appropriate for such item of work if:
 - a) The work is instructed under Clause13 [Variations and Adjustments],
 - b) no rate or price is specified in the Contract for this item, and
 - c) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.
 - 12.3.5 Each new rate or price shall be derived from any relevant rates or prices in the Contract. If no rates or prices are relevant for the new item of work, it shall be derived from the reasonable Cost of executing such work, prevailing market rates, together with profit, taking account of any other relevant matters.
 - 12.3.6 Until such time as an appropriate rate or price is agreed or determined, the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.
 - 12.3.7 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 Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage.

The percentage already worked out during tender evaluation is worked out as follows: (corrected tender price– tender price)/ tender price X 100.

12.4 Omissions

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

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

[Determinations] to agree or determine this cost, which shall be included in the Contract Price.

13. VARIATIONS AND ADJUSTMENTS

- 13.1 Right to Vary
 - 13.1.1 Variations may be initiated by the Engineer t at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. No Variation instructed by the Engineer under this Clause shall in any way vitiate or in validate the Contract.
 - 13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.
 - 13.1.3 Each Variation may include:
 - a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
 - b) changes to the quality and other characteristics of any item of work,
 - c) changes to the levels, positions and/ or dimensions of any part of the Works,
 - d) omission of any work unless it is to be carried out by others,
 - e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
 - f) changes to the sequence or timing of the execution of the Works.
 - 13.1.4 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs after obtaining approval of the Procuring Entity.
- 13.2 Variation Order Procedure
 - 13.2.1 Prior to any Variation Order under Sub-Clause 13.1.4 the Engineer shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:
 - a) A description of work, if any, to be performed and a programme for its execution, and

- b) the Contractor's proposals for any necessary modifications to the Programme according to SubClause 8.3 or to any of the Contractor's obligations under the Contract, and
- c) the Contractor's proposals for adjustment to the Contract Price.

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

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

13.2.2 Disagreement on Adjustment of the Contract Price

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

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

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

13.2.3 Contractor to Proceed

On receipt of a Variation Order, the Contractor shall forth with proceed to carry out the variation and be bound to these Conditions in so doing as if such variation was stated in the Contract. The work shall not be delayed pending the granting of an extension of the Time for Completion or an adjustment to the Contract Price under Sub-Clause31.3.

13.3 Value Engineering

- 13.3.1 The Contractor may, at anytime, submit to the Engineer written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Procuring Entity of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Procuring Entity of the completed Works, or (iv) otherwise be of benefit to the Procuring Entity.
- 13.3.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in SubClause 13.3 [Variation Procedure].
- 13.2.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:
 - a) The Contractor shall design this part,

- b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and
- c) if this change results in a reduction in the contract value of this part, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall behalf (50%) of the difference between the following amounts:
- i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.8 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost], and ii) the reduction (if any) in the value to the

Procuring Entity of the varied works, taking account of any improvement in quality, anticipated life or operational efficiencies.

- 13.3.4 However, if the amount established in item 13.2.3 (c) (i) is less than amount established in item 13.2.3 (c (ii), there shall not be a fee. However, if the if the amount established in item 13.2.3 (c) (i) is more than amount established in item 13.2.3 (c (ii), it shall result in a price variation to the Procuring Entity.
- 13.4 Variation Procedure for Value Engineering proposal
 - 13.4.1 If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:
 - a) A description of the proposed work to be performed and a programme for its execution,
 - b) the Contractor's proposal for any necessary modifications to the programme according to Sub-

Clause 8.3 [Programme] and to the Time for Completion, and

- c) the Contractor's proposal for evaluation of the Variation.
- 13.4.2 The Engineer shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Project Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst a waiting a response.
- 13.4.3 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.
- 13.4.4 Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Engineer instructs or approves otherwise in accordance with this Clause.
- 13.5 Payment in Applicable Currencies

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

- 13.6 Provisional Sums
 - 13.6.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer May instruct:

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

13.7 Dayworks

- 13.7.1 For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.
- 13.7.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

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

- a) The names, occupations and time of Contractor's Personnel,
- b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- c) the quantities and types of Plant and Materials used.
- 13.7.4 One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].
- 13.8 Adjustments for Changes in Legislation
 - 13.8.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of Kenya (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.
 - 13.8.2 If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 - 8.4 [Extension of Time for Completion], and

- b) payment of any such Cost, which shall be included in the Contract Price.
- 13.8.3 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 13.8.4 Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8 [Adjustments for Changes in Cost].
- 13.9 Adjustments for Changes in Cost
 - 13.9.1 In this Sub-Clause, "table of adjustment data" means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this Sub-Clause shall not apply.
 - 13.9.2 If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labor, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included a mounts to cover the contingency of other rises and falls in costs.
 - 13.9.3 The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:

