



**AFRICAN DEVELOPMENT BANK
AFRICAN DEVELOPMENT FUND**



PROCUREMENT DOCUMENTS

Volume 1: Bidding Document for Procurement of Works

Procurement of

KENYA TOWNS SUSTAINABLE WATER SUPPLY AND SANITATION PROGRAM

Construction for Mwala Cluster Water Supply Project

Issued on: 25th April, 2023

ICB No: AWWDA/AfDB/KTSWSSP/W/08/2023

**Athi Water Works Development Agency
Kenya**

Table of Contents

Part 1: Bidding Procedures	3
SECTION 1: INSTRUCTIONS TO BIDDERS	4
SECTION II: BID DATA SHEET (BDS)	30
SECTION III - EVALUATION AND QUALIFICATION CRITERIA	37
SECTION IV - BIDDING FORMS	54
TABLE OF FORMS	54
SECTION V - ELIGIBLE COUNTRIES	113
SECTION VI - FRAUD AND CORRUPTION	115
Part 2: Works' Requirements	117
SECTION VII - WORKS' REQUIREMENTS	118
CONTENTS.....	118
Part 3: Conditions of Contract	126
SECTION VIII- PARTICULAR CONDITIONS.....	127
SECTION IX - GENERAL CONDITIONS OF CONTRACT (GC).....	177
SECTION X. GENERAL CONDITIONS (GC).....	178



Part 1: Bidding Procedures

Section 1: Instructions to Bidders

Table of Contents

A. General	6
1. Scope of Bid.....	6
2. Source of Funds	6
3. Fraud and Corruption	7
4. Eligible Bidders	7
5. Eligible Materials, Equipment, and Services	9
B. Contents of Bidding Document	10
6. Sections of Bidding Document.....	10
7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting.....	10
8. Amendment of Bidding Document	11
C. Preparation of Bids	12
9. Cost of Bidding.....	12
10. Language of Bid	12
11. Documents Comprising the Bid	12
12. Letter of Bid and Schedules	13
13. Alternative Bids	13
14. Bid Prices and Discounts	13
15. Currencies of Bid and Payment	15
16. Documents Comprising the Technical Bid	15
17. Documents Establishing the Eligibility and Qualifications of the Bidder	15
18. Period of Validity of Bids	15
19. Bid Security.....	16
20. Format and Signing of Bid.....	18
D. Submission and Opening of Bids.....	18
21. Sealing and Marking of Bids.....	18
22. Deadline for Submission of Bids	19
23. Late Bids.....	19
24. Withdrawal, Substitution, and Modification of Bids	19
25. Bid Opening	20
E. Evaluation and Comparison of Bids	21
26. Confidentiality.....	21
27. Preliminary Examination & Clarification of Bids	21
28. Deviations, Reservations, and Omissions	22
29. Determination of Responsiveness.....	22
30. Nonmaterial Nonconformities	23
31. Correction of Arithmetical Errors	23
32. Conversion to Single Currency	24
33. Margin of Preference.....	24
34. Subcontractors	24
35. Evaluation of Bids.....	24
36. Comparison of Bids	25
37. Abnormally Low Bids	25
38. Unbalanced or Front Loaded Bids	25

39. Qualifications of the Bidder	26
40. Successful Bid or Bids	26
41. Employer’s Right to Accept Any Bid, and to Reject Any or All Bids.....	27
42. Standstill Period.....	27
43. Notification of Intention to Award.....	27
F. Award of Contract.....	27
44. Award Criteria	27
45. Notification of Award	27
46. Debriefing by the Employer.....	28
47. Signing of Contract	29
48. Performance Security	29
49. Procurement Related Complaint.....	29

Section I: Instructions to Bidders

A. General

1. Scope of Bid

1.1 In connection with the Specific Procurement Notice – Invitation for Bids (IFB), specified in the Bid Data Sheet (BDS), the Employer, as specified in the BDS, issues this Bidding document for the provision of Works as specified in Section VII, Works' Requirements. The name, identification, and number of "whole of the works", hereafter called 'Works' invited under one or more lots (Contracts) or Packages each lot containing one or more 'Works' or each package containing one or more lots of this IFB are specified in the BDS.

1.2 Throughout this bidding document:

- (a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including, if specified in the BDS, distributed or received through electronic-procurement system used by the Employer) with proof of receipt;
- (b) if the context so requires, "singular" means "plural" and vice versa;
- (c) "Day" means calendar day, unless otherwise specified as a "Business Day." A Business Day is any day that is a working day of the Borrower. It excludes the Borrower's official public holidays; and
- (d) "ES" means environmental and social (including Sexual Exploitation, and Abuse (SEA) and Sexual Harassment (SH));
- (e) "Sexual Exploitation and Abuse" "(SEA)" means the following:
"Sexual Exploitation" is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
"Sexual Abuse" is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
- (f) "Sexual Harassment" "(SH)" is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor's Personnel with other Contractor's or Employer's Personnel;
- (g) "Contractor's Personnel" is as defined in Sub- Clause 1.1.17 of the General Conditions of Contract; and
- (h) "Employer's personnel" is as defined in GCC Sub-Clause 1.1.31 of the General Conditions of Contract.
A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.

2. Source of Funds

2.1 The Borrower or Recipient (hereinafter called "Borrower") specified in the BDS has received or has applied for financing (hereinafter called "funds") from the Specific Financing Institution named in the BDS (hereinafter called "the Bank") in an amount specified in the BDS, toward the project named in the BDS. The Borrower intends to

apply a portion of the funds to eligible payments under the contract(s) for which this Bidding document is issued.

- 2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

3. Fraud and Corruption

- 3.1 The Bank requires compliance with its Integrity Framework comprising the African Development Bank Group's Sanctions Procedures, the Bank's Whistle-blowing and Complaints Policy, the Bank's Procurement Policy under the Procurement Framework and any other applicable Policies and Procedures including their updates in regard to corrupt and fraudulent practices, as set forth in Section VI.
- 3.2 In further pursuance of this policy, bidders shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

- 4.1 A Bidder may be a firm that is a private entity, a state-owned enterprise or institution subject to ITB 4.6 or any combination of such entities in the form of a joint venture, consortium, or association (JVCA) hereinafter called JV, under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, consortium, or association (JV): a) Unless otherwise specified in the BDS, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms; b) 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 Bidding process and, in the event the JV is awarded the Contract, during contract execution; c) The maximum number of members proposed in a JV shall not exceed the number specified in the BDS, or the number derived from the percentage specified under ITB 4.1 (d), whichever is smaller unless both are equal, in which case anyone shall apply; and d) Participation by value of the contract as share of each of the JV partner (member) shall not be less than the percentage specified in the BDS. In case of any inconsistency between ITB 4.1 c) and ITB 4.1 d) such that both cannot be applied simultaneously, the latter shall prevail.
- 4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:

- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
 - (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this Bidding process; or
 - (e) or 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 Bid; or
 - (f) or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower 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 project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
 - (h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who:
 - (i) are directly or indirectly involved in the preparation of the Bidding document or specifications of the Contract, and/or the Bid 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 Bank throughout the Bidding process and execution of the Contract.
- 4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.
- 4.4 A Bidder and all parties constituting the Bidder including any subcontractors or suppliers shall have the nationality of an eligible country of the Bank in accordance with the Bank's Procurement Policy for the Bank Group Funded Operations described under the Bank's Procurement Framework, and as listed in Section V, Eligible Countries, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder 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 shall also apply to the determination of the nationality of proposed subcontractors or subconsultants for any part of the Contract including related Services.
- 4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Integrity Framework, and in accordance with its prevailing sanctions policies and procedures as set forth in the Bank's Integrity Framework, as described in Section VI paragraph 2.2 d. shall be ineligible to be prequalified for, bid for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS.

- 4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.
- 4.7 A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid-Securing Declaration.
- 4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; 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, the Borrower's country 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. When the Works are implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITB 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree.
- 4.9 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 4.10 A firm that is under a sanction of debarment by the Borrower from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Borrower's request, is satisfied that the debarment; (a) relates to fraud or corruption, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process.

5. Eligible Materials, Equipment, and Services

- 5.1 The materials, equipment and services to be supplied under the Contract and financed by the Bank shall have their origin in an eligible country of the Bank in accordance with the Bank's Procurement Policy for Bank Group Funded Operations described under the Bank's Procurement Framework, and as listed in Section V, Eligible Countries, subject to the restrictions specified therein, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.
- 5.2 The nationality of the firm that produces, assembles, distributes, or sells the materials and equipment shall not determine their origin.

