PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT NANYUKI AIRSTRIP

TENDER No. KAA/OT/NANYUKI/0182/2024-2025

MAY, 2025

MANAGING DIRECTOR/CEO
KENYA AIRPORTS AUTHORITY
AUTHORITY
P.O.BOX 19001-00501
NAIROBI

GENERAL MANAGER (P&ES)
KENYA AIRPORTS

P.O.BOX 19001-00501
NAIROBI

Table of Contents

INVITATION TO TENDER **6**

PART 1 - TENDERING PROCEDURES **7**

SECTION I: INSTRUCTIONS TO TENDERERS **8**

A General Provisions **8**

2. Fraud and Corruption **8**

3. Eligible Tenderers **8**

4. Eligible Goods, Equipment, and Services **10**

5. Tenderer's Responsibilities **10**

B. Contents of Tender Documents **10**

6. Sections of Tender Document **10**

7. Site Visit **11**

8. Pre-Tender Meeting **11**

9. Clarification and amendments of Tender Documents **11**

10. Amendment of Tendering Document **11**

C. Preparation of Tenders **11**

11. Cost of Tendering **11**

12. Language of Tender **12**

13. Documents Comprising the Tender **12**

14. Form of Tender and Schedules **12**

15. Alternative Tenders **12**

16. Tender Prices and Discounts **12**

17. Currencies of Tender and Payment **13**

18. Documents Comprising the Technical Proposal **13**

19. Documents Establishing the Eligibility and Qualifications of the Tenderer **13**

20. Period of Validity of Tenders **14**

21. Tender Security **14**

22. Format and Signing of Tender **15**

D. Submission and Opening of Tenders **15**

24. Deadline for Submission of Tenders **16**

25. Late Tenders **16**

26. Withdrawal, Substitution, and Modification of Tenders **16**

27. Tender Opening 16
E. Evaluation and Comparison of Tenders 17
28. Confidentiality 17
29. Clarification of Tenders 17
30. Deviations, Reservations, and Omissions 17
31. Determination of Responsiveness 18
32. Non-material Non-conformities 18
33. Arithmetical Errors 18
34. Currency provisions 18
35. Margin of Preference and Reservations 18
36. Nominated Subcontractors 19
37. Evaluation of Tenders 19
38. Comparison of Tenders 19
39. Abnormally Low Tenders 19
40. Abnormally High Tenders 19
41. Unbalanced and/or Front-Loaded Tenders 20
42. Qualifications of the Tenderer 20
43. Best Evaluated Tender 20
44. Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders 20
F. Award of Contract 21
45. Award Criteria 21
46. Notice of Intention to enter into a Contract 21
47. Standstill Period 21
48. Debriefing by the Procuring Entity 21
49. Letter of Award 21
50. Signing of Contract 21
51. Appointment of Adjudicator 21
52. Performance Security 21
53. Publication of Procurement Contract 22
54. Procurement Related Complaints and Administrative Review 22
SECTION II - TENDER DATA SHEET (TDS) 23
SECTION III - EVALUATION AND QUALIFICATION CRITERIA 26
1. General Provisions 26
2. Preliminary examination for Determination of Responsiveness 26

3. Tender Evaluation (ITT 35) Price evaluation: 30

4. Multiple Contracts 30

5. Alternative Tenders (ITT 13.1) 31

7. Post qualification and Contract ward (ITT 39), more specifically, ... 31

a) History of non-performing contracts: 31

b) Pending Litigation 31

c) Litigation History 31

8. QUALIFICATION FORM SUMMARY 31

1. FORM EQU: EQUIPMENT 35

2. FORM PER -1 35

4. TENDERER'S QUALIFICATION WITHOUT PRE-QUALIFICATION 39

4.1 FORM ELI -1.1 39

4.2 FORM ELI -1.2 40

4.3 FORM CON – 2 41

4.4 FORM FIN – 3.1: 42

4.5 FORM FIN – 3.2: 44

4.6 FORM FIN – 3.3: 44

4.7 FORM FIN – 3.4: 45

4.8 FORM EXP - 4.1 45

4.9 FORM EXP - 4.2(a) 46

4.10 FORM EXP - 4.2 (a) (cont.) 46

4.11 FORM EXP - 4.2(b) 47

OTHER FORMS 48

5. FORM OF TENDER 48

C. TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE 51

ii) Conflict of interest disclosure 52

D. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION 53

CERTIFICATE OF BIDDER'S SITE VISIT 55

On behalf of Bidder 55

On behalf of Client 55

E. SELF - DECLARATION FORMS 56

FORM SD1 56

FORM SD2 57

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS 58

B. APPENDIX 1- FRAUD AND CORRUPTION 59

FORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee] 61

TENDER-SECURING DECLARATION FORM 62

Appendix to Tender 63

PART II - WORK REQUIREMENTS 64

SECTION V - DRAWINGS 65

SECTION VI - SPECIFICATIONS 66

ARCHITECTS' SPECIFICATION **66**
GENERAL 66
DISCREPANCIES IN DESCRIPTIONS **66**
DISCREPANCIES IN DRAWINGS **66**
WALLING 66
FLOOR, WALL AND CEILING FINISHES **72**
GLAZING **73**
PAINTING AND DECORATING **74**
SECTION VII- BILLS OF QUANTITIES **112**
PART III - CONDITIONS OF CONTRACT AND CONTRACT FORMS **184**
SECTION VIII - GENERAL CONDITIONS OF CONTRACT **185**
A. General **185**
1. Definitions **185**
E. Finishing theContract **196**
SECTION IX - SPECIAL CONDITIONS OF CONTRACT 199
OTHER FORMS 203
FORM No 1: NOTIFICATION OF INTENTION TO AWARD **203**
FORM NO. 2 - REQUEST FOR REVIEW **205**
FORM NO 3: LETTER OF AWARD **206**
FORM NO 4: CONTRACT AGREEMENT **207**
FORM NO. 5 - PERFORMANCE SECURITY **208**
FORM No. 6 - PERFORMANCE SECURITY **208**
PERFORMANCE BONDNo.: **209**
FORM NO. 7 - ADVANCE PAYMENT SECURITY **210**
FORM NO. 8 - RETENTION MONEY SECURITY **211**
FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM **212**

INVITATION TO TENDER

CONTRACT NO. KAA/OT/NANYUKI/0182/2024-2025 **Date; 6th May, 2025**

CONTRACT NAME: PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT NANYUKI AIRSTRIP

1. Kenya Airports Authority invites sealed tenders for the **Proposed Construction of Main Gate, Canopy, Toll Station and Public Ablution Block at Nanyuki Airstrip**
2. Tendering will be conducted under open (National) tendering method using a standardized tender document.
3. A complete set of Tender documents are downloadable from the KAA supplier login screen using the link https://kaa.go.ke/corporate/procurement/ . Tender documents obtained electronically will be free of charge.
4. Tender documents may be viewed and downloaded for free from the website (www.kaa.go.ke). Tenderers who download the tender document must forward their particulars immediately to (tenders@kaa.go.ke , 6611000 and P.O Box 19001- 00501 Nairobi)
5. No other communication channel shall be used except through this email address tenders@kaa.go.ke.
6. The Tenderer shall chronologically serialize all pages of the tender documents submitted including any attachments and a table of contents shall be submitted.
7. All Tenders must be accompanied by a tender security of **Kshs. 300,000.00**. Valid for **216 days** from the date of tender opening/closing as provided in the tender data sheet and section 3 of the tender document on evaluation.
8. The tender shall be submitted online on or before **22nd May, 2025 at 11.00 am**. Interested bidders who are not in KAA system and therefore do not have login credentials should contact KAA procurement through email: tenders@kaa.go.ke for login credentials early enough and not later than three (3) days before tender closing date. All relevant submission documents must be attached on the login submission screen (On submission screen, click technical Rfx Response tab which will lead you to the second screen (Cfolder) where the system creates a folder specific to you for uploading your technical tender response documents. Here you click "Tech Bid" subfolder and create attachments. "Caution Do not attach your documents on the collaboration folder"). For Financial Proposal, use the submission financial screen for inputting the Price and related financial attachments on Notes and attachments. A step by step manual/guide is available for downloading using the link https://www.kaa.go.ke/corporate/procurement/manuals/. Bidders should note that documents submitted for purposes of registration for login credentials do not form part of the tender document.
9. All Prices quoted should be inclusive of all costs and taxes; and must be in Kenya shillings and shall remain valid for **186 days** from the closing date of Tender.
10. Tenders will be opened online immediately thereafter on **22nd May, 2025 at 11.00 am** at the Conference Room, 2nd Floor, Kenya Airports Authority Headquarters complex building. A link shall be provided to those tenderers who shall submit their tenders online and would want to participate in the tender opening. Tenderers shall therefore be required to submit their email address to tenders@kaa.go.ke to enable them access this link during tender opening.
11. Late tenders will be rejected.
12. Bidders shall not have access to the eProcurement system after the official closing time.
13. The addresses referred to above are:

Address for obtaining further information and for purchasing tender documents

i. Name of Procuring Entity – **Kenya Airports Authority**
ii. Physical address - **Kenya Airports Authority Headquarters complex building, Jomo Kenyatta International Airport, Airport North Road, 2nd Floor, Procurement & Logistics Department**
iii. Postal Address – **P.O Box 19001 – 00501 Nairobi**
iv. Officer to be contacted. – General Manager, Procurement and Logistics, Email: tenders@kaa.go.ke

For: Managing Director/CEO

PART 1 - TENDERING PROCEDURES

SECTION I: INSTRUCTIONS TO TENDERERS

A General Provisions

1. Scope of Tender

1.1 The Procuring Entity as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The name, identification, and number of lots (contracts) of this Tender Document are **specified in the TDS.**

2. Fraud and Corruption

2.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 "Declaration not to engage in corruption". The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.

2.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the "Certificate of Independent Tender Determination" annexed to the Form of Tender.

2.3 Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.

2.4 Unfair Competitive Advantage -Fairness and transparency in the tender process require that the Firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender being tendered for. The Procuring Entity shall indicate in the **TDS** firms (if any) that provided consulting services for the contract being tendered for. The Procuring Entity shall check whether the owners or controllers of the Tenderer are same as those that provided consulting services. The Procuring Entity shall, upon request, make available to any tenderer information that would give such firm unfair competitive advantage over competing firms.

3. Eligible Tenderers

3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.7 or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. Public employees and their close relatives *(spouses, children, brothers, sisters and uncles and aunts)* are not eligible to participate in the tender. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of JV members shall be specified in the **TDS.**

3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.

3.3 A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:

a) Directly or indirectly controls, is controlled by or is under common control with another tenderer; or
b) Receives or has received any direct or indirect subsidy from another tenderer; or
c) Has the same legal representative as another tenderer; or
d) Has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process; or
e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender; or
f) any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as Engineer for the Contract implementation; or
g) Would be providing goods, works, or non-consulting services resulting from or directly related to

consulting services for the preparation or implementation of the contract specified in this Tender Document or

h) Has a close business or family relationship with a professional staff of the Procuring Entity who:

i) are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or

ii) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.

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

3.5 A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender.

3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.8.A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub- consultants for any part of the Contract including related Services.

3.7 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 Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are accredited by PPRA to be (i) a legal public entity of the state Government and/or public administration, (ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and (iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis.

3.9 A Firms and individuals may be ineligible if their countries of origin (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country, or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

3.10 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, subcontracts and labor) from national suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided in for this purpose is be provided in *"SECTION III - EVALUATION AND QUALIFICATION CRITERIA, Item 9".*

3.11 Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer, if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan Citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan citizens. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

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

4. Eligible Goods, Equipment, and Services

4.1 Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not eligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.

4.2 Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

5. Tenderer's Responsibilities

5.1 The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.

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

5.3 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against all liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the inspection.

5.4 The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

B. Contents of Tender Documents

6. Sections of Tender Document

6.1 The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 8.

PART 1 Tendering Procedures

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

PART 2 Works Requirements

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

PART 3 Conditions of Contract and Contract Forms

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

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

6.3 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of the pre-Tender

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

The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

7. Site Visit

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

8. Pre-Tender Meeting

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

8.2 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the TDS before the meeting.

8.3 Minutes of the pre-Tender meeting and the pre-arranged pretender site visit of the site of the works, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT 6.3. Minutes shall not identify the source of the questions asked.

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

9. Clarification and amendments of Tender Documents

9.1 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the TDS or raise its enquiries during the pre-Tender meeting and the pre-arranged pretender visit of the site of the works if provided for in accordance with ITT 8.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the TDS prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender Documents in accordance with ITT 6.3, including a description of the inquiry but without identifying its source. If specified in the TDS, the Procuring Entity shall also promptly publish its response at the web page identified in the TDS. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents appropriately following the procedure under ITT 8.4.

10. Amendment of Tendering Document

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

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

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

C. Preparation of Tenders

11. Cost of Tendering

11.1 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring

Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

12. Language of Tender

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

13. Documents Comprising the Tender

13.1 The Tender shall comprise the following:

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

13.2 In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed Agreement. The Tenderer shall chronologically serialize pages of all tender documents submitted.

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

14. Form of Tender and Schedules

14.1 The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested.

15. Alternative Tenders

15.1 Unless otherwise specified in the TDS, alternative Tenders shall not be considered.
When alternative times for completion are explicitly invited, a statement to that effect will be included in the TDS, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

15.2 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity. When specified in the TDS, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the TDS, as will the method for their evaluating, and described in Section VII, Works' Requirements.

16. Tender Prices and Discounts

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

16.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined

substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.

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

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

16.5 It will be specified in the TDS if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.

16.6 Where tenders are being invited for individual lots (contracts)or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 16.4, provided the Tenders for all lots (contracts) are opened at the same time.

16.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

17. Currencies of Tender and Payment

17.1 Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings. A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya shall device own ways of getting foreign currency to meet those expenditures.

18. Documents Comprising the Technical Proposal

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

19. Documents Establishing the Eligibility and Qualifications of the Tenderer

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

19.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.

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

19.4 Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.

19.5 The purpose of the information described in ITT 19.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.

19.6 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was

provided by the tenderer under ITT 6.3. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.

19.7 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.

19.8 If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.

19.9 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:

i) if the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
ii) if the contract has been awarded to that tenderer, the contract award will be set aside,
iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.

19.10 If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 6.7 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

20. Period of Validity of Tenders

20.1 Tenders shall remain valid for the Tender Validity period specified in the TDS. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 24). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

20.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 21.1, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 20.3.

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

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

21. Tender Security

21.1 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the TDS, in original form and, in the case of a Tender Security, in the amount and currency specified in the TDS. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

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

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

21.3 If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 20.2.

21.4 If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.

21.5 If a Tender Security is specified pursuant to ITT 21.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined nonresponsive or a bidder declines to extend tender validity period.

21.6 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security, and any other documents required in the TDS.

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

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 thereto provided by the Tenderer; or

b) if the successful Tenderer fails to:

i) sign the Contract in accordance with ITT 50; or

ii) furnish a Performance Security and if required in the **TDS**, and any other documents required in the **TDS**.

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

21.9 The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

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

22. Format and Signing of Tender

22.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 13 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 15, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the TDS and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

22.2 Tenderers shall mark as "CONFIDENTIAL" all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.
The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the TDS and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

22.3 In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

22.4 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. Submission and Opening of Tenders

23. Sealing and Marking of Tenders

23.1 Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

a) in an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and
b) in an envelope or package or container marked "COPIES", all required copies of the Tender; and
c) if alternative Tenders are permitted in accordance with ITT 15, and if relevant:
i) in an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and
ii) in the envelope or package or container marked "COPIES- ALTERNATIVE TENDER", all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:
a) bear the name and address of the Procuring Entity.
b) bear the name and address of the Tenderer; and
c) bear the name and Reference number of the Tender.

23.2 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 that are misplaced or opened prematurely will not be accepted.

24. Deadline for Submission of Tenders

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

24.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

25. Late Tenders

25.1 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 24. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

26. Withdrawal, Substitution, and Modification of Tenders

26.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 22.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

a) prepared and submitted in accordance with ITT 22 and ITT 23 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;"and
b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 24.

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

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

27. Tender Opening

27.1 Except in the cases specified in ITT 23 and ITT 26.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified in the TDS, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 24.1, shall be as specified in the TDS.

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

27.3 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender

substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

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

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

27.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bills of Quantities are to be initialed by the members of the tender opening committee attending the opening. The number of representatives of the Procuring Entity to sign shall be specified in the TDS.

27.7 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 25.1).

27.8 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum:

a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
b) the Tender Price, per lot (contract) if applicable, including any discounts;
c) any alternative Tenders;
d) the presence or absence of a Tender Security, if one was required.
e) number of pages of each tender document submitted.

27.9 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers upon request.

E. Evaluation and Comparison of Tenders

28. Confidentiality

28.1 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 46.

28.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.

28.3 Notwithstanding ITT 28.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any matter related to the tendering process, it shall do so in writing.

29. Clarification of Tenders

29.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for a response. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 33.

29.2 If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

30. Deviations, Reservations, and Omissions

30.1 During the evaluation of tenders, the following definitions apply:

a) "Deviation" is a departure from the requirements specified in the tender document;
b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
c) "Omission" is the failure to submit part or all of the information or documentation required in the Tender

document.

31. Determination of Responsiveness

31.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 13.

31.2 A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:

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

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

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

32. Non-material Non-conformities

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

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

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

33. Arithmetical Errors

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

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

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

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

34. Currency provisions

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

35. Margin of Preference and Reservations

35. 1 No margin of preference shall be allowed on contracts for small works.

35.2 Where it is intended to reserve the contract to specific groups under Small and Medium Enterprises, or enterprise of women, youth and/or persons living with disability, who are appropriately registered as such by the authority to be specified in the TDS, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses/firms belonging to those specified groups are the only ones eligible to tender. Otherwise if no so stated, the invitation will be open to all tenderers.

36. Nominated Subcontractors

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

36.2 Tenderers may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the TDS. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.

36.3 The subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated by the Procuring Entity in the TDS as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

37. Evaluation of Tenders

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

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

a) price adjustment due to discounts offered in accordance with ITT16;
b) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT39;
c) price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 30.3; and
d) any additional evaluation factors specified **in the TDS** and Section III, Evaluation and Qualification Criteria.

37.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.

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

38. Comparison of Tenders

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

39. Abnormally Low Tenders

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

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

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

40. Abnormally High Tenders

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

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

i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.

ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

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

41. Unbalanced and/or Front-Loaded Tenders

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

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

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

42. Qualifications of the Tenderer

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

42.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 19. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

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

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

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

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

43. Best Evaluated Tender

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

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

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

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

shall be promptly returned to the Tenderers.

F. Award of Contract

45. Award Criteria

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

46. Notice of Intention to enter into a Contract

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

a) the name and address of the Tenderer submitting the successful tender;
b) the Contract price of the successful tender;
c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;
d) the expiry date of the Standstill Period; and
e) instructions on how to request a debriefing and/or submit a complaint during the standstill period;

47. Standstill Period

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

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

48. Debriefing by the Procuring Entity

48.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 46, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

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

49. Letter of Award

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

50. Signing of Contract

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

50.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.

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

51. Appointment of Adjudicator

51.1 The Procuring Entity proposes the person named in the TDS to be appointed as Adjudicator under the Contract, at the hourly fee specified in the TDS, plus reimbursable expenses. If the Tenderer disagrees with this proposal, the Tenderer should so state in his Tender. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the Special Conditions of Contract (SCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

52. Performance Security

52.1 Within twenty-one (21) days of the receipt of the Letter of Acceptance 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 40.2 (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.

52.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and other documents 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.

52.3 Performance security shall not be required for contracts estimated to cost less than Kenya shillings five million shillings.

53. Publication of Procurement Contract

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

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

54. Procurement Related Complaints and Administrative Review

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

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

SECTION II - TENDER DATA SHEET (TDS)

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

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	A. General
ITT 1.1	The reference number is: **KAA/OT/NANYUKI/0182/2024-2025** The Procuring Entity is **Kenya Airports Authority** The name of the contract is: **PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT NANYUKI AIRSTRIP**
ITT 2.3	The Information made available on competing firms is as follows: 1. No firm has provided consulting services related to this tender
ITT 2.4	The firms that provided consulting services for the contract being tendered for are: **None**
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: **Two (2).**
B. Contents of Tender Document	
ITT 7.1	The site visit shall be mandatory
ITT 8.1	There shall be a MANDATORY Pre-Tender/Site Visit **14/05/2025 at 10:00 am at Nanyuki Airstrip – KAA Offices**. Site visit attendance is mandatory by a person who is authorized by the bidder to act on their behalf and is technical in nature (qualified in construction). The bidder's representative must bring the following for the site visit. 1. Original introductory letter on the company letterhead detailing the names and ID number of the bidder's representative. 2. Certificate of Tenderer's visit to site, 3. Original ID, 4. Copy of technical qualification certificate
ITT 8.2	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than **Three (3) days** prior to the closing date
ITT 9.1	For Clarification of Tender purposes and for obtaining further information, the Procuring Entity's details and email address is as below: Attention: ***General Manager, Procurement & Logistics*** Postal Address: ***P.O. Box 19001-00501 Nairobi, Kenya*** Physical Address: ***Kenya Airports Authority Headquarters Complex Building, Jomo Kenyatta International Airport, Airport North Road, 2nd Floor, Procurement & Logistics Department*** Telephone: ***+254 (020) 6611000*** Electronic mail address: ***tenders@kaa.go.ke*** **No other communication channel shall be used except through this email address tenders@kaa.go.ke**
C. Preparation of Tenders	
ITP 13.1 (h)	The Tenderer shall submit the additional documents in its Tender as enumerated / provided under the Evaluation Criteria Section III.
ITT 15.1	Alternative Tenders ***shall NOT be*** considered.
ITT 15.2	Alternative times for completion ***"shall not be"*** permitted.
ITT 16.5	The prices quoted by the Tenderer shall be: ***fixed***
ITT 20.1	The Tender validity period shall be **186** days from tender

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	closing/opening date.
ITT 21.1	The Tender Security shall be required of **Kshs. 300,000/-** valid for **216 days** from the date of tender opening/closing. The tender security shall be in any of the following forms: a) cash or banker's cheque, or b) a bank guarantee, or c) guarantee issued by a reputable insurance company approved by Public Procurement Regulatory Authority (PPRA). Bidders are required to note the following: (i)Those who have obtained a digital tender security must provide it online with their tender document in the KAA portal. The digital tender security must have a mechanism to verify such as use of quick response (QR) code or an online portal. They do not need to provide a hard copy of the tender security physically. ii)Those who do not provide a digital tender security as per (i) above **will be required to submit an original Tender Security physically to the office of the General Manager, Procurement and Logistics department,** **KAA Headquarters, 2nd Floor on or before the closing/opening date and time.**
ITT 22.1	The tender shall be submitted electronically as per instructions, Completed Tender documents and its attachments **must be submitted online** before the closing date **22nd May, 2025 at 11.00 am.** All relevant submission documents must be attached on the login submission screen (*On submission screen, click technical Rfx Response tab which will lead you to the second screen (Cfolder) where the system creates a folder specific to you for uploading your technical tender response documents. Here you click "Tech Bid" subfolder and create attachments. "**Caution Do not attach your documents on the collaboration folder**"*). For Financial Proposal, use the submission financial screen for inputting the Price and related financial attachments on Notes and attachments. A step by step manual/guide is available for downloading using the link https://www.kaa.go.ke/corporate/procurement/manuals/
ITT 22.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of Signed Power of Attorney, witnessed and commission by commissioner of oaths.
ITT 23	The submission shall be electronic / online as per instructions.
D. Submission and Opening of Tenders	
ITT 24.1	(A) For Tender submission purposes only 1. Upon accessing the tender documents, you will be required to respond to the tender **online** using the following link https://suppliers.kaa.go.ke/irj/portal. 2. Interested bidders who are not in KAA system and therefore do not have login credentials should contact KAA procurement through email: tenders@kaa.go.ke for login credentials early enough and not later than One (1) hour before tender closing date. 3. All relevant submission documents must be attached on the login submission screen (*On submission screen, click technical Rfx Response tab which will lead you to the second screen (Cfolder) where the system creates a folder specific to you for uploading your technical tender response documents. Here you click "Tech Bid" subfolder and create attachments. "**Caution Do not attach your documents on the collaboration folder**"*). For Financial Proposal, use the submission financial screen for inputting the Price and related financial attachments on Notes and attachments.

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	A step by step manual/guide is available for downloading using the link https://www.kaa.go.ke/corporate/procurement/manuals/. Completed Tender documents and its attachments shall be submitted **online before the closing date 22nd May, 2025 at 11.00 am** Tenders shall be **submitted** electronically as per instructions above.
ITT 27.1	Tenders will be opened online immediately on **22nd May, 2025 at 11.00 am** at the Conference Room, 2nd Floor, Kenya Airports Authority Headquarters complex building. A virtual link shall be provided to tenderer who shall have submitted their tender and would wish to participate in the tender opening. Tenderer shall therefore be required to submit their email address to tenders@kaa.go.ke to enable them access this link during tender opening. Tenderers are to submit Tenders electronically and they shall follow the electronic tender submission procedures **specified in this tender document**
ITT 27.6	The submission is electronic as per instructions.
E. Evaluation, and Comparison of Tenders	
ITT 37.2 (d)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 54.1	The procedures for making a Procurement-related Complaints are detailed in the "Regulations" available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke. If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to: General Manager, Procurement & Logistics Kenya Airports Authority Email address: tenders@kaa.go.ke In summary, a Procurement-related Complaint may challenge any of the following: (i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1. General Provisions

Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:

a) For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.
b) Value of single contract - Exchange rate prevailing on the date of the contract signature.
c) Exchange rates shall be taken from the publicly available source identified in the ITT 14.3. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

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

Evaluation and contract award Criteria

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

2. Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements of "Part 2 – Procuring Entity's Works Requirements", including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered irresponsive and will not be considered further.

A. preliminary evaluation criteria

No.	Requirement Descriptions	Remark
1	Duly filled, signed and stamped Form of Tender	**Must Meet**
2	A Valid tax compliance certificate	**Must Meet**
3	A copy of Certificate of Registration/Incorporation	**Must Meet**
4	Duly filled, signed and stamped Confidential Business Questionnaire	**Must Meet**
5	Provide copy of CR12 or equivalent from country of origin (in case of joint venture with a foreign company), providing a list of directors and shareholding status. Where one or more of the shareholders is a company (Beneficial Ownership), the CR12 or equivalent from country of origin of such a company shall be provided. However, where the CR12 of the beneficial shareholders is not available, as at the time of the tender submission, the successful bidder shall be required to submit it before execution of the contract. This requirement is not applicable to sole proprietorships and partnerships registered under Business Names	**Must Meet**
6	Copy of valid Business Permit	**Must Meet**
7	Duly filled, signed and stamped Self-Declaration that the Person/Tenderer is not Debarred in the Matter of the Public Procurement and Asset Disposal Act 2015.	**Must Meet**
8	Duly filled, signed and stamped Self-Declaration that the Person/Tenderer will not engage in any corrupt or fraudulent practice.	**Must Meet**
9	Duly filled, signed and stamped Declaration and commitment to the Code of Ethics.	**Must Meet**
10	Duly filled, Signed and Stamped Certificate of Independent Tender Determination	**Must Meet**
11	The written confirmation of authorization to sign on behalf of the Tenderer in form of a written Signed and Stamped Power of Attorney commissioned by a Commissioner of Oaths or Notary Public. However, this is not required for sole proprietors.	**Must Meet**
12	Duly signed and stamped site Visit/attendance form	**Must Meet**

No.	Requirement Descriptions	Remark
13	The Tender Security shall be required of **Kshs. 300,000/-** valid for **216 days** from the date of tender opening/closing. The tender security shall be in any of the following forms: a) cash or banker's cheque, or b) a bank guarantee, or c) guarantee issued by a reputable insurance company approved by Public Procurement Regulatory Authority (PPRA). Bidders are required to note the following: (i)Those who have obtained a digital tender security must provide it online with their tender document in the KAA portal. The digital tender security must have a mechanism to verify such as use of quick response (QR) code or an online portal. They do not need to provide a hard copy of the tender security physically. (ii)Those who do not provide a digital tender security as per (i) above **will be required to submit an** original Tender Security physically to the office of the General Manager, Procurement and Logistics department, KAA Headquarters, 2nd Floor on or before the closing/opening date and time	**Must Meet**
14	Copy of Current NCA Practicing License and Registration Certificate in Class 1-5 as a Buildings Contractor	**Must Meet**
15	Bidders to sequentially serialize their bidding documents from the first to the last page including all the attachments and blank pages to be marked ''BLANK''. Serialization MUST be numerically sequential starting from Numeric 1.	**Must Meet**

NB; Bidders who do not meet any of the above mandatory evaluation requirements will be disqualified and shall not evaluated further

B. Technical Evaluation Criteria

1	Financial Capabilities	Copies of the following documents as proof of access to liquid assets of not less than **Kshs. 25 Million** or capacity to have a minimum cash flow of **Kshs. 25 million**. This shall be evidenced by any of the following: □ Letter of line of credit from approved financial institution specific to this project and indicating the amount available. or overdraft facility from a commercial bank specifically for this project and indicating the amount to be availed. or Current bank statement for the last three months Or □ a combination of the above	Form FIN – 3.1, with attachments □ Letter of line of credit from approved financial institution specific to this project and indicating the amount available. or □ Overdraft facility from a commercial bank specifically for this project and indicating the amount to be availed. or □ Current bank statement for the last three months Or □ a combination of the above	**Must Meet**
2	Average Annual Construction Turnover	Average annual turnover of not less than Kshs. 30 Million for the last three (3) consecutive years as demonstrated by the submitted Audited Accounts for the years (2020, 2021 and 2022) or (2021, 2022 and 2023).	Audited Financial Accounts	**Must Meet**
3	General Construction Experience	Experience under construction contracts in the role of main contractor, JV member, sub-contractor, or management contractor for at least the **last *[3]***	Form EXP – 4.1 Evidenced by Contracts or LPOs supported by. □ Copy of Defects Liability Certificates; or	**Must Meet**

		***three* years,** from the date of this tender.	□ Copy of completion certificate; or □ Interim payment certificate of not less than 70% value of the contract;	
4	Specific Construction & Contract Management Experience	Proof of at least two (2) similar works (General building works including steel works construction), costing an average value of **Kshs. 15 million** each previously undertaken in the last five years (2019 to 2023). Demonstrate specific experience working at heights.	Form EXP 4.2 (a and b) Bidder shall attach copies of the following Evidenced by Signed Contracts or LPOs supported by □ Copy of Defects Liability Certificates; or □ Copy of completion certificate; or □ Interim payment certificate of not less than 70% value of the contract; For subcontracted works, the bidder should provide the following; □ Award letter of the main contractor □ Award letter of the subcontract □ Completion letter of the subcontract □ Subcontract approval from the Engineer/ supervision Authority ***All submitted Documents may be verified from the issuing agencies, KAA reserves the right to verify all submitted documents***	**Must Meet**
5	Contractor's Representative and Key Personnel	**Qualifications and technical experience of site personnel to manage and execute the works on the site.** **Project Manager (Principal representative of the contractor) (1No):** 1. B. Architecture / BSc (Building Economics) / Bachelor of Quantity Surveying/ Bsc Civil Engineering - **Mandatory** 2. Registered Professional Architect or Quantity Surveyor with BORAQS or Registered Professional Engineer with EBK and must have a valid practicing license 3. Experience – Ten (10) years **Site Agent (1No.)** 1. BA Architecture/BSc (Building Economics)/ Bachelor in Quantity Surveying/BSc Civil	Form PER- 1 and PER-2 □ Certified copies of academic certificates □ Certified copies of professional certificates □ Certifies copies of current practicing license □ Curriculum vitae signed by the nominee □ A written undertaking signed by the nominee confirming his/her availability to carry out the assignment upon winning the bid. The written undertaking shall be addressed to MD/CEO Kenya Airports Authority and must be specific to this tender	**Must Meet**

		Engineering/Bsc in Construction Management or equivalent- **Mandatory** 2. Registered Professional Architect or Quantity Surveyor with BORAQS or Registered Professional Engineer with EBK and must have a valid practicing license 3. Experience – Five (5) years - **Site Foreman (1No.)** 1. National Diploma in Building Technology or equivalent - **Mandatory** 2. Experience – Ten (10) years -		
6	Contractors key equipment	**Equipment and Machinery** Must demonstrate availability of the following key minimum equipment necessary to undertake the work. The equipment must be serviceable and in good working condition i. Scaffolding (at least 15 meters high) ii. Transportation (i.e. Lorries, Tippers & Pick-ups iii. Welding Equipment iv. Steel Cutting equipment v. Tile cutters vi. Concrete Mixer (200 CM)	Form EQU □ If the equipment is ***owned***, must provide **CLEAR** copies of log book or proof of ownership; □ If equipment is ***hired*** or ***leased*** Provide a commitment letter from the lessor of the equipment addressed to the Managing Director/CEO Kenya Airports Authority indicating that the lessor shall avail the equipment upon award of the tender and submit a copy of a written agreement to lease between lessee and lessor indicating list of equipment and their corresponding copies of log books or proof of ownership by lessor; □ The equipment listed shall be available on site when required.	**Must Meet**
7	Proposed Methodology	Adequacy and quality of the proposed methodology	**Technical approach and methodology** Provide a detailed work methodology Procedure execution of activities as outlined in BoQs Allocation machinery/labour execution activities Procedures in quality control of the activities described in BoQs **Work plan/Program of Works (PoW)** 1. PoW Resourced with Equipment-Min. allocation pursuant to the ***Schedule E of***	**Must Meet**

			Site Organization and staffing (Schedule B of Technical proposal**)**	
8	Priced Bill of Quantities	Fill all rates and amounts, **NO** Alterations of the Quantities accepted, All bidders own Corrections must be Countersigned **NO** Errors noted in the Bills of Quantities **NO** Alterations of the units of measurements accepted	Bills of Quantities in the Prescribed Format	**Must Meet**

NOTE: Tenderers who will not meet ANY of the above technical requirements Shall be disqualified and not evaluated further

3. Tender Evaluation (ITT 35) Price evaluation:

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

FINANCIAL EVALUATION

Only the bids which will be responsive to both preliminary and technical requirements shall undergo financial evaluation which shall include evaluation of:

i. Duly completed and signed Form of Tender and the bill of quantities in the format contained in this bid document

The financial evaluation will be based on the **lowest evaluated price**.

Note: Bidders are hereby notified that due diligence shall be carried out on information provided by the bidder. Any false information provided will lead to automatic disqualification irrespective at any stage of the procurement process or contract execution.

i) Alternative Completion Times, if permitted under ITT 13.2, will be evaluated as follows: N/A……

ii) Alternative Technical Solutions for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows: N/A……

iii) Other Criteria; if permitted under ITT 35.2(d): N/A……

4. Multiple Contracts

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

OPTION 1

i) If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.

ii) If a tenderer wins more than one Lot, the tender will be awarded contracts for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the Lots. The tenderer will be awarded the combination of Lots for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION 2

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

Lots.

5. **Alternative Tenders (ITT 13.1)**
An alternative if permitted under ITT 13.1, will be evaluated as follows:
The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2- Works Requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

6. **Margin of Preference** is not applicable

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

a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.

b) In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.

i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of Kenya Shillings _____.

ii) Minimum average annual construction turnover of Kenya Shillings_____ *[insert amount]*, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last_____*[insert of year]* years.

iii) At least_____(*insert number)* of contract(s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings_____equivalent.

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

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

vi) Other conditions depending on their seriousness.

a) **History of non-performing contracts**:
Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non- performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last (*specify years*). The required information shall be furnished in the appropriate form.

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

c) Litigation History
There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last _____(*specify years*). All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

8. QUALIFICATION FORM SUMMARY

1	**2**	**3**	***4***	***5***
Item No.	**Qualification Subject**	**Qualification Requirement**	***Document To be Completed by Tenderer***	***For Procuring Entity's Use (Qualification met or Not Met)***
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by the the Kenya Revenue	Form of Tender	

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

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

1 **Item No.**	2 **Qualification Subject**	3 **Qualification Requirement**	*4* ***Document To be Completed by Tenderer***	*5* ***For Procuring Entity's Use (Qualification met or Not Met)***
		management contractor or sub-contractor between 1st January [*insert year*] and tender submission deadline i.e. …. (number) contracts, each of minimum value Kenya shillings……... equivalent. [*In case the Works are to be tender as individual contracts under multiple contract procedure, the minimum number of contracts required for purposes of evaluating qualification shall be selected from the options mentioned in ITT 35.4]* The similarity of the contracts shall be based on the following: [*Based on Section VII, Scope of Works, specify the minimum key requirements in terms of physical size, complexity, construction method, technology and/or other characteristics including part of the requirements that may be met by specialized subcontractors, if permitted in accordance with ITT 34.3]*		

QUALIFICATION FORMS

1. 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 equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

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

2. FORM PER-1

Contractor's Representative and Key Personnel Schedule

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

Contractor' Representative and Key Personnel

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

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

3. FORM PER-2:

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

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

Name of Tenderer

Position [*#1*]: [*title of position from Form PER-1*]

Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: *[language and levels of speaking, reading and writing skills]*	
Details		
	Address of Procuring Entity:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Procuring Entity:

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

Project	**Role**	**Duration of involvement**	**Relevant experience**
[main project details]	*[role and responsibilities on the project]*	*[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 Personnel is available to work on this contract]*
Time commitment:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on 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: [*insert name*]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:
Signature:_____ Date: (day

month year): _____

4. TENDERER'S QUALIFICATION WITHOUT PRE-QUALIFICATION

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

4.1 FORM ELI -1.1

Tenderer Information Form

Date: _____

ITT No. and title: _____

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: *[indicate country of Constitution]*
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ 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: • Legal and financial autonomy • Operation under commercial law • Establishing that the Tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart and a list of Board of Directors.