Price Adjustment Formula

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

P = A + B Im/Io where:

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

- A and B a recoefficients specified in the SCC, representing then on adjustable and adjustable portions, respectively, of the Contract Price payable and
- I m is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 30 days before Bid opening for inputs payable.
- NOTE: The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for
 - 13.9.4 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, itshall be determined by the Engineer. Forth is purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the

table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

- 13.9.5 Incases where the "currency of index" is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the Central Bank of Kenya, of this relevant currency on the above date for which the index is required to be applicable.
- 13.9.6 Until such time as each current cost index is available, the Engineer shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.
- 13.9.7 If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices there after shall be made using either (i) each index or price applicableo n the date 49 days prior to

the expiry of the Time for Completion of the Works, or (ii) the current index or price, whichever is more favorable to the Procuring Entity.

13.9.8 The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or in applicable, as a result of Variations.

14. CONTRACT PRICE AND PAYMENT

14.1 The Contract Price

14.1.1 Unless otherwise stated in the Special Conditions:

a) The value of the payment certificate shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;

b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [Adjustments for Changes in Legislation];

- c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:
- i) of the Works which the Contractor is required to execute, or ii)

for the purposes of Clause12 [Measurement and Evaluation]; and

- the Contractor shall submit to the Engineer, within 30 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Engineer may take account of the break down when preparing Payment Certificates but shall not be bound by it.
- 14.1.2 Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts there for, imported by the Contractor for the sole purpose of executing the Contract shall not be exempt from the payment of import duties and taxes upon importation.

14.2 Advance Payment

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

- 14.2.2 Unless and until the Procuring Entity receives this guarantee, or if the total advance payment is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
- 14.2.3 The Engineer shall deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under SubClause 14.3 [Application for Interim Payment Certificates]) and after the Procuring Entity receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the a dvance payment. This guarantee shall be issued by a reputable bank or financial institutions elected by the Contractor and shall be in the form annexed to the Special Conditions or in another form approved by the Procuring Entity.
- 14.2.4 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.
- 14.2.5 Unless stated otherwise in the Special Conditions of Contract, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Engineer in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:
- a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
- b) deductions shall be made at the amortization rate stated in the Special Conditions of Contract of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.

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

14.3 Application for Interim Payment Certificates

- 14.3.1 The Contractor shall submit a Statement (in number of copies indicated in the Special Conditions of Contract) to the Engineer after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers itself to be entitled, together with supporting documents which shall include the report on the progress during this month in accordance with SubClause 4.21 [Progress Reports].
- 14.3.2 The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in subparagraphs (b) to (g) below);
- any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8

[Adjustments for Changes in Cost];

any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Special Conditions of Contract to the total of the above amounts, until the amount so retained by the Procuring Entity reaches the limit of Retention Money (if any) stated in the

Special Conditions of Contract;

- d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];
- e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];
- f) any other additions or deductions which may have become due under the Contractor otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and
- g) the deduction of amounts certified in all previous Payment Certificates.

14.4 Schedule of Payments

- 14.4.1 If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:
 - a) The instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment

Certificates];

- b) Sub-Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and
- c) If these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Engineer may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.
- 14.4.2 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.
- 14.5 Plant and Materials intended for the Works
 - 14.5.1 If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant

and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].

- 14.5.2 If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules, this Sub-Clause shall not apply.
- 14.5.3 The Engineer shall determine and certify each addition if the following conditions are satisfied: a)

The Contractor has:

 kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and ii) submitted statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;

and either:

b) the relevant Plant and Materials:

are those listed in the Schedules for payment when shipped, ii) have been shipped to Kenya,
 enroute to the Site, in accordance with the Contract; and iii) are described in a clean shipped bill of lading or
 other evidence of shipment, which has been submitted to the Engineer together with evidence of payment of
 freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued
 by an entity approved by the Procuring Entity in amounts and currencies equal to the amount due under

this Sub-Clause: this guarantee may be in a similar form to the form referred to in SubClause14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; or

- c) the relevant Plant and Materials:
- i) are those listed in the Schedules for payment when delivered to the Site, and
- ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration and appear to be in accordance with the Contract.
 - 14.5.4 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Engineer determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.
 - 14.5.5 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.
- 14.6 Issue of Interim Payment Certificates
 - 14.6.1 No amount will be certified or paid until the Procuring Entity has received and approved the Performance Security. Thereafter, the Engineer shall, within 30 days after receiving a Statement and supporting documents, deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Engineer on the Statement if any.