B. Contents of Bidding Document

6. Sections of Bidding Document

- 6.1 The Bidding 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 ITB 8.

PART 1 Bidding Procedures

- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries
- Section VI - Fraud and Corruption

PART 2 Works Requirements

- Section VII - Works' Requirements

PART 3 Conditions of Contract and Contract Forms

- Section VIII - General Conditions (GC)
- Section IX - Particular Conditions (PC)
- Section X - Contract Forms

- 6.2 The Specific Procurement Notice - Invitation for Bids (IFB) issued by the Employer is not part of the Bidding document.
- 6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the Bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the Bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding document and to furnish with its Bid all information and documentation as is required by the Bidding document.

7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

- 7.1 A Bidder requiring any clarification of the Bidding document shall contact the Employer in writing at the Employer's address specified in the BDS or raise its enquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received no later than fourteen (14) days prior to the deadline for submission of Bids. The Employer shall forward copies of its response to all Bidders who have acquired the

Bidding document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so specified in the BDS, the Employer shall also promptly publish its response at the web page identified in the BDS. Should the clarification result in changes to the essential elements of the Bidding document, the Employer shall amend the Bidding document following the procedure under ITB 8 and ITB 22.2.

- 7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 7.4 If so specified in the BDS, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a Site of Works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested to submit any questions in writing, to reach the Employer not later than one week before the meeting.
- 7.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding document in accordance with ITB 6.3. If so specified in the BDS, the Employer shall also promptly publish the Minutes of the pre-Bid meeting at the web page identified in the BDS. Any modification to the Bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. Nonattendance at the pre-Bid meeting will be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding document by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding document and shall be communicated in writing to all who have obtained the Bidding document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.

- 8.3 To give Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer should extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

9. Cost of Bidding

- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

10. Language of Bid

- 10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

- 11.1 The Bid shall comprise the following:
- (a) Letter of Bid prepared in accordance with ITB 12;
 - (b) Schedules including priced Bill of Quantities, completed in accordance with ITB 12 and ITB 14;
 - (c) Bid Security or Bid-Securing Declaration, in accordance with ITB 19.1;
 - (d) Technical Bid - of Base Bid;
 - (e) Commercial Terms and Conditions;
 - (f) Alternative Technical Bid, if permissible, in accordance with ITB 13;
 - (g) Authorization: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3;
 - (h) Eligibility and Qualifications: documentary evidence in accordance with ITB 17 establishing the Bidder's eligibility and qualifications to perform the Contract if its Bid is accepted;
 - (i) Conformity: documentary evidence in accordance with ITB 16 and ITB 30, and in support of above sub-paragraphs (d) and (e) of ITB 11.1, as necessary, to establish that the offered Works and Services, and Terms and Conditions of the Bid conform to the requirements and provisions of the bidding document; and
 - (j) any other document required in the BDS.
- 11.2 In addition to the requirements under ITB 11.1, Bids 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 Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

- 11.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.
- 11.4 The Bidder shall furnish in the Letter of Bid the names of three potential Dispute Avoidance/Adjudication Board (DAAB) members and attach their curriculum vitae. The list of potential DAAB members proposed by the Employer (Contract Data 21.1) and by the Bidder (Letter of Bid) shall be subject to the Bank's No-objection.

12. Letter of Bid and Schedules

- 12.1 The Letter of Bid and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.3. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

- 13.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If Alternative Bids are permitted, the BDS shall specify which of the following ITB (s) namely, ITB 13.2, ITB 13.3 and ITB 13.4 shall be considered.
- 13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.
- 13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding document must first price the Employer's design as described in the Bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, 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 Bidder with the Lowest Evaluated Bid conforming to the basic technical requirements shall be considered by the Employer.
- 13.4 When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section VII, Works' Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.

14. Bid Prices and Discounts

- 14.1 The prices and discounts (including any price reduction) quoted by the Bidder in the Letter of Bid and in the Bill of Quantities shall conform to the requirements specified below.

- 14.2 The Bidder 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 Bidder shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Employer. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Bid, and provided that the Bid is determined substantially responsive notwithstanding this omission, the average or the highest price of the item as specified in the BDS quoted by substantially responsive Bidders will be added to the Bid price and the equivalent total cost of the Bid so determined will be used for price comparison.
- 14.3 The price to be quoted in the Letter of Bid, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.
- 14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Bid, in accordance with ITB 12.1, ITB 14.6 and ITB 14.7.
- 14.5 Unless otherwise specified in the BDS and the Conditions of Contract, the rates and prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. In such a case, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Employer may require the Bidder to justify its proposed indices and weightings. A Bid submitted with a fixed price basis shall not be rejected unless otherwise specified in the BDS and in the latter case, a Bid submitted with fixed price shall be rejected.
- 14.6 **As specified in the BDS**, bids are being invited for “Works” as a single contract (or as one lot); or for individual lots (contracts) each lot containing one or more ‘Works’; or for any combination of lots (packages). Bidders wishing to offer discounts for the award of more than one Contract (lot) shall specify in their Bid the price reductions applicable to each contract (lot) and package as the case may be. Bidders shall fully explain the methodology and calculations for applying such discounts, showing how the reductions are derived and the net amounts of each contract after the application of the offered discounts to individual items. Discounts can be offered only for those items for which the Bidder is required to bid and not for any item where the Employer has included its estimated cost as a fixed sum or a percentage in the Bills of Quantities. Discounts shall be submitted in accordance with ITB 14.4, and ITB 14.6 provided that the Bids for all lots (contracts) are opened at the same time.
- 14.7 Discounts offered shall be clear and without any vagueness or ambiguity to avoid rejection of the bid as no clarification shall be requested or permitted on this account after bid submission. The Employer’s decision on a bid’s discount will be based on the contents of the bid itself, without recourse to any extrinsic evidence. If in the Employer’s opinion, which will be final, a discount offered in the bid: I) is unclear, ambiguous or vaguely presented to the extent that it cannot be either interpreted or applied with reasonable accuracy, the Bid shall be rejected; II) relates to any item of cost for which the Bidder is not required to submit a bid price or the Employer may have indicated the estimated cost e.g. for a provisional sum or contingencies as per the bidding document, then the bid will be evaluated without the application of the discount offered for such item of cost; and III) has minor discrepancy or unclarity which could be interpreted reasonably, the Employer in this case may decide not to reject the bid and apply the

discount as it deems reasonable and appropriate resulting in the lowest evaluated cost to the Employer. If the Bidder does not accept the Employer's decision based on any of the above, the bid shall be rejected.

- 14.8 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.

15. Currencies of Bid and Payment

- 15.1 The currency (ies) of the Bid and the currency (ies) of payments shall be as specified in the BDS.
- 15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Bid are reasonable, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.

16. Documents Comprising the Technical Bid

- 16.1 The Bidder shall furnish details of technical specifications proposed in the Technical Bid including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, or elsewhere in the bidding document, and if applicable, a statement of deviations and exceptions to any of the provisions of the bidding document, in sufficient detail to demonstrate the adequacy of the Bidder's proposal to meet the Employer's work's requirements and the completion time, and to demonstrate substantial responsiveness to the technical specifications required as per the provisions of the Section VII, Work's Requirements.

17. Documents Establishing the Eligibility and Qualifications of the Bidder

- 17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.
- 17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Bidder shall provide the information requested in the corresponding forms included in Section IV, Bidding Forms.
- 17.3 If a margin of preference applies as specified in accordance with ITB 33.1, domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference or regional preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITB 33.1.

18. Period of Validity of Bids

- 18.1 Bids shall remain valid for the Bid Validity period specified in the BDS or any extended period if amended by the Employer in accordance with ITB 8. The Bid Validity period starts from the date fixed for the Bid submission deadline (as prescribed by the Employer in accordance with ITB 22). A Bid valid for a shorter period shall be rejected by the Employer as nonresponsive.