4.2 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 authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 3.6. ☐ In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 3.8. 2. Included are the organizational chart and a list of Board of Directors.

4.3 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) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	**Non-performed portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)**
[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]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[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)**
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	

		Contract Identification: Name of Procuring Entity: Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
☐ No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. ☐ Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	**Outcome as percentage of Net Worth**	**Contract Identification**	**Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)**
[insert year]	*[insert 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]* Matter in dispute: *[indicate main issues in dispute]* Party who initiated the dispute: *[indicate "Procuring Entity" or "Contractor"]* Reason(s) for Litigation and award decision *[indicate main reason(s)]*	*[insert amount]*

4.4 FORM FIN – 3.1:

Financial Situation and Performance

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

4.4.1. Financial Data

Type of Financial information in_____ (currency)	**Historic information for previous _____ *years*, _____ (amount in currency, currency, exchange rate*, USD equivalent)**				
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					

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

*Refer to ITT 15 for the exchange rate

4.4.2 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		

4.4.3 Financial documents

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

(a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements[1] for the _____years required above; and complying with the requirements

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

4.5 FORM FIN – 3.2:

Average Annual Construction Turnover

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

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

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

4.6 FORM FIN – 3.3:

Financial Resources

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

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

4.7 FORM FIN – 3.4:

Current Contract Commitments / Works in Progress

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

Current Contract Commitments

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

4.8 FORM EXP - 4.1

General Construction Experience

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

Page _____of _____pages

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

4.9 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 sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

4.10FORM EXP - 4.2 (a) (cont.)

Specific Construction and Contract Management Experience (cont.)

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

4.11 FORM EXP - 4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____
Date: _____
Tenderer's JV Member Name: _____
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.

1. Key Activity No One: _
_____

	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 or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

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

2. Activity No. Two
3. ……

_____

[2] If applicable

OTHER FORMS

5. FORM OF TENDER

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

INSTRUCTIONS TO TENDERERS

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

Date of this Tender submission: .....*[insert date (as day, month and year) of Tender submission]* **Tender Name and Identification**: **KAA/OT/NANYUKI/0182/2024-2025 PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT NANYUKI AIRSTRIP No.**: .....*[insert identification No if this is a Tender for an alternative]*

To: ..... *[Insert complete name of Procuring Entity]*

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum of Kenya Shillings [*[Amount in figures]*_____ ___Kenya Shillings *[amount in words]*_____.
The above amount includes foreign currency amount (s) of [*state figure or a percentage and currency*] [figures]_____[words]_____.
The percentage or amount quoted above does not include provisional sums, and only allows not more than two foreign currencies.
2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.
3. We agree to adhere by this tender until_____*[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.
4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us. We further understand that you are not bound to accept the lowest or any tender you may receive.
5. We, the undersigned, further declare that:

i) *No reservations:* We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;
ii) *Eligibility:* We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;
iii) *Tender-Securing Declaration:* We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;
iv) *Conformity:* We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works];*

v) *Tender Price:* The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*

vi Option 1, in case of one lot: Total price is: [*insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies*]; Or
Option 2, in case of multiple lots:

a) Total price of each lot [*insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies*]; and
b) Total price of all lots (sum of all lots) [*insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies*];

vii) *Discounts:* The discounts offered and the methodology for their application are:

viii) The discounts offered are: [*Specify in detail each discount offered.*]

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

x) *Tender Validity Period:* Our Tender shall be valid for the period specified in TDS 18.1 (186 days) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

xi) *Performance Security:* If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;

xii) *One Tender Per Tender:* We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

xiii) *Suspension and Debarment:* We, along with any of our subcontractors, suppliers, Project Manager, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.

xiv) *State-owned enterprise or institution:* [*select the appropriate option and delete the other*] [*We are not a state-owned enterprise or institution*] / [*We are a state-owned enterprise or institution but meet the requirements of ITT 3.8*];

xv) *Commissions, gratuities, fees:* We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*.

Name of Recipient	Address	Reason	Amount

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

xvi) Binding Contract: We understand that this Tender, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

xvii) Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;

xviii) Fraud and Corruption: We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption;

xix) Collusive practices: We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the "Certificate of Independent Tender Determination" attached below.

xx) We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from_____(*specify website*) during the procurement process and the execution of any resulting contract.

xxi) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

xxii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:

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.
c) 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: …………………………*[*insert complete name of person signing the Tender*]

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

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

Signature of the person named above: ………………………………… [*insert signature of person whose name and capacity are shown above*] **Date signed** [*insert date of signing*] day of [*insert month*], [*insert year*]

Date signed__________________________________day of_______________________, _______

Notes
** In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer*
*** Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender.*

C. TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

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

(a) Tenderer's details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	KENYA AIRPORTS AUTHORITY
2	Reference Number of the Tender	**KAA/OT/NANYUKI/0182/2024-2025**
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address (*postal and physical addresses, email, and telephone number*) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address (*postal and physical addresses, email, and telephone number*) of state which stock exchange	

General and Specific Details

b) Sole Proprietor, provide the following details.

Name in full_____Age_____

Nationality_____Country of Origin_____

Citizenship _____

c) Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

d) Registered Company, provide the following details.

i) Private or public Company_____

ii) State the nominal and issued capital of the Company_____

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

Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

i) Are there any person/persons in …… …… (*Name of Procuring Entity)* who has/have an interest or relationship in this firm? Yes/No……
If yes, provide details as follows.

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

ii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the such Contract.		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.		

f) Certification

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

Full Name_____

Title or Designation_____

(Signature) *(Date)*

D. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the_____ [Name of Procuring Entity] for: **KAA/OT/NANYUKI/0182/2024-2025 PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT THE NANYUKI AIRSTRIP** [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 orexperience;
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].

CERTIFICATE OF BIDDER'S SITE VISIT

This is to certify that, ……..
(**Name of bidder or his representative**)

Of the firm…….
(**Name of firm bidding**)

In the company of……..
(**Name of KAA representative conducting the visit)**

Visited the site in regard to: **Tender No.: KAA/OT/NANYUKI/0182/2024-2025 for PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT THE NANYUKI AIRSTRIP.**
Having previously studied the contract documents, I have carefully examined the site and that:

1. I have made myself familiar with the local conditions likely to influence the **Proposed Construction Of Main Gate, Canopy, Toll Station And Public Ablution Block at the Nanyuki Airstrip.** cost thereof and am fully aware that all scope will be done as per the specifications.

2. I further satisfy that am satisfied with the description of the works shown by the client's representative and that I understand perfectly the works to be provided as specified and implied in the execution of the contract.

On behalf of Bidder

Signed……

Date……..
On behalf of Client

Signed…….

Date……..

E. SELF - DECLARATION FORMS

FORM SD1

SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENTAND ASSET DISPOSALACT 2015.

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

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Director of ……...…….. *(insert name of the Company)* who is a Bidder in respect of Tender No. …….. for … **KAA/OT/NANYUKI/0182/2024-2025 PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT THE NANYUKI AIRSTRIP** ……. *(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 herein above is true to the best of my knowledge, information and belief.

……. ……. …… (Title)
(Signature) (Date)

Bidder Official Stamp

FORM SD2

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

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

1. THAT I am the Chief Executive/Managing Director/Principal Officer/Director of ……..... *(insert name of the Company)* who is a Bidder in respect of Tender No. ….....……. for KAA/OT/NANYUKI/0182/2024-2025. **PROPOSED CONSTRUCTION OF MAIN GATE, CANOPY, TOLL STATION AND PUBLIC ABLUTION BLOCK AT THE NANYUKI AIRSTRIP***)* for …… *(insert name of the Procuring entity)* and duly authorized and competent to make this statement.

2. THAT the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any corrupt or fraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of ……... *(insert name of the Procuring entity)* which is the procuring entity.

3. THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of ……. (name of the procuring entity)
4. THAT the aforesaid Bidder will not engage /has not engaged in any corrosive practice with other bidders participating in the subject tender
5. THAT what is deponed to herein above is true to the best of my knowledge information and belief.

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

Bidder's Official Stamp

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I ……..……. (person) on behalf of *(Name of the Business/ Company/Firm*) ……. declare that I have read and fully understood the contents of the Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

I do hereby commit to abide by the provisions of the Code of Ethics for persons participating in Public Procurement and Asset Disposal.
Name of Authorized signatory…….....
Sign…….....

Position…….....…….....

Office address…….

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

Name of the
Firm/Company…….....……
Date…….....…. (Company Seal/

Rubber Stamp where applicable)

Witness

Name ……..... Sign.....

Date……

B. APPENDIX 1- FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

Purpose

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.

Requirements

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

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

1) a person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or asset disposal proceeding;

2) A person referred to under subsection (1) who contravenes the provisions of that sub-section commits an offence;

3) Without limiting the generality of the subsection (1) and (2), the person shall be: -

a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or

b) if a contract has already been entered into with the person, the contract shall be voidable;

4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;

5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement: -

a) shall not take part in the procurement proceedings;

b) shall not, after a procurement contract has been entered into, take part in any decision relating to the procurement or contract; and

c) shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.

6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;

7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.

In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:

a) Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:

i) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii) "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv) "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v) "obstructive practice" is:

- deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into

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

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

b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:
"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.

c) Rejects a proposal for award[1] of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

d) Pursuant to the Kenya's above stated Acts and Regulations, may sanction or recommend to appropriate authority (ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;

e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect[2] 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.

---

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

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

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

Beneficiary:_____ Request forTenders No:_Date:
_____ TENDER GUARANTEE No.:

_____

Guarantor: _____

1. We have been informed that_____(here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of_____ under Request for Tenders No._____("the ITT").

2. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.

3. At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of_____(_____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

(a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or

b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.

5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above onor before that date.

_____
[signature(s)]

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

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

1. Whereas …… [*Name of the tenderer]* (hereinafter called "the tenderer") has submitted its tender dated …… [*Date of submission of tender]* for the …… *[Name and/or description of the tender]* (hereinafter called "the Tender") for the execution of____under Request for Tenders No._____ ___("the ITT").

2. KNOW ALL PEOPLE by these presents that WE …… of …… [**Name of Insurance Company**] having our registered office at …… (hereinafter called "the Guarantor"), are bound unto …….. [*Name of Procuring Entity*] (hereinafter called "the Procuring Entity") in the sum of …… (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

   Sealed with the Common Seal of the said Guarantor this ___day of _____ 20 __.

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

   a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Principal; or

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

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

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii)twenty-eight days after the end of the Tender Validity Period.

5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

_____	_____
[Date]	*[Signature of the Guarantor]*
_____	_____
[Witness]	*[Seal]*

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

TENDER-SECURING DECLARATION FORM

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

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

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

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

1. I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.
2. I/We accept that I/we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of [insert number of months or years] starting on [insert date], if we are in breach of our obligation(s) under the bid conditions, because we – (a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the instructions to tenders.
3. I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:

a) our receipt of a copy of your notification of the name of the successful Tenderer; or

b) thirty days after the expiration of our Tender.

4. I/We understand that if I am/we are/in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

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

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

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: _____	
Provisional sums expressed in local currency _____ ____	[To be entered by the Procuring Entity]

PART II - WORK REQUIREMENTS

SECTION V - DRAWINGS

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

SECTION VI - SPECIFICATIONS

The Scope of works shall include but not limited to the below;

i) Construction to completion of Gate House and Gate
ii) Construction to completion of Washrooms
iii) Associated Electrical and Mechanical works
iv) Construction of Gate House Canopy

MANUFACTURER'S NAME

Where manufacturer's names and catalogue references are given they are so given for guidance to quality and standard only. Alternative manufacturer of equal quality will be accepted at the discretion of the Project Manager.

ARCHITECTS' SPECIFICATION

GENERAL

DISCREPANCIES IN DESCRIPTIONS

Descriptions of materials and workmanship contained in the Bills of Quantities measured items shall take precedence over descriptions contained in Appendices in the event of discrepancies between the two, unless the Architect shall otherwise direct.

DISCREPANCIES IN DRAWINGS

Drawings shall take precedence over the Bills of Quantities, for construction purposes, in the event of discrepancies between the two, and the Architect must be notified immediately any such discrepancy becomes apparent.

TESTS AND SAMPLES

Unless otherwise described in the Bills of Quantities, the Contractor will be responsible for all the costs involved in testing materials as described hereinafter. He will also be responsible for all the costs involved in supplying samples of materials or workmanship as required hereinafter to the satisfaction of the Architect. The cost of replacing materials fixed or placed in position which do not comply with the required test results or approved samples shall be borne solely by the Contractor.

KENYA STANDARDS

All materials and goods supplied for incorporation in the works must comply with any relevant current standards issued by the Kenya Bureau of Standards. Where these are not established or are unclear the latest British Standards and Codes of Practice shall be applied.

WALLING

CEMENT

All cement used for making mortar shall be Portland cement complying with B.S. 12.

SAND

All sand used for making mortar shall be clean well graded silicone sand of good sharp quality equal to samples which shall be approved by the Architect. It shall be free from lumps of stone, earth, loam, dust, salt, organic matter and any other deleterious substance, sieved through a fine sieve and washed if so directed by the Architect.

LIME

Lime for mortar shall be non-hydraulic or semi-hydraulic quick lime or hydrated lime in accordance with B.S. 890, Class B.

Quick lime shall be run to putty immediately after delivery to site in a pit dug on the site or in approved containers.

The water to be first run into the pit or container and the lime to be added until it is completely submerged and stirred until all lumps are disintegrated and the resulting mild-lime shall then be run through a 3mm square mesh sieve and run into a pit or other container and kept clean and moist for not less than 4 weeks before use.

Hydrated lime shall be added to water in a clean receptacle thoroughly mixed to the consistency of thick cream and allowed to stand and be kept clean and moist for not less than 16 hours before use.

CEMENT MORTAR

The cement mortar (1:3) shall be composed of 42.5 kgs. Of Portland cement to 0.085 cubic metres of sand. The cement mortar (1:6) shall be composed of 42.5 kgs of Portland cement to 0.17 cubic metres of sand measured in specially prepared gauge boxes and thoroughly mixed in an approved mechanical mixer or mixed dry on clean and approved mixing platforms with water added afterwards until all parts are completely incorporated and brought to a proper consistency. The use or retempering of wholly or partly set mortar will not be allowed.

Foundation walling up to ground floor slab 1 part cement to 6 parts sand.
GAUGED LIME MORTAR

Gauged lime mortar shall be composed of 2 parts by volume of lime putty to 12 parts by volume of sand measured in specially prepared gauge boxes and mixed dry on clean and approved mixing platforms with water added afterwards until all parts are thoroughly incorporated and brought to a proper consistency.

The mortar shall be mixed 7 to 10 days before it is required for use and shall be stacked in a neat heap well smoothed off, covered with wet sacks and allowed to mature.

Immediately before use 1 part by volume of Portland cement shall be added to 9 parts by volume of lime mortar, the whole being remixed with the addition of extra water until all parts are completely incorporated and brought to a proper consistency.

The gauged mortar must be used within 45 minutes of being mixed and the use or retempering of wholly or partially set mortar will not be allowed.

Above ground floor slab 1 part cement to 3 parts lime to 15 parts sand.

OTHER TRADES

Close co-operation with electrical and plumbing Sub-Contractors must be maintained from the beginning of the job to avoid chases being cut in hollow block or 100mm solid block work or across any fair faced work. If necessary, conduits should be run down the jambs of the door openings behind the door frame and taken to the switch position through a horizontal joint in the masonry.

CARPENTRY, JOINERY AND IRONMONGERY
QUALITY OF TIMBER

The qualities of timber stated hereinafter are to be in accordance with the Grading Rules (Third Edition) dated 8th April, 1959, approved by the Forest Department of Kenya.

All timber described as 'Sawn Podocarpus' shall be Second (Select) Grade Sawn Podocarpus Gracilior.
All timber described as 'Sawn Cypress' shall be Second Grade Sawn Cupressus.

All timber described as 'Wrot Cypress' shall be First (Prime) Grade Wrot Cupressus.

All timber described as 'Wrot Cedar' shall be First (Prime) Grade Wrot Red Cedar (Juniperus Procera).

All timber described as 'Wrot Meru Oak' shall be First (Prime Grade Wrot Meru Oak).

All timber described as 'Wrot Camphor' shall be First (Prime) Grade Wrot Camphor specially selected for straight grain and colouring. No joinery work is to be put in hand until the Architect has seen and approved the colour and grain of the timber.

Where hardwood is specified it shall be Mvuli, Mahogany, Mninga, Camphor, Rosewood, Blackwood or Meru Oak as selected by the Architect at the letting of the contract and all tenders will be deemed to have allowed for this.

When employed for carpentry work the above timbers shall be well seasoned to a moisture content not exceeding 18% of the dry weight.

When employed for joinery work the above timbers shall be well seasoned to a moisture content not exceeding 6% of the dry weight.

GENERALLY

All timber for permanent work in the buildings shall before use, be dry and be approved by the Architect for quality in accordance with the foregoing specification for its respective grade. All structural timber shall be in accordance with C. P. 112.

All Carpenter's work shall be left with sawn surfaces unless particularly specified to be wrot. Scantlings and boarding shall be accurately sawn and shall be left uniform in width and thickness throughout. All Carpenter's work shall be accurately set out together and securely fixed in the best possible manner with properly made joints. Provide all brads, nails, screws, bolts, etc. as necessary. Nails shall comply with B.S. 1202 and bolts with B.S. 916.

Knotting shall comply with B.S. 1336

Variations from specified dimensions of scantling shall not exceed the tolerance stated in the aforementioned Grading Rules. Boards 25mm thick or less shall hold up to the specified sizes. All timber shall be as long as possible and practicable to eliminate joints.

Ends of timbers required to be built into walls shall have 12mm space between same and walling. All ends of timbers to be strapped with hoop iron and primed.

All Joiner's work shall be wrot unless otherwise specified.

All mouldings shall be accurately run and finished and all arrises shall be slightly rounded. Framed work shall be cut out, properly tenoned, shouldered, etc., and framed together as soon after the commencement of the works as is practicable but should not be wedged up until required for fixing in position and any portions that warp, get in winding, develop shakes or other defects shall be replaced with new. As soon as required for fixing in position the framing shall be glued together with best quality glue and properly wedged or pinned, etc., as described.

Unless otherwise described oval or round brads will be used for fixing all face work, all heads shall be properly punched in. Where described as pellated work shall be countersunk screwed and the screw heads covered with timber pellets to match the adjacent timber.

Should any of the Carpenter's or Joiner's work shrink, warp, wind or develop any other defects within six months after the completion of the works, the same shall be removed and new fixed in its place together with all other work which may be affected thereby, all at the Contractor's cost and expense.

INSECT DAMAGE

All timber, whether graded or ungraded, and including shuttering, scaffolding and the like shall be free of live borer beetle or other insect attack when brought upon the site. The Contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack to timber which becomes evident including the replacement of timbers attacked or suspected of being attacked, notwithstanding that the timber concerned may have been inspected and passed as fit for use.

DIMENSIONS

(a) Timber not specified to be wrought shall be as from the saw and full to the nominal dimensions stated. No undersize shall be permitted but oversize to the following tolerances may be allowed:-

(i) 1.5mm oversize on dimensions up to 25mm
(ii) 3mm oversize on dimensions up to 50mm
(iii) 6mm oversize on dimensions over 50mm.

(b) Where 'nominal' dimensions are stated for wrot timber a tolerance of 3mm shall be allowed for each wrot face.

Before putting in hand any joinery work, whether built-in or fixed later, the joiner is to ascertain and check on site all dimensions which affect or govern the joinery work.

PRESERVATION OF TIMBER

All timber described as impregnated shall be vacuum pressure impregnated with Tanalith or Celcure preservative in accordance with Specification No. 1/56 (Buildings) for the Vacuum/Pressure Impregnation of Timber with Hickson's

'Tanalith' wood preservative issued by Hickson's Timber Impregnation Co. (G.B.) Ltd., or other approved source. Where timber is cut or bored after impregnation the exposed surfaces are to be liberally swabbed with Wolmanol.

SPECIES OF TIMBER

Only those timbers specified in these Bills of Quantities are to be used for the works, unless alternatives are authorised by the Architect.

SEASONING OF TIMBER

All carpentry timbers are to be seasoned to a moisture content of not more than 18% of the dry weight. All joinery timbers are to be seasoned to a moisture content of not more than 6% of the dry weight. The Contractor is to make available on site a meter for testing moisture content of all timber delivered.

PREPARATION AND PROTECTION OF TIMBER

(a) All timber necessary for the works is to be purchased immediately the Contract is signed, and when delivered is to be open stacked for such further seasoning as may be necessary. Preparation of the timber is to be commenced simultaneously with the commencement of the works generally.

(b) All timber and assembled woodwork is to be protected from the weather and stored in such a way as to prevent attack by decay, fungi, termites or other insects.

CLEARING UP

The Contractor is to clear up and destroy or remove all cut-ends, shavings and other woodwaste from all parts of the buildings and the site generally as the work progresses and at the conclusion of the works.

TIMBER IN MASONRY, ETC.

Ends of timber built into walls shall be thoroughly brush treated with creosote or other approved preservatives and clean air space maintained around the timbers where they adjoin the walls.

PRIMING WOODWORK

All woodwork which is to be painted or hidden from view, backs of door frames, etc. are to be primed and painted one coat before fixing. Allow for touching up priming during progress of works.

JOINTING

(a) All joints must be made as specified or detailed and the execution of all jointing shall be to the satisfaction of the Architect.

(b) Joining surfaces of all connections exposed to the weather are to be thickly primed except where glueing is specified. Surfaces are to be in good contact over the whole area of the joint before fastenings are applied.

(c) No nails, screws or bolts are to be placed in any end split. If splitting is likely or is encountered in the course of the work, holes for nails are to be pre-bored at diameters not exceeding 4/5ths of the diameter of the nails. Clenched nails must be bent at right angles to the grain. Lead holes are to be bored for all screws.

(d) Where the use of bolts and washers are specified the holes are to be bored from both sides of the timber and are to be a diameter D + D/16 where D is the diameter of the bolt. Nuts must be brought up tight but care is to be taken to avoid crushing of the timber under the washers.

(e) Joints in joinery must be as specified or detailed and so designed and secured as to resist or compensate for any stresses to which they may be subjected. All nails, sprigs, etc., are to be punched and puttied.

(f) Loose joints are to be made where provision must be made for shrinkage, glued joints where shrinkage need not be considered and where sealed joints are required. All glued joints shall be crosstongued or otherwise reinforced.

(g) Glues for load-bearing joints or where conditions may be damp must be of the resin type. For non-load-bearing joints, or where dry conditions can be guaranteed, casin or organic glues may be used.

JOINERY

(a) All joinery shall be accurately set out on boards to full size for the information and guidance of artisans with all joints, ironwork and other works connected therewith fully delineated. This setting out shall be submitted to the Architect and approved before the work is commenced.

(b) All joinery shall be executed with workmanship of the best quality in strict accordance with the detailed drawings.

All mouldings, shall be accurately and truly run and all work planed, sand-papered and finished to the approval of the Architect.

(c) All framed work shall be cut out, properly tenoned, shouldered etc., and framed together as soon after the commencement of the building as is practicable but shall not be wedged up until th building is ready for fixing the same and any portions that warp, wind, develop shakes or other defects shall be replaced with new. As soon as required for fixing in the building the framing shall be glued together and properly wedged or pinned, etc., as directed.

(d) Should any of the joinery shrink, warp, and wind or develop any other defects within the maintenance period specified in the Contract the same shall be removed and new fixed in its place together with all other work which may be affected thereby. All at the Contractor's expense.

TOLERANCE

Reasonable tolerance shall be provided at all connections between joinery works and the building carcass, so that any irregularities, settlement or other movements shall be adequately allowed for.

SCRIBING

All cornices, architraves, frames and other joinery works shall be accurately scribed to fit the contour of any irregular surfaces against which they may be required to form a close butt connection. In particular, architraves are to be cut to fit against side walls and maintain proper mitres at top corners.

SHRINKAGE

The arrangement, jointing and fixing of all joinery shall be such that shrinkage in any part and in
Any direction shall be compensated for and not impair the strength or appearance of the work or cause damage to adjacent structures.

VENEERS

All veneers are to be specially selected for grain and colouring and no veneered work shall be put in hand until the Architect has approved the sample of grain and colour.

NATURAL FINISH

When natural finish is specified, the timber in adjacent pieces shall be matched and uniform or symmetrical in colour and grain. The surface finish is to be as specified.

FLUSH DOORS

Flush doors shall be 3mm plywood faced doors with solid or semi-solid cores, in accordance with B.S. 459 Part 2, obtained from a manufacturer approved by the Architect and equal in every respect to a sample to be submitted to and approved by the Architect. Doors shall be lipped with hardwood strips on all edges and shall be finished for painting on both faces unless otherwise stated. Plywood for use on external doors shall be of exterior grade as described later.

The proportion of solid area in semi-solid doors shall not be less than 50% of the total and shall be evenly distributed throughout the door.

CHIPBOARD

Chipboard shall comply in all respects with B.S. 2604 for medium density resin bonded wood chipboard and shall be veneered or not as shown on the drawings and as described in the Bills of Quantities. Chipboard of non-British origin shall comply with the tests enumerated in the said B.S. and samples shall be submitted to the Architect for this purpose and for his approval.

BLOCKBOARD

Block board is to be of approved quality, solid and glued throughout. Where described as faced it shall be faced with an approved veneer of the timber specified.

PLYWOOD

Plywood shall be in accordance with B.S. 1455 and shall be of second grade and that for use externally shall be of external grade conforming at least to Clause 138 of the B.S.

HARDBOARD

Hardboard shall be oil-tempered or otherwise as specified of the thicknesses specified and is to be glued and fixed

with the special hardboard nails supplied by the manufacturer. Sheeting is to be wetted the day before fixing. All sawn edges to be carefully sandpapered.

SOFTBOARD

The soft board is to be of approved quality and manufacture, fixed with galvanized clout nails or an approved adhesive as necessary, or both as specified.

PLASTIC LAMINATE

Plastic laminate shall be as manufactured by Formica Ltd. or other equal and approved and shall be worked and fixed strictly in accordance with the manufacturer's instructions with the adhesive recommended by the manufacturer. Colours shall be selected by the Architect from samples to be submitted early in the Contract.

PLUGS

All plugs described as fixing for joinery etc., shall be approved plugs such as Rawlplugs or Philplugs set into holes drilled in masonry in accordance with the manufacturer's instruction. No wooden plugs are to be used.

PROTECT JOINERY

Any fixed joinery which is liable to become bruised or damaged in any way shall be properly cased and protected by the Contractor until the completion of the works.

SITE DIMENSIONS

Before putting in hand any joinery work, whether to be built in with the carcass or fixed later, the joiner is to ascertain and check all dimensions on the site which affect or govern joinery work.

BILLS OF QUANTITIES DIMENSIONS

All wrot timber dimensions given in the Bills of Quantities are finished sizes unless otherwise stated.

IRONMONGERY

The Contractor is to check consignments of ironmongery upon receipt and store them in safe keeping until required for fixing.

All ironmongery shall be fitted and fixed in accordance with the manufacturer's instructions. Rates for fixing are to include for all cutting, sinking, boring, morticing and fitting in hardwood or softwood and for supplying all necessary and matching screws. Rates for door furniture shall also include for fixing before painting, removal during painting operations and afterwards fixing and for labelling all keys with door references and handing to the Architect upon completion.

All locks, springs and other items of ironmongery with movable parts shall be properly tested, cleaned and adjusted where necessary and left in perfect working order upon completion of the works by the Contractor who shall include for this in his prices for fixing.

GENERALLY

All pencil marks are to be removed before oiling or varnishing joinery work. Leave all joinery work perfect and clean without nail holes; clean up all waste and protect finished work from staining or damage. Oil all locks and adjust to give a perfect fit and leave clean.

METAL WORK

GENERALLY

All materials shall be of the best of their respective kinds and conform at least to the relevant B.S. where such exists. All work shall be carried out strictly as directed and approved by the Architect before fixing.

ALUMINIUM

Aluminium sheet shall comply with the requirements of B.S. 1470 and be suitable for the purpose required.

Extruded aluminium sections shall be obtained from an approved source and be equal to samples to be submitted to and approved by the Architect. The surface finish shall be matt.

HOOP IRON.

Provide 25mm wide 24-gauge hoop iron reinforcement and anchors to be laid where specified under masonry, and

anchored in ring beams.

PRICING INFORMATION

Prices for all welded work shall include for preparing, welding and grinding to a smooth finish.

FLOOR, WALL AND CEILING FINISHES

GENERALLY

The whole of the plasterwork and other wall, floor and ceiling finishes shall be executed to the entire satisfaction of the Architect and any work rejected shall be taken down and re-executed by the Contractor at his own expense. All scaffolding, temporary rules and screeds, tools or special appliances required shall be furnished by the Contractor.

CEMENT

Shall be as described in 'Walling'

LIME

Shall be as described in 'Walling'

SAND

Shall be as described in 'Walling'

WATER

Shall be as described in Structural Engineers Specification.

WORKMANSHIP

All concrete beds or slabs shall be thoroughly brushed, cleaned, hacked if necessary and well wetted and flushed over with a cement and sand (1:1) grout immediately before screeds or pavings are laid.

Screeds and cement pavings shall be laid in accordance with the relevant B.S. Code of Practice and in alternate bays generally not exceeding 3m x 3m with neat butt joints and shall be damp cured with sand or sawdust and kept damp for at least 7 days after laying.

Adequate time intervals must be left between successive coats in two coat work in order that the drying shrinkage of the under-coat may be substantially complete. All internal and external angles shall be pencil rounded.

PLASTERING AND RENDERING GENERALLY

All surfaces to be plastered or rendered shall be brushed clean and be well wetted before plaster is applied. All plaster and rendering shall be kept continuously damp for seven days after application. All arrises shall be finished true and slightly rounded except where otherwise stated, and shall be run at the same time as the adjoining plaster. No partially or wholly set plaster or rendering will be allowed to be used or re-mixed.

The Contractor shall prepare samples of the plastering and rendering as directed until the quality, texture and finish required is obtained and approved by the Architect after which all plastering executed in the work shall conform to the respective approved samples.

The Contractor shall cut out and make good all cracks, blisters and other defects and leave the whole of the work perfect on completion. When making good defects, the plaster or rendering shall be cut out to a rectangular shape with edges undercut to form dovetailed key, and all finished flush with face of surrounding plaster or rendering.

Rates for plastering and rendering are to include for raking out joints of walling or hacking concrete to form a key. Instead of hacking the Contractor will be permitted to treat concrete surfaces, at his own expense, with bonding fluid, such as 'Plastaweld' manufactured by I. Manger and Son Ltd., or other equal and approved applied in strict accordance with the manufacturer's printed instructions.

INTERNAL PLASTER

Internal plaster shall be applied in two coats as follows, overall 12mm thick unless otherwise described:-

(a) 9mm First coat consisting of cement, and sand (1:4) well scratched, wetted and keyed to receive finishing coat.

(b) 3mm finishing coat consisting of cement and lime putty (1:5) skim coat finished with a steel trowel to a smooth and even surface. Adequate time intervals must be left between successive coats in order that the drying shrinkage of

the under coat may be substantially complete. All internal and external angles shall be pencil rounded.

PRICING INFORMATION

Prices for paving, beds and screeds shall include for the preparation of the concrete floor and painting with cement grout, as described; for any extra thickness consequent upon the concrete floor not being finished to true levels; and for laying over electrical conduits including reinforcing as necessary to the approval of the Architect.

Prices for plastering and rendering shall include for the preparation of the surfaces including raking out joints of brickwork or blockwork and hacking surfaces of concrete to form key, and for any extra thickness or dubbing out consequent upon any irregularities or inaccuracies in the surfaces to be covered.

Prices for terrazzo and granolithic work shall include for beds and backings, executing in the colours selected by the Architect, laying to panels and designs as may be directed, and for polishing at completion. Dividing strips forming panels and designs will be measured and paid for separately.

Prices for external finishings shall include for executing work at any height above ground and for any necessary additional scaffolding, ladders, cradles, etc.

If required by the Architect, or if indicated on the drawings prices for internal plastering and external rendering shall include for forming a fair splayed edge at all junctions with fair faced concrete surfaces and for forming 12mm wide grooves with fair splayed edges at junctions of walls with structural members and at soffits of slabs etc. Prices shall also include for V-grooves or rounded grooves, not exceeding 12mm wide, in external rendering to form decorative panels.

Prices for beds and backings are to allow for a true and even finish with a steel float, which is to be scraped clean by the Contractor before receiving the finish, to the satisfaction of the finishing Sub-Contractor.

PROTECTING FLOOR FINISHINGS

The Contractor is to allow for protecting all floor and staircase finishings after laying, whether executed by himself or a Sub-Contractor and will be held responsible for any damage to the finishings after laying. All floors are to be cleaned on completion of the building before handing over.

GENERALLY

Protect all fittings, joinery and finishings from plaster and other finishings and clean up all marks on completion.

GLAZING

GENERALLY

All glass shall be of approved manufacture in accordance with B.S. 952, and free from flaws, bubbles, specks, and other imperfections cut to size to fit the opening for which it is required with not more than 1.6mm tolerance all round. All glass to be delivered in proper containers with maker's name, guarantee, type of glass and thickness or weight of glass attached to the outside of the container.

The clear sheet glass shall be Ordinary Glazing (O.Q.) quality sheet glass.
The obscured glass shall be of a pattern approved after the Contractor has submitted samples to the Architect at the beginning of the Contract.
Tempered glass shall be of the thicknesses specified.

The putty for glazing shall be tropical putty of approved manufacture suitable for glazing to metal or wood frames as hereinafter specified.

All putty shall be delivered on site in the original manufacturer's sealed cans or drums. The putty is to be removed from the drum well kneaded with the minimum of linseed oil and left for 24 hours before using.

The rebates and backs of handle brackets to metal windows shall be painted one coat before puttying. Before glazing the rebates of all windows shall be adequately back puttied.

Within 14 days the putty must dry and harden without wrinkling of the surface or caking and shall adhere satisfactorily to the surface of the glass and the frame.

The washleather strip shall be approved by the Architect and shall be cut to fit the exact line of bead.

The wires of Georgian wired glass, in adjacent panes, are to align both ways.

PRICING INFORMATION

Prices for glass shall include for all cutting and glazing to frames as described.

PAINTING AND DECORATING

GENERALLY

The whole of the work shall be executed to the entire satisfaction of the Architect, and all work rejected is to be re-executed by the Contractor at his own expense. Subject to the foregoing, the methods of application adopted i.e. brush, spray, roller, etc. are at the discretion of the Contractor, unless otherwise described.

All paints shall be Grade A in accordance with the Ministry of Works approved paint list.

Sumps and drains shall not be used for the disposal of waste or dirty water.

MAINTENANCE

The Contractor shall make good after other trades have carried out maintenance work. In cases where the defective work is not caused by, or the responsibility of, the Contractor, or his Sub-Contractors, he should make arrangements for payment with the party concerned. Where cracks have been made good, apply two coats to the new filling and one coat to the whole wall in which the crack has appeared.

MATERIALS

Any deviation from the materials and makes specified must be approved in writing by the Architect to whom application must be made before decoration starts.

IRONMONGERY

All ironmongery already fixed is to be removed before painting doors and refixed on completion of the finishing coat. If any paint should get on to ironmongery, it must be removed with chemical solvents and not scratched off.

APPROVED SUB-CONTRACTORS

The Contractor shall arrange for the painting and decorating work to be executed by an approved Sub-Contractor. The Contractor shall state on the form provided and included as a tender document the name of the Sub-Contractor he proposes to employ and he shall not employ any other Sub-Contractor for the work without the written permission of the Architect.

MIXING

All materials shall be delivered on site intact in the original containers and shall be mixed and applied strictly in accordance with the manufacturer's printed instructions. No addition will be allowed to be made locally without the express permission of the Architect.

COLOURS

The priming, undercoats, and finishing coats shall each be of differing tints, the priming and undercoats shall be the correct brands and tints to suit the respective finishing coats, in accordance with the manufacturer's instructions. All finishing coats shall be of the colour and type specified by the Architect.

The Contractor will be required to paint trial panels and will be required to adjust tints as necessary.

AREAS TO BE READY FOR PAINTING ETC.

Before the painting or decorating is started the Contractor shall arrange that all other trades have been completed and other tradesmen removed from the vicinity of the area to be painted. All plaster, mortar, concrete, oil or stains of any kind shall be removed by the Contractor from work to be decorated before painting commences.

PREPARATION

Plastered and rendered surfaces to be decorated shall be allowed to dry for a minimum of four weeks before decoration commences.

Plaster finished with a steel trowel and fair face concrete surfaces shall be well rubbed down filled and made good as necessary and thoroughly cleaned down immediately before decoration is applied.

Plaster finished with a wood float or other rough textured surface of a similar nature shall be made good as necessary and thoroughly brushed clean immediately before decoration is applied.

Insulating board or similar surfaces shall be filled and made good as necessary and lightly brushed down to remove all dirt, dust and loose particles.
Metal work to be painted shall be scaled clean and thoroughly wire brushed.

Woodwork to be painted shall be well rubbed down. All knots shall be covered with good knotting before priming and all defects shall be filled with hard stopping after priming. Plywood shall be brush filled over the entire surface

Woodwork to receive finishes other than paint shall have all stains and pencil marks removed, be well rubbed down and have all defects levelled up with hard stopping of a colour to match the adjoining surface.