- 14.6.2 However, prior to issuing the Taking-Over Certificate for the Works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in the Special Conditions of Contract. In this event, the Engineer shall give notice to the Contractor accordingly.
- 14.6.3 An Interim Payment Certificate shall not be withheld for any other reason, although:
 - a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
 - b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.
- 14.6.4 The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer acceptance, approval, consent or satisfaction.

14.7 Payment

- 14.7.1 The Procuring Entity shall pay to the Contractor:
 - a) The advance payment shall be paid within 60 days after signing of the contract by both parties or within 60 days after receiving the documents in accordance with Sub-Clause 4.2
 [Performance Security] and Sub-Clause 14.2 [Advance Payment], whichever is later;

b) The amount certified in each Interim Payment Certificate within 60 days after the Engineer Issues Interim Payment Certificate; and

- c) the amount certified in the Final Payment Certificate within 60 days after the Procuring Entity Issues Interim Payment Certificate; or after determination of any disputed amount shown in the Final Statement in accordance with Sub-Clause 16.2 [Termination by Contractor].
- 14.7.2 Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (forth is currency) specified in the Contract.

14.8 Delayed Payment

- 14.8.1 If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges (simple interest) monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b) of the date on which any Interim Payment Certificate is issued.
- 14.8.2 These financing charges shall be calculated at the annual rate of three percentage points above the mean rate of the Central Bank in Kenya of the currency of payment, or if not available, the inter bank offered rate, and shall be paid in such currency.

- 14.8.3 The Contractor shall be entitled to this payment without formal notice and certification, and without prejudice to any other right or remedy.
- 14.9 Payment of Retention Money
 - 14.9.1 When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall behalf (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.
 - 14.9.2 Promptly after the latest of the expiry dates of the Defects Liability Periods, the outstanding balance of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a TakingOver Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall behalf (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.
 - 14.9.3 However, if any work remains to be executed under Clause 11 [Defects Liability], the Engineer shall be entitled to withhold certification of the estimated cost of this work until it has been executed.
 - 14.9.4 When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause
 - 13.7 [Adjustments for Changes in Legislation] and Sub-Clause13.8 [Adjustments for Changes in Cost].
 - 14.9.5 Unless otherwise stated in the Special Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a Retention Money Security guarantee, in the form annexed to the Special Conditions or in another form approved by the Procuring Entity and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money.
 - 14.9.6 The Procuring Entity shall return the Retention Money Security guarantee to the Contractor within 14 days after receiving a copy of the Completion Certificate.
- 14.10 Statement at Completion
 - 14.10.1 Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer three copies of a Statement at completion with supporting documents, in accordance with Sub- Clause 14.3 [Application for Interim Payment Certificates], showing:
 - a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
 - b) any further sums which the Contractor considers to be due, and
 - c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.
 - 14.10.2 The Engineer shall then certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates].
- 14.11 Application for Final Payment Certificate
 - 14.11.1 Within 60 days after receiving the Completion Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:

- a) The value of all work done in accordance with the Contract, and
- b) Any further sums which the Contractor considers to be due to him under the Contractor otherwise.
- 14.11.2 If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require within 30 days from receipt of said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".
- 14.11.3 However, if, following discussions between the Engineer and the Contractor and any changes to the draft final statement which are agreed, it be comes evident that a dispute exists, the Engineer shall deliver to the Procuring Entity (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under SubClause 20.4 [Obtaining Dispute Board's Decision] or Sub-Clause 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Procuring Entity (with a copy to the Engineer) a Final Statement.

14.12 Discharge

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

- 14.13 Issue of Final Payment Certificate
 - 14.13.1 Within 30days after receiving the Final Statement and discharge in accordance with Sub-Clause14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall deliver, to the Procuring Entity and to the Contractor, the Final Payment Certificate which shall state:
 - a) The amount which he fairly determines is finally due, and
 - b) After giving credit to the Procuring Entity for all amounts previously paid by the Procuring Entity and for all sums to which the Procuring Entity is entitled, the balance (if any) due from the Procuring Entity to the Contractor or from the Contractor to the Procuring Entity, as the case may be.
 - 14.13.2 If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 30 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.
- 14.14 Cessation of Procuring Entity's Liability
 - 14.14.1 The Procuring Entity shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:
 - a) in the Final Statement and also,

- b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [Statement at Completion].
- 14.14.2 However, this Sub-Clause shall not limit the Procuring Entity's liability under his indemnification obligations, or the Procuring Entity's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Entity.