- 18.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for twenty-eight (28) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 18.3.
- 18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity period, the Contract price shall be determined as follows:
- (a) in the case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor specified in the BDS to reflect any increase in the cost of inputs over the period of extension, which for the purpose of this adjustment, shall be the period elapsed between the date arrived immediately after expiry of the fifty-six (56) days beyond the initial Bid validity period and the date of notification of award;
 - (b) in the case of adjustable price contracts, no adjustment shall be made; and
 - (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

19. Bid Security

- 19.1 The Bidder shall furnish as part of its Bid, either a Bid-Securing Declaration or a Bid Security amount as specified in the BDS, in original form and, in the case of a Bid Security amount, in the amount and currency specified in the BDS.
- 19.2 A Bid-Securing Declaration shall use the form included in Section IV, Bidding Forms.
- 19.3 If a Bid Security amount is specified pursuant to ITB 19.1, the Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:
- (a) an unconditional guarantee issued by a bank or non-bank financial institution (such as an insurance, bonding or surety company);
 - (b) an irrevocable letter of credit;
 - (c) a cashier's or certified check; or
 - (d) another security specified in the BDS,

The Bidders shall obtain the Bid Security from a reputable source from an eligible country. If an unconditional guarantee is issued by a non-bank financial institution located outside the Employer's Country, the issuing non-bank financial institution shall have a correspondent financial institution located in the Employer's Country to make it enforceable unless the Employer has agreed in writing, prior to Bid submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section

IV, Bidding Forms, or in another substantially similar format approved by the Employer prior to Bid submission. The Bid Security shall be valid for twenty-eight (28) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2.

- 19.4 If a Bid Security in amount or Bid-Securing Declaration is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially responsive Bid Security in amount or Bid-Securing Declaration whichever is required, shall be rejected by the Employer as non-responsive.
- 19.5 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 48.
- 19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security, and if required in the BDS, the Environmental and Social (ES) Performance Security.
- 19.7 The Bid Security amount may be forfeited:
- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid, or any extension thereto provided by the Bidder; or
 - (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 47; or
 - (ii) furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 48.
- 19.8 The Bid Security amount or the Bid-Securing Declaration of a JV shall be in the name of the JV that submits the Bid. If the JV has not been legally constituted into a legally enforceable JV at the time of Bidding, the Bid Security amount or the Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.2.
- 19.9 If a Bid Securing Declaration is required in the BDS, pursuant to ITB 19.1, and:
- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereto provided by the Bidder;
or
 - (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 47; or

- (ii) furnish a Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 48,

the Borrower may execute the Bid Securing Declaration, as provided for in the BDS, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time stated in the BDS.

20. Format and Signing of Bid

- 20.1 The Bidder shall prepare one original of the documents comprising the Bid as described in ITB 11 and clearly mark it “ORIGINAL.” Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked “ALTERNATIVE.” In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS and clearly mark them “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.
- 20.2 Bidders shall mark as “CONFIDENTIAL” all information in their Bids which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.
- 20.3 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.
- 20.4 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
- 20.5 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

- 21.1 The Bidder shall deliver the Bid in a single, sealed envelope (one-envelope Bidding process). Within the single envelope the Bidder shall place the following separate, sealed envelopes:
 - (a) in an envelope marked “ORIGINAL”, all documents comprising the Bid, as described in ITB 11; and
 - (b) in an envelope marked “COPIES”, all required copies of the Bid; and
 - (c) if alternative Bids are permitted in accordance with ITB 13, and if relevant:

- (i) in an envelope marked “ORIGINAL - ALTERNATIVE BID”, the alternative Bid; and
- (ii) in the envelope marked “COPIES - ALTERNATIVE BID”, all required copies of the alternative Bid.

21.2 The inner and outer envelopes shall:

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer in accordance with ITB 22.1;
- (c) bear the specific identification of this Bidding process specified in accordance with BDS 1.1; and
- (d) bear a warning not to open before the time and date for Bid opening.

21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

22. Deadline for Submission of Bids

- 22.1 Bids must be received by the Employer at the address and no later than the date and time specified in the BDS. When so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the electronic Bid submission procedures specified in the BDS.
- 22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

- 23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 22. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

- 24.1 A Bidder may withdraw, substitute, or modify its Bid 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 ITB 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:
 - (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and

- (b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.
- 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.
- 24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

25. Bid Opening

- 25.1 Except in the cases specified in ITB 23 and ITB 24.2, the Employer shall publicly open and read out in accordance with this ITB all Bids received by the deadline, at the date, time and place specified in the BDS, in the presence of Bidders' designated representatives and anyone who chooses to attend. Any specific electronic Bid opening procedures required if electronic Bidding is permitted in accordance with ITB 22.1, shall be as specified in the BDS.
- 25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Bid shall not be opened but returned to the Bidder. No Bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Bid opening.
- 25.3 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Bid opening.
- 25.4 Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening.
- 25.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Price, per lot (contract) if applicable, including any discounts and alternative Bids; the presence or absence of a Bid Security or Bid-Securing Declaration, if required; and any other details as the Employer may consider appropriate.
- 25.6 Only Bids, alternative Bids and discounts that are opened and read out at Bid opening shall be considered further for evaluation. The Letter of Bid and the Bill of Quantities are to be initialed by representatives of the Employer attending Bid opening in the manner specified in the BDS.
- 25.7 The Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 23.1).
- 25.8 The Employer shall prepare a record of the Bid opening that shall include, as a minimum:

- (a) the name of the Bidder and whether there is a withdrawal, substitution, or modification;
 - (b) the Bid Price, per lot (contract) if applicable, including any discounts;
 - (c) any alternative Bids;
 - (d) the presence or absence of a Bid Security, if one was required.
- 25.9 The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

26. Confidentiality

- 26.1 Information relating to the evaluation of Bids and recommendation of contract award shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 43.
- 26.2 Any effort by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of Bid opening to the time of Contract award, if a Bidder wishes to contact the Employer on any matter related to the Bidding process, it shall do so in writing.

27. Preliminary Examination & Clarification of Bids

- 27.1 Prior to the detailed evaluation, pursuant to ITB 35, the Employer will conduct preliminary examination of all bids that have been received by the deadline for bid submission and opened at the public bid opening as the first step towards determination of their substantial responsiveness to the bidding document. The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB 11 without recourse to extrinsic evidence. The Employer will verify and examine bids to determine whether they are complete, properly signed to bind the bidder, meet eligibility requirements of bidders, materials, equipment, and services, bidders have no conflict of interest and have provided required Bid validity, Bid Security or Bid Securing Declaration, as required and other essential documents to complete the evaluation, and whether the bids are generally in order. Subject to ITB 27.2 and 27.3, Bids failing to meet the above requirements shall be rejected and not retained for further review.
- 27.2 To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid, given a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer'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 Bid shall

be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 31.

- 27.3 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

28. Deviations, Reservations, and Omissions

- 28.1 During the evaluation of Bids, the following definitions apply:

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

29. Determination of Responsiveness

- 29.1 Following the rejection of Bids if any, pursuant to ITB 27, as the next step, the remaining Bids will be further reviewed to determine their substantial responsiveness. The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.

- 29.2 A substantially responsive Bid is one that meets the requirements of the Bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

- (a) if accepted, would:
 - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the Bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
- (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

- 29.3 The Employer shall examine the technical aspects of the Bid in accordance with ITB 16, ITB 17, ITB 29, ITB 30, BDS if applicable, and Section III Evaluation and Qualification Criteria in particular, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission. To this end, in consideration of the materiality of any deviations, reservations or omissions, Bids failing to meet the mandatory technical requirements or minimum pass-fail technical criteria or failing to substantially meet any other technical requirements of the bidding document will risk their rejection.

- 29.4 The Employer shall similarly examine the commercial aspects of the bids including any deviations, other than technical specifications, submitted in response to the provisions of the bidding document, to determine if they conform to the terms and conditions of the

draft contract and other documents included in the bidding document without any material deviation, reservation or omission, and establishment of materiality in such aspects will similarly risk rejection of the Bids.

- 29.5 If a Bid is not substantially responsive to the requirements of the Bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission. All other bids determined substantially responsive will be retained for further evaluation.

30. Nonmaterial Nonconformities

- 30.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid.
- 30.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 30.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component and costs associated, if any, with non-material deviations, reservations and omissions to the requirements of the bidding documents in the manner specified in the BDS.

31. Correction of Arithmetical Errors

- 31.1 Provided that the Bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:
- (a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
 - (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1, shall result in the rejection of the Bid.

32. Conversion to Single Currency

- 32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified in the BDS.

33. Margin of Preference

- 33.1 Unless otherwise specified in the BDS no margin of domestic or regional preference shall apply. If a margin of preference is applicable, the application methodology shall be as specified in Section III, Evaluation and Qualification Criteria, and in accordance with the provisions stipulated in the Bank's Procurement Framework.