Woodwork to be clear varnished shall be well rubbed down and the varnish is to be applied with a chamois leather pad, rubbed back with fine graded steelwool between coats and afterwards buffed up to produce an approved finish.

All woodwork to be varnished is to have all pencil and other marks removed and surfaces smoothed down prior to application.

PAINTS

All paints used should be obtained from one of the following manufacturers after obtaining the Architect's approval and of the product specification hereinafter described.

a) Basco paints
b) Crown Paints
c) Dulux Paints
d) Sadolin Paints

PLASTIC EMULSION PAINTS

Plastic emulsion paint for internal and external application shall be of a manufacture approved by the Architect.

BITUMINOUS SOLUTION

Bituminous solution for use on coated pipes shall be obtained from a manufacturer approved by the Architect.

PRIMERS

Unprimed steelwork shall be primed with a Red Lead Primer.

Galvanised steelwork shall be treated with a mordant solution and primed with a Zinc Chromate Primer.

Woodwork shall be primed with a Pink Wood Primer.

UNDERCOATING

The undercoat for use under enamel finishing coats shall be an approved undercoat.

PRODUCT SPECIFICATION FOR PAINTS

Product specification for paints shall be in accordance with the composition requirements and may be required to be tested by the M.O.W. Materials Testing Branch

PRICING INFORMATION

The numbers of coats stated in the descriptions in these Bills of Quantities shall be applied in addition to any primers, stoppers, fillers, sealers, knotting, stopping, etc. required. The Contractor's prices shall be deemed to include for supplying and applying all such preparatory materials as may be required by the Standard Specification as recommended by the manufacturer of the finishing coat for the particular surface to be covered. The Contractor's prices shall further include for all other preparatory.

	1st Quality Emulsion Paint	2nd Quality Emulsion Paint	1st Quality Alkyd Gloss Paint
Non-volatile(B.S Content3900 B2)	Must not exceed 50% by weight	Not more than 60% by weight	Less than 50% by weight
Pigment Volume Concentration	Not more than 5%	Not more than 70%	Less than 25%

Resin type	Vinyl Acetate/ Acrylic Ester Copolymer	Vinyl Acetate/ Acrylic Ester Copolymer	Long Oil Alkyd minimum oil length not less than 60%
Opacity requirement (contrast ratio to B.S. 3900 D4)	Not less than 80%	Not less than 70%	Not less than 90%
Pigment/ Binder Ratio	Not more than 2.25:1	Not more than 2.75:1	Not more 2.25:1

APPROVED SUB-CONTRACTORS

The Contractor shall state on the form provided and included as a tender document, the names of the Sub-Contractors he proposes to employ, and he shall not employ any other Sub-Contractors for the work without the written permission of the Architect.

MAINTENANCE

The Contractor shall make good after other trades have carried out maintenance work. In cases where the defective work is not caused by, or the responsibility of, the Contractor, or his Sub-Contractors, he should make arrangements for payment with the party concerned. Where cracks have been made good, apply two coats to the new filling and one coat to the whole wall in which the crack has appeared.

MATERIALS

Any deviation from the materials and makes specified must be approved in writing by the Architect to whom application must be made before decoration starts.

CONCRETE WORK

ARCHITECT/ENGINEER

For the purpose of the concrete structure the Structural Engineer shall be deemed vested with the duties of and be the representative of the Architect.

CODE OF PRACTICE

All workmanship, materials, tests and performances in connection with the reinforced concrete work are to be in conformity with the latest edition of the appropriate British Standards where not inconsistent with these specifications.

SUPERVISION

A competent person approved by the Engineer shall be employed by the Contractor whose duty will be to supervise all stages in the preparation and placing of the concrete. All cubes shall be made and site tests carried out under his direct supervision, in consultation with the Engineer.

CONTRACTOR'S PLANT, EQUIPMENT AND CONSTRUCTION PROCEDURES

Not less than 30 days prior to the installation of the Contractor's plant and equipment for processing, handling, transporting and storing and proportioning ingredients, and for mixing, transporting and placing concrete, the Contractor shall submit drawings for approval by the Engineer, showing proposed general plant arrangement, together with a general description of the equipment he proposes to use.

After completion of installation, the operation of the plant and equipment shall be subject to the approval of the Engineer.

Where these specifications, the Bills of Quantities or the drawings require specific procedures to be followed, such requirements are not to be construed as prohibiting use by the Contractor of alternative procedures if it can be demonstrated to the satisfaction of the Engineer, that equal results will be obtained by the use of such alternatives.

Approval of plant and equipment or their operation, or of any construction procedure, shall not operate to waive or modify any provisions or requirements contained in these specifications governing the quality of the materials or of the finished work.

LEVELS AND FOUNDATIONS

The foundations of the work shall be carried down to depths as may be directed by the Engineer and they must be cut as nearly to the size of the concrete as possible and the vacant spaces between the concrete and solid ground excepting where otherwise shown must be carefully filled in as directed by the Engineer.

All temporary timbering shall be removed but should any timber be left in or should any other work be done beyond that specified, it will be at the Contractor's own cost.

TOLERANCES

On all setting out dimensions of 6m and over a maximum non-accumulative tolerance of plus or minus 6mm will be allowed. On all setting out dimensions under 6m a maximum non-accumulative tolerance of plus or minus 3mm will be allowed. On the cross sectional dimensions of structural members, unless otherwise required by the drawings, a maximum tolerance of plus or minus 3mm will be permitted.

The top surface of concrete floor slabs and beams shall be within 6 mm of the normal level and line shown on the drawings. Columns shall be truly plumb and non-accumulative tolerance of 3 mm in each storey and not more than 12 mm out of plumb in their full height will be permitted. The Contractor shall be responsible for the cost of all corrective measures required by the Engineer to rectify work which is not constructed within the tolerances set out above.

MATERIALS GENERALLY

All materials which have been damaged, contaminated or have deteriorated or do not comply in any way with the requirements of these specifications shall be rejected and shall be removed immediately from the site at the Contractor's own expense. No materials shall be stored or stacked on suspended floors without the Engineer's prior approval.

SAMPLES AND TESTING

Every facility shall be provided to enable the Engineer to obtain samples and carry out tests on the materials and construction. If these tests show that any of the materials or construction do not comply with the requirements of these specifications, the Contractor will be responsible for the costs of the tests and the replacement of defective materials and/or construction.

CEMENT

Cement unless otherwise specified shall be Portland Cement of a brand approved by the Engineer and shall comply with the requirements of B.S. 12, and a manufacturer's certificate of test in accordance with B.S. 12 shall be supplied for each consignment delivered to the site. Provided that the approval of the Engineer is obtained, the cement may vary from B.S. 12 in that up to 10% of the total weight may be reactive volcanic ash and the quantity of insoluble residue may exceed that specified by B.S. 12.

Should the Contractor require to use cement of the rapid hardening variety, he shall obtain the approval of the Engineer and also obtain any instructions regarding modifications to these specification caused thereby. Any additional cost that may be caused by the use of rapid hardening cement shall be at the Contractor's expense.

Cement may be delivered to the site either in bags or in bulk.

If delivered in bags each bag shall be properly sealed and marked with the manufacturer's name and on the site is to be stored in a weatherproof shed of adequate dimensions with a raised floor. Each consignment shall be kept separate and marked so that it may be used in the sequence in which it is received. Any bag found to contain cement which has set or partly set, shall be completely discarded and not used in the works. Bags shall not be stored more than 1.50 metres in height.

If delivered in bulk the cement shall be stored in a weatherproof silo either provided by the cement supplier or by the Contractor but in either case the silo shall be to the approval of the Engineer.

AGGREGATES

Aggregates shall conform to the requirements of B.S. 882 and the sources and types of all aggregates are to be approved in all respects by the Engineer before work commences.

The grading of aggregates shall be within the limits set out in B.S. 882 and as later specified and the grading, once approved, shall be adhered to throughout the works and siliceous sand of good, sharp, hard quality and shall be free from lumps of stone, earth, loam, dust, salt, organic matter and any other deleterious substances. It shall be graded within the limits of Zone 1 or 2 of Table 2 of B.S. 882. Sea sand will not be accepted.

Coarse aggregate for concrete Classes '35', '30', '25', and '20' shall be black trap, Mazeras, or similar basaltic stone to the approval of the Engineer and coral aggregate will not be accepted. It shall be hard, clean and of good shape, free from dust, decomposed stone, clay, earthy matter, foreign substances or friable thin elongated or laminated pieces. It shall be graded within the limits of Table 1 of B.S. 882 for its respective nominal size.

If in the opinion of the Engineer the aggregate meets with the above requirements but is dirty or adulterated in any manner it shall be screened and/or washed with clean water if he so directs at the Contractor's expense,

Aggregates shall be delivered to the site in their prescribed sizes or gradings and shall be stockpiled on paved areas or boarded platforms in separate units to avoid intermixing. On no account shall aggregates be stockpiled on the ground.

The Engineer shall be entitled to require a certificate from an approved testing laboratory in connection with each source of fine and coarse aggregate showing that materials comply with the specification.

WATER

The water used for mixing concrete shall be from an approved source, clean, fresh and free from harmful matter, and comply with B.S. 3148.

EXPANSION JOINT FILLER

Expansion joint filler shall be 'Flexcell' as manufactured by Expandite Ltd., or 'Resilex' as manufactured by Evomatics Ltd. or equal and approved.

JOINT SEALER

Sealers shall be 'Pli-astic' or 'Seelastic' as described, both manufactured by Expandite Ltd., applied in accordance with the manufacturer's printed instructions and prices shall include for temporary battens or fillets and afterwards withdrawing to form grooves as necessary.

'Seelastic' shall be applied by gun and where more than 12mm deep shall include filling the groove with loose packing yarn to within 1mm from outer face.

'Pli-astic' shall be Grade 88 and applied hot. With the Engineer's prior approval 'Polevomastic' fillers of the appropriate grade as manufactured by Evomastics Ltd. may be substituted for 'Seelastic' and 'Pli-astic'.

CONCRETE STRENGTHS

Classes '35', '30', '25', and '20' concrete shall have the minimum strengths as given by works cube tests shown herebelow.

Classes lower than those given shall be of the following nominal mixes and may be measured by volume or weight. No cube tests will be required for these classes.

Nominal mix by volume	1:3:6 (Class 15)	1:4:8 (Class 10)
Cubic m. fine aggregate per 50Kg. bag of cement	0.12	0.16
Cubic m. coarse aggregate per 50Kg. bag of cement	0.24	0.32
Max. size of coarse aggregate	40mm	40mm

MEASURED PROPORTIONS OF CONCRETE

Cement

The quantity of cement shall be measured by weight. Where delivered in bags, each batch of concrete is to use one or more whole bags of cement.

Aggregate

(i) For Classes '35', '30', '25', and '20' concrete shall be measured by weight in a weigh batching machine as described hereafter.

(ii) For lower Classes concrete, aggregates may be measured by weight or by volume. Where by volume, approved gauge boxes of such a size as will give the correct proportions shall be used.

WEIGH BATCHING MACHINE

Weigh batching machines shall be of an approved type and shall be properly maintained and checked for accuracy at regular intervals.

CONCRETE CLASSES - '35', '30', '25', and '20'

The weights of fine and coarse aggregate to be used in concrete classes '35', '30', '25', and '20' shall be limited in accordance with the table below. The proportions of fine to coarse aggregate and cement which the Contractor proposes to use for the mix specified shall first be approved by the Engineer. The Contractor will then be required to prepare preliminary test cubes and have these cubes tested as described for work cube tests. The test results should be submitted to the Engineer in sufficient time for further tests to be carried out should they prove unsatisfactory. Cube strengths in the preliminary tests must show crushing strengths of at least 25% higher than the strengths specified for work cube tests. If the Contractor is unable to produce specified cube strengths, he will be required at his own cost to increase the cement of the mix until satisfactory results are produced.

Minimum Crushing Strengths

Age	Class 35	Class 30	Class 25	Class 20
7 days	24.5 N/mm2	21.0 N/mm2	17.5 N/mm2	14.0 N/mm2
28 days	36.0 N/mm2	31.0 N/mm2	26.5 N/mm2	21.0 N/mm2

The average strength obtained from cube tests shall be 10% higher than the minimum strength shown above.

The Engineer may require at any time during the Contract the proportions of fine to coarse aggregate to be altered in order to produce a mix of greater strength or improved workability and providing that the total proportions of aggregate to cement remain unchanged, no claim for additional cost will be considered.

Concrete shall be poured to the classes as follows: -

The mixes given below e.g. 1:3:6 shall mean concrete composed by volume one part Portland cement, three parts sand or fine aggregate and six parts of coarse aggregate. All other compositions shall be interpreted in a like manner.

Class '35' designed	using 5mm to 20mm coarse aggregate
Class '30' concrete 1:1:2:3	using 5mm to 20mm coarse aggregate
Class '25' concrete 1:1 1/2:3	using 5mm to 20mm coarse aggregate
Class '20' concrete 1:2:4	using 5mm to 20mm coarse aggregate

Unless otherwise specified concrete shall be used as follows:-

High stress reinforced concrete	CLASSES '35' & '30'

Normal reinforced concrete	CLASSES '25' & '20'
Reinforced concrete member of thickness 75mm or less	CLASSES '20'
Surface beds, threshold, concrete surface channels and mass concrete fill	Concrete 1:3:6 mix
Concrete benching to cupboards and fittings and filling where described	Concrete 1:4:8 mix

MINIMUM CEMENT CONTENT - CLASSES '35', '30', '25', and '20'

The minimum cement content by weight shall be limited to: -

Mix.	'35'	'30'	'25'	'20'	1:3:6	1:4:8
Minimum cement content (kg/m3)	350	300	300	260	220	150

WATERPROOF CONCRETE

Where 'waterproof concrete' is specified, the system may be an approved surface applied product, or waterproofing additives of a type approved in writing by the Engineer are to be added to the mixing water strictly in accordance with the manufacturer's instructions. Not more than 25 litres of water per 50Kg. bag of cement are to be used unless otherwise approved by the Engineer.

WATER BAR

Water bar shall be P.V.C. water bar as manufactured by Expandite Limited, or other approved type and shall be provided in width and at the positions indicated on the drawings.

Joints shall be heat welded in accordance with the manufacturer's instructions and where the water bar is to be fixed vertically, metal clips as manufactured by the supplier of the water bar or of other approved design shall be provided to suspend the water bar from the reinforcement.

Where waterproof concrete is used the Contractor shall adhere strictly to the position and type of construction joints as detailed on the drawings. Any deviation from this procedure or the provision of additional construction joints will require the prior approval of the Engineer and any additional water bar so required will be at the Contractor's expense.

Formwork shall be designed with sufficient timber formers and blocking pieces to support the water bar and to ensure that it is not displaced during concreting. In the case of horizontal joints in vertical walling and similar members the formwork shall be so constructed as to permit the starter or upstand of concrete surrounding the lower half of the water bar to be poured in the same operation as the slab or other concrete from which it springs. Formwork to walls or similar members where water bar is positioned at the base of the lift shall have sufficient openings not less than 300mm square at approximately 150mm to 300mm above the level of the water bar to permit checking that the water bar is correctly positioned and not displaced during concreting.

No concreting will be permitted to portions where upstand starters form an integral part until the formwork to the starter has been fixed and approved.

SEALOCRETE SUPERCOAT WATERPROOFER

Where '*Sealocrete Supercoat Waterproofer*' specified shall be applied to concrete or blockwork surfaces strictly in accordance with the manufacturer's instructions. The surfaces must be well wire-brushed to remove dirt, efflorescence, adhering mortar and all foreign matter. It shall then be cleaned with fresh water. When absolutely dry a generous coat of Sealocrete Supercoat shall be applied by brush or spray gun. Surfaces so treated shall be protected from damage or staining as described elsewhere.

TESTING EQUIPMENT

The Contractor shall provide the following equipment for carrying out control tests on the site: -

(a) Straight edges 3.00m and 1.20m long for testing the accuracy of the finished concrete;

(b) A glass graduated cylinder for use in the silt test for organic impurities in the sand;

(c) Slump test apparatus;

(d) Four 150mm steel cube moulds with base plates and tamping rods to B.S. 1881.

WORK CUBE TESTS

Work cubes are to be made at intervals such that one set of four cubes shall represent no more than 50m3 of concrete in the works or as required by the Engineer and the Contractor shall provide a continuous record of the concrete work. The cubes shall be made in approved 150mm moulds in strict accordance with the British Standards.

Four cubes shall be made on each occasion, from each batch, the concrete being taken from the point of deposit.

Each cube shall be marked with a distinguishing number (numbers to run consecutively) and the date, and a record shall be kept on site giving the following particulars: -

(a) Cube No.
(b) Date made.
(c) Location in work.
(d) 7-day Test

Date
Strength required

(e) 28-day Test

Date
Strength required

Cubes shall be forwarded, carriage paid, to an approved Testing Authority, in time to be tested, two at 7 days and one at 28 days and the fourth at the discretion of the Engineer. No cube shall be despatched within 3 days of casting.

Copies of all work cube test results shall be forwarded to the Engineer and one shall be retained on the site.

If the strengths required above are not attained, and maintained throughout the carrying out of the Contract, the Contractor will be required to increase the proportion of cement and/or substitute better aggregates so as to give concrete which does comply with the requirements of the Contract. The Contractor may be required to remove and replace at his own cost any concrete which fails to attain the required strength as ascertained by work cube tests.

The Contractor must allow in his rates for concrete test cubes for all expenses in connection with the preparation and conveyance to the Testing Laboratory of test cubes and no claim in respect of his not so doing will be allowed.

MIXING AND PLACING OF CONCRETE

The concrete shall be mixed only in approved power driven mixers of a type and capacity suitable for the work, and in any event not smaller than 0.33 cu.m. Capacity.

The mixer shall be equipped with an accurate water measuring device. All materials shall be thoroughly mixed dry before the water is added and the mixing of each batch shall continue for a period of not less than two minutes after the water has been added and until there is a uniform distribution of the materials and the mass is uniform in colour.

The entire contents of the mixed drum shall be discharged before recharging. The volume of mixed materials shall not exceed the rated capacity of the mixer. Whenever the mixer is started, 10% extra cement shall be added to the first batch and no extra payment will be made on this account.

As a check on concrete consistency slump tests may be carried out and shall be in accordance with B.S. 1881. The

Contractor shall provide the necessary apparatus and allow for the costs of such tests. The slump of the concrete made with the specified water content, using dry materials, shall be determined and the water to be added under wet conditions shall be so reduced as to give approximately the same slump. Slump shall be 75 + 25mm, unless otherwise instructed by the Engineer.

The concrete shall be mixed as near to the place where it is required as is practicable, and only as much as is required for a specified section of the work shall be mixed at one time, such section being commenced and finished in one operation without delay. All concrete must be efficiently handled and used in the works within twenty (20) minutes of mixing. It shall be discharged from the mixer direct either into receptacles or barrows and shall be distributed by approved means which do not cause separation or otherwise impair the quality of the concrete. Approved mechanical means of handling will be encouraged, but the use of chutes or pumping for placing concrete is subject to the prior approval of the Engineer.
Concrete shall be placed from a height not exceeding 1.5m directly into its permanent position and shall not be worked along the shutters to that position. Unless otherwise approved, concrete shall be placed in a single operation to the full thickness of slabs, beams and similar members, and shall be placed in horizontal layers not exceeding 1.4m deep in walls or similar members.

Concrete in columns may be placed to a height of 4.00m with careful placing and vibration and satisfactory results. Where the height of the column exceeds 4.00m suitable openings must be left in the shutters so that this maximum lift is not exceeded.

Concrete shall be placed continuously until completion of the part of the work between construction joints as specified hereinafter or of a part of approved extent. At the completion of a specified or approved part a construction joint of the form and in the positions hereinafter specified shall be made. If stopping of concreting be unavoidable elsewhere, a construction joint shall be made where the work is stopped. A record of all such joints must be made by the Contractor and a copy supplied to the Engineer.

Any accumulation of set concrete on the reinforcement shall be removed by wire brushing before further concrete is placed.

The Contractor shall provide runways for concreting to the satisfaction of the Engineer. Under no circumstances will the runways be allowed to rest on the reinforcement.

Care shall be taken that the concrete is not disturbed or subjected to the vibrations and shocks during the setting period.

Mixing machines, platforms and barrows shall be clean before commencing mixing and be cleaned on every cessation of work.

Where concrete is laid on hardcore or other absorbent materials, the base shall be suitably and sufficiently wetted before the concrete is deposited.

COMPACTION

At all times during which concrete is being placed, the Contractor shall provide adequate trained and experienced labour to ensure that the concrete is compacted in the forms to the satisfaction of the Engineer.

Concrete shall not be placed at a rate greater than will permit satisfactory compaction nor to a depth greater than 450mm before it is compacted.
During and immediately after placing, the concrete shall be thoroughly compacted by means of continuous tamping, spading, slicing and vibration. Vibration is required for all concrete of classes '35', '30', '25' and '20'

Care shall be taken to fill every part of the forms, to work the concrete under and around the reinforcement without displacing it and to avoid disturbing recently placed concrete which has begun to set.

Any water accumulating on the surface of newly placed concrete shall be removed and no further concrete shall be placed thereon until such water be removed.

Internal vibrators shall have a frequency of not less than 7,000 cycles per minute and shall have a rotating eccentric weight of at least 0.7Kg., with an eccentricity of not more than 12mm. Such vibrators shall visibly affect the concrete within a radius of 230mm from the vibrator.

Internal vibrators shall not be inserted between layers of reinforcement less than one and a half times the diameter of

the vibrators apart. Contact between vibrators and reinforcement and vibrators and formwork shall be avoided.

Internal vibrators shall be inserted vertically into the concrete wherever possible at not more than 500 mm centres and shall constantly be moved from place to place. No internal vibrator shall be permitted to remain in any one position for more than ten seconds and it shall be withdrawn very slowly from the concrete. In consolidating each layer of concrete the vibrating head shall be allowed to penetrate and re-vibrate the concrete in the upper portion of the underlying layer. In the area where newly placed concrete in each layer joins previously placed concrete more than usual vibration shall be performed, the vibrator penetrating deeply at close intervals along these contacts. Layers of concrete shall not be placed until layers previously placed have been vibrated thoroughly as specified.

Vibrators shall not be used to move concrete from place to place in the formwork.

At least one internal vibrator shall be operated for every three cubic metres of concrete placed per hour and at least one spare vibrator shall be maintained on site in case of break-down during concreting operations.

External formwork vibrators shall be of the high frequency low amplitude type applied with the principal direction of vibration in the horizontal plane. They shall be attached directly to the forms at not more than 1224mm centres.

In addition to internal and external vibration the upper surface of suspended floor slabs shall be levelled with a tamping or vibrating screed prior to finishing. Vibrating elements shall be of the low frequency high amplitude type operating at a speed of not less than 3,000 r.p.m.

CONSTRUCTION JOINTS

Construction joints shall be permitted only at the positions pre-determined on the drawings or as instructed on the site by the Engineer. In general they shall be perpendicular to the lines of principal stress and shall be located at points of minimum shear, viz. vertically at, or near, mid-spans of slabs, ribs and beams.

Suspended concrete slabs are generally to be cast using alternate bay construction in bays not exceeding 13 metres in length. No two adjacent bays are to be cast within a minimum period of 48 hours of each other. The joints between adjacent bays are to be in positions agreed with the Engineer.

Under no circumstances shall concrete be allowed to tail-off, but it shall be deposited against stopping-off boards.

Before placing new concrete against concrete already hardened, the face of the old concrete shall be thoroughly hacked, roughened and cleaned, and laitance and loose material removed therefrom, and immediately before placing the new concrete the surface shall be saturated with water and covered with a coat of mortar at least twenty five mm in thickness composed of cement and fine aggregate in the proportions used in the concrete.

CURING AND PROTECTION

Care must be taken that no concrete is allowed to become prematurely dry and the fresh concrete must be carefully protected within two hours of placing from rain, sun and wind by means of hessian sacking, polythene sheeting, or other approved means. This protective layer and the concrete itself must be kept continuously wet for at least seven days after the concrete has been placed. The Contractor must allow for the complete coverage of all fresh concrete for a period of 7 days. Hessian or polythene sheeting shall be in the maximum widths obtainable and shall be secured against wind. The Contractor will not be permitted to use old cement bags, hession or other material in small pieces.
Concrete in foundations and other underground work shall be protected from admixture with falling earth during and after placing.

Traffic or loading must not be allowed on the concrete until the concrete is sufficiently matured, and in no case shall traffic or loading be of such magnitude as to cause deflection or other movement in the formwork or damage to the concrete members. Where directed by the Engineer props may be required to be left in position under slabs and other members for greater period than those specified hereafter.

FAULTY CONCRETE

Any concrete which fails to comply with these specifications, or which shows signs of setting before it is placed shall be taken out and removed from the site. Where concrete is found to be defective after it has set, the concrete shall be

cut out and replaced in accordance with the Engineer's instructions. On no account shall any faulty, honeycombed, or otherwise defective concrete be repaired or patched until the Engineer has made an inspection and issued instructions for the repair. The whole of the cost whatsoever, which may be occasioned by the need to remove faulty concrete shall be borne by the Contractor.

ROD REINFORCEMENT

The steel reinforcement shall be mild steel or high tensile steel as detailed on drawings or schedules and comply with the latest requirements of the following British Standards: -
It shall be in metric sizes as detailed on the drawings.
The Contractor shall submit a test certificate of the rollings. Reinforcement shall be stored on racks above ground level. All reinforcement shall be free from loose mill scale or rust, grease, paint or other substances likely to reduce the bond between the steel and concrete.

FABRIC REINFORCEMENT

To be electrically cross-welded wire mesh reinforcement to B.S. 4483 and of the size and weight specified

FIXING ROD REINFORCEMENT

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

Reinforcement shall be accurately placed in position as shown on the drawings and, before and during concreting, shall be secured against displacement by using No. 18 S.W.G. annealed binding wire or suitable clips at intersections, and shall be supported by concrete or metal supports, spacers or metal hangers to ensure the correct position and cover.

No concreting shall be commenced until the Engineer has inspected the reinforcement in position and until his approval has been obtained and the Contractor shall give two clear days' notice of his intention to concrete.

The Contractor is responsible for maintaining the reinforcement in its correct position, according to the drawings, before and during concreting. During concreting a competent steel fixer must be in attendance on the concretors to adjust and correct the positions of any reinforcement which may be displaced. The vibrators are not to come into contact with the reinforcement.

Where reinforcement projects from a concreted section of the structure and this reinforcement is expected to remain exposed for some time, it is to be coated with a cement grout to prevent rust staining on the finished concrete. This grout is to be brushed off the reinforcement prior to the continuation of concreting.

POSITION AND CORRECTNESS OF REINFORCEMENT

Irrespective of whether any inspection and/or approval of the fixing of the reinforcement has been carried out as above, it shall be the Contractor's sole responsibility to ensure that the reinforcement complies with the details on the drawings or schedules and is fixed exactly in the positions shown therein and in the positions to give the prescribed cover. The Contractor will be held entirely responsible for any failing or defect in any portion of the reinforced concrete structure and including any consequent delay, claims, third party claims, etc., where it is shown that the reinforcement has been incorrectly positioned or is incorrect in size or quantity with respect to the detailed drawings or schedules.

SPACING BLOCKS

Spacing blocks of approved size and shape made of concrete similar to that used in the surrounding construction and fixed to the reinforcement or formwork by No. 18 S.W.G. wires set into the spacer blocks, or other approved means, shall be provided where necessary to ensure that the requisite cover is obtained. The Contractor is to include for providing sufficient such spacer blocks in his prices for steel reinforcement where a supplier has been nominated. Where composite blocks or other forms of rib construction are used, spacer blocks are to be provided as shown on the drawings. These will generally consist of concrete blocks as described above made to fit the width of the rib less 3mm tolerance and with single or double grooves (depending on the number of reinforcement bars used per rib) in the top surface with wire ties at each groove.

CONCRETE COVER TO REINFORCEMENT

Unless otherwise directed the concrete cover to rod reinforcement over main bars in any face shall be :-

Foundations	50mm
Columns and walls	40mm
Beams	25mm
Slabs	15mm

FIXING FABRIC REINFORCEMENT

The fabric shall be free from scale, rust, grease or other substance likely to reduce the bond between the steel and the concrete and shall be laid with minimum 300mm laps and bound with No. 18 S.W.G. annealed iron wire.

In all ground slabs, unless otherwise specified a single layer of square mesh steel fabric shall be placed at a depth of 50mm below the top surface of the concrete. The fabric shall comply in all respects with B.S. 4483 and be of the size and weight specified or shown on the drawings.

The fabric shall extend to within 75mm of the expansion joints and shall have laps of at least 230mm at all joints in the fabric at junctions with reinforced concrete beams or other members. It shall be placed on top of the first layer of concrete as previously described and sufficient wire ties shall be provided to ensure that the fabric is held down securely.

FIXTURES AND INDENTATIONS IN CONCRETE

No openings, chases, holes or other voids shall be formed in the concrete without the prior approval of the Engineer. Details of any fixtures to be permanently built into the concrete including the proposed position of all electrical conduits 25mm and over in diameter shall be submitted to the Engineer for his approval before being placed.

CHASES, HOLES, ETC. IN CONCRETE

The Contractor shall be responsible for the co-ordination with the Electrical and other Sub-Contractors for incorporating electrical conduit, pipes, fixing blocks, chases, holes and the like in concrete members as required and must ensure that adequate notice is given to such Sub-Contractors informing them when concrete members incorporating the above are to be poured. The Contractor shall submit full details of these items to the Engineer for approval before the work is put in hand. All fixing blocks, chases, holes, etc., to be left in the concrete shall be accurately set out and cast with the concrete.

POSITION OF ELECTRICAL CONDUIT

Unless otherwise instructed by the Engineer all electrical conduit to be positioned within the reinforced concrete shall be fixed inside the steel cages of beams and columns and between the top and bottom steel layers in slabs and similar members.

The proposed position of all electrical conduits 25mm and over in diameter which are to be enclosed in the concrete shall be shown accurately on a plan to be submitted to the Engineer, whose approval shall be obtained before any such conduit is placed.

FORMWORK

The method and system of formwork which the Contractor proposes to use shall be approved by the Engineer before construction commences. Formwork shall be substantially and rigidly constructed of timber or steel or precast concrete or other approved material.

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

CONSTRUCTION OF FORMWORK

All formwork shall be of sufficient thickness and with joints close enough to prevent undue leakage of liquid from the concrete and fixed to proper alignment, level and plumb and supported on sufficiently strong bearers, shores, braces, plates, etc. properly held together by bolts or other fastenings to prevent displacement, vibration or movement

by the weight of materials, men and plant on same and so wedged and clamped as to permit of easing and removal of the formwork without jarring the concrete. Where formwork is supported on previously constructed portions of the reinforced concrete structural frame, the Contractor shall be in consultation with the Engineer to ensure that the supporting concrete structure is capable of carrying the load and/or sufficiently propped from lower floors or portions of the frame to permit the load to be temporarily carried during construction.

Soffits shall be erected with an upward camber of 10mm for each 4000mm of each horizontal span or as directed by the Engineer.

Great care shall be taken to make and maintain all joints in the formwork as tight as possible, to prevent the leakage of grout during vibration. All faulty joints shall be caulked to the Engineer's approval before concreting.

The formwork shall be sufficiently rigid to ensure that no distortion or bulging occurs under the effects of vibration. If at any time the formwork is insufficiently rigid or in any way defective the Contractor shall strengthen or improve such formwork as the Engineer may direct.

The Contractor's attention is drawn to the various surface textures and applied finishes required and the faces of formwork next to the concrete must be of such material and construction and be sufficiently true to provide a concrete surface which will in each case permit the specified surface treatment or applied finish.

All surfaces which will be in contact with concrete shall be oiled or greased to prevent adhesion of mortar. Oil or grease shall be of a non-staining mineral type applied as a thin film before the reinforcement is placed. Surplus moisture shall be removed from the forms prior to placing of the concrete.

Temporary openings shall be provided at the base of columns, wall and beam forms and at any other points where necessary to facilitate cleaning and inspection immediately before the pouring of concrete. Before the concrete is placed the shuttering shall be trued-up and any water accumulated therein shall be removed. All sawdust, chips, nails and other debris shall be washed out or otherwise removed from within the framework. The reinforcement shall then be inspected for accuracy of fixing. Immediately before placing the concrete the formwork shall be well wetted and inspection openings shall be closed. The erection, easing, striking and removing of all formwork must be done under personal supervision of a competent foreman, and any damage occurring through faulty formwork or its incorrect removal shall be made good by the Contractor at his own expense.

After removal of formwork, all projections, fins, etc., on the concrete surface shall be chipped off, and made good to the requirements of the Engineer. Any voids or honeycombing shall be treated as described in 'Faulty Concrete'.

STRIPPING FORMWORK

All formwork shall be removed without undue vibration or shock and without damage to the concrete. No formwork shall be removed without the prior consent of the Engineer and the minimum periods that shall elapse between the placing of the concrete and the striking of the formwork will be as follows:-

Beam sides, walls and inclined columns (unloaded)	2 days
Slab horizontal soffits (props left under)	3 days
Beam soffits (props left under)	7 days

Removal of props (subject to 7 days' concrete cube strength being satisfactory) to: -

Slabs	10 days
Beams	14 days

If the Contractor wishes to take advantage of the shorter stripping times permitted for beam and slab soffits when props are left in place, he must so design his formwork that sufficient props as agreed with the Engineer can remain in their original position without being moved in any way until expiry of the minimum time for removal of props. Stripping and re-propping will not be permitted.

The above times may be reduced in certain circumstances, at the discretion of the Engineer provided an approved method is adopted at the Contractor's expense to ensure that the required concrete strength is attained before the forms are stripped.

Solid strips in composite slab shall be considered as beams. The tops of retaining walls shall be adequately supported with stout raking props at intervals required by Engineer. These props are not to be removed until 7 days after casting of the floor slab.

PRECAST CONCRETE

Unless otherwise approved by the Engineer, all precast concrete construction shall be carried out on the site and shall conform to the requirements given elsewhere.

The maximum size of coarse aggregate in precast concrete shall not exceed 20mm except for thicknesses less than 75mm where it shall not exceed 12mm.

The compaction of precast concrete shall conform to requirements given elsewhere in these Specifications except for thin slabs where use of immersion type vibrators is not practicable. The concrete in these slabs may be consolidated on a vibrating table or by any other methods approved by the Engineer.

Steam curing of precast concrete will be permitted. The procedure for steam curing shall be subject to the approval of the Engineer.

The precast work shall be made under cover and shall remain under the same for seven days. During this period and for a further seven days the concrete shall be shielded by sacking or other approved material kept constantly wet. It shall then be stacked in the open for at least a further seven days to season before being set in position. Where steam curing is used these times may be reduced to the approval of the Engineer.

Precast concrete units shall be constructed in individual forms. The method of handling the precast concrete units after casting, during curing and during transport and erection shall be subject to the approval of the Engineer. Providing that such approval shall not relieve the Contractor of responsibility for damage to precast concrete units resulting from careless handling.

Repair of damage to the precast concrete units, except for minor abrasions of the edges which will not impair the installation and/or appearance of the units will not be permitted and the damaged units shall be replaced by the Contractor at his own expense.

Moulds for 'Fair Face' precast work are to be made of metal or are to have metal or plywood linings or are to be other approved moulds which will produce a smooth dense fair face to the finished concrete suitable to receive a painted finish direct and free from all shutter marks, holes, pittances, etc. In his prices for such precast work the Contractor shall include for all rubbing down to produce the finish required, to the satisfaction and approval of the Engineer.

The precast units shall be installed to the lines, grades and dimensions shown on the drawings or as directed by Engineer.

CONCRETE SURFACE BEDS

Concrete for surface beds shall be Grade '20'.

Before placing concrete and where specified or shown on the drawings a layer of 500 gauge polythene or diothene sheeting shall be laid on the base course. Minimum 300mm laps shall be provided at all joints.

The concrete shall be placed as soon as possible after being mixed. In transporting the concrete, adequate precautions shall be taken to avoid damage to the prepared base. The concrete shall be spread to such a thickness that when compacted it shall have the finished thickness as specified or shown on the drawings. A layer of concrete 50mm less than the finished thickness shall first be spread and struck off at the correct level to receive the top fabric reinforcement.

The top layer shall then be added. Not more than 30 minutes shall elapse between spreading the bottom layer. The Contractor shall be responsible for maintaining the reinforcement in its correct position during the placing and compaction of the concrete.

The compaction and finishing of the concrete shall be effected by immersion vibrators and a hand or mechanical tamper weighing not less that 10Kg per meter run and having a tamping edge shod with a steel strip 75mm wide fixed to the tamper by countersunk screws. Immersion vibrator with 'spade' attachments will be permitted.

Compaction shall be continued until a dense, sealed surface finish is achieved. Over-compaction causing an excessive amount of fines to be brought to the surface shall be avoided.

The surface of the concrete shall be finished to the surface texture specified to the levels, falls and crossfalls, as directed or shown on the drawings and shall be subject to the following tolerance :-

The level shall be within or - 6mm of the levels specified.

The falls shall be within 10% of the falls specified.

The smoothness shall be such that departure from a 3.000m straight edge laid in any direction shall not exceed 3mm. Minor irregularities shall be made good by the use of a steel float but in no circumstances shall mortar be used to make good the surface.

As soon as the surface has been finished, it shall be protected against too rapid drying by means of damp hessian, polythene sheeting or other approved means placed carefully on the surface and kept damp and in position for 7 days and the concrete shall be kept wet for further 21 days. The most critical period is the first 24 hours after placing and curing during that time shall be very thorough. The Contractor is to obtain the Engineer's approval to the material and method he proposes to use for curing and no concreting will be permitted until sufficient such material is on site.