14.15 Currencies of Payment

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

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

15. TERMINATION BY PROCURING ENTITY

15.1 Notice to correct any defects or failures

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

- 15.2 Termination by Procuring Entity
 - 15.2.1 The Procuring Entity shall be entitled to terminate the Contract if the Contractor breaches the contract based on following circumstances which shall include but not limited to:
 - a) fails to comply with Sub-Clause 4.2 [Performance Security] or with a notice under Sub-Clause
 - 15.1 [Notice to Correct],

- b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
- c) without reasonable excuse fails:
- i) to proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension], or
- ii) to comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 30 days after receiving it,
- d) subcontracts the major part or whole of the Works or assigns the Contract without the consent of the Procuring Entity,
- e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
- f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an induce mentor reward:
 - i) for doing or for bearing to do any action in relation to the Contract, or ii) for showing or for

bearing to show favor or disfavor to any person in relation to the Contract, or

- iii) if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such induce mentor reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination, or
- g) If the contract or repeatedly fails to remedy delivers defective work,
- based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph
 2.2 of the Appendix B to these General Conditions, in competing for or in executing the Contract.
- 15.2.2 In any of these events or circumstances, the Procuring Entity may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f) or (g) or (h), the Procuring Entity may by notice terminate the Contract immediately.
- 15.2.3 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contractor otherwise.
- 15.2.4 The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.
- 15.2.5 After termination, the Procuring Entity may complete the Works and/ or arrange for any other entities to do so. The Procuring Entity and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.
- 15.2.6 The Procuring Entity shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Procuring Entity, these items may be sold by the Procuring Entity in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

15.3 Valuation at Date of Termination

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

15.4 Payment after Termination

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

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

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

15.6 Fraud and Corruption

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

- 15.7 Corrupt gifts and payments of commission
 - 15.7.1 The Contractor shall not;
 - a) Offer or give or agree to give to any person in the service of the Procuring Entity any gift or consideration of any kind as an inducement or reward for doing or for bearing to door for having done or for borne to do any act in relation to the obtaining or execution of this or any other Contract for the Procuring Entity or for showing or for bearing to show favor or disfavor to any person in relation to this or any other contract for the Procuring Entity.
 - b) Enter into this or any other contract with the Procuring Entity in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment there of have been disclosed in writing to the Procuring Entity.
 - 15.7.2 Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the

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

16. SUSPENSION AND TERMINATION BY CONTRACTOR

- 16.1 Contractor's Entitlement to Suspend Work
 - 16.1.1 If the Engineer fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or Sub-Clause 14.7 [Payment],or not receiving instructions that would enable the contractor to proceed with the works in accordance with the program, the Contractor may, after giving not less than 30 days' notice to the Procuring Entity, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.
 - 16.1.2 The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Termination by Contractor].
 - 16.1.3 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.
 - 16.1.4 If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 - 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 16.2 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 16.3 Termination by Contractor
 - 16.3.1 The Contractor shall be entitled to terminate the Contract if:
 - a) the Engineer fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
 - b) the Contractor does not receive the amount due under an Interim Payment Certificate within 90 days after the expiry of the time stated in Sub-Clause1 4.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's

Claims]),

c) the Procuring Entity substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract,

d) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or

e) the Procuring Entity becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.

- the Contractor does not receive the Engineer instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].
- 16.3.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Procuring Entity, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.
- 16.3.3 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contractor otherwise.

16.4 Cessation of Work and Removal of Contractor's Equipment

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

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

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

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

17. RISK AND RESPONSIBILITY

17.1 Indemnities

- 17.1.1 The Contractor shall indemnify and hold harmless the Procuring Entity, the Procuring Entity's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:
 - a) Bodily injury, sickness, disease or death, of any person what so ever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful actor breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and
 - b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design

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

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

the contractor, the contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

- 17.2 Contractor's Care of the Works
 - 17.2.1 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Procuring Entity. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Procuring Entity.
 - 17.2.2 After responsibility has accordingly passed to the Procuring Entity, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.
 - 17.2.3 If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.
 - 17.2.4 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.
- 17.3 Procuring Entity's Risks

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

- a) War hostilities (whether war be declared or not),
- b) rebellion, riot, commotion or disorder, terrorism, sabotage by persons other than the Contractor's Personnel,
- c) explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such explosives, radiation or radio-activity,
- d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,

- e) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
- f) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
- g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.
- 17.4 Consequences of Procuring Entity's Risks
 - 17.4.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.
 - 17.4.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- (a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- (b) Payment of any such Cost, which shall be included in the Contract Price. In the case of subparagraphs (e)and (g) of Sub-Clause 17.3 [Procuring Entity's Risks], Accrued Costs shall be payable.
- 17.4.3 After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 17.5 Intellectual and Industrial Property Rights
- 17.5.1 In this Sub-Clause, "infringement" shall refer to an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" shall refer to a claim (or proceedings pursuing a claim) alleging an infringement.
- 17.5.2 Whenever a Party does not give notice to the other Party of any claim within 30 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.
- 17.5.3 The Procuring Entity shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:
 - a) An un avoidable result of the Contractor's compliance with the Contract, or
 - b) A result of any Works being used by the Procuring Entity:
 - i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
 - ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.
- 17.5.4 The Contractor shall indemnify and hold the Procuring Entity harmless again stand from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.
- 17.5.5 If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying

Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

- 17.5.6 For operation and maintenance of any plant or equipment installed, the contractor shall grant a nonexclusive and non-transferable license to the Procuring Entity under the patent, utility models ,or other intellectual rights owned by the contractor or a third party from whom the contract or has received the rights to grant sub-licenses and shall also grant to the Procuring Entity a non-exclusive and non-transferable rights (without the rights to sub-license) to use the know how and other technical information disclosed to the contract or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copy right, know-how or other intellectual rights from the contractor or any other third party to the Procuring Entity.
- 17.6 Limitation of Liability
- 17.6.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contractor for any in director consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause

17.4(b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].

- 17.6.2 The total liability of the Contractor to the Procuring Entity, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas], Sub-Clause 4.20 [Procuring Entity's Equipment and Free- Issue Materials], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in the Special Conditions of Contract, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.
- 17.6.3 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.
- 17.7 Use of Procuring Entity's Accommodation/Facilities
- 17.7.1 The Contractor shall take full responsibility for the care of the Procuring Entity provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).
- 17.7.2 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.
- 18. INSURANCE
- 18.1 General Requirements for Insurances
 - 18.1.1 In this Clause, "insuring Party" means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.
 - 18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

- 18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
- 18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.
- 18.1.6 The relevant insuring Party shall, within the respective periods stated in the Special Conditions of Contract (calculated from the Commencement Date), submit to the other Party:
 - a) Evidence that the insurances described in this Clause have been affected, and
 - b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].
- 18.1.7 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.
- 18.1.8 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.
- 18.1.9 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or at tempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.
- 18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contractor fails to provide satisfactory evidence and copies of policies in accordance with this Sub- Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.
- 18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Procuring Entity, under the other terms of the Contractor otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Procuring Entity.
- 18.1.12 Procuring Entity in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission

nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

- 18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub- Clause 20.1 [Contractor's Claims], as applicable.
- 18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.
- 18.2 Insurance for Works and Contractor's Equipment
 - 18.2.1 The insuring Party shall insure the Works, Plant, Material sand Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.
 - 18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).
 - 18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.
 - 18.2.4 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:
 - a) Shal lbe effected and maintained by the Contractor as insuring Party,

- b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
- c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's

Risks],

- shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Procuring Entity of another part of the Works, and loss or damage from the risks listed in subparagraphs (c), (g) and (h)of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated in the Special Conditions of Contract (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
- e) may however exclude loss of, damage to, and reinstatement of:

a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below), ii) apart of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship, iii) apart of the Works which has been taken over by the Procuring Entity, except to the extent that the Contractor is liable for the loss or damage, and iv) Goods while they are not in Kenya, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

- 18.2.5 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].
- 18.3 Insurance against Injury to Persons and Damage to Property
 - 18.3.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.
 - 18.3.2 This insurance shall be for a limit per occurrence of not less than the amount stated in the Special Conditions of Contract, with no limit on the number of occurrences. If an amount is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
 - 18.3.3 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:
 - a) Shall be effected and maintained by the Contractor as insuring Party,
 - b) shall be in the joint names of the Parties,

- c) shall be extended to cover liability for all loss and damage to the Procuring Entity's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
 - d) may however exclude liability to the extent that it arises from:
- i) the Procuring Entity's right to have the Permanent Works executed on, over, under, in or ii)

through any land, and to occupy this land for the Permanent Works, iii) damage which is an

unavoidable result of the Contractor's obligations to execute the iv) Works and remedy any defects,

and

- v) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.
- 18.4 Insurance for Contractor's Personnel
 - 18.4.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.
 - 18.4.2 The insurance shall cover the Procuring Entity and the Engineer against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.
 - 18.4.3 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19. FORCE MAJEURE

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

- d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

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

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

- 19.4 Consequences of Force Majeure
 - 19.4.1 If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/ or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause
 - 8.4 [Extension of Time for Completion], and
 - b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in Kenya, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause18.2 [Insurance for Works and Contractor's Equipment].
 - 19.4.2 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 19.5 Force Majeure Affecting Subcontractor

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

- 19.6 Optional Termination, Payment and Release
 - 19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified

Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].