34. Subcontractors

- 34.1 Unless otherwise stated in the BDS, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer.
- 34.2 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the BDS. Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works.
- 34.3 The subcontractor's qualifications shall not be used by the Bidder to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer in the BDS as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications with respect to only the specific work experience of the Specialized Subcontractors proposed by the Bidder may be added to the qualifications of the Bidder.

35. Evaluation of Bids

- 35.1 The Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Employer shall determine the successful Bid or Bids in accordance with ITB 40.
- 35.2 To evaluate Bids, the Employer shall consider the following factors, in accordance with the evaluation and award criteria as applicable for single contract (one lot), lots (contracts) or packages (combination of lots) and as specified under Section III- Evaluation and Qualification Criteria:
- a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including Daywork items, where priced competitively;
 - b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
 - c) price adjustment due to discounts offered in accordance with ITB 12.1, ITB 14.4, ITB 14.6 and ITB 14.7;
 - d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;

- e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3;
 - f) the additional evaluation factors specified in the BDS and Section III, Evaluation and Qualification Criteria; and
 - g) price adjustment due to application of Margin of Preference, if applicable, as per BDS of ITB 33.1, and Section III, Evaluation and Qualification Criteria.
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 35.4 If this Bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the Letter of Bid, is specified in Section III, Evaluation and Qualification Criteria.

36. Comparison of Bids

- 36.1 The Employer shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 35.2 to determine the Bid that has the lowest evaluated cost.

37. Abnormally Low Bids

- 37.1 An Abnormally Low Bid is one where the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder in regards to the Bidder's ability to perform the Contract for the offered Bid Price.
- 37.2 In the event of identification of a potentially Abnormally Low Bid, the Employer shall seek written clarifications from the Bidder, including detailed price analyses of its Bid 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 Bidding document.
- 37.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer may reject the Bid.

38. Unbalanced or Front-Loaded Bids

- 38.1 If the Bid that is evaluated as the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or front loaded, the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the Bidding document.
- 38.2 After the evaluation of the information and detailed price analysis presented by the Bidder, the Employer may as appropriate:

- (a) accept the Bid; or
- (b) require that the total amount of the Performance Security be increased at the expense of the Bidder to a level not exceeding 20% of the Contract Price; or
- (c) reject the Bid.

39. Qualifications of the Bidder

- 39.1 The Employer shall determine to its satisfaction whether the eligible Bidder or Bidders that is/are selected as having submitted the lowest evaluated cost and substantially responsive Bid(s), substantially meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria. To this end, the Employer will determine for which Lots and Packages, and/or their combinations, as the case may be, for which Bidder submitted bid, it substantially meets the respective minimum qualification criteria.
- 39.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the Bidding document), or any other firm(s) different from the Bidder.
- 39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Employer shall proceed to the Bidder or Bidders who offered substantially responsive Bid or Bids with the next lowest evaluated cost to make a similar determination of such Bidders' qualifications to perform satisfactorily.
- 39.4 The Employer reserves the right to waive minor deviations from the qualification criteria if they do not materially affect the technical capability and financial resources of the Bidder to perform the Contract or combination of Contracts.

40. Successful Bid or Bids

- 40.1 Having compared the evaluated costs of Bids, the Employer shall determine the successful Bid or combination of Bids as the case may be, in accordance with the additional Bid Evaluation Criteria as further described in Section III. Such Bid or Bids would be those which has/have been determined to:
 - (a) be substantially responsive to the Bidding document;
 - (b) offer the lowest evaluated cost to the Employer for all works to be procured based on either a single Contract or all multiple Contracts combined, as the case may be, in accordance with the ITB 14.6 inviting bid prices and discounts, and provisions made in the Bidding Document for evaluation of bids and award of contract (s); and
 - (c) be offered by Bidder or Bidders that substantially meet the qualification criteria applicable for Contract or combination of Contracts for which they are selected.

41. Employer's Right to Accept Any Bid, and to Reject Any or All Bids

- 41.1 The Employer reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid securities, shall be promptly returned to the Bidders.

42. Standstill Period

- 42.1 The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITB 46. The Standstill Period commences the day after the date the Employer has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, or if this contract is in response to an emergency situation recognized by the Bank, the Standstill Period shall not apply.

43. Notification of Intention to Award

- 43.1 The Employer shall send to each Bidder the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:
- (a) the name and address of the Bidder submitting the successful Bid;
 - (b) the Contract price of the successful Bid;
 - (c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;
 - (d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;
 - (e) the expiry date of the Standstill Period; and
 - (f) instructions on how to request a debriefing and/or submit a complaint during the standstill period;

F. Award of Contract

44. Award Criteria

- 44.1 Subject to ITB 41, and unless otherwise specified in the BDS, the Employer shall award the Contract or Contracts to the Bidder or Bidders whose Bid or Bids has/have been determined successful in accordance with ITB 40.

45. Notification of Award

- 45.1 Prior to the expiry of the Bid Validity Period and upon expiry of the Standstill Period specified in ITB 42.1 or any extension thereof, and, upon satisfactorily addressing any complaint that has been filed within the Standstill Period, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification of award

(hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the Contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).

45.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

- (a) name and address of the Employer;
- (b) name and reference number of the contract being awarded, and the selection method used;
- (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
- (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor;
- (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and
- (f) successful Bidder’s Beneficial Ownership Disclosure Form, if specified in BDS ITB 47.1

45.3 The Contract Award Notice shall be published on the Employer’s website with free access if available, or in at least one newspaper of national circulation in the Employer’s Country, or in the official gazette. The Employer shall also publish the contract award notice in UNDB online.

45.4 Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

46. Debriefing by the Employer

46.1 On receipt of the Employer’s Notification of Intention to Award referred to in ITB 43.1, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.

46.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. The Employer shall promptly inform, by the quickest means available, all Bidders of the extended standstill period.

46.3 Where a request for debriefing is received by the Employer later than the three (3) Business Days deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of

publication of Public Notice of Award of contract. Requests for debriefing received outside the three (3) days deadline shall not lead to extension of the standstill period.

46.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear its own costs of attending such a debriefing meeting.

47. Signing of Contract

47.1 The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.

47.2 The successful Bidder shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.

48. Performance Security

48.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 38.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Section X, Contract Forms, or another form acceptable to the Employer. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country, unless the Employer has agreed in writing that a correspondent financial institution is not required.

48.2 Failure of the successful Bidder to submit the above-mentioned Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security, or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder or Bidders offering the next Lowest Evaluated Cost to the Employer as per the bid evaluation and award criteria.

49. Procurement Related Complaint

49.1 The procedures for making a Procurement-related Complaint are as specified in the BDS.

Section II: Bid Data Sheet (BDS)

The following specific data for the Works to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in the ITB.

A. General	
ITB 1.1	<p>The reference number of the Invitation for Bids (IFB) is: AWWDA/AfDB/KTSWSSP/W/08/2023</p> <p>The Employer is: Athi Water Works Development Agency</p> <p>Name of Works: Construction of Mwala Cluster Water Supply Project</p> <p>The name of the IFB is: Open Competitive Bidding Number (International) (OCBI)</p> <p>The number and identification of works under single or multiple lots (contracts) comprising this IFB is: AWWDA/AfDB/KTSWSSP/W/08/2023</p>
ITB 1.2(a)	N/A
ITB 2.1	<p>The Borrower is: Government of Kenya</p> <p>The Specific Bank financing institution is: African Development Bank (AfDB)</p> <p>The name of the Project is: Construction of Mwala Cluster Water Supply Project</p>
ITB 4.1 (a)	The firms in a Joint Venture, Consortium or Association (JV) shall be jointly and severally liable.
ITB 4.1 (c)	Maximum number of members in the Joint Venture, Consortium or Association (JV) shall be: 3 (Three)
ITB 4.1 (d)	Minimum share of a member of Joint Venture, Consortium or Association (JV) in the contract shall not be less than 33.3% percent of the total value of the contract
ITB 4.5	A list of debarred firms and individuals is available on the Bank's external website: https://www.afdb.org/en/projects-operations/debarment-and-sanctions-procedures
B. Contents of Bidding Document	
ITB 7.1	<p>For <u>Clarification of Bid purposes</u> only, the Employer's address is:</p> <p>Attention: The Chief Executive Officer</p> <p>Address:</p> <p>Athi Water Works Development Agency.</p>