Forms shall not be removed from freshly placed concrete until it is at least 24 hours old. Care shall be taken that in their removal no damage is done to the concrete, but should any damage occur the Contractor shall be responsible for making it good.

EXPANSION JOINTS IN CONCRETE SURFACE BEDS

Expansion joints shall be positioned and constructed as shown on the drawings. The joints in the surface beds shall be absolutely square and true to line and position.

All joints in surface beds shall be formed to the patterns and shapes to coincide exactly with the joints in the surface finish or as otherwise indicated on the drawings. Formwork shall be manufactured from steel of heavy angle section and be to the Engineer's approval. The Contractor shall submit drawings of the forms he intends to use and obtain the Engineer's approval before fabrication. Panels shall be poured in alternate bays as agreed with the Engineer. No construction joints other than those indicated on the drawings shall be submitted.

NOTES CONCERNING MEASUREMENT AND PRICING

The Contractor must allow for all costs incurred during the progress of the Contract for complying with the provisions concerning the preparation and use of graded mixes.

Prices for concrete shall include for mixing and depositing as described or indicated and for hoisting and depositing at the various levels required throughout the building, and shall also include for forming or hacking a satisfactory key for all faces receiving asphalt and plaster work. Prices for slabs shall also include for levelling off the surface as described under 'Compaction', and all temporary formwork to form construction joints at bay edges.

Prices for reinforced concrete shall, in addition, include for filling into, between or on formwork and thoroughly compacting between and around rods or fabric reinforcement and for forming all additional construction joints between varying mixes. Where described as vibrated, prices must include for fully vibrating as described.

Formwork (use and waste only) is measured net to the actual face of the concrete to be supported and the prices for formwork shall include for extra material at joints, extra labour and waste for narrow widths, small quantities, overlaps, passing at angles, straight cutting and waste, splayed edges, notchings, etc., and for fixing at the various levels including battens, struts, and supports and for bolting, wedging, easing, striking and removal. Prices for linear items such as boxings shall include for angles and ends. Strutting has been measured at varying levels to soffits only and prices for other items must include for strutting at any level.
Prices for steel rod reinforcement shall include for cutting to lengths and all labour in bending and cranking, forming hooked ends, handling, hoisting and fixing in position and for providing all necessary tying wire and supports. Prices for fabric reinforcement shall include for all straight cutting and waste, handling, hoisting and fixing in position, providing all necessary tying wire, and supports and all extra material in laps.

Prices of all precast concrete shall include for all moulds, finishings as described, handling reinforcement, hoisting and fixing at the required levels, bedding, jointing and pointing in cement and sand (1:5) mortar, also for casting or

cutting to the exact lengths required and any waste resulting from such cutting. The sizes of weathered or moulded items stated are extreme sizes.

Prices for suspended hollow tile composite floor and roof slabs must be 'all inclusive' to include for concrete hollow tiles, in situ concrete ribs, concrete topping, concrete filling to open ends of hollow concrete tiles.

Concrete in main beams has been measured to the full width thereof and for full depth to top of slab level and composite slabs are measured separately, the net area between same. No adjustment will be made in these measurements for any projection of ribs, reinforcement, etc., into main beams or floors etc., to obtain bearings, which are deemed to be covered in the Contractor's rates.

Prices for expansion joints shall include for cutting to size and all temporary supports and prices for expansion joint sealers shall include for all temporary battens or fillets required to form the necessary grooves.

STRUCTURAL STEELWORK

APPROVED SUB-CONTRACTOR

The whole of the structural steelwork is to be executed by a specialist Sub-Contractor who is to be specifically approved by the Engineer and the Contractor will be required to make arrangements for the execution of this work and bear all expenses incurred. No change in the rates for this work inserted by the Contractor in these Bills of Quantities will be allowed

ARCHITECT/ENGINEER

For the purpose of the steel structure the Structural Engineer shall be deemed vested with the duties of and be the representative of the Architect.

QUALITY OF MATERIAL AND WORKMANSHIP

The quality of all materials and workmanship used in the execution of the works shall comply with the requirements of current relevant British Standard and Codes of Practice, including all the latest amendments.

BRITISH STANDARDS AND CODES OF PRACTICE

B.S. 4360.....…	Weldable Structural Steels
B.S. 5950.....	The use of Structural Steel inBuilding.
B.S. 4 (Part 1).....	Hot Rolled Sections
B.S.4848 (Part2)….....	Hot Rolled Hollow Sections.
B.S. 2994 & 1449.....	Cold Formed Steel Sections
B.S. 5135.....	General Requirements for the Metal Arc Welding of Structural Steel Tubes to B.S. 6222,(B.S. 5125 will be considered to apply to the requirements for welding of hot-rolled hollow sections to B.S. 4848 Part 2).
B.S. 6323 Parts 1 – 8...	Steel Tubes for Mechanical, Structural & General Engineering Purposes.
B.S. 1856.....	General Requirements for the Metal Arc Welding of Mild Steel.
B.S. 639.....	Covered Electrodes for the Metal Arc Welding of Mild Steel
C.P. 2008.....	Protection of Iron & Steel Structures from Corrosion

TESTS

The Engineer may at any time require any materials to be tested in accordance with the requirements of the Standards listed above. The cost of all successful tests shall be borne by the Employer. The Contractor shall, if required by the Engineer, promptly supply at his own expense test pieces. The costs of tests on materials failing to comply with these Standards shall be borne by the Contractor. If in the opinion of the Engineer, faulty material and/or

workmanship has been used in the works, the Contractor may be directed to dismantle and cut out the parts concerned and remove them for examination and testing. The cost of dismantling, cutting out and making good to the approval of the Engineer shall be borne by the Contractor.

FABRICATION

The standard of work and the general procedure to be followed during fabrication shall be in accordance with B.S. 449. The Contractor must ascertain all dimensions on the site prior to commencement of fabrication.

(a) Cutting & Bending - All members, plates, brackets, etc., shall be neatly and accurately sheared, sawn, or profiled to the required shape as shown on the drawings. Where steel is oxy-cut to shape, care shall be taken to preserve the full finished sizes required.

If members or plates are bent or set, the bends or sets shall be correctly made to the radii or angles specified without leaving hammer marks. The materials may be heated to permit this. Material that has been heated should be annealed to approval.

(b) Punching & Drilling - Holes for black bolts shall be drilled or punched 2mm larger in diameter than the bolt size. Holes for high tensile friction grip bolts shall be drilled or sub-punched and reamed to 2mm larger in diameter than the specified bolt size. All drilled holes shall be parallel sided and shall be drilled with the axis of the holes perpendicular to the surface. Badly drilled holes shall either be reamed out to approval and larger bolts fitted or otherwise as directed. All rough arrises shall be ground off. Holes for bolts in material thicker than 15mm must be drilled. When holes are drilled in one operation through two or more thicknesses of material, the parts shall be separated after drilling and all burrs removed before assembly. Holes for bolts shall not be formed by a gas cutting process. Holes formed or enlarged by oxy-cutting will not be accepted and must be filled to approval by electric welding and re-drilling.

(c) Bolting - All bolts used shall be of such length that at least one full thread is exposed beyond the nut after the nut has been tightened. Where a nut or bolt head would bear on an inclined surface, a bevelled washer of the correct shape shall be interposed between the two surfaces. Bevelled washers shall not be allowed to get out of position during fabrication and erection and for this purpose may be spot welded to the steel surface. Bevelled washers for use with high tensile bolts shall not be welded.

(i) Black Bolts, Nuts and Washers

Black bolts shall comply with the requirements of B.S. 916. (B.S.W. Threads).

(ii) Close Tolerance Bolts

Close tolerance bolts shall conform to B.S. 916.

(iii) High Strength Friction Grip Bolts

(a) General grade bolts to B.S. 3692.

(b) Load indicating bolts manufactured by G.K.N. Ltd. or any other approved manufacturer.
(c) High tensile bolts to B.S. 4395.

(iv) Rawl bolts

Rawlbolts shall be those manufactured by Rawlplug Company Ltd or any other approved manufacturer.

(v) Washers

Washers to B.S. 4320.

Washers for high strength friction grip bolts shall be appropriate to the type and quality of the bolt specified.

(vi) Rivets

The steel used for rivets shall be in accordance with B.S. 4360 and in the case of high tensile steel rivets shall be

so manufactured that they can be driven and the heads formed and the physical properties not impaired.

(d)Pressed Steel Sections

Pressed or cold rolled steel purlins and girders shall be to the sizes indicated on the drawings and shall be formed from approved steel strip with a minimum yield strength of 175N/mm2.

The sections shall be manufactured straight and free from twist. The tolerance away from straightness shall not be greater than 2mm for every 2000mm in length along any folded edge.

The Contractor shall ensure that each run is inspected and any unsatisfactory weld cut out and remade to approval.

Welds in material 25mm or greater in thickness shall be made by the Argon arc or similar approved process, and special precautions shall be taken to prevent weld cracking.

Unless otherwise specified, the minimum size of fillet shall be 6mm.

On completion, welds shall present a smooth and regular finish. Weld metal shall be solid throughout with complete fusion between weld metal and parent metal and between successive runs throughout the joint

Defects shall be cut out and made good to approval in sound weld metal.
The external faces of butt welds are to be ground smooth on completion to the approval of the Engineer.

SHOP AND FIELD CONNECTIONS

(a) Rolled Sections

All shop connections shall be electric welded or bolted with high tensile bolts.
No bolts used shall be less than 12mm diameter and no weld less than 40mm in length. At least two bolts shall be used in connections transmitting loads unless otherwise indicated by the Engineer.

No weld of length less than four times the nominal fillet size shall be deemed capable of carrying load.

Beam to column connections not detailed shall be on 'Standard' top and bottom cleat connections with the load carried on the bottom cleat. 'Standard' web connections shall be used for connecting beams to beams.

Field connections shall be as detailed, i.e. bolted with high tensile or black bolts in drilled holes. Black bolts in punched holes will only be permitted for connections carrying a designed load or for connections to timber members.

(b) Structural Hollow Sections

Hollow sections shall be connected by electric welding unless specified otherwise.

The designs of welds shall be in accordance with Clause 6.6 of B.S. 5950.

Butt welds in tension members will not be permitted unless the prior approval of the Engineer in writing has first been obtained.

Butt welds where permitted, shall be made with the fusion surfaces of the ends of each member properly prepared and the member properly aligned.

ASSEMBLY

(a) Trusses and Portal frames

Trusses and portal frames shall be carefully set out to the dimensions shown on the drawings.

Where it is required that trusses be cambered, such camber shall be provided by bending the bottom chord to an arc of a circle.

Notwithstanding any dimensioned spacing of purlin cleats, the Contractor shall ensure that purlin cleat spacing is satisfactory for the available stock lengths of roof sheeting. However, the Engineer's approval must first be obtained

before any alteration is made in purlin spacing or sheeting sizes.

Splices in portal and other frames shall be made where shown on the details or where directed by the Engineer.

(b) Boxed Members

Abutting edges of boxed members shall be connected and sealed with a continuous weld to exclude the entrance of moisture. Where specified such welds shall be ground flush to approval.

(c) Shop Assembly

Assembly of units in the shop prior to transporting to the site must be inspected by the Engineer before painting. The assembled work shall be laid out in the shop or yard such that all parts are accessible for inspection and testing.

The Contractor shall furnish all facilities for inspection and testing of the works and must notify the Engineer on every occasion materials are ready for inspection.

(d) Marking

All members of the structures to be site assembled shall be marked in accordance with the shop details and marking plans submitted to the Engineer for approval.

ERECTION

(a) Site Dimensions

Erection shall not commence unless and until accurate site dimensions have been taken by the Contractor. No claims will be considered should site dimensions differ from those on the drawings. Any modifications to the structural steel required in order to comply with site dimensions shall be made on the ground to the Engineer's approval before erection is commenced.

(b) Safety

All erection shall be carried out by competent and experienced personnel and the Contractor shall take every care to safeguard members of the public, workmen, and adjoining property against injury and/or damage. The Contractor shall be held responsible for all damage caused to the structure, workmen, or other property during erection.

All gear used shall be of adequate strength and shall comply with all current Regulations.
During erection the work shall at all times be adequately bolted, guyed and/or braced to make the structure secure.

(c) Storage and handling

Steel members shall be stored, handled and erected in such a manner that no member shall be subjected to excessive stresses which could have adverse effect on the properties of the steel. If, in the opinion of the Engineer, the steelwork has been subjected to such treatment, the Contractor shall remove the member from the site and replace it at his own expense.

(d) Erection Notes

No member or part of a member which has been bent or distorted shall be erected in that condition. All straightening shall be done on the ground.

Stanchions shall be wedged to line and level on steel or cast iron wedges and checked by the Engineer. After acceptance, stanchion bases shall be grouted to approval before wedges are removed. Unless otherwise shown on the drawings, all stanchions shall be left truly vertical and correct to line and level. Beams, girders, etc., shall be erected level unless otherwise shown, and correctly positioned.
Trusses and open web joists shall be carefully handled at all times and during erection shall be lifted at such points and in such a manner as will preclude any possibility of damage from excessive stresses.

Packing plates, shims, washers or similar adjusting pieces found necessary to accommodate tolerances in structural site dimensions shall be provided and fixed to the approval of the Engineer.

Immediately after erection, each truss shall be made secure by purlins, bracing or guys to approval of the Engineer.

Bracing shall be fixed in position as soon as dependent portion of the work is completed.

(e) Tightening and Testing High Tensile Friction Grip Bolts

Before assembly, the contact surfaces, including those adjacent to the washers, shall be descaled, and be free from dirt, oil, loose scale, burrs, paint (except priming paint), pits and other defects that would prevent proper seating of the parts.

Bolts shall be fixed with approved hardened flat or tapered washers as required between the bolt and nut and the softer mild steel.

When bearing faces of the bolted parts have a slope of more than 1 in 20 with respect to a plane normal to the bolt axis, square smooth bevelled washers shall be used to compensate for the lack of parallelism.

All bolts shall be tightened by the 'Turn of Nut' method and as approved by the Engineer to achieve in all bolts a minimum tension equal to the proof load.

(f) Grouting

Unless otherwise detailed on the drawings, a space of not less than 40mm shall be provided between undersides of column base plates and footings, and between all beams and roof truss bearings and concrete pads.

After each column, beam or roof truss has been wedged up to a line and level and fixed in position to approval, the space between footing or pad and the underside of the column base plate or steel member shall be grouted with a mixture of one part of Portland cement and one part of approved washed sand (1:1).
The Portland cement and sand shall be thoroughly mixed together with sufficient water to produce a mixture of 'damp earth' consistency and shall be used within twenty minutes of mixing. The caulking mixture shall be packed tight into the space between baseplate and foundation and protected from damage until it sets.

PAINTING

(a) Paints

All paints are to be obtained from suppliers approved in writing by the Engineer.

Paints are to be delivered to the site or to the Contractor's fabrication site in the original containers as supplied by the manufacturer with seals unbroken and are to be used in strict accordance with the manufacturer's instructions. Manufacturer's representatives are to be free to visit the site and inspect materials for laboratory analysis.

Paints are not be thinned unless instructed by the Engineer. No external painting is to be carried out during rain or when rain is likely to occur before the paint has had time to dry. All surfaces are to be dry and free from moisture during painting.

(b) Preparation for Painting

All structural steel shall be thoroughly scraped and wire brushed to remove mill scale and rust. Dirt, grease and oil shall be washed off with white spirit and the steel allowed to dry.

(c) Application

A first coat of Red Lead Graphite Primer or other approved primer shall be applied after fabrication of the works has been completed. A minimum of 24 hours shall elapse before the steel is moved from its position after painting has been completed.

After delivery to site, the steel shall be carefully examined and all areas where the priming coat has been damaged and/or where rust has developed shall be washed with white spirit and wire brushed as necessary and a further priming coat as for the first coat applied to completely cover the damaged areas.

During erection, surfaces of steel which are to be in contact shall be painted with one further coat of primer as

previously described and the surfaces brought together whilst the paint is still wet.

After erection, paint a second and finishing coat of 'Oil Company Aluminium Paint 368/36' or other finishing paint of standard as for steelwork. Welds shall not be painted over until they have been deslagged, inspected and approved.

Steel purlins and side rails shall generally be painted as for steelwork when the following specification shall be used:

1st Coat - Red Oxide Zinc Chromate Primer or other approved primer

2nd Coat - Robbialac 'Oil Company Aluminium Paint 368/36' or other equal and approved Aluminium Paint

The interior of mild steel gutters shall be prepared as previously described and painted with 2 coats of "Robbialac Epilac Coal Tar Epoxy Paint" or other approved paint.

PRICES, MEASUREMENTS AND PAYMENT

Prices quoted by the Contractor shall be based on the calculated weights of steel, and shall include for manufacture, painting, and supply, all as described in the Bills of Quantities, specified, and shown on the drawings, including the cost of delivery to the site or other agreed place or places and the supply of all bolts, rivets, plugs, gussets, cleats, to complete the erection of the works.

Prices shall include for erection, (all labour, scaffolding, and other erection equipment necessary) and cover the cost of additional prime coat painting as previously specified. The prices shall also include for lining up, levelling and plumbing but not for grouting up of the bases.

The basis for payment for steelwork shall be the calculated steel weights of the structure. Any variation from the original design on which the tender was based, which results in either an increase or decrease in calculated weight of the structure as completed, shall result in the appropriate additions or deductions to the submitted tender totals.

Any written instruction from the Engineer which may result in additional work over and above that for which the Contractor quoted will be considered as extras and shall be paid for on the basis of calculated additional steel weights.

GENERAL PLUMBING AND DRAINAGE SPECIFICATION

GENERAL

All plumbing works shall be carried out by a licenced plumber and/or drain layer.

APPROVAL

The entire installations shall be carried out to the approval of the Local Authority and in compliance with all governing regulations, in particular the following specific codes and regulations:-

a) The Local Authority by-laws and regulations.

b) The current Republic of Kenya Building Code.

c) The M.O.W. latest issue of General Specification for Building Works.

d) B.S. 5572 - Code of practice for sanitary pipework

e) B.S. 8301 - Code of practice on building drainage

f) B.S. 6465 - Sanitary Appliances.

g) C.P. 6700, 7181 - water supply

h) The I.E.E. Regulations 16th Edition

i) The Kenya Bureau of Standards (K.B.S.) Specification.

Galvanized Steel Pipework

Galvanized steel pipework shall be manufactured to comply in all respects with the standards described for black

steel pipework in paragraph. (a) above.

Galvanizing shall be carried out in accordance with the requirements of B.S. 729.

Copper Tubing

All copper tubing shall be to B.S. 2871 Part 1 of approved manufacture, solid drawn, round, clean, smooth and free from all defects and deleterious filing in the bore.

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

Copper tubing is to be used as connection tubes between steel pipework and sanitary or laboratory fittings. In order to avoid direct contact a PVC or ABS straight connector shall be positioned between the steel pipe and the copper tube.

Cast Iron Pipework

Cast iron pipework and fittings for use above ground in connection with internal building services, shall be manufactured with spigot and socket joints of the weight required by the Local Authority and shall comply fully with the requirements of B.S. 416.

All joints on cast iron spigot and socket pipes shall be made with an approval cold caulking compound and so installed as to allow for any expansion or contraction which may take place.

All cast iron pipework, branches, tees, bends and other fittings shall be supplied complete with inspection covers for cleaning purposes. These inspection covers shall be included as part of the fittings and shall comply with the requirements of B.S. 416.

A.B.S. Waste System

Where indicated on the drawings and schedules, supply and fix A.B.S. waste pipes and fittings.

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

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

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

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

Connections to Existing Piping, etc.

The Contractor must keep all existing pipework, special fittings, etc. free from debris at all times during the progress of the work and must leave them free from debris on completion of the work.

Diversions of Existing Services

Where services are to be diverted on the instructions of the Engineer the work must be carried out with minimum of interference with existing services.

All precautions must be taken to prevent any damage to existing installations and prevent any unnecessary interference with the working thereof.

The Contractor must ensure that any services supplied to existing properties being retained are maintained at all times and to prevent any unnecessary interference with the working thereof.

Where required or directed by the Engineer, existing services on the site must be disconnected and sealed off to the

approval of the appropriate Authority.

Testing

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

SANITARY APPLIANCES

General

Installation of all pipework, valves, fittings and equipment shall be carried out under adequate supervision from skilled staff to the relevant codes and standards as specified herein. All builder's work associated with the piping installation is to be carried out in a satisfactory manner to the approval of the Engineer.

ELECTRICAL ENGINEER'S GENERAL SPECIFICATIONS

GENERAL

The Electrical Sub-Contractor shall be responsible for the supply, delivery, installation, connection, testing and setting to work of the entire electrical system in accordance with the Contract Documents.

The Electrical Sub-Contractor shall provide all the necessary tools, skilled and un-skilled labour to comply and complete the whole installation in accordance with the tenderer's works programme.

Standards and Regulations

The electrical portion of the works shall comply with the current regulations of The Kenya Power and Lighting Co. Ltd. The latest codes of Practice of The British Standards Institution, the Regulations for Electrical Equipment in buildings issued by the Institution of Electrical Engineers (I.E.E) in Great Britain and this specification.

Power Supply on Site.

The supply voltage will be 240 volts single phase or 415 volts 3 phase 50 Hz. TN-S system, viz. separate neutral and protective conductor throughout the system.

INSTALLATION OF CABLES.

General

Bending of cables shall be in accordance with table 52c of the IEE Regulations and no cable shall be bent to radius less than that specified by the cable manufacturers.

Cables shall be rated for the maximum connected load with due consideration to the following factors:-

(i) Voltage drop not in excess of 4% of the nominal voltage.

(ii) Ambient temperature.

(iii) Degree of excess-current protection.

(iv) Grouping.

(v) Cables run under defined conditions.

Cables in conduits and Trunking

All cables shall be polyvinyl chloride (PVC) insulated to BS 6604, "PVC-insulated cables (non-armoured) for electric power lighting", 450/750 volt grade, unless an alternative is specified elsewhere in the contract documents. The quality and size of cables contained in any one conduit shall comply with IEE Regulation 529-7 and Appendix 12.

No cable with a cross-section area of less than 1.5mm2 shall be used. All cables installed in a conduit or trunking system shall be PVC single insulated conductors and shall be colour coded in accordance with the IEE Regulation 524-3 and Table 52A.
Final sub-circuits shall be run in conduits separate from main or sub-main cables. All cables in conduit shall be drawn in simultaneously. All cables shall be drawn in without the use of excessive force, without the use of lubricants and the wiring shall be easily withdrawable.

PVC/SWA/PVC Cable

These cables shall comprise copper conductors unless specifically detailed otherwise, laid up with PVC fillers bedded with an extruded inner PVC sheath, armoured with a single layer of galvanised steel wires, aluminium or strip as specified, and covered overall with PVC sheath.

Cables shall be manufactured to BS 6346 "PVC insulated cables for electrical supply" with conductor dimensions and resistances in accordance with BS 6360 1969, "copper conductors in insulated cables and cords", Armouring shall be galvanised steel to BS 1442.

Attention is drawn to Chapter 52 of the IEE Regulations and Appendix 9. Where the armour wires of cables are used to provide protective conductor they shall comply with the requirements of Chapter 54 of the IEE Regulations, particularly section 543; alternatively, additional cables with copper conductors shall be installed to reduce the impedance to a level which ensures compliance with Section 543 of the IEE Regulations.

Unless permission is given by the Engineer, no joints will be allowed. In the event of joints being authorised, they shall be made using plastic boxes of approved design filled with an approved cold pouring plastic or resin compound. The cable box shall incorporate suitable copper tapes and clamps to bond the armouring of the jointed cables.

The PVC/SWA/PVC cables should be terminated in the cable manufacture's approved glands. These shall be of the compression type providing controlled radial compression of the sheath seal. The gland shall incorporate an armour clamping ring and earthing ring and, where used outdoors, a lead washer shall be used to ensure a watertight joint between the gland and the unit to which it is fitted. The earthing ring shall be rigidly fixed to the item of equipment and terminated using brass nuts, bolts and washers. All gland terminations shall be protected by a PVC shroud which shall fit tightly over the cables.

The Electrical Sub-Contractor is responsible for determining the true nature and extent of cable routes. No claim on the grounds of lack of knowledge will be entertained. All cable routes shall be agreed with the Engineer. After the cables have been installed and terminated, but prior to putting into service, they shall be subjected to an insulation test of 500 volts and the results of these tests (recorded on test sheets) forwarded to the Engineer.
CONDUIT AND CONDUIT FACILITIES - MILD STEEL CONDUIT SYSTEM

Conduits

Conduits shall be installed as required by the IEE Regulations and as detailed in this specification.
All metal conduits must be heavy gauge, seam welded, steel tube screwed conduits manufactured to BS 31, "steel tube screwed conduits and fittings for electrical wiring", Class B, BS 4568, "Steel conduit and fittings with thread of ISO form for electrical installation", for metric conduit, unless specified otherwise. Conduits shall be finished black stove enamelled, except in positions exposed to water (other than water used in construction), steam condensation or the action of weather, where hot galvanised conduits shall be used.

Any conduits work rejected by the Engineer shall be replaced at no extra cost. No conduit smaller than 20 mm in diameter or longer than 50mm diameter shall be used.

All bends in conduit shall be in accordance with the IEE Regulation 529-5, and made in a conduit bending machine fitted with a former of the correct radius for each conduit size.

Conduits shall be secured in an efficient pipe vice whilst being screwed. Conduit system shall be installed so as to ensure compliance with requirements of IEE Regulations 529-7. Attention is drawn to Appendix 12 of the IEE Regulations.

Conduit Fittings

Conduit fittings shall have same finish as the conduits being used and shall comply with BS 31 or BS 4586. All conduit fittings shall be screwed or loop-in malleable iron circular type, fitted with covers secured by brass screws.

Rectangular adaptable steel boxes may be used on multi-conduit runs.

All circular type boxes must be fitted with long screwed spout conduit entries with the screwed thread terminating within the spout and the edges of the internal orifice of the box rounded and smoothed to act as a bush except for the adaptable steel rectangular boxes and loop-in conduit boxes, in which case male bush and coupling must be used for conduit connections. In concealed installation, boxes shall be fixed with the rims flush with the finished surface, but when, for any reason whatsoever, the rims are below the surface, suitable extension rings of the required depth shall be provided and installed to finish flash with the surrounding surfaces and with the lids of sufficient oversize (7.5 mm minimum all round) to cover the junction between box and plaster. In no case will the use of site-manufactured bends, sets, elbows, inspection elbows or tees be permitted.

Fixing of Conduits

All conduits must be firmly and rigidly fixed to be entirely without whip or movement. Space-bar saddles, or strap saddles, must be used on the timbers in roof spaces and will be allowed when the conduits are run on the underside of exposed unsealed floor or ceiling joints. Pipe hooks or crumpets will not be allowed except for security conduits in chases, or screeds, when the top of the hook must at least be 10 mm below the finished surface of the wall, or 25 mm below the floor finish. Pipe hooks shall be galvanised.

The finish of the saddles must in all cases conform to the finish of the supported conduits. Galvanised, sherardised or cadmium plated screws shall be used in all cases where galvanised conduits are installed.
The standard cast iron distance saddle, (single fixing base and two-screw fixing top), must be used for all conduits run on the surface of walls and ceilings etc., fixed at intervals of not more than 1.2 metres.

Conduit Runs and Concealment

The routes of the conduit installation shall be agreed with the Engineer prior to commencing the installation. Conduits shall be installed atleast 150 mm from, and preferably under, any hot water pipes and atleast 50 mm from other surface pipes and cables. Conduits shall be bonded to other surfaces in accordance with the requirements of IEE Regulations 413-2 and 547-4 to 547-7 inclusive.

Each continuity test shall be applied to the system before plastering, screeding, or casting of concrete is commenced. Surface work will be allowed where certain pre-fabricated methods of construction preclude the concealment of the runs, and or fair-faced brickwork or block work or other unplastered walls.

Conduit runs shall be planned to obviate the need for draw-in boxes, but where the use of such boxes is unavoidable they shall be accessible at all times and be fitted with covers. When Conduits are specified as being installed on the surface the runs must be arranged to render the whole system as neat and inconspicuous as possible, having regard to the existing architectural features. All vertical and horizontal runs must be taken where conduits converge and run together near distribution centres to obtain a symmetrical layout. The distance between the conduits shall be maintained through bends and sets and shall not vary noticeably.

Flexible Metallic Conduit

Flexible Conduit shall comply with the BS 731 part 1. "Flexible steel conduit and adaptors for the protection of electrical cables." It shall be used for the final connection from a rigid conduit installation to the terminal boxes of all the equipment provided with a means of positional adjustment and /or where vibration may reasonably be expected to occur.

Flexible conduits shall be PVC sheathed and shall be terminated using approved glands. In all instances a separate PVC insulated green and yellow coloured protective conductor complying with table 41A1 or 41A2 and section 543 of the IEE Regulations shall be installed, terminating at each end into purpose-made earthing terminals.

Under no circumstances will flexible conduits be accepted in lieu of sets and bends in a rigid conduit installation.

In normal circumstances flexible conduits shall have a minimum length of 300 mm and a maximum unstretched length of 800mm. It shall permit a full range of withdrawal, adjustment or movement of the equipment.

Locking, Bushing and Coupling

All conduit ends must be filed square and rearmed before erection to ensure freedom from internal burrs and roughness.

Running couplings shall only be used on black enamelled steel conduit installations, and the use of this shall be kept to the minimum. All running couplings shall be secured by means of the lock nuts or lock rings, and the exposed thread painted after installation.

Every conduit connection to the equipment, boxes, distribution boards, loop-in boxes, cable trunking etc, shall be made by means of a screw coupling and a male hexagonal headed smooth bore brass bush. The smooth bore shall be fitted to secure the conduit to the item connected via a purpose-made clear hole to be closed by the bush and coupling when fitted. Paint must be removed from the surface of the item connected to allow it to be covered by the end of the coupling which shall be filed, clean and square, to ensure a good mechanical and electrical metal to metal joint. Any exposed area of metal from which paint has been removed must be made good in a matching paint. Bushes shall be fitted and tightened by means of correctly fitting spanners. Mutilated bushes damaged whilst being fitted must be removed and replaced.

Conduits connecting via couplings shall be connected by a means of 15 mm long threaded section and shall have a gap of approximately 2 mm between them. No thread shall be exposed except running couplings.

Continuity and Earthing

The whole of the conduit installations shall be mechanically and electrically sound and continuous throughout their length in accordance with the IEE Regulations.
Where the conduit system is used to provide a protective conductor it shall comply with the requirements of Chapter 54 of the IEE Regulations particularly Section 543; alternatively, a separate protective conductor shall be installed in the conduit to comply with Section 543 of the IEE regulations.

CABLE TRUNKING-SHEET STEEL

Trunking shall only be installed in situations which will remain readily accessible throughout the life of the buildings. No cable trunking shall be installed behind a plastered ceiling or in other inaccessible situations.

All cable trunking shall comply with BS 4678, part 1 "Steel surface trunking" and part 2 for "Steel underfloor (duct) trunking".

Sheet steel cable trunking may be used on installations employing steel conduits, for connecting two or more switchboards together or where several conduits would otherwise have to run alongside each other. Proper allowance should be made for the derating of cables installed together in a container system. The cables must be capable of carrying the current imposed by the equipment connected. Attention is drawn to Chapter 52 of the IEE Regulations, particularly Section 522, and Appendix 9: the current carrying capabilities of cables indicated shall not be exceeded. The Engineer must be consulted as to precise details concerning trunking routes and applications.
All lengths of trunking shall be heavy gauge zinc coated steel connected together by internally fitted rectangular couplings of sufficient width to provide a minimum bearing face of 25mm, to which the lengths shall be bolted on site or welded at the factory.
Adequate provision shall be made to allow for expansion.

All Tee pieces and bends shall be formed with similar means of connection and the inner radii area shall be such that cables will not be bent through a radius less than that prescribed in the IEE Regulations. Only bends and tees of approved pattern will be accepted.

All fixing screws within the trunking shall be of the round head type. The trunking shall have an over-lapping well-fitted lid securely fixed to the trunking by approved means that will avoid damage to the cables. Self-tapping screws shall not be used.

All necessary accessories including long sleeve couplings, end piece, bends, sets, tees, reducers, branches, fillets, pinracks, cable retainers etc., shall be purpose-made units rather than being fabricated on site.

Where a change in direction of trunking run occurs, the deviation should be effected by a purpose-made unit manufactured on similar lines to the bends and tee pieces described above. Where this is not practical, changes in direction shall be fabricated in a neat workmanlike manner. All joints shall fit closely and gaps will not be permitted. All burrs and sharp edges shall be removed and no screw shall protrude into the trunking.
Trunking shall be firmly attached to its associated equipment either by bolted flanges or by male bushes and couplings.

Where trunking is connected to equipment by means of flange connectors, the entry into the equipment shall be of the same cross-section as the trunking.

Where trunking does not terminate in equipment, the otherwise open end shall be capped with a cover suitable bolted in position.

Where communications, extra low voltage circuits (category 1) etc., are contained in a trunking, the requisite number of separate compartments shall be provided to segregate the wiring. Where conduits are taken off such trunking they shall not pass through other compartments unless prior permission is obtained from the Engineer.

The entire trunking is required to be recessed in the structure of the building, the finished edge of the trunking is to be installed flush with the plaster work.

Trunking runs shall be so arranged that the lid or cover plate is always on the top or side and not underneath, unless this cannot be avoided, in which case the Engineer's permission shall be obtained.

Wherever trunking passes through walls, vertical partitions etc., a fixed piece of trunking lid shall be fitted to the trunking extended 25 mm either side of the wall or other barrier, this is to allow removal of the adjacent lid without disturbing the building fabric. Care shall be taken to ensure that no opening is left between the trunking and the building structure through which fire might spread. In addition a suitable barrier of incombustible material shall be provide and fitted inside the trunking, in accordance with the IEE Regulations 528-1. On vertical runs of trunking internal incombustible barriers shall be fitted at the distance between floors or 5m, whichever is the less, in accordance with IEE Regulations 523-6.

All necessary trunking support work, hangers, brackets and fixing requirements shall be provided by the Electrical Sub-Contractor.

Earth links of the appropriate size and type shall be installed at every jointing coupling, manufactured bend, etc., throughout the entire trunking system. Where trunking is used to provide a protective conductor it shall comply with the requirements of Chapter 54 of the IEE Regulations, particularly Section 543; alternatively, a separate protective conductor shall be installed in the trunking to comply with section 543 of the IEE Regulations.
In cases where sheet steel trunking is installed and there is danger of movement, a flexible earth conductor shall be installed bonding all joints in the trunking. This shall be fitted in addition to the standard earth links. Cable retaining strips shall be fitted at 1 m intervals. Insulated cable support pins shall be fitted at intervals of 4 m in vertical runs of trunking and at the top of the vertical trunking.

CABLE TRAYS

Cable trays shall be formed from perforated steel of not less than 0.9 mm thickness up to and including 100 mm width - 1.25 mm thickness from 150 mm up to and including 300 mm width - and 2.00 mm thickness above 300 mm width. They shall be galvanised unless otherwise specified. Tray shall be adequately sized to support the cable without bunching.

Support shall be by means of steel brackets installed at intervals necessary to provide a rigid fixing and ensure that no undue deflection occurs in the complete installation. The brackets shall be galvanised prior to fixing. Dome-headed bolts, nuts and washers of finish suitable to the tray shall be used between tray and brackets.

Fixing to the surfaces of walls, ceilings, etc. shall be by means of expansion-type masonry plugs or bolts. Fixings shall be galvanised unless otherwise stated. Cable trays shall be installed using factory-formed bends, elbows, tees, couplers and risers etc. Site fabrication of elbows etc., will only be permitted with prior approval of the Engineer and where it is not possible to obtain the necessary factory-made item.

Where cuts have been made, the try shall be painted with zinc rich paint.

Holes which have been cut to allow cables to pass through shall be suitably bushed.

Suspension sets shall comprise threaded M12 cadmium plated hanger roads together with nuts and locking washers, verticle hanger brackets, support channel, tray hold-down clips etc., all of which shall have a galvanised finish.

All cables shall be securely fixed to traywork and the complete installation must be carries out in a neat and workmanlike manner without crossovers. A 25% reserve margin in size and weight shall be allowed for all cable tray works.

Cables of 30 mm diameter and above shall be fixed using the appropriate size cable straps of approved manufacture. On light duty multi-cable runs, cable straps of plastic coated metal shall be used to secure cables.

Bunching of cables will not be permitted.

Cables shall be clipped by means of copper or brass saddles and clips where high temperature or humid conditions are likely to be experiences. In all cases, saddles, clips, straps, etc., shall be fixed to the tray by means of brass screws or bolts and nuts.

PROTECTION OF PVC/SWA/PVC CABLES

General

Cable routing shall be such that the maximum degree of protection against accidental damage is obtained by running cables along the inside of channels and beams, etc.

Cables shall be laid in performed trenches or duct throughout all paved areas. Ducts shall be installed for underground cables before the paving is constructed.
Cable ducts shall be sealed at both ends using materials which are resistant to any likely corrosive and insect attack in the area concerned.

All cables rising through floors and trench covers, except in switch rooms, shall be protected by a length of steel pipe which shall project at least 150 mm above the finished surface level.

The open end of the pipe shall be sealed with a suitable compound. Care must be taken that all phases of single core cables pass through the same protective steel duct.