- 19.6.2 Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:
 - a) the amounts payable for any work carried outfor which a price is stated in the Contract;
 - b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the

Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;

- c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- e) the Cost of repatriation of the Contractor's staff and lab or employed wholly in connection with the Works at the date of termination.
- 19.7 Release from Performance

Not withstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

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

20. SETTLEMENT OF CLAIMS AND DISPUTES

- 20.1 Contractor's Claims
 - 20.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give <u>Notice to the Engineer</u>, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.

20.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.

- 20.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.
- 20.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at an other location acceptable to the Engineer. Without admitting the Procuring Entity's liability, the Engineer 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 Engineer to inspect all these records and shall (if instructed) submit copies to the Engineer.
- 20.1.5 Within 42days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer 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 Engineer may reasonably require; and
- c) The Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.
- 20.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars but shall nevertheless give his response on the principles of the claim within the above defined time period.

20.1.7 Within the above defined period of 42 days, the Engineer shall proceed in accordance with SubClause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

- 20.1.8 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- 20.1.9 If the Engineer does not respond within the time frame defined in this Clause, either Party may consider that the claim is rejected by the Engineer and any of the Parties may refer the dispute for amicable settlement in accordance with Clause 20.3.
- 20.1.10 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/ or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 20.3.

20.2 Procuring Entity's Claims

20.2.1 If the Procuring Entity considers itself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Procuring Entity or the Engineer shall give notice and particulars to the

Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.

- 20.2.2 The notice shall be given as soon as practicable and no longer than 30 days after the Procuring Entity became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.
- 20.2.3 The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/or extension to which the Procuring Entity considers itself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Procuring Entity is entitled

to be paid by the Contractor, and/ or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].

20.2.4 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Procuring Entity shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

20.3 Amicable Settlement

Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 20.1 above should move to commence arbitration after 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

20.4 Matters that may be referred to arbitration

Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) Whether or not the issue of an instruction by the Engineer is empowered by these Conditions.
- b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause 19.
- All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.
- 20.5 Arbitration
 - 20.5.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 20.3 shall be finally settled by arbitration.
 - 20.5.2 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.

- 20.5.3 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.
- 20.5.4 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 a ward any sums which ought to have been the subject of or included in any certificate.
- 20.5.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision require mentor notice had been given.
- 20.5.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Engineer from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 20.5.7 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.
- 20.5.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Engineer shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 20.5.8 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.
- 20.6 Arbitration with National Contractors
 - 20.6.1 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
 - 20.6.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.
- 20.7 Arbitration with Foreign Contractors
 - 20.7.1 Arbitration with foreign contractors shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings

administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

- 20.7.2 The place of arbitration shall be a location specified in the SCC; and the arbitration shall be conducted in the language for communications defined in Sub-Clause1.4 [Law and Language].
- 20.8 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

- 20.9 Failure to Comply with Arbitrator's Decision
 - 20.9.1 The award of such Arbitrator shall be final and binding up on the parties.
 - 20.9.2 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.
- 20.10 Contract operations to continue

Notwithstanding any reference to arbitration herein,

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

SECTION L SPECIAL CONDITIONS OF CONTRACT

Section IX - Special Conditions of Contract

The following Special Conditions shall supplement the GCC. Whenever there is a conflict, the provisions here in shall prevail over those in the GCC.

Part A - Contra	ict Data
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Conditions	Sub-clause	Data
Procuring Entity's name and address	Heading	Competition Authority of Kenya
Name and Reference No. of the Contract	Heading and 3.1.1	AS PER ADVERTISEMENT
Engineer's Name and address	8	CHIEF ENGINEER ELECTRICAL STATE DEPARTMENT FOR PUBLIC WORKS P.O BOX 41191- 00100 NAIROBI
Contractor's Representative's name	4.3.1	
Key Personnel names	16.9.1	
Time for Completion	1.1	Days

Defects Notification Period	1.1	Days
Sections	1.1	If sections are to be used, refer to Table : Summary of sections below
Electronic transmission systems	1.3	
Time for the parties entering into a Contract Agreement	1.6	Within 30 days
Commencement Date	8.1.1	
Time for access to the site	2.1	No earlier than the Commencement Date, and not later than <u>14</u> days after Commencement Date

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Engineer Duties and Authority	p.1.0 (0)(II)	Variations resulting in an increase of the Accepted Contract Amount in excess of <u>25</u> % shall require approval of the procuring Entity.
Performance Security	4.2.1	The performance security will be in the form of a 'unconditional demand guarantee in the amount(s) of 5% of the accepted bid amount
Normal working hours	6.5	(8.00AM- 1.00PM and 2.00PM - 5.00PM local time)
Delay damages for the works	8.7 & 14.15(b)	<u>0.001</u> % of the Contract Price per day. If sections are to be used, refer to Table: Summary of sections below
Maximum amount of delay damages	8.7	<u>1</u> % of the final Contract Price.
Provisional Sums	13.5. (b)(ii)	10%