	<p>Athi Water Plaza, Muthaiga North Road, P.O Box 45283 - 00100 City: Nairobi Country: Kenya Telephone: +254-20-2724292/3, 2711342 Facsimile number: +254-20-2724295 Electronic mail address: <u>info@awwda.go.ke</u> Web page: <u>www.awwda.go.ke</u></p>
ITB 7.4	<p>A Pre-Bid meeting <i>shall</i> take place at the following date, time and place: Date: 4th May, 2023 Time: 08:00 am Place: The venue for the Pre-Application meeting will be at the Athi Water Works Development Agency Offices, Athi Water Plaza, Muthaiga North Road. A site visit conducted by the Employer <i>shall be</i> organized Date: 4th May, 2023 Time: 08:30am Place: The venue for the Pre-Application site visit will be starting at the Athi Water Works Development Agency Offices Athi Water Plaza, Muthaiga North Road to visit Mwala Project Sites</p>
ITB 7.6	<p>Web page: <u>www.awwda.go.ke</u></p>
C. Preparation of Bids	
ITB 10.1	<p>The language of the Bid is: English. All correspondence exchange shall be English language. Language for translation of supporting documents and printed literature is N/A.</p>
ITB 11.1 (j)	<p>The Bidder shall submit the following additional documents in its Bid: As per Section IV, and; Code of Conduct for Contractor's Personnel (ES) The Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub- Clause 1.1.17 of the General Conditions of Contract), to ensure compliance with the Contractor's Environmental and Social (ES) obligations under the Contract. The Bidder shall use for this purpose the Code of Conduct form provided in Section IV. No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/ risks.</p>

	<p>Management Strategies and Implementation Plans (MSIP) to manage the (ES) risks</p> <p>The Bidder shall submit Management Strategies and Implementation Plans (MSIPs) to manage the following key Environmental and Social (ES) risks:</p>
ITB 13.1	Alternative Bids shall not be considered.
ITB 13.2	Alternative times for completion <i>shall not be</i> permitted.
ITB 13.3	Technical Alternative as per ITB 13.3 <i>shall not be</i> permitted.
ITB 13.4	Alternative technical solutions <i>shall not be permitted.</i>
ITB 14.5	The prices quoted by the Bidder shall be: fixed : “A bid submitted with price subject to adjustment shall be rejected”.
ITB 14.6	Option 1: Bids are invited, and Bidders shall bid for ‘Works’.
ITB 15.1	<p>The currency(ies) of the Bid and the payment currency(ies) shall be in accordance with Alternative A as described below:</p> <p>Alternative A (Bidders to quote entirely in local currency):</p> <p>(a) The unit rates and the prices shall be quoted by the Bidder in the Bill of Quantities, entirely in Kenya Shillings (KES) and further referred to as “the local currency”. A Bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer’s Country (referred to as “the foreign currency requirements”) shall indicate in the Appendix to Bid - Table C, the percentage(s) of the Bid Price (excluding Provisional Sums), needed by the Bidder for the payment of such foreign currency requirements, limited to no more than three foreign currencies.</p> <p>(b) The rates of exchange to be used by the Bidder in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Bidder in the Appendix to Bid - Table C, and shall apply for all payments under the Contract so that no exchange risk will be borne by the successful Bidder.</p> <p>Alternative B (Bidders allowed to quote in local and foreign currencies):</p> <p>(a) The unit rates and prices shall be quoted by the Bidder in the Bill of Quantities separately in the following currencies:</p> <p>(i) for those inputs to the Works that the Bidder expects to supply from within the Employer’s Country, in Kenya Shillings (KES) and further referred to as “the local currency”; and</p> <p>(ii) for those inputs to the Works that the Bidder expects to supply from outside the Employer’s Country (referred to as “the foreign currency requirements”), in up to any three foreign currencies.</p>
ITB 18.1	The Bid validity period shall be 120 days.

ITB 18.3 (a)	The Bid price shall be adjusted by the following factor(s): N/A
ITB 19.1	<p>A Bid Security amount shall be required.</p> <p>A Bid-Securing Declaration shall not be required.</p> <p>If a Bid Security amount shall be required, the amount and currency of the Bid Security shall be KES 2,600,000.00 (Kenya Shillings Two Million, Six Hundred Thousand Only)</p>
ITB 19.3 (d)	Other types of acceptable securities: None
ITB 19.9	If the Bidder performs any of the actions prescribed in ITB 19.9 (a) or (b), the Borrower will declare the Bidder ineligible to be awarded contracts by the Employer for a period of 4 (Four) years.
ITB 20.1	In addition to the original of the Bid, the number of copies is: 3 (Three) .
ITB 20.3	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: Power of Attorney
D. Submission and Opening of Bids	
ITB 22.1	<p>For <u>Bid submission purposes</u> only, the Employer's address is:</p> <p>Attention: The Chief Executive Officer</p> <p>Address:</p> <p>Athi Water Works Development Agency.</p> <p>Athi Water Plaza, Muthaiga North Road,</p> <p>P.O Box 45283 - 00100</p> <p>City: Nairobi</p> <p>Country: Kenya</p> <p>Telephone: +254-20-2724292/3, 2711342</p> <p>Facsimile number: +254-20-2724295</p> <p>Electronic mail address: <u>info@awwda.go.ke</u></p> <p>The deadline for Bid submission is:</p> <p>Date: 2nd June, 2023</p> <p>Time: 10:00 am East African Time</p> <p>Bidders shall not have the option of submitting their Bids electronically.</p> <p>The electronic Bidding submission procedures shall be: N/A</p>
ITB 25.1	The Bid opening shall take place at:

	Address: Athi Water Works Development Agency. Athi Water Plaza, Muthaiga North Road, P.O Box 45283 - 00100 City: Nairobi Country: Kenya Telephone: +254-20-2724292/3, 2711342 Facsimile number: +254-20-2724295 Electronic mail address: <u>info@awwda.go.ke</u> Date: 2nd June, 2023 Time: 10:05 am EAT
ITB 25.1	The electronic Bid opening procedures shall be: N/A
ITB 25.6	The Letter of Bid and Schedules shall be initialed by representatives of the Employer conducting Bid opening.
E. Evaluation, and Comparison of Bids	
ITB 30.3	<p>The adjustment with respect to a missing or non-conforming item or component, and costs associated, if any, with non-material deviations, reservations or omissions to the requirements of the bidding document shall be based on the highest price of the item or component and cost, if any, of non-material deviations, reservations or omissions as quoted in or derived from other substantially responsive Bids unless any other specific evaluation criteria has been provided elsewhere in the bidding document for such adjustments in which case the latter shall be applied. If the price or cost of any of the above cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate based on its own judgment, past experience or market search, as considered appropriate.</p>
ITB 32.1	<p>The currency that shall be used for Bid evaluation and comparison purposes to convert at the selling exchange rate all Bid prices expressed in various currencies into a single currency is: Kenya Shillings (KES)</p> <p>The source of exchange rate shall be: The Central Bank of Kenya.</p> <p>The date for the exchange rate shall be: not earlier than 28 days prior to the deadline for submission of the Bids.</p> <p>The currency(ies) of the Bid shall be converted into a single currency in accordance with the procedure under Alternative A that follows:</p> <p><i>Alternative A: Bidders quote entirely in local currency</i></p> <p>For comparison of Bids, the Bid Price, corrected pursuant to ITB 31, shall first be broken down into the respective amounts payable in various currencies by using the selling exchange rates specified by the Bidder in accordance with ITB 15.1.</p>

	In the second step, the Employer will convert the amounts in various currencies in which the Bid Price is payable (excluding Provisional Sums but including Daywork where priced competitively) to the single currency identified above at the selling rates established for similar transactions by the authority specified and on the date stipulated above.
ITB 33.1	A margin of domestic preference shall not apply. A margin of regional preference shall not apply
ITB 34.1	At this time the Employer does not intend to execute certain specific parts of the Works by subcontractors selected in advance.
ITB 34.2	Contractor's proposed subcontracting: Maximum percentage of subcontracting permitted is: <u> 30 </u> % of the total contract amount or <u> 30 </u> % of the volume of work Bidders planning to subcontract more than 10% of total volume of work shall specify, in the Letter of Bid, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
ITB 34.3	N/A
ITB 35.2 (f)	N/A
F. Award of Contract	
ITB 47.1	The successful Bidder shall submit the Beneficial Ownership Disclosure Form.
ITB 48.1 and 48.2	N/A
ITB 49.1	<p>The procedures for making a Procurement-related Complaint are detailed in the <u>Part B</u> of the Operations Procurement Manual under the Procurement Framework of the African Development Bank. If a Bidder wishes to make a Procurement-related Complaint, the Bidder shall submit its complaint following these procedures to the employer, in writing (by the quickest means available, such as by email in accordance with the following:</p> <p>For the attention: Eng. Michael M. Thuita, MBS Title/position: Chief Executive Officer Employer: Athi Water Works Development Agency Email address: info@awwda.go.ke</p>