Cables Direct in Ground

All excavation and backfilling of cable trenches will be carried out by the Main Contractor unless otherwise specified, but the Electrical Sub-Contractor shall in any case make sure that trenches are made to a depth as specified.

The Electrical Sub-Contractor shall lay cables direct in the ground in the following manner:-

75 mm (3 inches) of dry fine sand shall be placed to form a bed for the cables. After cables have been laid they shall be covered with additional dry fine sand well punned over and around the cables to a level of 75 mm above the top of the uppermost cable. Mechanical punners shall not be used for this work. The Electrical Sub-Contractor shall supply and install concrete cable tiles which shall be carefully placed over the cable forming each circuit.
Until all the cables have been laid in the trench and have been covered with their protective tiles, no sharp metal tools such as spades or fencing stakes, shall be used in the trench. Rollers used during laying of cables shall have no sharp projecting parts liable to damage the cables.

Cables above Ground

For main cable runs the cable shall be run on approved tray or ladder rack, and secured to it at intervals of not more than 400 mm horizontally and 600 mm vertically.
Cables shall be dressed together and fixed with a common saddle. If the number of cables is such as to require the tiering of cables, the number of tiers shall generally be two.

TERMINATION OF CABLES

Cables shall be terminated in accordance with Chapter 52 of the IEE Regulations, particularly Section 527.

Cables shall be terminated by one of the following methods:-

(i) The cable conductors shall be sweated into lugs of the appropriate size for the cable and equipment terminal.
(ii) The cable conductors shall be secured by compression type lugs of the correct size for the cable and equipment terminal.
(iii) The cable conductors shall be secured in pinch screw terminals.
(iv) The cable shall be secured by means of clamps.

Where cables are required to terminate at connectors, as at lighting points, such connectors shall secure all the strands of stranded cables. Care shall be taken to ensure that cables are not damaged during preparation for termination.

Cables terminating at pinch screw terminals shall be twisted together and single cables shall have the conductor doubled back to ensure adequate purchase for pinching screws.

Cables connected to lampholders or other components at which heat is produced shall be insulated with heat resisting material capable of withstanding, without detriment, the temperature encountered.

All terminations on PVC/SWA/PVC insulated cables shall be by compression type glands of an approved design and manufacture with facilities for clamping the armouring the outer sheath of the cable.

Glands mounted outdoor shall incorporate a seal to prevent ingress of moisture into the gland, and all glands shall be fitted with a thermoplastic shroud.

Where circular terminations are to be made, these shall be completed using Ross Counterney terminals.

Where cables are terminated in "Klippon" type terminals with parallel faced jaws, the individual cores shall be terminated using the appropriate flat or hook blade crimped lugs. Where the terminal faces are concaved, the cores shall be terminated in wires pin crimped lugs.

The Electrical Sub-Contractor shall avoid multiple connections under one screw or one pin. Where more than two wires are required, a common termination jumper bar shall be used.
Terminals shall be mounted on rails or supports. All internal wiring is to be clearly marked by markers.

SEGREGATION OF SERVICES

Cables of differing voltages shall be segregated so that there is no possibility of a fault in a power cable damaging any adjacent cables or imposing a different voltage upon them.

IDENTIFICATION OF CABLES

All cables shall be fitted with non-corrosive cable identification bands at each end, and at all changes of direction where they leave a group of cables. All cables cores connected to equipment having marked terminals shall be fitted with non-corrosive identification bands bearing markings corresponding to those of the terminals at both ends.

EARTHING

The whole of the metallic portion of the installation, other than current carrying parts, shall be electrically and mechanically bonded to the consumer's main earth terminal and also if applicable, to the lightning protection system or other points specified.

The installation shall be earthed in accordance with the Sixteenth Edition of the Regulations for Electrical Installation issued by the IEE, BS CP1013, "Earthing" and BS 6651' "The protection of structures against Lightning". The Electrical Sub-Contractor's attention is drawn to Chapter 54 of the IEE Regulations.

A main earth terminal shall be supplied and installed adjacent to the electricity supply cable termination. The terminal shall be of ample size and capacity to suit the installation. All items of equipment, switchgear, etc., shall be bonded to this earth terminal using PVC insulated PVC sheathed cables, coloured green and yellow and sized in accordance with Tables 41A1 of the IEE Regulations. An invorine label reading "SAFETY ELECTRICAL CONNECTION - DO NOT REMOVE" in engraved upper case characters not less than 4.75mm high, shall be permanently fixed immediately adjacent to or on the earth terminal.

A heavy duty copper clamp complying with BS. 951 shall be used to bond the main protective conductor to the electricity supply cable armouring or metallic sheath (where applicable the armouring and sheath shall be bonded together).

All protective conductors shall, where possible, be enclosed within metal trunking or conduit serving switchgear, distribution board etc., so as to provide mechanical protection. Where protective conductors are run on building surfaces they shall be properly fixed and supported by means of PVC coated metal saddles along selected routes.

Earth continuity between separate items of switchgear, distribution boards etc., mounted adjacent to one another shall

be affected by means of high conductivity continuous copper tape, or PVC sheathed cable, coloured green and yellow, and sized in accordance with the Table 41A1 or 41A2 and Section 543 of the IEE Regulations, connecting all items to the earth terminal.

All items of switchgear, accessories, luminaires, conduits, and the outer sheaths of MICS cables, the armouring of all PVC/SWA/PVC cables together with all other items of electrical plant and equipment shall be effectively earthed by means of a protective conductor in accordance with Table 41A1 and 41A2 and section 543 of the IEE Regulations.

At every terminal point on the fixed wiring an integral earth terminal shall be provide e.g BESA boxes, accessory boxes etc. A protective conductor shall be provided and installed between this terminal and the earth terminal on the associated switch, socket outlet, luminaire etc.

Each circuit protective conductor shall be connected to a multiway earth terminal provided and fixed within each distribution board. The earth terminal shall be provided with an adequate number of ways such that not more than one conductor per terminal shall be installed and the earthing conductors shall be connected in the same sequence as the current carrying conductors.

All metal piped services, e.g., Heating, Water and Gas Services, metal wastes and piped services at sinks, baths and showers etc., shall be bonded to the earth terminal in accordance with the IEE Regulations 413-2.
A 50 mm section of each gas and water pipe, at position close to their entry into the relevant building, shall be cleaned and made smooth. A copper earthing clamp designed to permit the connection of protective conductors shall be provided and sized in accordance with Table 41A1 and 41A2 and Section 543 of the IEE Regulations.

The clamp shall be a proprietory type or shall be fabricated from high conductivity copper strip, minimum size 40 mm x 4 mm which shall encircle the cleaned sections of the pipe. A permanent label indelibly marked with the words, "SAFETY ELECTRICAL CONNECTION - DO NOT REMOVE" in legible type not less than 4.75 mm high, shall be permanently fixed at the points of connections.

The final connection of bonding conductors from gas, water pipes and other services to the earthing terminal shall not be completed until earth electrode and earth impedance tests have been satisfactorily completed.

Bonding connections to pipework shall be as unobstructive as possible where practicable shall be made in service ducts or accessible voids and shall be readily on the Record Drawings. All materials and sundry item shall be provided whether or not specifically mentioned, necessary to completely and effectively earth the installation. The installation shall be fully protected against dampness and corrosion and the effect of electrolytic action between dissimiliar materials. A completely permanent installation shall be provided which shall be fully accessible for regular testing and inspection.

The value of earth resistance from any point of an installation to the general mass of earth shall be low enough to ensure operation of circuit protective devices and shall in any case not exceed four(4) ohms for electrical equipment, seven (7) ohms for lighting protection. Each earthing cable shall terminate in an approved design of cable lug.

Where earth conductors are run upon structures or walls they shall be fastened by means of heavy gauge non-ferrous fasteners not more than 0.75 m apart on horizontal runs and not more than 1.2 m apart on vertical runs and to give a minimum clearance of 4 mm from the fixing face.

In the event of the Electrical sub-Contractor not being able to establish a suitable earth connection to the electricity supply cable, earth electrodes shall be installed which shall be galvanised or copper clad steel extendable rods not less than 16 mm diameter and not less than 1.2 m in length. Connections to electrodes shall be made by means of solderless mechanical clamps.

To avoid corrosion, all earth system connections shall be cleaned bright and immediately covered with silicon MS4 compound or approved equal.

Earth pits, where required, shall be in accordance with the Tenderer's relevant drawings, with the facility to disconnect the earth ring while measuring the electrode earth resistance.

LIGHTING PROTECTION

Lighting protection shall be provided on high buildings/structures more than 10 m in height. such protection shall be effected by bonding each individual building/structures direct to the earthing system, in accordance with the BS CP 326, by a minimum size of 170mm2 conductor.

FUSED-SWITCH UNITS, SWITCHFUSES AND ISOLATORS

The above units comply with BS 5419 and shall be 500 volt type and installed where specified and indicated on the relevant drawings.

All switchgear shall be provided with suitable locks for padlocking the switches in the 'OFF' position. The cover shall be interlocked with the operating mechanism to prevent it from being opened in the 'ON' position. This interlocking shall also prevent the switch from being closed with the cover open unless for maintenance purposes. The cover shall be gasketted to prevent ingress of dust.

The switch action mechanism shall be of the parallel operation (double break type having catridge fuses mounted switches) and shall be ASTA certified to meet adequately all the duties specified.

The end plates shall be removable for drilling for conduit or cable entry and shall be fitted with additional distance pieces where necessary. Switchgear boards shall be fixed to the wall/floor by Rawl bolts or other approved fixings.

No building alteration shall be allowed when moving the switchboard into position, the switchboard being supplied in sections to be built in position, if so required.
Switchgear shall be delivered to site when required to suit the progress of the works. Care shall be taken to preserve the manufacturer's paint finish. Any refurbishing etc. shall be carried out, using paint obtained from the switchboard manufacturer, to the original standard of finish.

All fuses in switchgear shall be HRC fuses sized for the fused-switch units or switch-fuses etc., in which they are incorporated. They shall be ASTA certified for compliance with BS 88, Category of Duty 440 A.C 5 Class 01 and in all cases fuse links shall be selected to provide circuits discrimination.

CONTROL PANELS AND CUBICLES

The details specified in clause 4.11 shall apply as far as fused switches, bus-bars and rating etc are concerned. The panels shall be constructed from rolled steel channel minimum size 60 mm x 30 mm deep x 5 mm or equivalent angle section clad with sheet steel of 3 mm gauge. 2 mm gauge may be used for covers and doors of not more than 1 m square.

Terminals shall be of the "Klippon" standards rail-mounted feed-through type or approved equal. All terminals shall be identified by means of numbered or lettered marking tags, which shall be identical to the number of letter applied to the cables. Cables shall be identified as terminations by means of cable markers as manufactured by "Klippon" or approved equal. 25% spare terminals capacity within wiring duct shall be provided. All components motors, starters, relays, timbers, etc. shall be labelled showing their reference and function and these shall relate to the panels' schematic wiring diagram provided with the "As-built" drawing and manuals.

All control panels shall be fitted with multi-pole isolating switches through which all electricity supplies shall pass. The door(s) of the control panel shall not open unless the isolating switch is in the "off" position. A facility to lock the control panel isolating switch in the "off" position shall be included.

DISTRIBUTION BOARDS

General

All distribution boards, unless stated otherwise, shall be miniature Circuit Breaker Distribution Boards and shall be of surface or flush type, as specified. Facilities for local isolation of the distribution boards shall be provided by either a local fused-switch unit or an integral isolating switch, whichever is specified.

Where surface mounted on a flush installation, all conductors shall terminate behind the board in an adequate box. For surface mounting, trunking shall be fixed between the board and ceiling level, or conduits run directly into the board. Adequate earth continuity connection shall be made between the various components.

Fused Distribution Boards

All fuseboards shall be of 500 volt rating to BS. 5486 part 11 "Particular requirements for Fuseboards". The details specified in clause 4.12 shall apply as far as cabinet and construction, cabling arrangements, bus-bars, neutral bars, earthing and isolating switches are connected.

Fuse banks shall be spaced so as to obviate the necessity for insulating barries, but protection shall be provided by means of insulating shields to prevent accidental contact with the main bus-bars and connections.

All fuses lighting and heating circuits shall be of the HRC cartridge type, ASTA certified, for compliance with BS. 88, category of Duty 440 A.C 5 class 01.

Miniature Circuit-Beaker Distribution Boards

MCB distribution boards shall comply with BS. 5486 part 12 'Particular requirements for miniature circuits-breaker boards'. The cases shall be constructed of heavy gauge sheet steel, in such a manner as to afford rigidity and maximum ease of wiring for full size circuit and main cables.

The cover shall be provided with an efficient gasket or alternatively designed with generous overlapping edges to prevent the ingress of dust. Components shall not be manufactured from zinc alloy in conjunction with sheet steel where they are relied upon for earth continuity.

Where the cover is required to be lockable, cylinder type locks shall be provided, having two keys per lock. All locked distribution boards shall be handed to the Engineering Supervisor on completion of the works. The cases shall be provided with detachable cable/conduit terminating plates, which shall be reversible and interchangeable from top to bottom.

All screws and nuts used in the construction of the case shall be fitted with shakepoof washers and care taken to ensure efficient earth continuity. An external earthing terminal with cable socket shall be fitted.

All MCB banks shall be fitted to frames, with robust locking plates provided to ensure the frames rigidly in the fixed position.
The banks shall be so spaced to obviate the necessity for insulating barriers, but protection shall be provided by means of insulating shields to prevent accidental contact with main bus-bars and incoming mains cable.

Bus-bars shall be of high conductivity, hard drawn copper conductors connected to the MCB contacts by means of spring washered screws or bolts, unless plug-in type MCB's are specified.

Neutral bars shall be similar to the main bus-bars and shall have two screw terminals per way for rating of 30 amps or over. Single screw connections will be allowed for capacities up to 30 amps. The neutral bars shall have one terminal for each MCB within the board, and connection of conductors to the neutral bar shall be in the same order as the MCB ways.

Where installations are carried out with cables with a protective conductor, all distribution boards shall also contain internal earthing bars similar to the neutral bars detailed above, with one terminal for each MCB within the board. Earthing conductors shall be connected in the manner described for neutral conductors to neutral bars.
Where a main integral isolating switch is provided in an MCB case it shall be arranged to isolate incoming live and neutral main cables from the bus-bars. The isolator switch shall be rated at 500 volts and of the quick make-and break pattern with positive action. Incoming and outgoing terminals shall be fitted with two clamping screws and outgoing conductors to the bus-bars shall be high conductivity hard drawn copper rods.

Isolating switches shall comply with IEE Regulations, Part 537, and shall be capable of carrying their full rated load continuously and shall 'make' or 'break' their full rated load without undue burning of the contacts.

Miniature Circuits Breaker (MCB)

All MCB's shall have movements which are positive in both directions (make and break) so as to enable units to be closed decisively by the operation of the handle, and to be able to assume the 'OFF' position unless the contacts are definitely separated, to safeguard against false indications.

The hand shall be trip free to make it impossible for the operator to hold the breaker in the closed position under faulty conditions. The operating mechanism and arc chambers of the circuit breaker shall be separated from the terminals and fixing screws.

Terminal identification shall be readily discernable as viewed from the front of the board with automatic and clear signal identification for both 'ON' and 'OFF' position.

All terminals shall be readily accessible from the front and each wiring chamber shall be closed by a screw fixed

cover which protects the terminals and prevents dust from settling on the insulation.`

Where the full capacity of a distribution board is not required the Electrical Sub-Contractor shall fix blanking plates in the vacant MCB housings. All MCB's shall be rated at 500 volts minimum, and comply with BS 3871. "Miniature and moulded case circuits breakers" and 4752 part 1, "Circuit breakers".

Moulded Case Circuit Breakers (MCCB)

Where specified, MCCB's shall be of the thermal/magnetic type, having a quick make, quick break, trip free mechanism which prevents the MCCB from being closed or held against short circuits or overloads. Tripping of every multi-pole MCCB shall be such that operation ensures simultaneous action in all phases.

Clear indication shall be provide for the three positions of operation of the mechanism - 'ON', 'OFF' and 'TRIPPED'. The operation shall be such that the MCCB shall trip automatically under fault conditions and, to reset, the dolly shall require first moving through the 'off' position. All MCCB's shall be provided with facilities for locking the breaker in 'OFF' position.

All MCCB's shall be rated at 500 volts minimum, be ASTA certified for this operational duty, and comply with BS. 3871 and BS. 4752 Part 1.

LABELLING AND ENGRAVING

Labelling

All fused-switch units, switchfuses, switches, bus-bars chambers, distribution boards etc., and all items of equipment on the main panel shall be identified in accordance with section 514 of the IEE Regulations and shall have securely fitted externally a white 'Traffolyte', 'Formica' or other approved plastic laminate label engraved with 6 mm high black letters detailing the function of the equipment and any reference number.

Red, yellow, blue, plastic laminate phase discs shall be fixed inside all switchgear and distribution boards to indicate to which phase of the supply the various circuits are connected. The colourings shall comply with Part 524 of the IEE Regulations.

Each TP or TP & N item of switchgear shall have fitted on the cover a white plastic laminate label having 'CAUTION' - 415 VOLTS' engraved in 10 mm high red lettering.

Engraving

The Electrical Sub-Contractor shall allow for engraving of all switched fused spurs, double pole switch accessories and any other accessories which are customarily required.

The accessory plate shall be engraved in either black or red, capital letters 5 mm high, detailing and appliance or equipment being supplied by the accessory e.g., 'WATER PUMP' etc.

MOUNTING HEIGHTS

The approximate position of main switchgear, control equipment distribution boards, fittings and accessories shall be as indicated on the Drawings. Actual positions shall be determined on site by the Engineer.

Unless otherwise stated on the relevant drawings or directed by the Engineer the following mounting heights of all accessories above finished floor level shall be adhered to:-

Lighting Switches 1400 mm to centre

Socket Outlet and Spur 300 mm to centre (or 150 mm above work top level to centre)

Distribution Boards 1800 mm to lower edges.

All groups of accessories shall be in line either vertically or horizontally or as specified.

LUMINAIRES

All Luminaires shall be of the manufacture, size and type specified and shall comply in all respects to BS 4533 "Electric Luminaires".

The Electrical Sub-Contractor shall supply and install all luminaires including lamps, lampholders, control gear, capacitors, glassware, diffusers or other attachments, heat resistant internal cables, fuses and terminals and all necessary suspension gear. In case where Luminaires are supplied by the client the Sub-Contractor shall deliver to site store, install, commission and set to work.
Unless otherwise stated, Luminaires shall be suitable for Class 1 normal indoor environments, giving a degree of protection against ingress of moisture or dust.
All Luminaires shall be assembled and installed in accordance with the respective manufacturer's instructions/recommendations, in the position and mounting heights specified.

Luminaires shall not be installed under dirty and hazardous site conditions, and any damage or deterioration to luminaires installed under these conditions shall be made good by the electrical Sub-Contractor.

The Luminaires shall be cleaned free of dust and dirt after completion of the installation. Where dirt, dust, corrosion or other conditions cause imperfections in the luminaires, they shall be replaced.

Luminaires, diffusers, attachments or glassware etc., shall be properly stored to final erection, in such a manner as to avoid damage of any kind.

Luminaires fixings shall generally be suitable for direct connection to conduit boxes or as otherwise specified. Luminaires not provided with suitable BESA box shall be modified as necessary.

Where a flexible cord supports, or partly supports, a luminaire the maximum mass supported by the cord shall not exceed the values set out in IEE Regulations 523-32.

The minimum cross-section area flexible core to the employed shall be 0.75mm2.

Specified attention shall be given to Chapter 52 of the IEE Regulations, particularly Regulation 521-5 and 521-6, Appendices 9 and 10.

Pendant tungsten luminaires shall be fitted with heat resistant flexible cord complying with BS 6500, capable of continuous operation with a conductor temperature of 150 degrees C. The cable shall be of the circular multicore type, finished white, if not otherwise specified.

Ceiling mounted tungsten luminaires, spotlights and other luminaires of the category 'hot' luminaires shall be wired internally with cable suitable for continuous operation at 185 degree C. Where cable tails are provided they shall be of the heat resistant type capable of operation at 185 degree C.

Exterior luminaires, fixed to the walls of buildings etc., shall be wired such that final circuit wiring terminates within the luminaire. All final circuit cables so installed shall be provided with heat resistant sleaves from the connection point within the luminaire for a distance of 300 mm.

All flourescent and other discharge luminaires shall be provided with an integral fused connector block. The rating of the fuse shall be in accordance with the manufacturer's instructions to protect the internal wiring of the luminaire and to provide discrimination between final circuit protection and luminaire protection.

All recessed and semi-recessed luminaires in ceilings shall be connected by three core 0.75 mm2 high temperature flexible cord from the terminals of the luminaires to a plug-in ceiling rose fixed and connected to an accessible outlet box in the wiring system, within the suspended ceiling immediately above the luminaire. The ceiling rose shall be accessible via the opening provided in the ceiling.
The Electrical Sub-Contractor shall ensure that the methods of suspension for luminaires are electrically and mechanically sound.

Luminaires suspended by means of tubes shall be fitted to ball joints allowing a swing of at least 20 degrees all round. Reliable earthing between the fixed and moving parts shall be provided by means of a flexible braided copper tape.

Fluorescent luminaires shall be provided with a minimum of two fixings, except in the case of recessed modular luminaires or surface-mounted luminaires exceeding 300 mm in width, where four number fixings (one from each corner) shall be provided by means of conduit drops or threaded rods.

Normally visible luminaires support shall be conduit. All fluorescent luminaires shall be solidly mounted with all assembly nuts, bolts and accessories made tight to prevent vibrations and noise. Anti-vibration packing shall be fitted where necessary. Luminaires mounted direct to trunking shall be fixed by means of the manufacturer's recommended fixing assemblies.
Unless stated otherwise, all luminaire supports shall be fixed to the building primary structure. Luminaires shall not be supported from suspended ceiling unless otherwise specified. The Electrical Sub-Contractor shall be responsible for mounting and fixing arrangements.

Break joint rings of approved colour shall be provided for all suspended luminaires and fluorescent battery luminaires where the batten is of insufficient width to cover completely the conduit box and its associated clearance hole in the ceiling.

The metalwork of all luminaires shall be effectively bonded to the earthing system in accordance with Chapter 54 of the IEE Regulations.

Care shall be taken to ensure that the internal wiring of luminaires and the cable of any fixed wiring shall not be in contact with high temperature areas in luminaires.

Lighting track shall be of the type, size, finish, number of circuits and manufacture specified and shall comply with the requirements of the relevant section of BS. 4533. The positions of luminaires as shown on the Drawings are approximate only and exact position shall be determined after reference to the Engineering supervisor.

CEILING ROSES

Surface mounted ceiling roses shall be of all insulated, high impact moulded plastic construction complying with BS. 67 and shall be suitable for direct attachment to conduit outlet boxes. Recessed or semi-recessed ceiling roses shall be manufactured from porcelain. Break joint rings shall be provided when used on flush conduit outlet boxes.

Ceiling roses shall not be connected to fixed wiring in such a manner that one of the terminals remains 'live' when the associated switch is in the 'off' position, unless that terminal is inaccessible to touch when the ceiling rose cover is removed, e.g for replacement flexible cord.
Terminals shall be provided for switched live, neutral and protective conductors. Loop-in facilities shall also be provided.

LAMPS

Lamps shall be compatible with the luminaire for which they are intended and shall be of the wattage, type and colour specified. Lamps shall be of the correct voltage rating for the particular electricity supply concerned.

Tungsten filament lamps, unless otherwise specified, shall be of the 'PEARL' type and of the long-life type giving 2000 hours average life.

Luminaires designed to accommodate lamps with reduced physical dimensions shall be fitted with lamps of the mushroom type of approved equal.

EXTERNAL LIGHTING

External lighting system shall comprise the lighting points at the position shown on the Drawings and shall include the provision, erection and connection of all lighting columns, bollards, wall and ceiling luminaires and the provision and connection of all control gear together with the laying, jointing and connection of all necessary cables.

All excavation, trenching, backfilling etc., will be undertaken by the Main Contractor.

All lighting columns shall be of the type specified, suitable for looping in and out three No.2 Core PVC/SWA/PVC cables of the specified size.

Where discharge lamps are specified the associated controlgear shall be mounted in the base of the column above the fused 'cut out', all on a timber board housed within the base of the column.

Each lighting column/bollard shall be completed with all adaptors, spigots, mounting brackets, luminaires, controlgear and lamps and shall be provided with a base compartment and locking door.

All column/bollards shall be fixed in the position specified.

Cable routes are shown on the relevant drawings and the Electrical Sub-Contractor shall lay the lighting cables in the trenches.

All connections shall be made in an approved manner, and the installations shall be finished complete and handed over in working order to the full satisfaction of the Engineer.

LIGHTING SWITCHES

Lighting switches shall be of the type, size and manufacture as specified.

Wall and ceiling switches shall comply with BS 3676. Wall and ceiling switches controlling A.C lighting circuits shall be rated 20 amp and be of the slow break quick make, type unless stated otherwise.

Where several switches on one phase are shown at one position, a ganged box shall be used.

Where switches at any location are connected to different phases, purpose-make phase barrier switches shall be installed. The phases shall be separated by means of rigidly fixed barriers and the cable for each phase shall be confined to the area enclosed by the barriers for that phase.

Switches connected to a particular phase shall have separate cover or covers fitted over each phase. The covers shall be engraved "CAUTION 415 VOLTS".

The switch plate of the specified finish shall be fitted over phase covers to render the switch unit indistinguishable from the switches that are not phase barrier switches.

Alternatively, each gang shall have its own piping and box for each phase, physically separated from other phases with similar arrangements.
For flush position on a plastered or equivalent finish wall, the switches shall have overlapping plates.

In any places where the finish is fair-faced brickwork, the wiring shall be installed on the back of the wall and make a back entry into the accessories. Each switch in these areas shall be neatly recessed and incorporate an overlapping plate.

For surface-mounted positions and such Plant Rooms, Electrical Switch room etc., employing a surface-mounted system or wiring, switches shall be surface-mounted, having metal front plates of an aluminium finish, mounted in matching metal boxes.

SOCKETS OUTLETS

All socket outlets and plugs shall be supplied and installed in accordance with the manufacture, type, sizes and finish specified.
All round pin 2A, 5A, 15A, and 30A socket outlets shall comply with the requirements of BS 546.

All sockets outlets shall be switched, unless otherwise specified.
All switched sockets outlets shall be complete with steel boxes of the same manufacture, complete with earth terminal.

Assemblies shall comply fully with the requirements of the IEE Regulations concerning the bonding of protective conductor terminals and each such terminal shall be connected by a conductor, having a minimum cross-sectional area of 2.5 mm2, to a permanent earthing terminal incorporated in the associated box providing an effective, solid connection to the earth continuity conductor of the installation.

Where the assembly does not provide a reliable electrical contact between the cover plate and box with effective connection of metal operating bars and toggles, then an insulated earthing lead shall be provided, solidly connected to the metal plate and operating bar or toggle and terminating at the fixed earthing terminal incorporated in the associated box. 13 amp sockets will generally be installed using ring circuits in accordance with Appendix 5, Table 5A of the IEE Regulations.

All plugs shall be of mounded rubber or other resilient material complying with BS 1363 or BS 546. The plug shall

have internal cord grip. 13 amp plugs shall be fitted with cartridge fuse links to BS 1362. The fuse rating shall be selected to give protection to the flexible cord or cable connected.

All fuses installed within 13 amp plug top, fused spurs, clock connections etc., shall be cartridge fuse links rated at 240 volts, ASTA certified for compliance with BS 1362 'General purpose fuse links for domestic and similar purposes', or BS 464 'Cartridge fuse links (rated at upto 5 amperes) for AC and DC service', or BS 2950 'Cartridge fuse-link for telecommunications and light electrical apparatus'.

All equipment which is locally fused shall have fitted fuses with characteristics which are recommended by the manufacturer of the equipment.

If any appliance or equipment suffers due to incorrect fusing of the appliances, such appliances or equipment shall be repaired or replaced at the Electrical Sub-Contractor's cost, to the satisfaction of the Engineer.

INSPECTION AND TESTING

A visual inspection shall be made in accordance with IEE Regulations 612-1. References shall be made to appendix 14 of the IEE Regulations which is a check list for initial inspection of installations.

The electrical installation shall be inspected and tested by the Electrical Sub-Contractor in accordance with part 6 of the IEE Regulations.

Where any part of installation is to be concealed within a building, fabric tests shall be made to ensure that the installation is satisfactory prior to concealment.
Upon completion of the works the whole installation shall be subjected to the tests detailed hereafter and every defect shall be noted, corrected and brought to the notice of the Engineer.
All tests shall be witnessed by the Engineer to his full satisfaction and he shall be given at least one week's notice in writing of the proposed tests.

All labour and test instruments shall be provided by the Electrical Sub-Contractor and the instruments shall be correctly calibrated and certified for the limits of accuracy required and shall be operated by competent person. If, in the Engineer's opinion, a particular instrument is not suitable, then an acceptable alternative shall be provided. The Engineer shall be at liberty to demand the use of any testing instrument or apparatus that he may reasonably consider to be necessary in the execution of the testing.

In the event of the installation failing to pass the test, the Engineer has the full authority of the Employer to deduct from the Contract Price all reasonable expenses incurred, due to him being required to attend a repetition of the test.

The following items, where relevant, shall be tested in the sequence indicated. Standard methods of testing, in respect of some of the following regulations of this section, are given in Appendix 15 of the IEE Regulations.

i) Continuity of ring final circuit conductors.
ii) Continuity of protective conductors, including main supplementary equipotential bonding.
iii) Earth electrode resistance.
iv) Insulation resistance.
v) Insulation of site-built assemblies.
vi) Protection of barriers or enclosures provided during erection.
vii) Insulation of non-conducting floors and walls.
viii) Polarity.
ix) Earth fault loop impedance.
x) Operation of residual current devices and fault voltage operated protected devices.

Upon completion of all tests and commissioning, two copies of detailed certificates shall be provided by the Electrical Sub-Contractor to show that the equipment, materials, installation etc., have been tested and commissioned. One copy of each, duly completed and signed shall be submitted to the Engineer within 154 days of the results being obtained. The second copy of the certificates shall be retained to be included with operator and maintenance manuals. The results of the test and details of completion for the electrical test shall be detailed on the Test and Completion Certificates respectively; issued by the National Inspection council for Electrical Installation Contracting or other approved authority.

AS BUILT DRAWINGS, AND DOCUMENTATION

Within one month of the date of completion the Electrical Sub-Contractor shall provide 3 prints of all electrical drawings showing the electrical installations "As built". In case the Electrical Sub-Contractor fails to provide "As Built" drawings as required, these will be prepared by others at the expense of the Electrical Sub-Contractor.

SECTION VII- BILLS OF QUANTITIES

SCOPE OF WORKS

i) Construction to completion of Gate House and Gate
ii) Construction to completion of Washrooms
iii) Associated Electrical and Mechanical works
iv) Construction of Gate House Canopy

(a) Preambles

1. The method of measurement of completed work for payment shall be in accordance with current Standard Method of Measurement for building works and civil works. The Contractor to note that the site is an operational space/environment and all care shall be taken to minimize interruption of the on-going activities. To this end the contractor is to factor in any costs associated with phasing the works, working beyond normal working hours especially at night including national holidays in his pricing.

2. The Site is situated in Kenya Airports Authority Nanyuki Airstrip - Nanyuki.

3. The Contractor shall obtain the Architect's approval on the siting of all temporary buildings, spoil heaps, temporary access path, and storage of materials. The Contractor shall also obtain the Architect approval and direction regarding the use of any materials found on the Site.

4. The drawings used in the preparation of these Bills of Quantities can be inspected at the offices of the Procuring Entity or Procuring Entity's Representative during normal working hours. Two sets of the Working Drawings shall be provided to the contractor but additional copies shall be provided at a cost to be determined by the Engineer.

5. The Contractor shall allow for the payment of all bank charges in connection with the procurement of Bank Guarantees and stamp charges in connection with this contract Agreement.

6. The Contractor shall carry out the various sections of the Works in such an order as the Architect May direct. The Procuring Entity reserves the right to occupy the Works by sections on completion provided that such occupation is considered to be both practical and reasonable and will not interfere with the Works. The Contractor shall allow any costs associated with such occupation.
7. The main Contractor will be fully responsible for paying his Sub-Contractor but the Procuring Entity reserves the right in very exceptional circumstances to make such payments direct in the interests of the project where the completion thereof might be jeopardized by any dispute or vicariousness between the Contractor and the Sub- Contractor involve.
8. The Contractor shall complete and deliver the Works in the period inserted in the Form of Tender as his time for completion of the Works from the date for Possession, to be agreed with the Engineer. The Contract Period is presumed to have been calculated making due allowance for seasonal inclement weather conditions. No claim for extension of time due to the normal inclement weather for this area shall be entertained.

9. The Contractor shall, upon receiving instructions to proceed with the Works, draw up a Programme and Progress Chart setting out the order in which the Works are to be carried out, with the appropriate dates thereof. This Chart shall be agreed with the Architect and no deviation from the order set out in it will be permitted without the written consent of the Engineer. The Contractor will be responsible for arranging the above programme with all his sub-Contractors and Specialties. The Contractor shall allow in his rates for carrying out this exercise, and for updating it as required.

10. The Contractor shall submit to the Architect on the first day of each week or such longer period as the Architect from time to time direct, a Progress Report and any information for the proceeding period, showing the progress during the period and the up-to-date cumulative progress on all important items of each section or portion of the Works.

11. The Contractor shall arrange for photographs of the Site to be taken by a professional photographer approved by the Engineer. The Photographs shall provide a record of the Site and adjacent are as prior to the commencement of the Works and shall cover such portion of the works in progress and completion as the Architect shall direct. All prints shall be full plate size, unmounted, and marked on the reverse side with the

date of exposure, identification reference and brief description. The copyright of all photographs shall be vested in the Procuring Entity. The negatives and four prints from each negative shall be delivered to the Architect within two weeks of exposure.

12. Figured dimensions are to be followed in preference to dimensions scaled from the Drawings, but whenever possible dimensions are to be taken on the Site or from the buildings. Before any work is commenced by Sub- Contractors or Specialist Firms, dimensions must be checked on the site comparable dimensions shown on the drawings. The Contractor shall be responsible for the accuracy of such dimensions.

13. Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Architect and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense. Where appropriate the Contractor shall open up the ground in advance of the main work by hand digging if necessary, to locate precisely the position and details of the services which are likely to affect his operations.

14. The Contractor shall include in his prices for the transport of materials, workmen, etc./, to and from the site of the proposed works, at such hours and by such route as are permitted by the Authorities.

15. The Contractor will be required to make good, at his own expense and damage he may cause to the present road surface and pavements within or beyond the boundary of the Site, during the period of the works. All existing paths, storm water channels, etc., that may be destroyed or damaged during the progress of the Works shall be reinstated by the Contractor to the satisfaction of the Engineer.

16. The Contractor is to allow for complying with all instructions and regulations of the Police Authorities.

17. All water shall be fresh, clean and pure, free from earthly, vegetable or organic matter, acid or alkaline substance in solution. The Contractor shall provide at his own risk and cost all water for use in connection with the Works, (including works of sub–contractors). If need be, he shall make arrangements with the Local Water Authority for the installation of a separate meter for all water used by him throughout the Contract and pay all cost and fees in connection therewith. He shall also provide temporary storage tanks and tubing, etc., as may be necessary, and clear away at completion.

18. The Contractor shall provide all artificial lighting and power for his own use on the Works, (including Sub – Contractor's) including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection there with.

19. The Contractor shall constantly keep on the Works a Literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the works. (Including works of sub – contractors). Such Agent or Representative shall receive on behalf of the Contractor directions and instruction from the Engineer, and such directions and instructions shall be deemed to be given to the contractor in accordance with the Conditions of Contract. The Agent shall not be replaced without the specific approval of the Engineer.

20. The Contractor shall ensure that the safety of his work people and all authorized visitors to the site are protected at all times. In particular, there shall be the proper provision of guard–rails to scaffolding, protection against falling materials, tools on site, dust, nail and other sharp objects. The site shall be kept tidy and clear of dangerous rubbish. The Architect shall be empowered to suspend work on site should it be considered this condition is not being observed and no claim arising from such suspension will be allowed.

21. They are as available to the Contractor for work yards, offices and other facilities shall be directed by the Architect and any existing features to remain shall be protected from damage throughout the Contract Period and handed back in good condition when they are vacated at the end of the Contract. If additional areas are required, the contractor shall source then at own cost.

22. The Contractor shall give the Architect reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Architect shall not relieve the Contractor of his duties or responsibilities under the Contract.

23. The Contractor must take steps necessary to safe guard and shall beheld fully responsible for any damage caused to existing and adjacent property, including buildings that are not a subject of demolition. He shall make good at his own cost damage to persons and property caused there on, and he shall indemnify the

Procuring Entity against any loss or claim that may arise.

24. The Contractor shall take such steps and exercise such care and diligence as to minimize nuisance arising from dust, noise or any other cause to the occupiers of the existing and adjacent property. He must provide such temporary and special screens and tarpaulins or gummy bags, hoarding, barriers, warning signs etc. as he considers necessary and sufficient for the protection of the existing and adjacent property and or prevention of nuisance etc. as directed by Engineer.

25. The Contractors attention is drawn to the standards levy order which was amended on 15^{the}October 1998.Legal notice No.154 of 1998. The Contractor is required to pay a monthly level of 0.2% of his factory price of construction works with effect from January 1999. Tenderer shall allow for this in the build-up of his rates.

26. The Contractor shall provide temporary sheds, offices mess rooms, sanitary, accommodation and other temporary buildings for the use of the contractor and sub-contractors, including lighting furniture equipment and attendance.