Adjustments for Changes in Cost	13.8	Not Applicable
Total advance payment	14.2.1	Not Applicable
Repayment amortization rate of advance payment	14.2.5 (b)	Not Applicable
Percentage of Retention	14.3.2 (c)	10 %
Limit of Retention Money	14.3.2 (c)	10% of the Accepted Contract Amount
Plant and Materials	14.5(b)(i)	If Sub-Clause 14.5 applies: Plant and Materials for payment Free on Board As per the BQ.
	14.5(C)(i)	Plant and Materials for payment when delivered to the Site <u>As per the BQ</u> .

Minimum Amount of Interim Payment Certificates	14.6	0% of the Accepted Contract Amount.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	As per clause 14.8.2
Maximum total liability of the Contractor to the Procuring Entity		The product of 1.3 times the Accepted Contract Amount,

Periods for submission of insurance: a. evidence of insurance. b. Relevant policies		14 days 14 days
Maximum amount of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d)	Not Applicable
Minimum amount of third-party insurance	18.3	Not Applicable
The place of arbitration	20.7.2	NAIROBI, KENYA

SECTION M CONTRACT FORMS

FORM No. 1 - NOTIFICATION OF INTENTION TO AWARD

FORM No. 2 - NOTIFICATION OF AWARD - LETTER OF ACCEPTANCE

- FORM No. 3 CONTRACT AGREEMENT
- FORM No. 4 PERFORMANCE SECURITY [Option 1 Unconditional Demand Bank Guarantee]
- FORM No. 5- PERFORMANCE SECURITY [Option 2 Performance Bond]
- FORM No. 6 ADVANCE PAYMENT SECURITY
- FORM No. 7 RETENTION MONEY SECURITY



FORM No 1: NOTIFICATION OF INTENTION TO AWARD OF CONTRACT

This Notification of Award shall be sent to each Tenderer that submitted a Tender and was not successful. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

- 1. For the attention of Tenderer's Authorized Representative
 - i) Name: [insert Authorized Representative's name]
 - ii) Address: [insert Authorized Representative's

Address]

- iii) Telephone: [insert Authorized Representative's telephone/fax
- numbers] iv) Email Address: [insert Authorized Representative's email

address]

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. <u>Date of transmission</u>: [email] on [date] (local time)

This Notification is sent by (Name and designation)

- 3. Notification of Award
 - i) Procuring Entity: [insert the name of the Procuring

Entity] ii) Project: [insert name of project]

- iii) Contract title: [insert the name of the contract]
- iv) ITT No: [insert ITT reference number from Procurement Plan]

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

- 4. Request a debriefing in relation to the evaluation of your tender by submitting a Procurement-related Complaint in relation to the decision to award the contracts.
 - a) The successful tenderers
 - i) Name of successful Tender
 - ii) Address of the successful Tender

iii) Contract price of the successful Tender Kenya Shillings _____ (in words)

b) The reasons for your tender being unsuccessful are as follows:

c) Other Tenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out.

Name of Tender	Tender Pr as read ou	Tender's evalu price (Note a)	One Reason Why Not Evali

(Note a) State NE if not evaluated

5. <u>How to request a debriefing</u>

- a) DEADLINE: The dead line to request a debriefing expires at midnight on [insert date] (local time).
- b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: [insert full name of person, if

applicable] ii) Title/position: [insert

title/position] iii) Agency: [insert name of

Procuring Entity] iv) Email address: [insert

email address]

- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.
- 6. <u>How to make a complaint?</u>
 - a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [insert date] (local time).
 - b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: [insert full name of person, if

applicable] ii)	Title/position: [insert title/
position] iii)	Agency: [insert name of Procuring
Entity] iv)	Email address: [insert email
address]	

- c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.
- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website <u>www.ppra.go.ke</u>.

You should read these documents before preparing and submitting your complaint.

- e) There are four essential requirements:
 - You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process and is the recipient of a Notification of Intention to Award.
 - ii) The complaint can only challenge the decision to award the contract. iii) You must submit the complaint within the period stated above.
 - iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) DEADLINE: The Standstill Period is due to end at midnight on [insert date] (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5(d) above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

Signature:

Name:

Title/position:

FORM NO 2: LETTER OF AWARD

[letterhead paper of the Procuring Entity]

[date]

To: [name and address of the Contractor]

This is to notify you that your Tender dated [date] for execution of the [name of the Contract and identification number, as given in the Contract Data] for the Accepted Contract Amount [amoun tin numbers and words] [name of currency], as corrected and modified in accordance with the Instructions to Tenderers, is here by accepted by...... (name of Procuring Entity).