	<p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none"> 1. the terms of the Bidding Documents; 2. the purchaser's decision to exclude a bidder from the procurement process prior to the award of contract; and 3. the Employer's decision to award the contract. <p>The Bank's Procurement Framework stipulates that bidders may send copies of their communications with the Borrowers to the Bank or write to the Bank directly when, Borrowers do not respond promptly, any questions on any issues regarding the implementation of Bank funded projects, or when the communication is a complaint against the Borrower. In this regard, if a bidder wishes to protest against a decision made by a Borrower or the Bank with regards to the procurement process or wishes to inform the Bank that the Bank's procurement rules and/or provisions of the bidding documents have not been complied with, an email can be sent to the following address:</p> <p>Email: procurementcomplaints@afdb.org</p>
--	---

Section III - Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders. No other factors, methods or criteria shall be used other than specified in this Bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms. Wherever a Bidder is required to state a monetary amount, Bidders should indicate the USD equivalent using the rate of exchange determined as follows:

- For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.
- Value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source identified in the ITB 32.1. Any error in determining the exchange rates in the Bid may be corrected by the Employer.

Table of Criteria

1.	Margin of Preference	38
2.	Successful Bid or Bids & Evaluation.....	39
3.	Qualification	41
4.	Contractor's Representative and Key Personnel.....	53
5.	Equipment.....	53

1. Margin of Preference

1.1 Preference for Domestic Contractors

If the BDS so specifies, the Employer will grant a margin of preference of 10% (ten percent) to domestic contractors, in accordance with, and subject to, the following provisions:

- (a) Contractors applying for such preference 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 Borrower and accepted by the Bank, a particular contractor or group of contractors qualifies for a domestic preference. The Bidding document shall clearly indicate the preference and the method that will be followed in the evaluation and comparison of Bids to give effect to such preference.
- (b) After Bids have been received and reviewed by the Employer, responsive Bids shall be classified into the following groups:
 - (i) Group A: Bids offered by domestic contractors eligible for the preference.
 - (ii) Group B: Bids offered by other contractors.

All evaluated Bids in each group shall, as a first evaluation step, be compared to determine the Bid with lowest evaluated cost, and the Bid with the lowest evaluated cost in each group shall be further compared with each other. If as a result of this comparison, a Bid from Group A is the lowest, it shall be selected for the award, if the Bidder is determined substantially qualified. If a Bid from Group B is the lowest, as a second evaluation step, all Bids from Group B shall then be further compared with the lowest evaluated cost from Group A. For the purpose of this further comparison only, an amount equal to 10% (ten percent) of the respective Bid price of Group B corrected for arithmetical errors, including unconditional discounts but excluding provisional sums and the cost of day works, if any, shall be added to the evaluated cost offered in each Bid from Group B. If the Bid from Group A is the lowest, it shall be selected for award. If not, the Bid offering the lowest evaluated cost from Group B based on the first evaluation step shall be selected, if the Bidder is determined substantially qualified.

1.2 Preference for Regional Contractors

If the BDS so specifies, the Employer will grant a regional preference to contractors in RMCs that have joined the Borrower's country in a regional cooperation agreement designed to foster economic integration, by a customs union, or a free trade area, in accordance with the following procedure. All responsive bids will be classified in one of the following two groups:

Group A: Bids offered by contractors, which have established, to the satisfaction of the Borrower and the Bank, to be eligible for regional preference; and

Group B: Bids offered by other contractors.

All evaluated Bids in each group shall, as a first evaluation step, be compared to determine the Bid with lowest evaluated cost, and the Bid with the lowest evaluated cost in each group shall be further compared with each other. If as a result of this comparison, a Bid from Group A is the lowest, it shall be selected for the award, if the Bidder is determined qualified. If a Bid from Group B is the lowest, as a second evaluation step, all bids from Group B shall then be further

compared with the lowest evaluated cost from Group A. For the purpose of this further comparison only, an amount equal to 7.5% (seven and half percent) of the respective Bid price of Group B corrected for arithmetical errors, including unconditional discounts but excluding provisional sums and the cost of day works, if any, shall be added to the evaluated cost offered in each Bid from Group B. If the Bid from Group A is the lowest, it shall be selected for award. If not, the Bid offering the lowest evaluated cost from Group B based on the first evaluation step shall be selected, if the Bidder is determined qualified.

2. Successful Bid or Bids & Evaluation

In continuation and accordance with ITB 40, the Employer shall use the criteria and methodologies listed in this Section to evaluate Bids. By applying these criteria and methodologies the Employer shall determine the Successful Bid or Bids which has/have been determined to:

- (a) be substantially responsive to the Bidding document;
- (b) offer the lowest evaluated cost to the Employer for all works to be procured based on either a single Contract or all multiple Contracts combined, as the case may be, in accordance with the ITB 14.6 inviting bid prices and discounts, and provisions made of the Bidding Document for evaluation of bids and award of contract (s); and
- (c) be offered by Bidder or Bidders that substantially meet the qualification criteria applicable for Contract or combined Contracts for which they are selected.

2.1 Evaluation (ITB 35)

In addition to the criteria listed in ITB 35.2 and BDS, the following criteria shall apply:

- (i) Assessment of adequacy of Technical Proposal with Requirements (Reference ITB 16 and ITB 29.3): The Employer will determine whether the Bids are substantially responsive to the Technical Requirements.

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Works' Requirements

- (ii) Assessment of adequacy of Commercial Terms and Conditions of the Bid (Reference ITB 29.4): The Employer will determine whether the Bids are substantially responsive to the Commercial and Contractual Terms and Conditions.
- (iii) If the environmental and social risks are evaluated as high and/or impacts as significant, and therefore, the Bidding Documents include ESHS Specifications, then the technical proposal shall comprise an ESHS Methodology. The ESHS Methodology submitted by the Bidder shall be evaluated to determine whether it is substantially responsive (i.e. without material deviation, reservation or omission) to the requirements specified in Section VII Works Requirements - ESHS Specifications. The Bidder shall use the ESHS Methodology Form provided for this purpose in Section IV Bidding Forms Technical Proposal. A Bid not comprising an ESHS Methodology or a Bid for which

the ESHS Methodology is not substantially responsive (i.e. with material deviation, reservation or omission) shall be rejected

2.2 Single and Multiple Contracts

Pursuant to ITB 14.6, and ITB 35.4 and in accordance with how bids are invited either for “Works” or Works are grouped in lots (contracts) or packages (one or more lots) and bids are invited for multiple lots or packages, evaluation and award will be as follows:

Award Criteria for a Single Contract:

‘Works’

Evaluation and Award Criteria for ‘Works’ as One (Single) Contract: The bids will be evaluated for ‘Works’ and the contract will be awarded to the Bidder offering the lowest evaluated cost to the Employer for ‘Works’, subject to the selected Bidder substantially meeting the required qualification criteria for the contract, and determination of substantial responsiveness of the Bid.

2.3 Alternative Completion Times

“Alternative time for completion is not permitted. Bids offering completion time longer than that specified under Part A-Contract Data under Section IX-Particular Conditions of Contract shall be rejected.”

2.4 Sustainable Procurement: Based on the following main considerations:

- i) Socio-economic consideration
- ii) Environmentally and Socially Responsible Procurement

2.5 Alternative Technical Solutions for specified parts of the Works

This is not allowed.

2.6 Specialized Subcontractors

If permitted under ITB 34, only the specific experience of Subcontractors for specialized works permitted by the Employer will be considered. The general experience and financial resources of the Specialized Subcontractors shall not be added to those of the Bidder for purposes of qualification of the Bidder.