27. Contractor shall provide/build labor camp sat areas to be agreed with the Engineer. Labor camps shall be complete with sanitary accommodation and fencing gates.

28. The Contractor must provide the necessary toilet facilities to the requirement and satisfaction of the Health Authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy fees during the period of the Works and remove when no longer required.

29. The Contractor shall provide at his own risk and cost all watching and lighting as necessary to safeguard the Works, Plant and materials against damage and theft.

30. The Contractor shall provide all necessary hoists, tackle, plant, equipment, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove the same on completion. All such plant, tools and equipment shall comply with all regulations in force throughout the period of the Contract and shall be altered or adopted during the Contract period as may be necessary to comply with any amendments in or additions to such regulations.

31. Provide, erect and maintain all necessary scaffolding, sufficiently strong and efficient for the due performance of the works, including Sub-Contract Works, provide special scaffolding as required by Sub-Contractors, alter and adopt all scaffolding as and when required during the Works, and remove on completion. No scaffolding is measured here in after and the Contractor must allow in his rates for this.

32. The Contractor shall take all necessary precautions such as temporary fencing, hoarding fans, planked footways, guard–rails gantries screen, etc., for the safe custody of the Works, materials and public protection and adjacent properties.

33. Cover up all and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Architect until the completion of the Contract.

34. The Contractor shall, after completion of the works, at his own expense, remove and clear away all surplus excavated demolition materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Engineer, sheds, camps, etc. Particular care shall be taken to leave clean all floors and windows and tore move all paint and cement all rubbish hand dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection there with.

35. Concrete test cubes shall be prepared in a set of three, as described including testing fees, labor and materials, making molds, transport, handling, etc. Allow in your rates for making at least four cubes on each occasion, from different batches; the concrete being taken from the point of deposit.

36. The Contractors hall furnish at the earliest possible opportunity before work commences, and at his own cost, any samples of materials and workmanship that may be called for by the Architect for the approval or rejection, and any further samples in the case of rejection, until such samples are approved by the Engineer. Such samples, when approved, shall be the minimum standard for the work to which they apply. The procedure for submitting samples of materials for testing or approval and the method of marking for identification shall be as laid down by the Engineer. The Contractor shall allow in his Tender for such samples and tests, including those in connection with his Sub-Contractors work.

37. The Contractors attention is drawn to the Finance Bill of the year 2000/2001 on withholding tax on contractual payment section 35(7)(i)(ii) which became effective on 1st July 2000. A 3% withholding tax will be applicable to all interim payments exceeding Kshs…….....…… for work done in respect of building or civil works. The contractor shall allow for any costs arising resulting there from in the build-up of rates.

38. Blasting will only be allowed with the express permission of the Architect in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost, in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Architect governing the use and storage of explosives.

39. The National Construction Authority is a state corporation established under the national construction authority Act No.14 of 2011. The broad Mandate of the Authority is to oversee the construction industry and coordinate its development. The National Construction Authority Regulations 2014 with an effective date of 6thJune 2014, regulation 25, - Allow 0.5% of the tender sum/contract sum for construction levy.

40. The Contractor attention is drawn to Finance Bill of 1993 where VAT was introduced in all contracts for construction services. The tenderer is also drawn to VAT Act Cap 476 clause 19(9). The tenderer must allow for VAT 1.19 as instructed elsewhere.

41. The contractor shall allow and pay for all insurance to cover risks and indemnities required Items 17 and 18 of the Conditions of contract and also specified in the Special Conditions of Contract.

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
	PRELIMINARIES & GENERAL CONDITIONS ==========				
01	**EMPLOYER**				
A	The Employer is the Kenya Airports Authority. The terms "Employer" and "KAA" wherever used in any contract Document shall be synonymous				
02	**DEFINITION OF TERMS**				
B	'Approved' shall mean approved by the Project Manager at his absolute discretion				
C	'Directed' shall mean directed by the Project Manager at his absolute discretion				
D	'Selected' shall mean directed by the Project Manager at his absolute discretion				
E	'B.S.' - shall mean the current British Standard Specification published by the British Standards Institution, 2 Park Street, London, WIA 2BS, England				
F	'K.S.' - shall mean the current Kenya Standard Specification published by the Kenya Bureau of Standards Institution.				
G	CM - shall mean cubic metre SM - shall mean square metre LM - shall mean linear metre MM - shall mean millimeter KG - shall mean Kilogramme NO - shall mean Number				
H	Ditto - shall mean the whole of the preceding description except as qualifies in the description in which it occurs Where it occurs in descriptions of succeeding items it shall mean the same as in the first descriptions of the series in which it occurs except as qualified in the description concerned.				
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
A	KShs - shall mean Kenya Shillings				
B	'As described' shall mean as described in the 'Descriptions of Materials and Workmanship' contained in the Appendices to these Bills of Quantities				
03	**GROUPED SIZES**				
C	Girths, depths, or sizes grouped together in the Bills of Quantities item descriptions by means of hyphenated upper and lower limits shall be interpreted as 'exceeding' the lower limitand 'not exceeding' the upper limit.				
04	**DESCRIPTION OF SITE**				
D	The site of the proposed works is within Nanyuki Airstrip in Laikipiat County. The Contractor is recommended to visit the site and will be deemed to have satisfied himself with regard to the conditions of the site.				
05	**DESCRIPTION OF THE WORKS**				
E	The works in this contract comprise :- i) Construction to completion of Gate House and Gate ii) Construction to completion of Washrooms iii) Associated Electrical and Mechanical works iv) Construction of Gate House Canopy				
06	**AREA TO BE OCCUPIED BY CONTRACTOR**				
F	The area of the site which may be occupied by the Contractor for use as storage or for the erection of workshops etc. shall be defined on the site by the Project Manager and the Contractor must confine his activities to the areas so marked and must ensure that his own and his sub-contractors workmen do not trespass on the adjoining property or cause inconvenience to its occupiers.				
TOTAL CARRIED FORWARD TO BILL COLLECTION SHHET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
07	**SITE VISIT & EXAMINATION OF DRAWINGS**				
A	The Contractor is recommended to examine the original drawings and to satisfy himself regarding their details and regarding the extent and the nature of the works and the method of construction involved, and visit the site to familiarize himself with all local conditions before tendering. He shall be deemed to have acquainted himself with the nature of the existing conditions or any other matter which may affect his tender. No claim arising from his failure to comply with this recommendation will be considered. Drawings may be seen by appointment at the office of the General Manager (P & ES), KAA, during normal working hours.	ITEM			
08	**VALUATION OF LUMP SUM COSTS.**				
B	Lump sums entered in these Bills of Quantities against any item of Preliminaries and General Conditions will be included in appropriate valuations according to reasonable assessment of actual costs involved in the item. Any balance between this assessment and the actual sum entered in the Bills of Quantities will be included in subsequent valuations as monthly installments over the balance of the Contract Period.	ITEM			
09	**PAYMENT FOR MATERIALS ON SITE**				
C	All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected, unless specifically exempted by the Project Manager. This is to include materials of the Contractor, Nominated Sub-Contractors, and Nominated Suppliers.	ITEM			
10	**CONTRACT AGREEMENT AND CONDITIONS**				
D	The Instructions to Tenderers and Conditions of Contract shall be the 'Standard Tender Document for Procurement of Works' printed in November 2001, published by the Public Procurement Directorate, Ministry of Finance and Planning. For the purposes of this Contract the said Schedule of Conditions and any such note or amendments shall be read and construed together.	ITEM			
11	**TOOLS, PLANT, ETC.**				
E	The Contractor shall allow for providing all ladders, tools, plant and transport required for the works, except in so far as may be specifically stated otherwise herein.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
12	**SAFETY, HEALTH AND WELFARE OF WORKPEOPLE**				
A	The Contractor shall allow for providing for the safety, health and welfare of workpeople and for complying with any relevant Ordinances, Regulations or Union Agreement.	ITEM			
13	**NATIONAL INSURANCE AND PENSIONS**				
B	The Contractor shall allow for making any National Hospital Insurance and National Social Security Fund payments due in respect of workpeople.	ITEM			
14	**HOLIDAYS AND TRANSPORT FOR WORKPEOPLE**				
C	The Contractor shall allow for providing holidays and transport for workpeople and for complying with any relevant Ordinances, Regulations or Union Agreement.	ITEM			
15	**TRAINING LEVY**				
D	The Contractor's attention is drawn to Legal Notice No. 237 of October, 1971, which requires payment by the Contractor of a Training Levy on all contracts of more than Shs. 50,000/ in value and his tender must include for all costs arising or resulting therefrom. Proof of payment of this Training Levy will be required.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
16	**PROTECTION OF WORKS AND PERSONS**				
A	The Contractor shall allow for the protection of his own and his Sub Contractor's work liable to damage, including provision of temporary roofs, gutters, drains, etc., if necessary and shall case up, cover, or in other suitable ways protect all finished work liable to injury, to the satisfaction of the Project Manag, and shall at all times keep all paths and roads affected by the works in a safe and clear state, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians. The Contractor shall allow for providing all watching, lighting, barriers, covering open trenches and protection of the works, including Sub Contract works, as may be necessary for the safety of the works and for the protection of the public and his own and Sub Contractors' employees. In the event of any damage or loss occurring to the works, or to materials or to any sewers, gullies, drains, paths, or other works on the site in temporary possession of the Contractor for the purpose of this Contract, either from the weather, want of proper protection, defects, theft, insufficiency of the works, or any other cause whatsoever during the progress of the works, or for any accident or damage to property or persons by reason of the said works, the Contractor alone shall be responsible and shall without extra charge, make good all damage and pay all costs incurred.	ITEM			
17	**STANDARDS LEVY AND STANDARDS ACTS**				
B	The Contractor's attention is drawn to legal notice No. 267 of 1990 which requires payment by Contractors of an annual Standards Levy and his tender must include for all costs arising or resulting therefrom.	ITEM			
18	**NATIONAL CONSTRUCTION AUTHORITY LEVY**				
C	The Contractor shall allow 0.5% of the Cost of costruction as a levy payable to the National Construction Authority in accordance with Section 31 of National Construction Act No. 41 of 2011. Note that this must be paid before Commencement of the Works	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
19	**POLICE REGULATIONS**				
A	The Contractor shall allow for complying with any relevant police regulations.	ITEM			
20	**PROCEDURE AND TIME FOR COMPLETION**				
B	The Contractor shall proceed with the works in such manner and such order as the Project Manager may direct.	ITEM			
21	**PROGRAMME AND PROGRESS**				
C	The Contractor shall furnish to the Project Manager, within 7 days, for approval and display in the site offices, a programme and progress chart devised in such a way that the lined programme is shown and progress can be marked up as the work proceeds. The Contractor shall keep this chart up to date at all times.	ITEM			
22	**WORKING HOURS**				
D	Generally there will be no restrictions on working hours. In the interest of the usage of the new property the employer may require that overtime be worked so as to complete the works as quickly as possible. The Contractor must allow for all costs in complying with the Project Managers instructions of working outside normal hours. No claims for extras in connection with this compliance will be entertained.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
23	**DAYWORKS**				
A	The Project Manager, if in his opinion it is necessary or desirable, order in writing that any additional or substituted work shall be executed on a Daywork basis. The Contractor shall then be paid for such work in accordance with Daywork rates and percentage additions as inserted hereafter in these Bills of Quantities. The Contractor shall furnish to the Project Manager all receipts or vouchers as may be necessary to prove the amounts paid and before ordering materials shall submit to the Project Manager quotations for the same for his approval. In respect of all work executed on a Daywork basis the Contractor shall, during the continuance of such work, deliver each day to the Project Manager a list in duplicate of the names, occupation and time of all workmen employed on such work and a statement also in duplicate showing the description and quantity of all materials and plant used thereon or therefore (other than plant which is included in the percentage addition on net amount of wages). One copy of each list and statement will, if correct or when agreed, be signed by the Project Manager and returned to the Contractor. At the end of each month the Contractor shall deliver to the Project Manager a priced statement of the labour, material and plant (except as aforesaid) used and the Contractor shall not be entitled to any Payment unless such lists and statements have been fully and punctually rendered. Provided always that, if the Project Manager shall consider that for any reason the sending of such list or statement by the Contractor in impracticable, he shall nevertheless be entitled to authorise payment for such work either as Daywork (on being satisfied as to the time employed and plant and materials used on such work) or at such value thereof as he shall consider fair and reasonable accordance with the foregoing provision was authorise payment for such work either as Daywork (on being satisfied as to the time employed and plant and materials used on such work) or at such value thereof as he shall consider fair and reasonable.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
24	**WATER FOR THE WORKS**				
A	The Contractor shall allow for providing all temporary water supplies required for the works, including Sub Contract works, together with all necessary storage tanks, meters and distribution systems for the same and must allow for bearing all expenses incurred and paying for all water consumed without charge to any Sub Contractor. Expenses in connection with Nominated Sub Contractors should be allowed for in the attendance items under the relevant P.C. Sums. Existing water supplies may be utilized by agreement with the Employer who however gives no undertaking as to the sufficiency or suitability of existing supplies.	ITEM			
25	**LIGHTING AND POWER FOR THE WORKS**				
B	The Contractor shall allow for providing all temporary lighting and power supplies required for the works, including Sub Contract works, together with all necessary meters and distribution systems for the same and must allow for bearing all expenses incurred and paying for all current consumed without charge to any Sub Contractor. Expenses in connection with Nominated Sub Contractors should be allowed for in the attendance items under the relevant P.C. Sums. Existing mains power supplies may be utilized by agreement with the Employer who however gives no undertaking as to the sufficiency or suitability of existing supplies.	ITEM			
26	**SIGNPOST**				
C	The Contractor shall erect and mainain a signpost describing the nature of the project, names of the consultants, names of the contractor and his sub-contractor's and any other details as specified by the Project Manager	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHHET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
27	**SITE OFFICES**				
A	The Contractor must allow for erecting and maintaining on the site in such positions as may be directed, adequate site offices for the use of his own site staff and and Employer's Site Staff as per the drawing attached or issued by the Project Manager. The cost to include the cost of removing the same at completion and making good all surfaces disturbed if required to do so. The site office shall have sufficient furniture to permit the Project Manager to hold site meetings in it. The site office shall conform to requirements set out in the drawings provided and shall be approved by the Project Manager. The Contractor shall also allow for providing, erecting and maintaining where directed a lock up hut containing a pedestal type water closet and wash basin for the sole use of the Project Manager and other consultants, including making temporary connections to drains and water supplies and paying all charges for connections, conservancy and water consumed. The Contractor shall also allow for providing the services of a sweeper, for keeping both office and closet in a clean and sanitary condition from the commencement to completion of the works; and for dismantling at completion and making good all disturbed surfaces. The office and closet shall be completed before the Contractor will be permitted to commence the works.	ITEM			
28	**SHEDS FOR STORAGE OF MATERIALS**				
B	The Contractor shall provide, erect and maintain on the site, in such positions as may be directed, ample temporary watertight, lock up sheds for the proper storage and protection of cement and other materials liable to damage and shall remove same at completion and make good all surfaces disturbed. He shall also provide space for storage accommodation which Sub Contractors mav wish to erect for themselves.	ITEM			
29	**SPACE FOR STORAGE SHEDS AND SITE OFFICES**				
C	The site is developed, so space for site offices and storage accommodation, as described above, will be extremely limited. The Contractor shall allow for all necessary temporary erection, dismantling and re-erection of site offices and storage sheds made necessary by the restricted nature of the site.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
30	**SANITATION OF THE WORKS**				
A	The Contractor shall allow for providing the necessary latrines for the labour employed on the works, including labour employed by Sub Contractors, to the satisfaction of the Health and Medical Authorities and for maintaining the same in a thoroughly clean and sanitary condition and paying all conservancy fees. The Contractor shall allow for removing the said latrines and leaving the ground clean and free from pollution upon completion to the satisfaction of the Health and Medical Authorities.	ITEM			
31	**NO WORKMEN TO BE HOUSED ON SITE**				
B	No labour with the exception of a watchman may be housed on the site. The cost of transporting labour to and from the site or elsewhere will be deemed to be included in the tender.	ITEM			
32	**HOARDING**				
C	The Contractor shall allow for providing and clearing away on completion such hoarding, fencing, gates etc. as may be required for the security of the site, and as instructed by the Project Manager to prevent access to the site by the public. The exact location and type of these items are to be agreed with the Project Manager and negotiated with the local Authority by the Contractor who will also be responsible for paying any fees or taxes to the Local Authority in respect of the hoarding, fencing or gates and providing any drawings necessary for approval. The Contractor shall allow for thoroughly maintaining the hoarding and gates throughout the Contract and clearing away and making good disturbed ground on completion. All materials arising will remain the property of the Contractor and he should allow credit against this accordingly.	ITEM			
33	**TRADE NAMES**				
D	Where trade names or manufacturers' catalogue numbers are mentioned in these Bills of Quantities, the reference is intended as a guide to the type of article or quality of materials required. The Contractor may use any article or material equal in type or quality to those herein described subject to the prior approval of the Project Manager and at his absolute discretion. The onus of proof as to equivalent quality will rest with the Contractor, whose tender will be deemed to include for the makes described herein.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
34	**REMOVAL OF PLANT, RUBBISH ETC**				
A	The Contractor must allow for removing and clearing away all plant, rubbish and unused materials, and leaving the whole of the site of the works in a clean and tidy state at completion to the satisfaction of the Project Manager. He must also allow for removing all rubbish and dirt from the site as it accumulates during the performance of the Contract.	ITEM			
35	**DEDUCTION FROM MONEY DUE TO THE CONTRACTOR**				
B	The Project Manager shall be entitled to deduct any monies which the Contractor shall be liable to pay under the Contract to the Employer from any sum which may become payable to the Contractor hereunder and the Project Manager in issuing his Certificates as provided in Clause 34 of the Schedule of Conditions shall have regard to any sum so chargeable to the Contractor. Provided always that this provision shall not affect any other remedy by action at law or otherwise to which the Employer may be entitled for the recovery of such monies.	ITEM			
36	**WORKS TO BE DELIVERED UP CLEAN**				
C	On completion of the Contract, the site and the works shall be cleared of all plant, scaffolding, rubbish and unused materials and shall be delivered up clean and in perfect condition in every respect to the satisfaction of the Project Manager. Particular attention is to be paid to leaving all windows and floors clean and removing all paint and cement stains.	ITEM			
37	**APPROVAL OF PROJECT MANAGER FOR EMPLOYMENT OF SUB CONTRACTORS**				
D	The Contractor will be required to obtain the approval of the Project Manager in writing before Employing any of his own Sub Contractors for any portion of the work.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
38	**DISPOSAL OF WATER**				
A	Allow for keeping the excavations and works free from all water, including spring and running water, by pumping or other means as required.	ITEM			
39	**WHITE ANTS**				
B	Allow for destroying any white ants' nests found in the vicinity of the buildings, destroying Queen Ants, depositing cyanide lumps in holes and tunnels and filling with hardcore and murram well rammed and sealed.	ITEM			
40	**SECURITIES**				
C	Allow for the provision of Securities	ITEM			
41	**INSURANCE**				
D	Allow for the provision of Insurance for the works, plant and material	ITEM			
E	Ditto for Equipment	ITEM			
F	Ditto for other property	ITEM			
G	Ditto but against accidents or personal injury or death to workmen and third party	ITEM			
42	**OPERATION EXPENSES**				
H	Allow for the adeqaute provision of miscellenious expenses to cater for project staff comprising stationery, general office consumables, airtime, teas & lunches, printing, scanning and other charges where directed by the Project Manager for the entire contract duration	ITEM			
	Allow for Contractor's Profit	%			
	Allow for Contractor's Overheads	SUM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
43	**SAMPLES**				
B	Note: - The Contractor shall allow for furnishing at his own cost any samples of materials or workmanship that may be called for by the Architect for his approval and any further samples in the case of rejection until such samples are approved by the Architect and the Architect may reject any materials or workmanship not in his opinion in accordance with the approved samples. The Architect shall make such tests of the samples or any materials as he may at his discretion deem desirable, but such tests shall be made at the expense of the Employer and not of the Contractor, unless the result causes the Architect to reject any samples or materials as not being in his opinion in accordance with the specified requirements, in which case the Contractor shall pay for such tests and the cost thereof shall be recovered from the Contractor by the Architect by deduction from the Contract Sum.				
44	**NECESSARY TESTS**				
C	Allow for all expenses in connection with the testing of materials as specified hereunder including the supply and preparation of materials to be tested, the cost of materials and their packing and conveyance to the nearest approved Testing Laboratory, laboratory charges, etc.	ITEM			
	The following items of tests will be measured according to the number of tests actually called for by the Architect but unsuccessful tests will not be included in the remeasurement.				
	Allow for executing the following tests as detailed in the Appendices to these Bills of Quantities (PROVISIONAL QUANTITIES)	**QTY (NO.)**	**RATE**		
	Water Test (4.5 litres)	20			
	Sand Test (0.028m3)	20			
	Aggregate Test (0.028m3)	20			
	Reinforcement test (1m of mild steel rod or high tensile steel bar of various sizes)	30			
	Concrete Test (One test comprising three cubes as described hereinafter)	30			
	Testing of concrete or stone blocks various strengths in accordance with British Standard Specification (one test comprising six blocks)	30			
	The Contractor shall allow for all other testing of materials, apart from the above, required by the Appendices of the Bills of Quantities and he shall be responsible for all expenses incurred in completing such tests including costs of materials and labour, equipment, transport and charges of testing authority, etc.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
45	**SITE PHOTOGRAPHS**				
A	The Contractor shall take and hand over to the Architect at approved intervals site progress photographs in a format to be directed by the Architect.	ITEM			
46	**HOISTING**				
B	The Contractor shall allow for all costs related to hoisting his and his Sub Contractor's materials for fixing at any level within the limits shown on the drawings or included in the general description of the works.	ITEM			
47	**SCAFFOLDING**				
C	The Contractor shall allow for providing, erecting and dismantling all general scaffolding required for the works. The Contractor must allow here or in his rates for providing all special scaffolding required by his Sub Contractors, other than Nominated Sub Contractors carrying out works for which P.C. Sums are included in these Bills. Where the Contractor is required to provide special scaffolding for these latter Sub Contractors, an item is included for pricing under the relevant P.C. Sum.	ITEM	1		
48	**CROSSINGS AND TEMPORARY ROADS**				
D	The Contractor must allow for providing, forming and maintaining necessary crossings on to the site and temporary roads as may be required by the Architect and removing same at completion and making good damaged or disturbed surfaces as directed by and to the approval of the Architect.	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QUANTITY**	**RATE**	**AMOUNT KShs cts**
49	**WORK TO BE OPENED UP AT THE REQUEST OF THE ARCHITECT**				
A	The Contractor shall, at the request of the Architect within such time as the Architect shall name, open for inspection any work covered up, and, should the Contractor refuse or neglect to comply with such request, the Architect may employ workmen other than those employed by the Contractor to open up the same. If the said work has been covered up in contravention of the Architect's instructions, or if, on being opened up, it be found not in accordance with the drawings or Bills of Quantities or the instructions of the Architect, the expenses of opening and covering it up again whether done by the Contractor or by the Architect, shall be borne by and be recoverable from the Contractor or may be deducted from any monies due to the Contractor. If the work has not been covered up in contravention of such instructions and be found in accordance with the said drawings and Bills of Quantities, then the expenses aforesaid shall be borne by the Employer, and be added to the Contract Sum; provided always that, in the case of foundations or of any other urgent work so opened up and requiring immediate attention, the Architect shall, within a reasonable time after the work has been opened, make or cause to be made the inspection thereof, and at the expiration of such time, if such inspection shall not have been made the Contractor may cover up the same and shall not be required to open it up again for inspection except at the expense of the Employer.	ITEM			
50	**Quality Control & Materials Testing**				
B	Allow a Prime Cost Sum of Kshs.400,000/= for Quaity Control and Materials Testing including purchase of equipments whose ownership will revert back to the client.	ITEM			
C	Include percentage of P.C Sum in item "A" above for contractor's overheads and profit.	%			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No.1
ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE	AMOUNT KShs cts

COLLECTION

TOTAL BROUGHT FORWARD FROM PAGE 116	
TOTAL BROUGHT FORWARD FROM PAGE 117	
TOTAL BROUGHT FORWARD FROM PAGE 118	
TOTAL BROUGHT FORWARD FROM PAGE 119	
TOTAL BROUGHT FORWARD FROM PAGE 120	
TOTAL BROUGHT FORWARD FROM PAGE 121	
TOTAL BROUGHT FORWARD FROM PAGE 122	
TOTAL BROUGHT FORWARD FROM PAGE 123	
TOTAL BROUGHT FORWARD FROM PAGE 124	
TOTAL BROUGHT FORWARD FROM PAGE 125	
TOTAL BROUGHT FORWARD FROM PAGE 126	
TOTAL BROUGHT FORWARD FROM PAGE 127	
TOTAL BROUGHT FORWARD FROM PAGE 128	
TOTAL BROUGHT FORWARD FROM PAGE 128	
TOTAL BROUGHT FORWARD FROM PAGE 130	
TOTAL BROUGHT FORWARD FROM PAGE 131	

TOTAL CARRIED TO GRAND SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	GATE HOUSE AND CANOPY				
	SUBSTRUCTURES **(ALL PROVISIONAL)**				
01	**SITE CLEARANCE**				
A	Clear site of and cutting of medium trees undergrowth including grubbing up of roots and dispose off as directed by the Project Manager	SM	230		
02	**EXCAVATION**				
	Top Vegetable soil				
B	Excavate oversite to remove top vegetable soil with and including existing fill 250 mm deep and dispose off site	SM	230		
	Foundation excavation				
C	Bulk excavation in existing ground including loose soils n.e. 1.5m dp and cart away resulting debris from site.	CM	10		
D	Excavate in rocky or sandy for column bases	CM	115		
E	Excavate in rocky or sandy for strip tooting	CM	235		
F	Extra over excavation for excavating in Rock in any class	CM	36		
	Filling and carting away				
G	Return, fill and ram selected excavated material around excavations	CM	171		
H	Load and cart away surplus excavated material as directed by the Consultant	CM	64		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
03	**CONCRETE IN SUBSTRUCTURE**				
A	50 mm thick concrete 1:4:8 blinding under column bases	SM	35		
B	50 mm thick concrete 1:4:8 blinding under strip foundation	SM	70		
	Vibrated Reinforced Concrete Class 25				
C	In Strip foundation	CM	14		
D	In Column bases	CM	14		
E	In 150 mm thick floor slab	SM	9		
	Cement : Sand (1:4)				
F	19 mm thick render on sides of slab	LM	15		
04	**SAWN FORMWORK**				
G	To vertical edges of floor slab 75 - 150 mm high	LM	15		
H	To vertical sides of column bases	SM	25		
I	To vertical sides of strip footing	SM	50		
05	**HARDCORE**				
J	300 mm thick approved hardcore bed, handpacked, well watered & well compacted	SM	9		
K	50 mm thick stone dust blinding on hardcore bed	SM	9		
L	Apply Termidor or any other similar and approved anti-termite chemical treatment on hardcore	SM	9		
M	Allow for backfilling under the slab with suitable imported material well watered and well compacted to approval. All to the approval of the Structural Engineer	CM	20		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
06	**DPM AND DPC**				
A	1000g polythene damp proof membrane laid with 200 end laps under floor slab, on hardcore to the satisfaction of the consultant	SM	9		
B	200 mm wide approved quality 3-ply bituminous felt damp proof course under walls	LM	10		
07	**REINFORCEMENT**				
C	Mesh fabric Ref. BRC. A142	SM	9		
	Supply and fix the following high tensile ribbed bars reinforcement bars to BS 4449:2005 including all the necessary cutting, hooking, bending, cutting spacers, binding wire and supporting all in position				
D	8mm diameter	Kg	45		
E	10mm diameter	Kg	630		
F	12mm diameter	Kg	1,300		
G	Allow for keeping excavations free from loose/falling material (Planking & Strutting)	ITEM			
H	Allow for keeping excavations free from surface water	ITEM			
08	**SUBSTRUCTURE WALLING**				
I	200mm thick natural stone walling in cement/sand (1:3) mortar including hoop iron on every alternate course	SM	245		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION

BROUGHT FORWARD FROM PAGE 133

BROUGHT FORWARD FROM PAGE 134

BROUGHT FORWARD FROM PAGE 135

TOTAL SUB-STRUCTURES CARRIED TO BILL SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
09	**WALLING**				
A	200mm thick natural stone walling in cement/sand (1:3) mortar including hoop iron on every alternate course	SM	250		
10	**ALUMINIUM PARTITIONS**				
	Pricing to include sections assembled including silicone application and fixing of an approved weather guard at guard at base of all external partitions ***Note:*** *Pricing to include all the necessary supporting steel framework as per structural detail drawing*				
B	Powder coated heavy duty aluminium partitions to overall 7.50 metres high above the finished floor level comprising 100 x 100 x 2 mm thick bottom, side, intermediate and top rail, 100 x 50 x 2 mm thick vertical intermediate rails at 1200 mm centres and 2 No. horizontal rails at 300 mm centres on either side of top rail; all infilled with and including 8 mm thick Laminated glass fitted in surface silicone. Allow for the the installation of ventilation panells to alternate with glass. Ventilation panels to be in approved expanded metal as per detail drawing.	SM	20		
C	Supply and Install Size 150 x 150 x 4 mm thick Steel Hollow Sections to support aluminium framework as per structural detail drawing including all fixxing, connecting and installation accessories	LM	12		
D	225 x 25 mm thick pre-cast concrete copping twice weathered and throated fixed to walling	LM	115		
E	12 mm thick approved stone facing to walling on screed backing (measured separately)	SM	500		
F	12 mm thick cement & sand (1:4) backing screed to stonework to receive tiles	SM	500		
TOTAL WALLING CARRIED TO BILL SUMMARY SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
11	**CONCRETE WORK**				
	Vibrated Reinforced Concrete class 25				
A	In beams	CM	1		
B	In Columns	CM	1		
12	**SAWN FORMWORK**				
C	Sides and Soffittes of beams	SM	15		
D	Sides of columns	SM	11		
E	Edge of suspended slab 75 - 150mm high.	LM	15		
13	**REINFORCEMENT**				
	Supply and fix the following high tensile ribbed bars reinforcement bars to BS 4449:2005 including all the necessary cutting, hooking, bending, cutting spacers, binding wire and supporting all in position				
F	8mm diameter	Kg	115		
G	12mm diameter	Kg	60		
H	16mm diameter	Kg	75		
14	**STEEL UNIVERSAL COLUMNS**				
	All structural Steel work to be the grade defined in the drawing and shall comply with the requirements of BS 4360 in every respect. The steel to be fabricated to BS 153 Part 1. The rate to include for submission of orders, fabrication, drawings, calculations and certifications. All the conditions of section 19 of the standard specifications for bridges and roads should be met.				
I	Supply and Install size 200 x 200 x 6 mm thick Steel Hollow Sections (SHS) as per structural drawing	Kg	5,500		
J	Size 285 x 235 x 10 mm thick steel fin plate with 4 no. 18 mm diameter holes for bolts(m/s)	No.	22		
K	280 mm long M20 anchor bolts Grade 8.8	No.	88		
TOTAL CONCRETE WORKS CARRIED FORWARD TO BILL SUMMARY					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
15	**ROOF CONSTRUCTION AND COVERING**				
	All structural Steel work to be the grade defined in the drawing and shall comply with the requirements of BS 4360 in every respect. The steel to be fabricated to BS 153 Part 1. The rate to include for submission of orders, fabrication, drawings, calculations and certifications. All the conditions of section 19 of the standard specifications for bridges and roads should be met Design, fabricate, supply and install all including curved structural steel works (Grade 43 B) including all necessary site modifications, bolts, bearings, welding and painting etc transportation, erection and placing in position. All shop primed, touch up primer on site and painting in one undercoat and three finishing coats of premium 1st grade gloss oil paint to Project Manager's satisfaction; All complete including, rafters, purlins, girders, all necessary cleats and other accessories				
	Inclined steel struts to detail as per Structural Drawing				
A	76 mm diameter x 3 mm Circular Hollow Sections (CHS)	LM	125		
B	Size 140 x 50 x 20 x 2.0 mm SP1 Z- Purlin	LM	265		
C	Supply and install Gauge 26 Pre-painted IT5 approved roofing sheets on and including steel purlins; holding down J-bolts/saflok clips with watertight caps/rubber washers, ridge caps, apex flashing and all necessary accessories to approval of the Project Manager	SM	245		
	PAINTING				
D	Allow for shop/factory priming with Zinc Chromate and painting of structural steel work in three coats first grade gloss oil paint. Allow for touch painting after erection on site.	LM	390		
TOTAL CARRIED TO BILL COLLECTION					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
16	**RAINWATER DRAINAGE**				
	Gutter				
A	910 mm girth profiled gutter in gauge 14 shop primed in zinc chromate internally and externally and shop painted in two coats epoxy paint internally and two coats first grade gloss oil paint externally. Allow for site touch-up paint after erection to suit	LM	60		
B	Extra over gutter for stopped ends	No.	6		
C	Ditto but for 200 mm diameter outlet	No.	4		
	Downpipe				
D	200 mm diameter galvanised iron pre-painted downpipe in gauge 24 fixed to wall with and including holder butts at 1.0 m c/c including cutting and pinning to wall	LM	60		
E	Extra over downpipe for swanneck 600 mm long	No.	4		
F	Ditto but for rain water shoe 300 mm long	No.	4		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION

BROUGHT FORWARD FROM PAGE 139

BROUGHT FORWARD FROM PAGE 140

TOTAL ROOF WORKS CARRIED TO BILL SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	FINISHES				
17	**FLOOR FINISHES;**				
	NON-SLIP GRANITO TILES				
	Approved coloured non-slip floor tiles; matt laid to regular pattern; including bedding and jointing in "PEGACOL" tile adhesive or other equal and approved; grouting joints with "BENFER" or other equal and approved epoxy resin-based grout				
A	Approved coloured high quality non-slip ceramic tiles size 300 x 300 x 10 mm fixed in cement on screed backing (m/s)	SM	9		
B	10 x 100 mm high skirting to match tiles	LM	12		
	Cement and Sand (1:5) Screed				
C	30 mm thick floated to receive non-slip ceramic tiles	SM	9		
TOTAL FLOOR FINISHES CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
18	**EXTERNAL WALL FINISHES**				
A	15mm Cement and sand (1:4) external rendering on external surfaces of walling finished smooth with a wood float.	SM	25		
B	Extra over pointing to stone walling to Project Manager's details.	SM	35		
	PAINT				
C	Prepare and apply "Wall master" or equal approved cement and polymer based wall coating according to Manufacturer's instructions and Project Architect's specifications and approval to beams and columns.	SM	25		
19	**INTERNAL WALL FINISHES**				
	Gauged plaster (1:1:6)				
D	12 mm thick gauged plaster applied to stonework internally	SM	35		
	Paint				
E	Skim/Smoothen palstered surfaces with 'CROWN' Wallcare or other equal and approved skimmer; Prepare and apply 3 coats of first grade Silk Vynil Plastic Emulsion (Bacteria/Algae Resistant) paint on plastered surfaces internally	SM	35		
TOTAL WALL FINISHES CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
20	**CEILING FINISHES**				
A	12 mm thick gypsum on and including 50 x 50 mm sawn treated timber framework where directed by the Architect	SM	9		
B	Prepare and apply 3 coats of distemper to ceiling surfaces	SM	9		
	Cornice				
C	75 x 75 mm wrot cypress moulded Cornice	LM	12		
D	Knot, prime and stop and apply 3 coats of polyurethane on general timber surfaces 100 - 200 mm girth	LM	12		
E	Prepare and apply primer to back of cornice only n.e. 100 mm girth	LM	12		
TOTAL CEILING FINISHES CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	OPENNINGS				
21	**DOORS**				
	Steel door				
A	Size 1000 x 2400 mm high overall heavy duty steel grilled door as per schedule of openings including all the necessary ironmongery including a heavy duty 5-lever metal casement cylinder lock and hanging and closing accessories to approval and all the necessary glazing	No.	1		
B	Prime metal surfaces, prepare and apply three coats of grade gloss oil paint to general surfaces externally	SM	3		
C	Ditto but internally	SM	3		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 2
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION SHEET