You are requested to furnish the Performance Security within in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:
Name and Title of Signatory:
Name of Procuring Entity:
Attachment: Contract Agreement:

FORM NO 3: CONTRACT AGREEMENT

between.....

Procuring Entity"), of the one part, and _____ of ____ (hereinafter "the Contractor"), of the other part:

WHEREAS the Procuring Entity desires that the Works known as should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects there in,

The Procuring Entity and the Contractor agree as follows:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
- 2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a) The Notification of Award
 - b) the Form of Tender
 - c) the addenda Nos_(if any)
 - d) the Special Conditions of Contract
 - e) the General Conditions of Contract;
 - f) the Specifications
 - g) the Drawings; and
 - h) the completed Schedules and any other documents forming part of the contract.
- 3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor here by covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- 4. The Procuring Entity here by covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects there in, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

INWITNESS where of the parties here to have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by_(for the Procuring Entity)

Signed and sealed by (for the Contractor).

FORM NO. 4 - PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: [insert name and Address of Procuring Entity]

Date: _____[Insert date of issue]

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

- 1. We have been informed that ______(hereinafter called "the Contractor") has entered into Contract No. ______dated ___with (name of Procuring Entity) ______(the Procuring Entity as the Beneficiary), for the execution of ______(hereinafter called "the Contract").
- 2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
- 3. Atthe request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of (in words),1 such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand it self or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
- 4. This guarantee shall expire, no later than the.....Day of.....2, and any demand for payment under it must be received by us at the office indicated above on or before that date.
- 5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], inresponse to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

.....

[Name of Authorized Official, signature(s) and seals/stamps]

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

1 The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency of the Contract or a freely convertible currency acceptable to the Beneficiary.

2 Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM No. 5- PERFORMANCE SECURITY

[Option 2– Performance Bond]

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[Note: Procuring Entities a readvised to use Performance Security – Unconditional Demand Bank Guarantee instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code] Beneficiary: [insert name and Address of Procuring Entity] Date: _____[Insert date of issue] PERFORMANCE BOND No.:

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

- 1. By this Bond ______ as Principal (hereinafter called "the Contractor") and] as Surety (hereinafter called "the Surety"), are held and firmly bound unto _] as Obligee (hereinafter called "the Procuring Entity") in the amount of for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
- 2. WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the _day of_,20 ____, for in accordance with the documents, plans, specifications, and amendments there to, which to the extent here in provided for, are by reference made part here of and are here in after referred to as the Contract.
- 3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:
 - a) Complete the Contract in accordance with its terms and conditions; or
 - b) Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make a vailable as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
 - c) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto a total not exceeding the amount of this Bond.
- 4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
- 5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of

any person or corporation other than the Procuring Entity named here in or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.

6. In testimony whereof, the Contractor has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly at tested by the signature of his legal representative, this day of_20_.

SIGNED ON on behalf of _____

By____in the capacity of_____

Inthepresence of _____

SIGNED ON on behalf of _____

By____in the capacity of_____

Inthepresence of _____

FORM NO. 6 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: [Insert name and Address of ProcuringEntity] Date: [Insert date of issue]

ADVANCE PAYMENT GUARANTEE No.: [Insert guarantee reference number]

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

- 2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum

(in words) is to be made against an advance payment guarantee.

- 3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of (in words_____)1 upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
 - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
 - b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
- 4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number_at_____.
- 5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, oronthe _________, 2 whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
- 6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/stamps]

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

1The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.

2Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM NO. 7 - RETENTION MONEY SECURITY

[Demand Bank Guarantee] [Guarantor letterhead] Beneficiary:_____ [Insert name and Address of Procuring Entity] Date:_[Insert date of issue] Advance payment guarantee no. [Insert guarantee reference number] Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

1. We have been informed that _____ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Contractor") has entered into Contract No.

[insert reference number of the contract] dated_____with the Beneficiary, for the execution of_____[insert name of contract and brief description of Works] (hereinafter called "the Contract").

- 2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of [insert the second half of the Retention Money] is to be made against a Retention Money guarantee.
- 3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] _____ ([insert amount in words____])1 upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or showgrounds for your demand or the sum specified there in.
- 4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention Money as referred to above has been credited to the Contractor on its account number_at _____ [insert name and address of Applicant's bank].
- 5. This guarantee shall expire no later than the......Day of..........2, and any demand for payment under it must be received by us at the office indicated above on or before that date.
- 6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

_ [Name of Authorized Official, signature(s) and seals/stamps]

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