3. Qualification

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
1. Eligibility							
1.1.1	Nationality	Nationality in accordance with ITB 4.4	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid & Forms ELI – 1.1 and 1.2, with attachments
1.1.2	Eligibility of Materials, Equipment and Services	Country of Origin in accordance with ITB 5	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid & Form ELI-1.3
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.3	Bank Eligibility	Not having been declared ineligible by the Bank, as described in ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.4	State- owned Enterprise or Institution of the Borrower country	Meets conditions of ITB 4.6	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.5	United Nations resolution or Borrower’s country law	Not having been excluded as a result of prohibition in the Borrower’s country laws or official regulations against commercial relations with	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
		the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.8 and Section V.					
2. Historical Contract Non-Performance							
2.1	History of Non-Performing Contracts	Non-performance of a contract that ¹ did not occur as a result of contractor default since 1 st January 2016	Must meet requirement	Must meet requirements	Must meet requirement ²	N/A	Form CON-2
2.2	Suspension Based on Execution of Bid Securing Declaration by the Employer or withdrawal of the Bid within Bid validity period or other failures	Not under suspension based on-execution of a Bid Securing Declaration or other failures pursuant to ITB 4.7 and ITB 19.9	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid

¹ Nonperformance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

² This requirement also applies to contracts executed by the Bidder as JV member.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
2.3	Pending Litigation	Bid’s financial position and prospective long-term profitability still sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2
2.4	Litigation History	No consistent history of court/arbitral award decisions against the Bidder ³ since 1 st January 2016	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Form CON – 2

³ The Bidder shall provide accurate information on the related Bid Form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of awards against the Bidder or any member of a joint venture may result in failure of the Bid.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
2.5	Declaration: Environmental and Social (ES) past performance	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social (including sexual exploitation and abuse (SEA) and gender-based violence (GBV)), or health or safety requirements or safeguard in the past five years. ⁴	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Each must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Form CON-3 ES Performance Declaration
3. Financial Situation and Performance							
3.1	Financial Capabilities	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered	Must meet requirement	Must meet requirement	N/A	N/A	Form FIN – 3.1, 3.3 and 3.4 with attachments

⁴ The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
		Bidder’s financial position and indicate its prospective long-term profitability.					
3.2	Average Annual Construction Turnover	Minimum average annual construction turnover of KES 2,000,000,000 for the last Five [5] years.	Must meet requirement	Must meet requirement	Must meet 30%, (thirty percent) of the requirement	Must meet 30%, (thirty percent) of the requirement	Form FIN – 3.2
4. Experience							
4.1 (a)	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 Five (5) years, starting 1 st January 2018	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP – 4.1
4.2 (a)	Specific Construction & Contract Management Experience	(i) A minimum number of two similar contracts specified below that have been satisfactorily and substantially ⁵ completed as a prime contractor, joint	Must meet requirement	Must meet requirement ⁷	N/A	N/A	Form EXP 4.2(a)

⁵ Substantial completion shall be based on 80% or more works completed under the contract.

⁷ In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
		venture member ⁶ , management contractor or sub-contractor within the last five (5) years from the Application submission deadline. Each contract should have a minimum value of KES 1,500,000,000.00 (Kenya Shillings One Billion, Five Hundred Million. Note: Bidder to provide Legally Certified Completion Certificates for completed Contracts or Letter from the Employer for ongoing Works					
4.2 (b)	Construction Experience in Key Activities	For the above and any other contracts [substantially completed and under implementation] as prime contractor, joint venture member, or sub-contractor between 1st January 2016 and Bid submission deadline, a minimum	Must meet requirements	Must meet requirements	N/A	N/A	Form EXP – 4.2 (b)

⁶ For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
		construction experience in the following key activities successfully completed ⁸ : Construction of conventional Water treatment plant with capacity greater than 5,000 m³/day; Laying of DN 300 pipelines at a rate of 8km per month <i>Note: For all the above Key Activities, Bidder to give the name, location (country and city) and description of the urban area where the Works were carried out and a copy of Legally Certified Completion Certificate or Supporting Letter signed by the Employer.</i>					
4.2 (c)	Specific Experience in managing ES aspects	For the contracts in 4.2 (a) above and/or any other contracts [substantially completed and under implementation] as prime contractor, joint venture member, or Subcontractor	Must meet requirements	Must meet requirement	N/A	N/A	Form EXP – 4.2 (c)

⁸ Volume, number or rate of production of any key activity can be demonstrated in one or more contracts combined if executed during same time period.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	One Member	
		between 1st January 2018 and Bid submission deadline, experience in managing ES risks and impacts in the following aspects: As in the Works' Requirements - Environmental and Social (ES) requirements					

1. Environmental, Social, Health and Safety (ESHS)						
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
5.1 ESHS Certification(s)	Availability of a valid ISO certification or internationally recognized equivalent (equivalency to be demonstrated by Bidder), and applicable to the worksite: ☑ Quality management certificate ISO 9001 ⁹ ;	Must meet requirement	N/A	N/A	Leader must meet requirement	Form CER

⁹ The ISO 9001 certification covers the principles of quality management, including a strong customer focus, motivation and commitment of management, process approach and continuous improvement.

1. Environmental, Social, Health and Safety (ESHS)						
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	<input checked="" type="checkbox"/> Environmental management certificate ISO 14001 ¹⁰ ; <input checked="" type="checkbox"/> Health and safety management certificate ISO 45001 ¹¹ .					Form CER Form CER
5.2 ESHS Documentation	Availability of in house policies and procedures acceptable to the Employer for ESHS management: 1. Existence of an Ethics Charter; 2. Existence of a system for monitoring compliance with ESHS commitments for the Bidder's subcontractors and all its partners; 3. Existence of official company procedures for the management of the following relevant points:	Must meet requirement	N/A	N/A	Leader must meet requirement	1. The ESHS Ethics Charter of the company or equivalent must be provided. 2. A procedure or information on how the Bidder ensures that all members of the Joint Venture, subcontractors, suppliers and temporary labor (i) are aware and (ii) meet ESHS requirements must be provided. 3. Official internal procedure documents on the topics indicated must be provided.

¹⁰ The ISO 14001 certification defines the criteria for an environmental management system.

¹¹ The ISO 45001 certification defines a management system for health and safety at work with the overall objective of preventing the occurrence of work related injuries and diseases among workers and providing safe and healthy workplaces.

1. Environmental, Social, Health and Safety (ESHS)						
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	<input checked="" type="checkbox"/> ESHS resources and facilities and ESHS monitoring organization; <input checked="" type="checkbox"/> Project Areas management (base camps, quarries, borrow pits, storage areas); <input checked="" type="checkbox"/> Health & Safety on worksites; <input checked="" type="checkbox"/> Local recruitment and ESHS trainings of local staff (capacity building), ESHS trainings of subcontractors and local partners (transfer of knowledge); <input checked="" type="checkbox"/> Traffic Management <input checked="" type="checkbox"/> Atmospheric emissions, noise and vibrations <input checked="" type="checkbox"/> Site rehabilitation and revegetation;					
5.3 Similar Experience	Experience of Two (2) construction contracts in developing and emerging countries over the last Ten	Must meet requirement	N/A	N/A	Leader must meet requirement	Form EXP-ESHS with supporting documents (the Bidder shall submit a piece of evidence)

1. Environmental, Social, Health and Safety (ESHS)						
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	(10) years, where major ESHS measures were carried out or are on progress satisfactorily and in compliance with international standards.					supporting the ESHS implementation measures)
5.4 ESHS Dedicated Personnel	Availability of in-house personnel dedicated to ESHS issues: Environmental and Social Manager, and/or Health and Safety Manager.	Must meet requirement	N/A	N/A	Leader must meet requirement	Organizational chart evidencing filled ESHS position(s)

4. Contractor's Representative and Key Personnel

The Bidder must demonstrate that it will have a suitably qualified Contractor's Representative and suitably qualified (and in adequate numbers) Key Personnel, as specified in the Works Requirements.

The Bidder shall provide details of the Contractor's Representative and Key Personnel and such other Key Personnel that the Bidder considers appropriate to perform the Contract, together with their academic qualifications and work experience. The Bidder shall complete the relevant Forms in Section IV, Bidding Forms.