SUBSTRUCTURES FROM PAGE 136

WALLING FROM PAGE 137

CONCRETE WORK FROM PAGE 138

ROOF FROM PAGE 141

FLOOR FINISHES FROM PAGE 142

WALL FINISHES FROM PAGE 143

CEILING FINISHES FROM PAGE 144

DOORS FROM PAGE 145

TOTAL CARRIED TO GRAND SUMMARY SHEET				

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	PUBLIC WASHROOMS				
	SUBSTRUCTURES **(ALL PROVISIONAL)**				
01	**SITE CLEARANCE**				
A	Clear site of and cutting of medium trees undergrowth including grubbing up of roots and dispose off as directed by the Project Manager	SM	160		
02	**EXCAVATION**				
	Oversite Excavation				
B	Excavate oversite to remove top vegetable soil average 250 mm deep including grubbing up of roots and dispose off site	SM	160		
	Mass Excavation				
C	Excavate to remove black cotton soil from stripped level not exceeding 1.50 metres deep and cart away excavated material offsite. Disposal to official municipal or other approved dumpsites where directed.	CM	235		
D	Ditto exceeding 1.50 metres but not exceeding 3.0 metres deep	CM	79		
E	Extra over excavation for excavating in rock class 1	CM	32		
	Foundation excavation				
F	Excavate in rocky or sandy soils for column bases	CM	36		
G	Excavate in rocky or sandy soils for strip tooting	CM	35		
	Filling and carting away				
H	Return, fill and ram selected excavated material around excavations	CM	235		
I	Load and cart away surplus excavated material as directed by the Consultant	CM	111		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
03	**CONCRETE IN SUBSTRUCTURE**				
A	50 mm thick concrete 1:4:8 blinding under column bases	SM	45		
B	50 mm thick concrete 1:4:8 blinding under strip foundation	SM	41		
	Vibrated Reinforced Concrete Class 25				
C	In Strip foundation	CM	10		
D	In Column bases	CM	17		
E	In Column (below ground)	CM	2		
F	In 150 mm thick floor slab	SM	80		
	Cement : Sand (1:4)				
G	19 mm thick render on sides of slab	LM	50		
04	**SAWN FORMWORK**				
H	To vertical edges of floor slab 75 - 150 mm high	LM	50		
I	To vertical sides of column bases	SM	40		
J	To vertical sides of columns (below ground)	SM	30		
K	To vertical sides of strip footing	SM	35		
05	**HARDCORE**				
L	300 mm thick approved hardcore bed, handpacked, well watered & well compacted	SM	80		
M	50 mm thick stone dust blinding on hardcore bed	SM	80		
N	Apply Termidor or any other similar and approved anti-termite chemical treatment on hardcore	SM	80		
O	Allow for backfilling under the slab with suitable imported material well watered and well compacted to approval. All to the approval of the Structural Engineer	CM	315		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
06	**DPM AND DPC**				
A	1000g polythene damp proof membrane laid with 200 end laps under floor slab, on hardcore to the satisfaction of the consultant	SM	80		
B	200 mm wide approved quality 3-ply bituminous felt damp proof course under walls	LM	100		
07	**REINFORCEMENT**				
C	Mesh fabric Ref. BRC. A142	SM	80		
	Supply and fix the following high tensile ribbed bars reinforcement bars to BS 4449:2005 including all the necessary cutting, hooking, bending, cutting spacers, binding wire and supporting all in position				
D	8 mm diameter	Kg	100		
E	10 mm diameter	Kg	450		
F	12 mm diameter	Kg	1,900		
G	Allow for keeping excavations free from loose/falling material (Planking & Strutting)	ITEM			
H	Allow for keeping excavations free from surface water	ITEM			
08	**SUBSTRUCTURE WALLING**				
I	200mm thick natural stone walling in cement/sand (1:3) mortar including hoop iron on every alternate course	SM	145		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION

BROUGHT FORWARD FROM PAGE 147

BROUGHT FORWARD FROM PAGE 148

BROUGHT FORWARD FROM PAGE 149

TOTAL SUB-STRUCTURES CARRIED TO BILL SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
09	**WALLING**				
A	200 mm thick natural stone walling in cement/sand (1:3) mortar including hoop iron on every alternate course	SM	165		
B	Ditto but 100 mm thick	SM	40		
10	**ALUMINIUM PARTITIONS**				
	Pricing to include sections assembled including silicone application and fixing of an approved weather guard at guard at base of all external partitions ***Note:*** *Pricing to include all the necessary supporting steel framework as per structural detail drawing*				
C	Powder coated heavy duty aluminium partitions to overall 7.50 metres high above the finished floor level comprising 100 x 100 x 2 mm thick bottom, side, intermediate and top rail, 100 x 50 x 2 mm thick vertical intermediate rails at 1200 mm centres and 2 No. horizontal rails at 300 mm centres on either side of top rail; all infilled with and including 8 mm thick Laminated glass fitted in surface silicone. Allow for the the installation of ventilation panells to alternate with glass. Ventilation panels to be in approved expanded metal as per detail drawing.	SM	75		
D	Supply and Install Size 150 x 150 x 4 mm thick Steel Hollow Sections to support aluminium framework as per structural detail drawing including all fixing, connecting and installation accessories	LM	30		
E	225 x 25 mm thick pre-cast concrete copping twice weathered and throated fixed to walling	LM	50		
TOTAL WALLING CARRIED TO BILL SUMMARY SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
11	**CONCRETE WORK**				
	Vibrated Reinforced Concrete class 25				
A	In beams	CM	7		
B	In Columns	CM	5		
12	**SAWN FORMWORK**				
C	Sides and Soffittes of beams	SM	80		
D	Sides of columns	SM	75		
13	**REINFORCEMENT**				
	Supply and fix the following high tensile ribbed bars reinforcement bars to BS 4449:2005 including all the necessary cutting, hooking, bending, cutting spacers, binding wire and supporting all in position				
E	8 mm diameter	Kg	330		
F	12 mm diameter	Kg	250		
G	16 mm diameter	Kg	435		
TOTAL CONCRETE WORKS CARRIED FORWARD TO BILL SUMMARY					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
14	**ROOF CONSTRUCTION AND COVERING**				
	All structural Steel work to be the grade defined in the drawing and shall comply with the requirements of BS 4360 in every respect. The steel to be fabricated to BS 153 Part 1. The rate to include for submission of orders, fabrication, drawings, calculations and certifications. All the conditions of section 19 of the standard specifications for bridges and roads should be met.(ALL PROVISIONAL)				
A	Design, fabricate, supply and install all including curved structural steel works (Grade 43 B) including all necessary site modifications, bolts, bearings, welding and painting etc transportation, erection and placing in position to a height approximately 9 metres from ground level as per structural drawings or as directed by the Engineer; All shop primed, touch up primer on site and painting in one undercoat and three finishing coats of premium 1st grade gloss oil paint to Project Manager's satisfaction; All complete including, rafters, purlins, girders, all necessary cleats and other accessories	Kg	4,500		
B	Supply and install Gauge 26 Pre-painted IT5 approved roofing sheets on and including steel purlins; holding down J-bolts/saflok clips with watertight caps/rubber washers, ridge caps, apex flashing and all necessary accessories to approval of the Project Manager	SM	300		
	PAINTING				
C	Allow for shop/factory priming with Zinc Chromate and painting of structural steel work in three coats first grade gloss oil paint. Allow for touch painting after erection on site.	Kg	4,500		
D	Size 140 x 50 x 20 x 2.0 mm SP1 Z- Purlin	LM	265		
TOTAL CARRIED TO BILL COLLECTION					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
15	**RAINWATER DRAINAGE**				
	Gutter				
A	1220 mm girth profiled gutter in gauge 14 shop primed in zinc chromate internally and externally and shop painted in two coats epoxy paint internally and two coats first grade gloss oil paint externally. Allow for site touch-up paint after erection to suit	LM	20		
B	Ditto but 910 mm girth	LM	10		
C	Extra over gutter for stopped ends	No.	6		
D	Ditto but for 200 mm diameter outlet	No.	4		
	Downpipe				
E	200 mm diameter galvanised iron pre-painted downpipe in gauge 24 fixed to wall with and including holder butts at 1.0 m c/c including cutting and pinning to wall	LM	24		
F	Extra over downpipe for swanneck 600 mm long	No.	4		
G	Ditto but for rain water shoe 300 mm long	No.	4		
16	**BAT PRROFING**				
H	Allow for bat proofing approved coffee tray wire as directed by the Architect	SM	30		
17	**EAVES BOARDING**				
I	25 mm thick prime grade cypress T & G boarding including all the necessary bearers	SM	30		
J	Sand paper and apply 3 coats of polyurethane lacquer on general timber surfaces	SM	30		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION

BROUGHT FORWARD FROM PAGE 153

BROUGHT FORWARD FROM PAGE 154

TOTAL ROOF WORKS CARRIED TO BILL SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	FINISHES				
18	**FLOOR FINISHES;**				
	Approved coloured MATT PORCELAIN floor tiles laid to regular pattern; includig bedding and jointing in "PEGACOL" tile adhesive or other equal and approved; grouting joints with "BENFER" or other equal and approved epoxy resin-based grout				
	PORCELAIN FLOOR TILES				
A	Approved coloured textured non-slip/matt PORCELAIN tiles size 600 x 600 x 10 mm fixed in cement/sand screed backing (m/s)	SM	70		
B	10 x 100 mm high coloured porcelain skirting	LM	125		
C	Allow for 300 mm wide border tile as per Architectural detail drawing	LM	125		
	Cement & sand screed (1:5)				
D	30 mm thick floated to receive tiles (m/s)	SM	70		
TOTAL FLOOR FINISHES CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
19	**EXTERNAL WALL FINISHES**				
A	15mm Cement and sand (1:4) external rendering on external surfaces of walling finished smooth with a wood float.	SM	250		
	PAINT				
B	Prepare and apply "Wall master" or equal approved cement and polymer based wall coating according to Manufacturer's instructions and Project Architect's specifications and approval to beams and columns.	SM	250		
20	**INTERNAL WALL FINISHES**				
	Gauged plaster (1:1:6)				
C	12 mm thick gauged plaster applied to stonework internally	SM	50		
	Paint				
D	Skim/Smoothen palstered surfaces with 'CROWN' Wallcare or other equal and approved skimmer; Prepare and apply 3 coats of first grade Silk Vynil Plastic Emulsion (Bacteria/Algae Resistant) paint on plastered surfaces internally	SM	50		
	Approved coloured GRANITO wall tiles; laid to regular pattern; including bedding and jointing in "PEGACOL" tile adhesive or other equal and approved; grouting joints with "BENFER" or other grout				
E	300 x 600 x 6 mm thick coloured granito wall tiles bedded in cement & sand (1:4) mortar on backing screed (m/s) jointed with matching cement and fixed with epoxy tile adhesive to Architect's satisfaction and approval	SM	260		
F	Size 50 x 300 mm Border Tile (REF:List Z-C2206-3R3050)	LM	110		
G	Stainless Steel strip Border	LM	110		
H	12 mm thick cement & sand (1:4) backing screed to stonework to receive tiles	SM	260		
TOTAL WALL FINISHES CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
21	**CEILING FINISHES**				
	False Accoustic Ceiling				
A	50 x 50 x 6 mm Rolled Steel Angles fixed to concrete columns (m/s) as per detail drawing	Kg	200		
B	Ditto but 40 x 40 x 4 mm thick welded to 50 x 50 x 6 mm angles (m/s)	Kg	200		
C	Approved decorative fire rated gypsum ceiling, on and including stainless steel supporting framework	SM	70		
D	Prepare and apply three coats of ceiling distemper to ceiling surfaces over 6 metres high from finished floor level	SM	70		
TOTAL CEILING FINISHES CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	OPENNINGS				
22	**DOORS**				
	Mahogany Panel doors				
A	50 mm thick size 1150 x 2400 mm high solid Mahogany panel door as per the door schedule	No.	1		
B	Ditto but Size 900 x 2400 mm high internal	No.	6		
C	Ditto but Size 800 x 1800 mm high internal	No.	7		
	Timber frames				
C	250 x 50 mm wrot rebated hardwood door frame	LM	95		
D	15 x 15 mm mahogany quadrant beading plugged	LM	190		
E	38 x 25 mahogany architrave	LM	190		
	Painting				
F	Prepare and apply 3 coats of polyurethane varnish on general timber surfaces externally	SM	35		
G	Ditto but internally	SM	35		
H	Prepare and apply 3 coats of Polyurethane varnish on timber surfaces n.e. 100 mm girth internally	LM	95		
I	Ditto but externally 100 - 200 mm girth	LM	95		
J	Prime back of frame	LM	95		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	Supply and fix the following ironmongery as per `Union' or other similar and approved catalogue to hardwood with screws to match				
A	125 mm long solid brass, ball bearing hinges satin brass finished	Pairs	28		
B	3-lever mortice locks complete with handles and furniture brass finished	No.	7		
C	38 mm diameter rubber door stop, floor OR wall mounted	No.	14		
D	Door closer Ref: N8825 heavy duty	No.	7		
E	Approved Brass 200 x 300 mm high female and male sign plates screwed to door	No.	4		
F	Approved stainless steel Kicking plate 200 mm wide	LM	28		
G	Approved Aluminium Indicator Bolts	No.	7		
	Dowels				
H	10 mm diameter, 200 mm long mild steel dowel one end morticed to wood the other grouted in concrete	No.	28		
	Door cramps				
I	225 x 25 x 3 mm mild steel door cramps, once bent and twice holed, one end screwed to frame the other built in masonry wall	No.	84		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION SHEET

BROUGHT FORWARD FROM PAGE 159

BROUGHT FORWARD FROM PAGE 160

TOTAL DOORS CARRIED TO BILL SUMMARY SHEET	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
23	**SANITARY APPLIANCES**				
	Supply & fix the following as "DURAVIT CARO" or equal and approved including material, joining to supply, wastes and overflow pipe and making good end of support as per drawing				
	W.C				
A	Stack 3 floor standing water closet pan; back to wall; with flushing system compatible to existing plumbing system to approval	No	6		
B	Ditto but suited for the persons with reduced mobility including accessories complete; hinged support ; normal rail ; touchless flush plate code; grab ban and towel rail	No	1		
	W.H.B.				
C	Stack 3 vanity basin size 560 mm complete with and including 2 No. Hans Grohe basin push tap, delay action; 32 mm diameter stainless steel waste spring plug; 32 mm diameter stainless steel bottle trap including building into support (m/s)	No.	7		
D	Ditto but suited for the persons with reduced mobility including accessories complete	No.	1		
	FOOT BATHS				
E	Provide reinforced concrete footbath overall size 700 x 000 x 400 mm high lined with ceramic tiles to match floor finishes with and including necessary pipework and taps	No.	2		
	SHOWER CHANELS				
F	Approved shower channel CleanLine60 for thin floorings COMPLETE: L30-90cm; stainless steel brushed shower channel with floor integrated self cleaning drains	No.	1		
G	Geberit Arabic Shower floor integrated self cleaning drains and traps complete with all necessary accessories accessories or other equal and approved	No.	1		
TOTAL CARRIED TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	URINAL BOWLS				
A	Stack 3' Duravit model DFLUVAL49 urinal bowl urinal flush valve; complete with all necessary connecting accessories including size 450 x 75 mm ceramic dividers complete	No.	4		
	Accessories				
	Hand Towel Dispenser				
B	Hand Towel Dispenser type "KIMBERLY CLARK" or other equal and approved	No.	4		
	Toilet roll holder				
C	"Mediclinics" or other equal and approved toilet roll holder/dispenser; glass bodied	No.	7		
	Soap dispenser				
D	"Mediclinics DJT 118 cp" soap dispenser or other equal and approved, white in colour moulded under granite top with swivel dispenser on top	No.	4		
	Flexible connection tubes				
E	12 mm diameter flexible connection tube 300 mm long	No.	25		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	Mirror				
A	6 mm thick bevelled glass mirror size with LED light sensors 1200 x 2400 mm fixed with and including dome shaped chromium plated screws; including size 200 x 15 mm thick architrave all round	No.	24		
B	Ditto but full length mirrors	No.	12		
C	150 x 25 mm wrot mahogany fascia above mirror including 1200 mm long flourescent light fitting and tube and Painting in three coats of first grade clear polyurethane lacquer	LM	180		
	Floor Traps				
D	Allow for Floor Traps in bronze or cast iron as directed	No.	60		
E	Hand Driers Approved 'mediclinics' as Prima auto hand drier 1.65KW ABS (Ref: M96A) complete with neecesary wiring or equal and approved	No.	24		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION SHEET

BROUGHT FORWARD FROM PAGE 162

BROUGHT FORWARD FROM PAGE 163

BROUGHT FORWARD FROM PAGE 164

TOTAL SANITARY APPLIANCES CARRIED TO BILL SUMMARY SHEET	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
24	**EXTERNAL WORKS** **(ALL PROVISIONAL)**				
	Paving slabs				
A	Excavate to reduced levels and dispose off excavated material as directed.	CM	20		
B	Allow for backfilling under the slab with suitable imported material well watered and well compacted to approval. All to the approval of the Structural Engineer	CM	400		
C	300 mm thick approved hardcore bed, handpacked, well watered & well compacted	SM	400		
D	50 mm thick stone dust blinding on hardcore bed	SM	400		
E	Apply Termidor or any other similar and approved anti-termite chemical treatment on hardcore	SM	400		
F	600 x 600 x 50 mm precast concrete paving slabs on 50 mm thick sand bed.	SM	400		
G	250 x 125 mm precast concrete kerb to paving slabs including all the necessary excavations and concrete haunching.	LM	300		
TOTAL EXTERNAL WORKS CARRIED FORWARD TO BILL SUMMARY SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
25	**FOUL WATER DRAINAGE**				
	(ALL PROVISIONAL)				
	9 CM SEPTIC TANK				
	Site clearance				
A	Clear site of all shrubs, thicket & undergrowth including grubbing up of roots and dispose off as directed by the Consultant	SM	30		
B	Excavate pit for septic tank n.e 1.5 m deep starting from ground level	CM	55		
C	Ditto but 1.5 - 3.0 m deep	CM	48		
D	Extra over excavation for excavating in rock class II	CM	11		
	Concrete works				
E	50 mm thick concrete mix 1:4:8 blinding	SM	14		
F	150 mm vibrated concrete mix 1:2:4 in septic tank bottom slab	SM	11		
G	Ditto in footing	CM	3		
H	200 mm thick concrete block walling in cement/sand 1:3 mortar	SM	55		
I	100 mm thick vibrated reinforced concrete mix 1:2:4 in septic tank dividing walls	SM	2		
J	Ditto but in scum baffle walls	SM	3		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
A	Vibrated concrete mix 1:2:4 in septic tank inlet and outlet manholes bottom bases (0.10 CM)	ITEM			
B	100 mm thick vibrated reinforced concrete in top slab of septic tank with 3 No. size 600 x 460 mm opening for manhole cover	SM	12		
	Reinforcement				
	Provide, fix in position the following Reinforcement bars including bending, tying wires and spacer blocks as before described				
C	Assorted sizes as per structural drawing	Kg	700		
	Septic tank finishes				
D	12 mm thick render to walls with sulphate resisting water proofed cement render	SM	48		
E	25 mm thick screed to top and bottom slabs with sulphate resisting water proofed cement render	SM	25		
F	10 mm thick render to septic tank externally	SM	48		
G	600 x 450 mm medium duty manhole covers including framing and greasing	No.	3		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	Formwork				
A	Sawn timber formwork to soffittes of roof slab	SM	25		
B	Ditto but to edges of slab 75 - 150 mm high	LM	22		
	SOAK PITS				
C	Excavate for soakpits 1.5 - 3.0 m starting from ground level and backfill after construction of 100 mm thick masonry wall	CM	4		
D	Ditto but 3.0 - 4.5 m deep	CM	4		
E	Provide material and construct 4 m deep soak pit	No.	1		
F	Provide material and fill in the soak pit with 200 mm diameter stone blocks	CM	28		
	French Drains				
G	Excavate for 110 mm diameter agricultural pipes as trench drains starting from ground level n.e. 1.5 m deep including backfilling compaction	CM	60		
	Soakage Area				
H	Provide spread and rake 150 mm thick red soil or humus soakable soil on the soakage area, plant grass and water until well established	SM	20		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION SHEET

BROUGHT FORWARD FROM PAGE 167

BROUGHT FORWARD FROM PAGE 168

BROUGHT FORWARD FROM PAGE 169

TOTAL FOUL WATER DRAINAGE CARRIED TO MAIN SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 3
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

BILL SUMMARY SHEET

SUBSTRUCTURES FROM PAGE 150

WALLING FROM PAGE 151

CONCRETE WORK FROM PAGE 152

ROOF FROM PAGE 155

FLOOR FINISHES FROM PAGE 156

WALL FINISHES FROM PAGE 157

CEILING FINISHES FROM PAGE 158

DOORS FROM PAGE 161

SANITARY APPLIANCES FROM PAGE 165

EXTERNAL WORKS FROM PAGE 166

FOUL DRAINAGE WORKS FROM PAGE 170

TOTAL CARRIED TO GRAND SUMMARY				

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 4
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	MECHANICAL WORKS (All Provisional)				
01	**INTERNAL PLUMBING**				
	Supply and install the following pipes; to include the necessary joining connecting				
A	40mm PPR PN 20 water pipes	LM	80		
B	32mm PPR pipes PN 20	LM	75		
C	25mm PPR pipes PN 20	LM	60		
D	40mm diameter socket	No	12		
E	40mm diameter bend	No	8		
F	40X32mm PPR male adaptor	No	3		
G	40X32mm PPR female adaptor	No	3		
H	40x32mm m.s reducer	No	5		
I	E.O Ditto for elbow	NO	8		
J	Ditto PPR Tee	No	10		
K	Ditto 25x12.5mm male adaptor	No	13		
L	Ditto 25x12.5mm female adaptor	No	13		
M	25mm Gate valeve	No	3		
N	Allow for tread tape	Item	1		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 4
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
02	**WASTE WATER DRAINAGE (all provisional)**				
A	Gulley trap manhole of internal size 200 x 200 x 450mm depth, comprising of 150mm concrete bed class Q, 12mm internal rendering 1:1 100mm pvc gully trap, 300x300mm cast iron manhole cover and conrete benching to 1:6 fall	NO	4		
B	100mm diameter heavy duty pvc pipe laid to fall	LM	5		
C	Ditto but 50mm diameter	LM	10		
D	Backfill excavated trench	LM	15		
E	E.O ditto in inspection tee	No	2		
F	E.O ditto in waste bend	No	2		
G	E.O ditto in vent cowl	No	2		
H	E.O ditto end plug	No	2		
I	110mm diameter galvanised vent pipe clips	No	6		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 4
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
03	**FIRE FIGHTING EQUIPMENT**				
	Portable fire extinguishers				
A	Supply and install 4.5kg CO2 fire extinguisher complete with pressure guage mounting brackets and certified initial charge	No	2		
B	Supply and install 9 litre water fire extinguisher complete with pressure guage mounting brackets and certified initial charge	No	2		
	Water Tank				
C	Supply and install water storage PVC tank of 10,000litres capacity as 'Roto' or equal approved including mounting to final position and connection to pipe system as directed by Project Manager.	No	2		
D	Allow for testing and commissioning of the water reticulation and drainage systems	ITEM	1		
E	Allow for connection to Local Water Authority Including application and processing.	ITEM	1		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 4
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

COLLECTION

BROUGHT FORWARD FROM COLLECTION PG 172

BROUGHT FORWARD FROM COLLECTION PG 173

BROUGHT FORWARD FROM COLLECTION PG 174

TOTAL CARRIED TO GRAND SUMMARY	

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
	ELECTRICAL WORKS				
	(ALL PROVISIONAL) **Supply and Install: -**				
1	**LIGHTING**				
A	Lighting points wired in 3x1.5Sq.mm PVC insulated single core (SC) copper wires drawn in 20mm dia. HG PVC conduit concealed in walls and floors, one way switched with all accessories but excluding switch and fitting	No.	15		
B	Ditto, for two way switched lighting points	No.	5		
C	10A plate switch 1 gang one-way SP as MK Cat. No. K4870 WHI	No.	7		
D	10A plate switch 1 gang two-way SP as MK Cat. No. K4871 WHI	No.	4		
E	10A plate switch 3 gang two-way SP as MK Cat. No. K4872 WHI	No.	3		
F	300x200mm rectacngular fitting complete with 11W energy saving BC lamp as Micromark Astral Cat. No. MM7531, Type 'D1'.	No.	10		
G	Circular IP54 close surface UV-stable polycarbonate fitting with E27 lampholder (60W) as per OMS 'PLAST' range with E27 lamp, Cat PLAST 3 OPTIC A60 1x60W ,Type 'D2'.	No.	7		
H	Decorative wall fitting to BS EN 61184:1997, incorporating a heat resistant connecting cables, metallic BC lamp holder complete with 11W energy saving lamp as MK Cat No. 11172WHI Type 'G1'.	No.	4		
I	IP 65 rectangular style bulkhead fitting with die-cast aluminium body, glass bowl diffuser and 100W BC lampholder c/w E27 CFL lamp as Thorn OLG 1x100W A60 BC GL WHI, Type 'G2'.	No.	8		
J	Illuminated EXIT sign	No.	2		
K	250mm diameter Decorative down lighter to Engineer's approaval complete with 14W LED lamp as Type 'H1'	No.	8		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
2.00	**POWER**				
A	13 Amp twin socket outlet points wired as for a ring main 3 x 2.5mm2 PVC SC copper cables drawn in 25mm dia HG PVC in conduits concealed in walls and floors complete with all accessories excluding the socket outlet plate - Ringmain Circuit	No.	3		
B	13A flush 2 gang switch socket-outlet as MK Cat. No. K2747 WHI	No.	2		
C	Watertight 13A flush 2 gang switch socket-outlet as MK Cat. No. K56482WHI	No.	1		
D	20A flex outlet with neon light as MK Cat. No.5423DI WHI	No.	3		
E	20A flush DP switch with neon light marked water heater as MK Cat No. K5423WHWHI	No.	5		
F	12v Photocell Light sensor	No	2		
3	**TELEPHONE & TV OUTLETS**				
A	Fully screened non isolated IEC female standard TV/FM co-axial socket as MK K3551WHI	No.	1		
B	1 gang moulded white blanking plate to BS 5733:2010 as MK K3827WHI	No.	1		
C	Standard telephone outlet point	No.	1		
4	**LIGHTNING PROTECTION**				
A	Air termination Type Furse RA225 + RA600 fixed to ridge saddle Furse SD155 bolted to roof with water tight rubber	No	2		
B	25mm x 3mm copper tape TC030 on tape clip Furse CP210 fixed at 750mm intervals to approved detail	LM	25		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
C	50mm2 PVC insulated copper conductor enclosed in 25mm dia HG concealed PVC conduit between copper tape and test joint	LM	25		
D	Lugs for item C). above including fixing bolts to roof conductors	No	3		
E	Test clamps Furse CN305	No	3		
F	Rod to earth conductors clamps Furse CR520	No	3		
G	Earth rods Furse RC015 with driving sud, furse ST015 and spike furse SP015 driven into ground	No	3		
H	125 x 100 x 50mm deep boxes with cover and marked safety earth installed columns to approved detail	No	2		
I	Concrete earthing inspection pits, Furse PT-005	No	2		
G	Test the completed lightning protection system and report results	Item			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
6	**SUB MAINS AND DISTRIBUTION**				
A	Supply and install 12-ways SPN MCB consumer unit	NO.	1		
B	Supply and install 30A, 20A, 10A MCBs and blankingplate to existing consumer unit	NO.	1		
C	Supply and install sub-mains from meter box to consumer unit comprising of 2x16mm2 PVC single core cables and 16mm2 PVC cable insulated earth continuity conductor in 32mm diameter heavy gauge PVC conduit	M	20		
D	Earth and label the consumer units to KP&LC standards	NO.	1		
7	**METER BOARD**				
A	Supply and install wall mounted weather proof meter board comprising of 80 AMP SP main switch fuse and provide space for 2No. SP KP&LC Ltd meters cut-outs including associated wiring switch gear and earthing terminal	NO	1		
B	Supply and install 80 AMP SP main switch fuse including associated wiring and weather proof GI enclusure at the VIP Lounge	NO	1		
C	Supply and install 16mm sq. 2core PVC SWA PVC armoured copper from the existing meterboard to the new meterboard	M	50		
D	Trenching and backfilling 500mmx600mm deep from power cable routing	M	50		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
8	**Earthing comprising the following:-**				
A	1500mm by 12mm diameter copper earth electrode	NO	1		
B	Test Clamp	NO	1		
C	16Sq.mm SC CU PVC earth wire	LM	20		
D	Standard precast earthing manhole	NO	1		
E	20mm diameter conduit drop for green PVC earth wire	LM	15		
9	**Sundries**				
A	200 x 200 x 100mm 14 gauge galvanized power draw box complete with cover	NO	2		
B	50mm Diameter PVC heavy gauge ducts concealed in floors,walls and in trench for Telkom Kenya Ltd.	LM	20		
C	Standard precast JF4 earthing manhole ditto	NO	1		
10	**TESTING AND COMMISSIONING**				
A	Allow for Testing, Commissioning and Hand over the entire Installation to the Project Manager satisfaction	ITEM			
B	Allow for KPLC liaise on for power supply	ITEM			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	**D E S C R I P T I O N**	**UNIT**	**QTY**	**RATE**	**AMOUNT KShs cts**
11	**P.C. AND PROVISIONAL SUMS**				
	POWER SUPPLY				
A	Include the sum of Kenya Shillings One hundred thousand (Kshs.100,000.00) only for KPLC charges.		SUM		
B	Add for profit		%		
C	Allow for attendance		SUM		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

	TITLE: PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP				BILL No. 5
ITEM No.	D E S C R I P T I O N	UNIT	QTY	RATE	AMOUNT KShs cts

BILL SUMMARY SHEET

BROUGHT FORWARD FROM PG 176	
BROUGHT FORWARD FROM PG 177	
BROUGHT FORWARD FROM PG 178	
BROUGHT FORWARD FROM PG 179	
BROUGHT FORWARD FROM PG 180	
BROUGHT FORWARD FROM PG 181	
TOTAL CARRIED TO GRAND SUMMARY	

GRAND SUMMARY

BILL No. 1 - PRELIMINARIES & GENERAL CONDITIONS FROM PAGE 132

BILL No. 2 - GATE HOUSE WORKS FROM PAGE 146

BILL No. 3 - WASHROOMS FROM PAGE 171

BILL No. 4 - MECHANICAL WORKS FROM PAGE 175

BILL No. 5 - ELECTRICAL WORKS FROM PAGE 182

SUB-TOTAL

ADD 5% CONTIGENCIES

SUB-TOTAL

ALLOW FOR 16% VAT

GRAND TOTAL INCLUSIVE OF ALL APPLICABLE COSTS AND TAXES AND PUBLIC PROCUREMENT CAPACITY BUILDING LEVY OF 0.03% OF THE TOTAL COST CARRIED TO FORM OF TENDER

Name and Address of Contractor

Signature & Stamp

PART III - CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VIII - GENERAL CONDITIONS OF CONTRACT

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

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

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

General Conditions of Contract

A. General

1. Definitions

1.1 Bold face type is used to identify defined terms.

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

b) **The Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.

c) **The Adjudicator** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.

d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

e) **Compensation Events** are those defined in GCC Clause 42 hereunder.

f) **The Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.

g) **The Contract** is the Contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.

h) **The Contractor** is the party whose Bid to carry out the Works has been accepted by the Procuring Entity.

i) **The Contractor's Bid** is the completed bidding document submitted by the Contractor to the Procuring Entity.

j) **The Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.

k) **Days** are calendar days; months are calendar months.

l) **Day work**s are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

m) **A Defect** is any part of the Works not completed in accordance with the Contract.

n) **The Defects** Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.

o) **The Defects Liability Period** is the period **named in the SCC** pursuant to Sub-Clause 34.1 and calculated from the Completion Date.

p) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Procuring Entity in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

q) **The Procuring Entity** is the party who employs the Contractor to carry out the Works, **as specified in the SCC,** who is also the Procuring Entity.

r) **Equipmen**t is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

s) **"In writing" or "written"** means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

t) The Initial Contract Price is the Contract Price listed in the Procuring Entity's Letter of Acceptance.

u) **The Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the SCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

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

w) **Plant i**s any integral part of the Works that shall have a mechanical, electrical, chemical, or biological

function.

x) **The Project Manager** is the person **named in the SCC** (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.

y) **SCC** means Special Conditions of Contract.

z) **The Site** is the area of the works as **defined as such in the SCC**.

aa) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.

bb) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.

cc) **The Start Date** is **given in the SCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

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

ee) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

ff) **A Variation** is an instruction given by the Project Manager which varies the Works.

gg) **The Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procuring Entity, **as defined in the SCC**.

2. Interpretation

2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

2.2 If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

a) Agreement,
b) Letter of Acceptance,
c) Contractor's Bid,
d) Special Conditions of Contract,
e) General Conditions of Contract, including Appendices,
f) Specifications,
g) Drawings,
h) Bill of Quantities[6], and
i) any other document **listed in the SCC** as forming part of the Contract.

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

3. Language and Law

3.1 The language of the Contract is English Language and the law governing the Contract are the Laws of Kenya.

3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Procuring Entity's Country when

a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country; or
b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

4. Project Manager's Decisions

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

5. Delegation

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

6. Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Subcontracting

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

8. Other Contractors

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

9. Personnel and Equipment

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

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

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

10. Procuring Entity's and Contractor's Risks

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

11. Procuring Entity's Risks

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

a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or

ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.

b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is a Procuring Entity's risk except loss or damage due to

aa) a Defect which existed on the Completion Date,

bb) an event occurring before the Completion Date, which was not itself a Procuring Entity's risk, or

cc) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

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

13. Insurance

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

a) loss of or damage to the Works, Plant, and Materials;

b) loss of or damage to Equipment;

c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and

d) personal injury or death.

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

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

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

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

14. Site Data

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

15. Contractor to Construct the Works

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

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

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Approval by the Project Manager

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

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

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

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

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

18. Safety

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

19. Discoveries

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

20. Possession of the Site

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

21. Access to the Site

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

22. Instructions, Inspections and Audits

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

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

22.3 The Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Procuring Entity and/or persons appointed by the Public Procurement Regulatory Authority to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Public Procurement Regulatory Authority. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Public Procurement Regulatory Authority's inspection and audit rights constitute a prohibited practice

subject to contract termination (as well as to a determination of ineligibility pursuant to the Public Procurement Regulatory Authority's prevailing sanctions procedures).

23. Appointment of the Adjudicator

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

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

24. Settlement of Claims and Disputes

24.1 Contractor's Claims

24.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give Notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.

24.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub- Clause shall apply.

24.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

24.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

24.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

a) this fully detailed claim shall be considered as interim;
b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and
c) the Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.

24.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.

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

24.1.8 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

24.1.9 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

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

24.1.11 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 24.3.

242 Amicable Settlement

24.1.1 Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 24.1 above should move to commence arbitration after the fifty-sixth day from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

243 Matters that may be referred to arbitration

24.3.1 Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

a) The appointment of a replacement Project Manager upon the said person ceasing to act.
b) Whether or not the issue of an instruction by the Project Manager is empowered by these Conditions.
c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
e) Any dispute arising in respect of war risks or war damage.
f) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

244 Arbitration

24.4.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 24.3 shall be finally settled by arbitration.

24.4.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.

24.4.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.

24.4.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.

24.4.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision requirement or notice had been given.

24.4.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.

24.4.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.

24.4.8 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Project Manager shall not be altered by reason of any arbitration being conducted during the progress of the Works.

24.4.9 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

245 Arbitration with National Contractors

24.5.1 If the Contract is with national contractors, arbitration proceedings will be conducted in accordance with the

Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;

i) Architectural Association of Kenya
ii) Institute of Quantity Surveyors of Kenya
iii) Association of Consulting Engineers of Kenya
iv) Chartered Institute of Arbitrators (Kenya Branch)
v) Institution of Engineers of Kenya

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

24.6 Alternative Arbitration Proceedings

24.6.1 Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

24.7 Failure to Comply with Arbitrator's Decision

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

24.7.2 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

24.8 Contract operations to continue

24.8.1 Notwithstanding any reference to arbitration herein,

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

25. Fraud and Corruption

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

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

B. Time Control

26. Program

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

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

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

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

27. Extension of the Intended Completion Date

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

27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within

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

28. Acceleration

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

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

29. Delays Ordered by the Project Manager

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

30. Management Meetings

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

30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

31.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

31.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

32. Identifying Defects

32.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

33. Tests

33.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

34. Correction of Defects

34.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

35. Uncorrected Defects

35.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

36. Contract Price[7]

36.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price[8]

37.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular

item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Entity.

37.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

38. Variations

38.1 All Variations shall be included in updated Programs[9] produced by the Contractor.

38.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

38.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

38.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

38.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning

38.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work

38.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

a) the proposed change(s), and a description of the difference to the existing contract requirements;
b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Procuring Entity may incur in implementing the value engineering proposal; and
c) a description of any effect(s) of the change on performance/functionality.

---

[7] *In lump sum contracts, replace GCC Sub-Clauses 36.1 as follows:*

36.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for materials on site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

[8] *In lump sum contracts, replace entire GCC Clause 37 with new GCC Sub-Clause 37.1, as follows:*
The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

[9] *In lump sum contracts, add "and Activity Schedules" after "Programs."* [10] *In lump sum contracts, delete this paragraph.*

38.8 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

a) accelerate the contract completion period; or
b) reduce the Contract Price or the life cycle costs to the Procuring Entity; or
c) improve the quality, efficiency, safety or sustainability of the Facilities; or
d) yield any other benefits to the Procuring Entity, without compromising the functionality of the Works.

38.9 If the value engineering proposal is approved by the Procuring Entity and results in:

a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the SCC** of the reduction in the Contract Price; or
b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

39. Cash Flow Forecasts

39.1 When the Program[11], is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

40. Payment Certificates

40.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

40.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

40.3 The value of work executed shall be determined by the Project Manager.

40.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed12.

40.5 The value of work executed shall include the valuation of Variations and Compensation Events.

40.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40.7 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (which would be the tender price), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of 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*.

41. Payments

41.1 Payments shall be adjusted for deductions for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Project Manager within 30 days of the date of each certificate. If the Procuring Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

42. Compensation Events

42.1 The following shall be Compensation Events:

d) The Procuring Entity does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
e) The Procuring Entity modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
f) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
g) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
h) The Project Manager unreasonably does not approve a subcontract to be let.
i) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
j) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons.
k) Other contractors, public authorities, utilities, or the Procuring Entity does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
l) The advance payment is delayed.
m) The effects on the Contractor of any of the Procuring Entity's Risks.

n) The Project Manager unreasonably delays issuing a Certificate of Completion.

42.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

42.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

---

[11] *In lump sum contracts, add "or Activity Schedule" after "Program."*

[12] *In lump sum contracts, replace this paragraph with the following: "The value of work executed shall comprise the value of completed activities in the Activity Schedule."*

42.4 The Contractor shall not be entitled to compensation to the extent that the Procuring Entity's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

43. Tax

43.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

44. Currency y of Payment

44.1 All payments under the contract shall be made in Kenya Shillings

45. Price Adjustment

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

P = A + B Im/Io

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

A and B are coefficients[13] **specified in the SCC,** representing the non-adjustable and adjustable portions, respectively, of the Contract Price payable and Im is the index prevailing at the end of the month being invoiced and IOC is the index prevailing 30 days before Bid opening for inputs payable.

45.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

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

46. Retention

46.1 The Procuring Entity shall retain from each payment due to the Contractor the proportion stated in the **SCC** until Completion of the whole of the Works.

46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" Bank guarantee.

47. Liquidated Damages

47.1 The Contractor shall pay liquidated damages to the Procuring Entity at the rate per day stated in the **SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

47.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 41.1.

48. Bonus

48.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

49. Advance Payment

49.1 The Procuring Entity shall make advance payment to the Contractor of the amounts stated in the **SCC** by the date stated in the **SCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

49.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

49.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

50. Securities

50.1 The Performance Security shall be provided to the Procuring Entity no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the SCC,** by a bank or surety acceptable to the Procuring Entity, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 day from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond.

51. Dayworks

51.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

51.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

51.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

52. Cost of Repairs

52.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

53. Completion

53.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

54. Taking Over

54.1 The Procuring Entity shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

55. Final Account

55.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project

Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

56. Operating and Maintenance Manuals

56.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

56.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC pursuant to GCC Sub-Clause 56.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the SCC** from payments due to the Contractor.

57. Termination

57.1 The Procuring Entity or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
c) the Procuring Entity or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction oramalgamation;
d) a payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within 84 days of the date of the Project Manager's certificate;
e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
f) the Contractor does not maintain a Security, which is required;
g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the SCC**; or
h) if the Contractor, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Procuring Entity may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

57.3 Notwithstanding the above, the Procuring Entity may terminate the Contract for convenience.

57.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

58. Payment upon Termination

58.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as specified in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.

58.2 If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

59.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default.

60. Release from Performance

60.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate

and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment wasmade.

SECTION IX - SPECIAL CONDITIONS OF CONTRACT

Except where otherwise specified, all Special *Conditions of Contract should be filled in by the Procuring Entity prior to issuance of the bidding document. Schedules and reports to be provided by the Procuring Entity should be annexed.*

CONDITIONS OF CONTRACT	**Remark**
Name of the Contract	**PROPOSED CONSTRUCTION OF PUBLIC WASHROOMS AND GATE HOUSE AT THE NANYUKI AIRSTRIP**
Scope	i) Construction to completion of Gate House and Gate ii) Construction to completion of Washrooms iii) Associated Electrical and Mechanical works iv) Construction of Gate House Canopy
Site	**Nanyuki Airstrip – Nanyuki, Laikipia County**
Tender Security	**Kshs. 300,000/-**
Employer	**Kenya Airports Authority** **P.O. Box 19001-00501,** **NAIROBI**
Authorized representative	**Managing Director** **Telephone: 020-6611000** **Facsimile: 020-822078**
Project Manager	**General Manager-Projects & Engineering Services** **P.O. Box 19001-00501,** **NAIROBI** Telephone: 020-6611000 Facsimile: 020-822078 **Or his appointed representative**
Amount of Performance Security (Unconditional Bank Guarantee)	10 percent (10%) of Tender Sum
Revised Program of works to be submitted	Not later than 28 days after issuance of Order to Commence
Cash flow estimate to be submitted	Not later than 28 days after issuance of Order to Commence
Minimum amount of Insurance (including Works, Plant & Materials; Equipment; Other property; Personal Injury or death; Contractor's Employees; Other people)	10% of the contract sum
Period for commencement, from the Engineer's order to commence	7 days
Time for completion	**12 months**
Amount of liquidated damages	Kshs. 50,000/= per day up to a max. limit of 10% of the contract sum.
Limit of liquidated damages	10% of Contract Value
Defect Liability period	6 Months
Percentage of Retention	10% of Interim Payment Certificate
Limit of Retention Money	10% of Contract Price
Minimum amount of interim certificates	*To be agreed*
Time within which payment to be made after Interim Payment Certificate signed by Project Manager	30 days
Appointer of Arbitrator	Nairobi Centre for International Arbitration (NCIA guidelines).

Notice to Employer and Project Manager	The Employers address is: Kenya Airports Authority, P.O. Box 19001 – 00501, Nairobi The Project Manager's address is: General Manager (P & ES), Kenya Airports Authority, P.O. Box 19001 – 00501, Nairobi

Number of GC Clause	**Amendments of, and Supplements to, Clauses in the General Conditions of Contract**
	A. General
GCC 1.1 (q)	The Procuring Entity is *Kenya Airports Authority*.
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be ***four (4) weeks from commencement date***
GCC 1.1 (x)	The Project Manager is General Manager- Projects & Engineering Services Kenya Airports Authority P.O Box 19001-00501 Nairobi **Or his authorized representative**.
GCC 1.1 (z)	The Site is located at Nanyuki Asirstrip – Laikipia County and is defined in drawings No. *[insert numbers]*
GCC 1.1 (cc)	The Start Date shall be within *Seven (7) days from the date of contract signing.* *The Commencement Date shall be seven (7) days after the Engineer has issued Notice of Commencement. This shall be issued after the following precedent conditions have all been fulfilled:* *a) Submission of Performance Guarantee in accordance with Clause 4.2 of the GCC* *b) Signature of the Contract Agreement by both Parties.* *c) Submission of revised program of works in the form and detail provided for under Clause 8.3 of GCC* *d) Access to the Site as provided in Clause 2.1 of the SCC.* *e) Submission of Insurance Policies*
GCC 1.1 (gg)	The Works consist of i. Construction to completion of Gate House and Gate ii. Construction to completion of Washrooms iii. Associated Electrical and Mechanical works iv. Construction of Gate House Canopy
GCC 5.1	The Project manager *may* delegate any of his duties and responsibilities.
GCC 9.1	**Key Personnel** GCC 9.1 is replaced with the following: 9.1 Key Personnel are the Contractor's personnel named in this GCC 9.1 of the Special Conditions of Contract. The Contractor shall employ the Key Personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and equipment only if their relevant

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	qualifications or characteristics are substantially equal to or better than those proposed in the Bid. [insert the name/s of each Key Personnel agreed by the Procuring Entity prior to Contract signature.]
GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for loss or damage to the Works, Plant and Materials: *10% of Contract Amount*. (b) For loss or damage to Equipment: *10% of Contract Amount*. (c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract - *10% of Contract Amount*. (d) for personal injury or death: (i) of the Contractor's employees: *[amount]*. (ii) of other people: *[amount]*.
GCC 20.1	The Site Possession Date(s) shall be the date of site handover
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within seven (7) days from the date of the Letter of Acceptance.
GCC 26.3	The period between Program updates is *seven (7)* days. The amount to be withheld for late submission of an updated Program is *5% of the contract sum*.
C. Quality Control	
GCC 34.1	The Defects Liability Period is: 6 months from date stated in Taking Over Certificate
D. Cost Control	
GCC 44.1	The currency of the Procuring Entity's Country is: *Kenya Shillings (Kes)*.
GCC 45.1	The Contract *[insert "is" or "is not"]* subject to price adjustment in accordance with GCC Clause 45, and the following information regarding coefficients *[specify "does" or "does not"]* apply. *[Price adjustment is mandatory for contracts which provide for time of completion exceeding 18 months]* The coefficients for adjustment of prices are: (a) *[insert percentage]* percent nonadjustable element (coefficient A). *[insert percentage]* percent adjustable element (coefficient B). (c) The Index I for shall be *[insert index]*.
GCC 46.1	The proportion of payments retained is: 10% of the Contract Amount
GCC 47.1	The liquidated damages for the whole of the Works are *Kes 50,000.00* per day. The maximum amount of liquidated damages for the whole of the Works is 10% of the final Contract Price.
GCC 49.1	The Advance Payments shall be: Advance Payment is **Not Applicable.**

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 50.1	*Delete and replace with:* The 10% Performance Security shall be issued by a bank located in Kenya, licensed by the Central Bank of Kenya and acceptable to the Procuring Entity and in the format provided. The Procuring Entity shall seek authentication of the Performance Security from the issuing bank. It is the responsibility of the Contractor to ensure that: - (i) the issuing bank responds with reasonable dispatch to an inquiry from the Procuring Entity. Failure by the issuing bank to respond to the inquiry within a reasonable period may lead to the Contractor's Performance Security being rejected and returned. The Performance Security shall be valid and enforceable until the Contractor has executed and completed the Works and remedied any defects and up to the time of issuance of the Performance Certificate. The Contractor shall furnish the Engineer with a copy of the performance security.
E. Finishing the Contract	
GCC 56.1	The date by which "as built" drawings are required is *the date of handover*.
GCC 56.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is *[insert amount in local currency]*.
GCC 57.2 (g)	The maximum number of days is: *[insert number; consistent with Clause 47.1 on liquidated damages]*.
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Procuring Entity's additional cost for completing the Works, is *[insert percentage]*.

OTHER FORMS

FORM No 1: NOTIFICATION OF INTENTION TO AWARD

This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

1. For the attention of Tenderer's Authorized Representative

i) Name: *[insert Authorized Representative's name]*

ii) Address: *[insert Authorized Representative's Address]*

iii) Telephone: *[insert Authorized Representative's telephone/fax numbers]*

iv) Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. Date of transmission: [*email*] on [*date*] (local time)

This Notification is sent by (*Name and designation*) _____

3. Notification of Intention to 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) Country: *[insert country where ITT is issued]*

v) 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

Submit a Procurement-related Complaint in relation to the decision to award the contract.

a) The successful tenderer

i) Name of successful Tender _____

ii) Address of the successful Tender _____

_____

iii) Contract price of the successful Tender Kenya Shillings _____

_____ (in words _____)

b) 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. For Tenders not evaluated, give one main reason the Tender was unsuccessful.

SNo	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request a debriefing

a) DEADLINE: The deadline 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*]

ii) Agency: [*insert name of Procuring Entity*]

iii) Email address: [*insert email address*]

d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.

e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

6. How to make a complaint

a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [*insert date*] (local time).

b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:

i) Attention: [*insert full name of person, if applicable*]

ii) Title/position: [*insert title/position*]

iii) Agency: [*insert name of Procuring Entity*]

iv) Email address: [*insert email address*]

c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website info@ppra.go.ke or complaints@ppra.go.ke.
You should read these documents before preparing and submitting your complaint.

e) There are four essential requirements:

i) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a Notification of Intention to Award.

ii) The complaint can only challenge the decision to award the contract.

iii) You must submit the complaint within the period stated above.

iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

i) DEADLINE: The Standstill Period is due to end at midnight on [*insert date*] (local time).

ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.

iii) The Standstill Period may be extended as stated in paragraph Section 5 (d) above.
If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

Signature:_____ Name:_____ Title/position:_____ Telephone:____ Email: _____

FORM NO. 2 - REQUEST FOR REVIEW

FORM FOR REVIEW(r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO…….OF……..….20……...

BETWEEN

……...…….APPLICANT

AND

……RESPONDENT (Procuring Entity)

Request for review of the decision of the…… (Name of the Procuring Entity of ……dated the…day of …….20…….in the matter of Tender No……..…of ……..20….. for .....(Tender description).

REQUEST FOR REVIEW

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

1.

2.

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

1.

2.

SIGNED …….(Applicant) Dated on…….day of ……/…20……

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on……day of ……....20….……

SIGNED

Board Secretary

FORM NO 3: LETTER OF AWARD

[letterhead paper of the Procuring Entity] [date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency],* as corrected and modified in accordance with the Instructions to Tenderers, is hereby accepted by …… (*name of Procuring Entity).*

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:.....

Name and Title of Signatory:.....

Name of Procuring Entity.....

Attachment: *Contract Agreement*.....

FORM NO 4: CONTRACT AGREEMENT

THIS AGREEMENT made the_____day of_____, 20____, between

_____of _____ (hereinafter "the Procuring Entity"), of the one part, and_____of _____(hereinafter "the Contractor"), of the other part:

WHEREAS the Procuring Entity desires that the Works known as _____should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

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

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by_____(for the Procuring Entity)

Signed and sealed by_____(for the Contractor).

FORM NO. 5 - PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[insert name and Address of* Procuring Entity*]* **Date:** _____

_____ *[Insert date of issue]*

Guarantor: [*Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with (*name of Procuring Entity*) _____ (the Procuring Entity as the Beneficiary), for the execution of _____ (hereinafter called "the Contract").

2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of __(*in words*),[1] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

4. This guarantee shall expire, no later than the …. Day of ……, 2...…[2], and any demand for payment under it must be received by us at the office indicated above on or before that date.

5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months] [one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

[Name of Authorized Official, signature(s) and seals/stamps].
Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

[1] *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency of the Contract or a freely convertible currency acceptable to the Beneficiary.*

[2] *Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM No. 6 - PERFORMANCE SECURITY

[Option 2– Performance Bond]

[Note: Procuring Entities are advised to use Performance Security – Unconditional Demand Bank Guarantee 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 BONDNo.: _____

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 thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter 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 thereunder, the Surety may promptly remedy the default, or shall promptly:
   1) complete the Contract in accordance with its terms and conditions; or
   2) obtain a tender or tenders from qualified tenderers for submission to the 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 available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
   3) pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions up to 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 herein or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.
6. In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day _____ of _____ 20 _____.

SIGNED ON _____ on behalfof By ___ in the capacity of In

the presence of

SIGNED ON _____ on behalf of By __ in the capacity of In

the presence of

FORM NO. 7 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]
[Guarantor letterhead]

Beneficiary: *[Insert name and Address of* Procuring Entity*]*
Date: *[Insert date of issue]*
ADVANCE PAYMENT GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: **[***Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that (hereinafter called "the Contractor") has entered into Contract No. *dated* with the Beneficiary, for the execution of (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum (*in words*) is to be made against an advance payment guarantee.
3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of (*in words*)[1] upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

a) has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number at .
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the day of , 2 ,[2] whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months][one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/stamps]
Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

[1] *The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.*
[2] *Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM NO. 8 - RETENTION MONEY SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____*[Insert name and Address of* Procuring Entity*]*

Date:_____*[Insert date of issue]*

Advance payment guarantee no. *[Insert guarantee reference number]*

Guarantor: [*Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that_____*[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Contractor") has entered into Contract No. _____*[insert reference number of the contract]* dated_____with the Beneficiary, for the execution of_____*[insert name of contract and brief description of* Works*]* (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys 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 show grounds for your demand or the sum specified therein.
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.....…[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.

---

[1] *The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.*

[2] *Insert a date that is twenty-eight days after the expiry of retention period after the actual completion date of the contract. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM

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

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

Tender Reference No.:_____[*insert identification no*] Name of the Tender Title/Description:_____*[insert name of the assignment]* to: _____*[insert complete name of Procuring Entity]*

In response to the requirement in your notification of award dated___*[insert date of notification of award]* to furnish additional information on beneficial ownership:_____*[select one option as applicable and delete the options that are not applicable]*

I) We here by provide the following beneficial ownership information.

Details of beneficial ownership

	Details of all Beneficial Owners		**% of shares a person holds in the company Directly or indirectly**	**% of voting rights a person holds in the company**	**Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer** (Yes / No)	**Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)**
	Full Name		Directly---------- % of shares Indirectly---------- % of shares	Directly…… …….% of voting rights Indirectly----------% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No---- 2. Is this right held directly or indirectly?: Direct…… … Indirect…… ...	1. Exercises significant influence or control over the Company body of the Company (tenderer**)** Yes ----- No---- 2. Is this influence or control exercised directly or indirectly? Direct…… ….. Indirect…… ……
	National identity card number or Passport number					
	Personal Identification Number (where applicable)					
	Nationality					
	Date of birth *[dd/mm/yyyy]*					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					
	Full Name		Directly---------- % of shares	Directly… ……. % of voting rights	1. Having the right to appoint a majority of the board of the directors or an	1. Exercises significant influence or control over the Company body
	National identity card number or Passport number					
	Personal					

	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
	Identification Number (where applicable)		Indirectly---------- % of shares	Indirectly----------% of voting rights	equivalent governing body of the Tenderer: Yes -----No---- 2. Is this right held directly or indirectly? Direct…… Indirect……...	of the Company (tenderer) Yes ---- -No---- 2. Is this influence or control exercised directly or indirectly? Direct…….. Indirect……
	Nationality(ies)					
	Date of birth *[dd/mm/yyyy]*					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020.(Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

(a) holds at least ten percent of the issued shares in the company either directly or indirectly;

(b) exercises at least ten percent of the voting rights in the company either directly or indirectly;

(c) holds a right, directly or indirectly, to appoint or remove a director of the company; or

(d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer: .....[insert complete name of the Tenderer]*_____

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

of person duly authorized to sign the Tender]

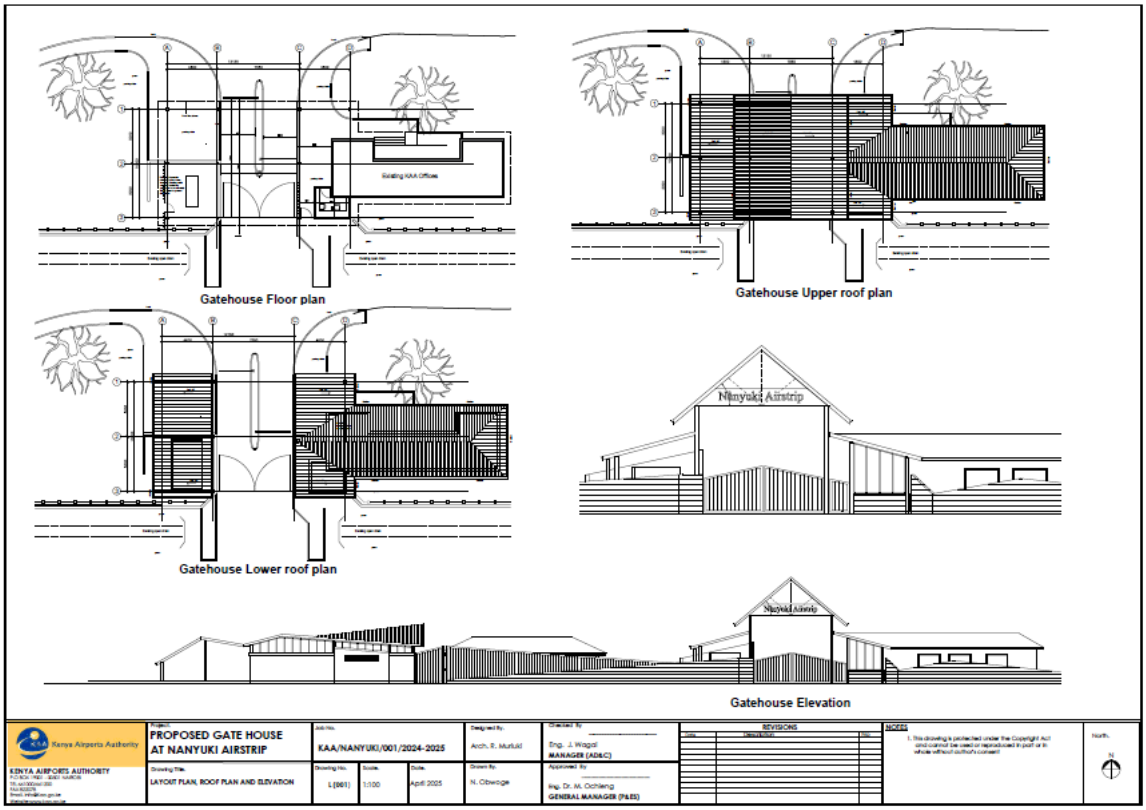
Designation of the person signing the Tender: ..... [insert complete title of the person signing the Tender]

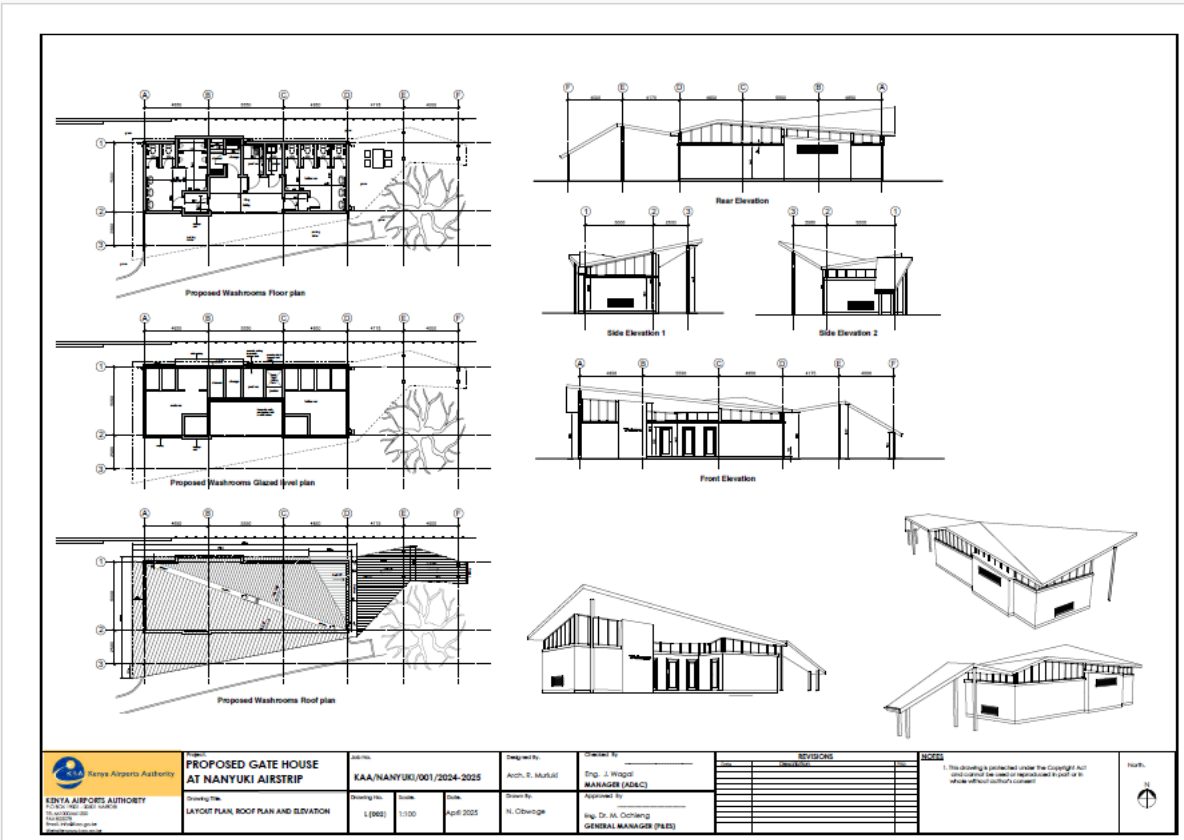
Signature of the person named above: ..... [insert signature of person whose name and capacity are shown above]

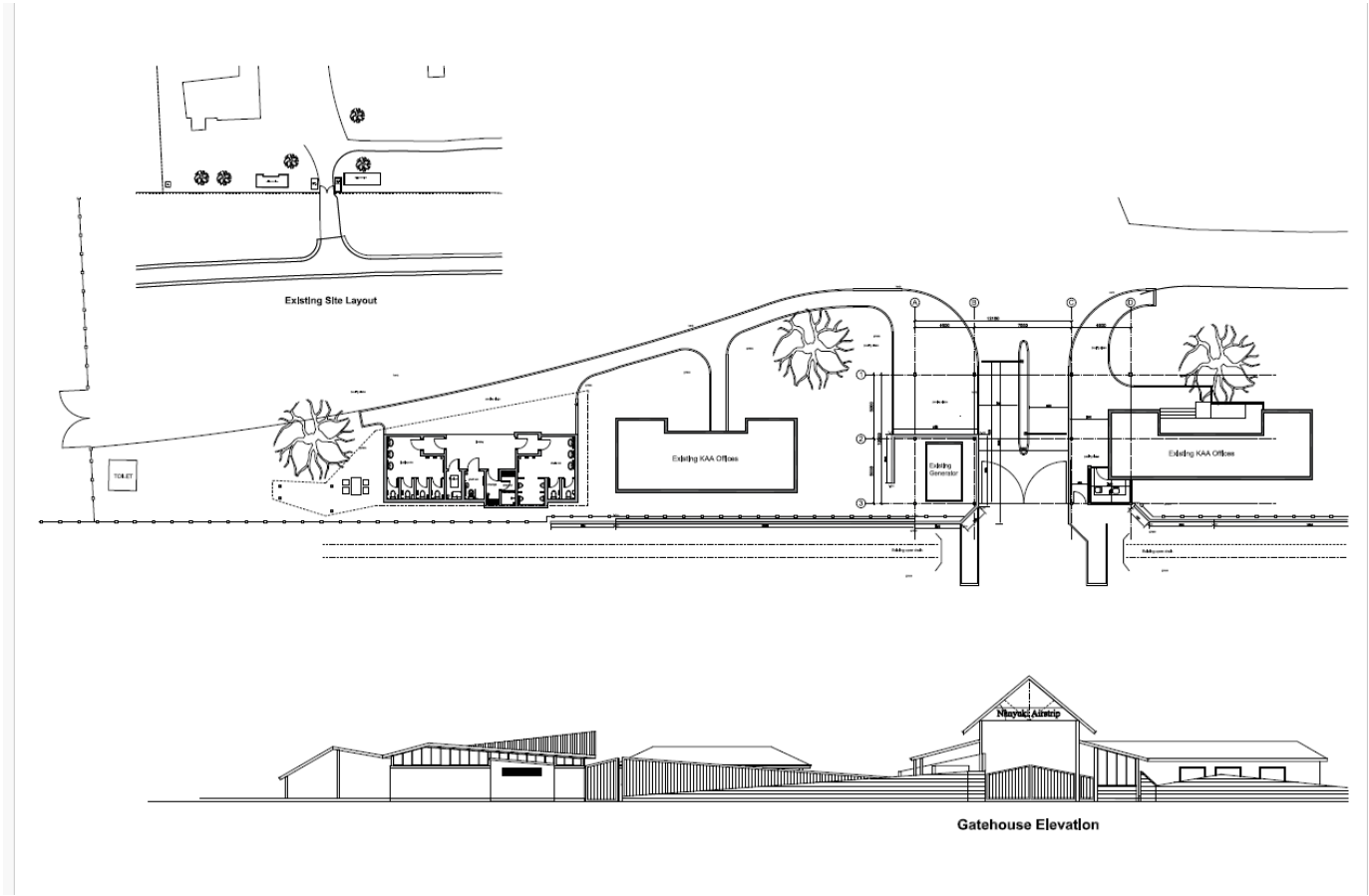
Date this ..... [insert date of signing] day of..... [Insert month], [insert year]

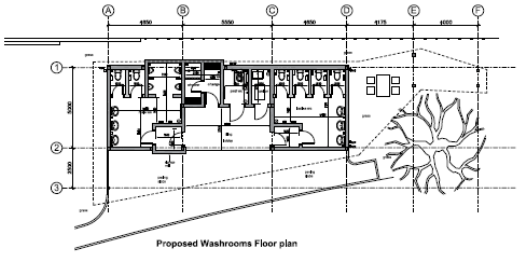
Bidder Official Stamp

FLOOR AND SITE PLAN ELEVATION

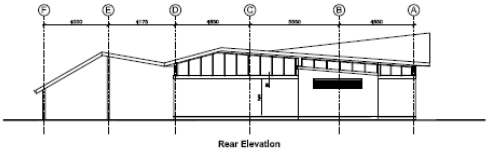




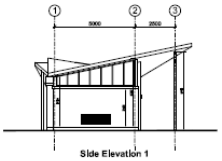

Existing Site Layout
TOILET
Existing KAA Offices
Existing Generator
Existing KAA Offices
Mayoko Airstrip
Gatehouse Elevation



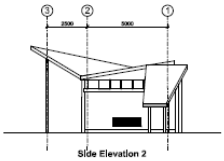
Proposed Washrooms Floor plan



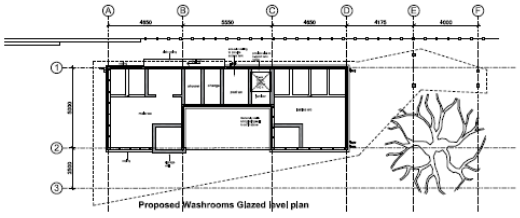
Rear Elevation



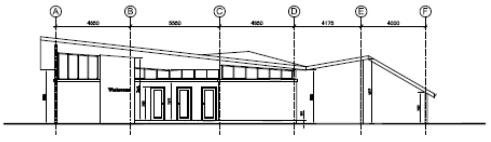
Side Elevation 1



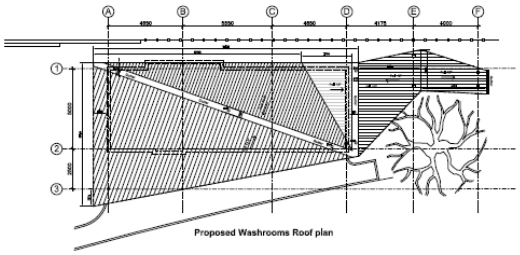
Side Elevation 2



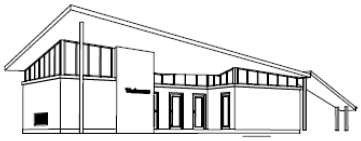
Proposed Washrooms Glazed level plan

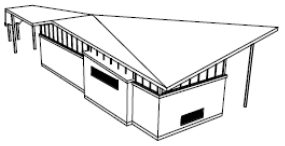


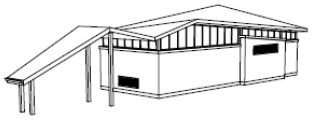
Front Elevation

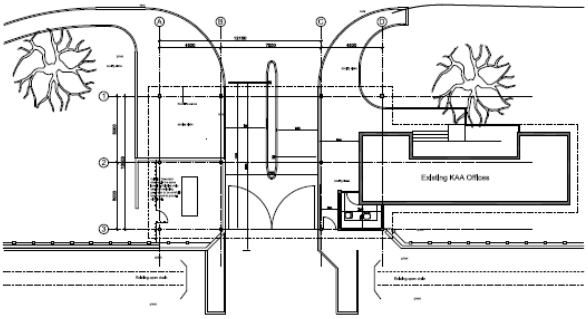


Proposed Washrooms Roof plan

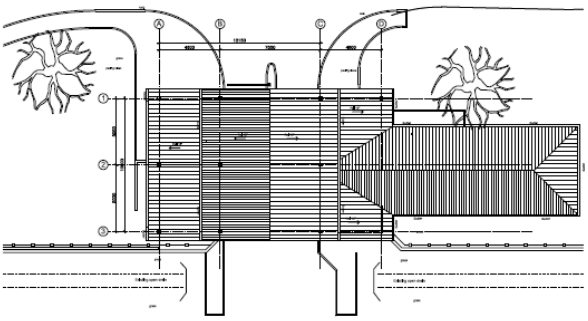




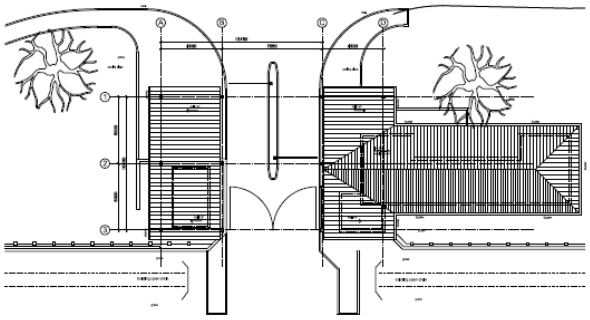




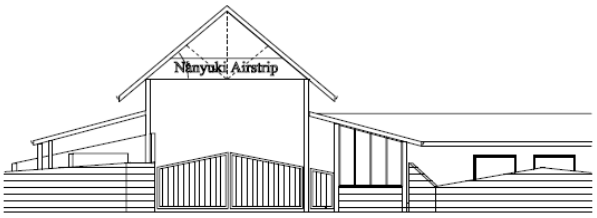
Gatehouse Floor plan

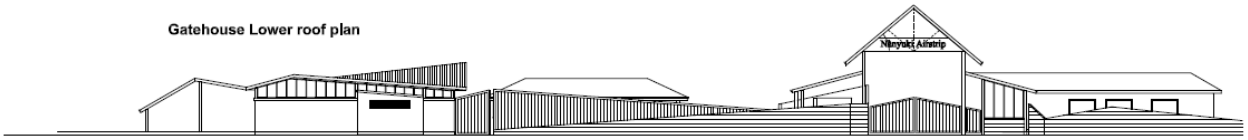


Gatehouse Upper roof plan

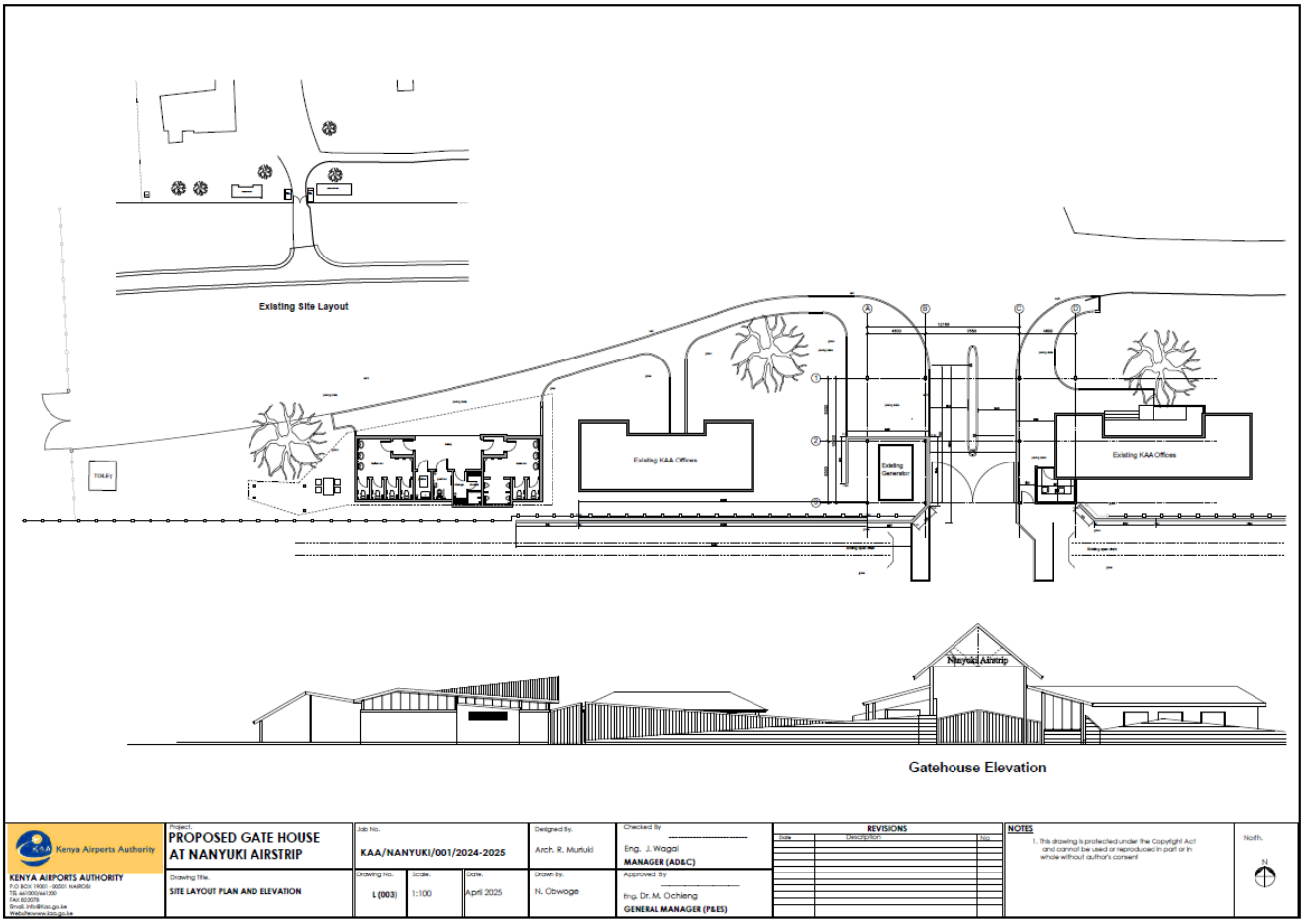


Gatehouse Lower roof plan





Gatehouse Elevation



Kenya Airports Authority KENYA AIRPORTS AUTHORITY P.O BOX 19001 - 00501 NAIROBI TEL 66100/661200 FAX 822078 Email: info@kaa.go.ke Website:www.kaa.go.ke	Project: PROPOSED GATE HOUSE AT NANYUKI AIRSTRIP Drawing Title: SITE LAYOUT PLAN AND ELEVATION	Job No. KAA/NANYUKI/001/2024-2025 Drawing No.: L (003) Scale: 1:100 Date: April 2025	Designed By: Arch. R. Murluki Drawn By: N. Obwoge	Checked By Eng. J. Wagai MANAGER (AD&C) Approved By Eng. Dr. M. Ochieng GENERAL MANAGER (P&ES)	REVISIONS Date / Description / Sign	NOTES 1. This drawing is protected under the Copyright Act and cannot be used or reproduced in part or in whole without author's consent	North.