5. Equipment

The Bidder must demonstrate that it has the key equipment listed hereafter:

[Specify requirements for each lot as applicable]

No.	Equipment Type and Characteristics	Minimum Number required
1.	Hydraulic Excavator Cat 322 Or Equivalent With Rock Hammer	5
2.	Low Loader 30t Capacity	3
3.	7-10 ton lorries	5
4.	15 ton tippers	5
5.	Motor Graders (3.6m blade)	2
6.	Concrete Mixers (> 2m ³ /hr)	3
7.	Concrete dumpers(> 0.75m ³)	3
8.	Concrete Poker vibrators (35-40mm)	10
9.	Air compressor (with > 8 Jack hammers)	5
10.	Mobile rubber tyred Crane (5 ton)	2
11.	Storm water drainage pumps (> 3m ³ /min.)	2
12.	Generators - >15kVA;	1
13.	Water Tanker 9000l Capacity	6
14.	Double drum pedestrian roller	3
15.	Bulldozer D8	2
16.	Backhoe loader	4
17.	Wheel loader	3
18.	Butt Fusion Machine of various Diameters	10

The Bidder shall provide further details of proposed items of equipment using Form EQU in Section IV, Bidding Forms.

Section IV - Bidding Forms

Table of Forms

Letter of Bid.....	55
Appendix to Bid: Schedule of Adjustment Data.....	58
Bill of Quantities.....	62
Daywork Schedule	65
Summary of Specified Provisional Sums	Error! Bookmark not defined.
Technical Bid.....	69
Technical Bid-Base Bid	70
Site Organization	71
Method Statement	72
Mobilization Schedule	73
Construction Schedule	74
ES Management Strategies and Implementation Plans	75
Form EQU: Equipment.....	80
Bidders Qualification without prequalification	87
Form CON – 2	92
Form CON – 3	95
Environmental and Social (ES) Performance Declaration.....	95
Form FIN – 3.1: Financial Situation and Performance.....	97
Form FIN – 3.2: Average Annual Construction Turnover	99
Form FIN – 3.3: Financial Resources	100
Form FIN – 3.4: Current Contract Commitments / Works in Progress	101
Form EXP - 4.1: General Construction Experience.....	103
Form EXP - 4.2(a): Specific Construction and Contract Management Experience	104
Form EXP - 4.2(b): Construction Experience in Key Activities	107
Form EXP - 4.2(c): Specific Experience in Managing ES aspects.....	109
Form of Bid Security - Demand Guarantee	110
Form of Bid-Securing Declaration.....	112

Letter of Bid

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

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

OCBI/LCB No.: *[insert number of bidding process as per procurement plan]*

Invitation for Bid No.: *[insert same IFB number as advertised]*

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

To: Chief Executive Officer
Athi Water Works Development Agency
Athi Plaza , Muthaiga North Road
P.O. Box 45283 – 00100
Nairobi, Kenya

We, the undersigned, declare that:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance to ITB 8;
- (b) **Eligibility of Bidder:** We, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries and meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Eligibility of Materials, Equipment and Services:** We meet the eligibility requirements for Materials, Equipment and Services in accordance with ITB 5;
- (d) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration in the Employer's country in accordance with ITB 4.7;
- (e) **Conformity:** We offer to execute in conformity with the bidding document and in accordance with the construction schedule the following Works: ***Construction Works for Mwala Cluster Water Supply Project.***
- (f) **Bid Price:** The total price of our Bid, excluding any discounts offered in item (g) below is: *[Insert one of the options below as appropriate]*
 - (i) Total price excluding VAT of the Bid: **Kshs.** _____;
 - (ii) The total amount of VAT is: **Kshs.** _____
 - (iii) The total bid price including VAT is: **Kshs.** _____

[Option 1, in case of one Contract for 'Works':] Total price is: [insert the total price of the Bid in words and figures, indicating the various amounts and the respective currencies];
- (g) **Discounts:** The discounts offered and the methodology for their application are:
 - (i) The discounts offered are: *[Specify in detail each discount offered.]*

- (ii) The exact method of calculations to determine the net price of each item and ‘Works’, and in case of multiple lots or multiple packages, net price of each item, each lot and each package after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts and ensure clarity, unambiguity, etc. in accordance with ITB 14.7];*
- (h) **Bid Validity Period:** Our Bid shall be valid for a period of **120days** from the date of Bid submission deadline specified in BDS 22.1 and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (i) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in the forms in accordance with the bidding document;
- (j) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder, and we are not participating in any other Bid(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
- (k) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, 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 Bank or a debarment imposed by the Bank in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the Bank and other development banks. Further, we are not ineligible under the Employer’s country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (l) **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 ITB 4.6];*
- (m) **Commissions, gratuities, fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding 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.”);

- (n) **Binding Contract:** We understand that this Bid, 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;

- (o) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, or any other Bid that you may receive;
- (p) **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.
- (q) **Potential DAAB Members:** We hereby propose the following three persons, whose curriculum vitae are attached, as potential DAAB members:

Name	Address
1.	
2.	
3.	

Name of the Bidder: *[insert complete name of person signing the Bid]

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

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

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 _____, _____

* In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder or names of all members (partners) of JV and sign on behalf of the JV and not on behalf of only one member that has been given power of attorney.

** Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid. If the Bidder is a JV, the power of attorney shall be given by the JV or by all members of the JV.

Appendix to Bid: Schedule of Adjustment Data

(Applicable only if Prices are subject to adjustment as per ITB 18.3 (a) and Sub-Criteria 13.7 of Part A-Contract Data under PC)

[In Tables A, B, and C, below, the Bidder shall (a) indicate its amount of local currency payment, (b) indicate its proposed source and base values of indices for the different foreign currency elements of cost, (c) derive its proposed weightings for local and foreign currency payment, and (d) list the exchange rates used in the currency conversion.]

Table A. Local Currency

Index code*	Index description*	Source of index*	Base value and date*	Bidder's related currency amount	Bidder's proposed weighting
	Nonadjustable	—	—	—	A: ____* B: ____* C: ____* D: ____* E: ____*
Total					1.00

[* To be entered by the Employer. Whereas “A” should a fixed percentage, B, C, D and E should specify a range of values and the Bidder will be required to specify a value within the range such that the total weighting = 1.00]

Table B. Foreign Currency (FC)

State type: [If the Bidder is allowed to receive payment in foreign currencies this table shall be used. If Bidder wishes to quote in more than one foreign currency (up to three currencies permitted) then this table should be repeated for each foreign currency.]

Index code	Index description	Source of index	Base value and date	Bidder's related source currency in type/amount	Equivalent in FC1	Bidder's proposed weighting
	Nonadjustable	—	—	—		A: ____* B: ____* C: ____* D: ____* E: ____*
Total						1.00

[* To be entered by the Employer. Whereas “A” should a fixed percentage, B, C, D and E should specify a range of values and the Bidder will be required to specify a value within the range such that the total weighting = 1.00]

Table C. Summary of Payment Currencies

[In case of multiple lots or multiple packages Bidder shall prepare separate table for each lot identified by package number and related lot number]

Table: Alternative A

For *[Employer to Select i) or ii) and delete the other]* i) Whole of the Works / ii) *[Insert name of Section of the Works.]* *[If ii) is selected, then Employer to prepare similar Table C for all sections of works including the summary Table C of all sections to account for whole works under the contract]*

Name of payment currency	A Amount of currency	B Rate of exchange (local currency per unit of foreign)	C Local currency equivalent $C = A \times B$	D Percentage of Total Bid Price (TBP) $\frac{100 \times C}{TBP}$
Local currency _____		1.00		
Foreign currency #1 _____				
Foreign currency #2 _____				
Foreign currency # 3 _____				
Total Bid Price				100.00
Provisional sums expressed in local currency <i>[If ii) above is selected Employer to specify provisional sums as applicable for each section]</i>	<i>[To be entered by the Employer]</i>	1.00	<i>[To be entered by the Employer]</i>	

TOTAL BID PRICE of (i) or (ii) as applicable (including provisional sum)				
---	--	--	--	--

Table: Alternative B

To be used only with Alternative B Prices directly quoted in the currencies of payment. (ITB 15.1)

Summary of currencies of the Bid for Employer to Select i) or ii) and delete the other [i) Whole of the Works / ii) Insert name of Section of the Works. If ii) is selected, then Employer to prepare similar Table C for all sections of works including the summary Table C of all sections to account for whole works under the contract]

<i>Name of currency</i>	<i>Amounts payable</i>
Local currency: _____	
Foreign currency #1: _____	
Foreign currency #2: _____	
Foreign currency #3: _____	
Provisional sums expressed in local currency	<i>[To be entered by the Employer] [If ii) above is selected Employer to specify provisional sums as applicable for each section]</i>

Bill of Quantities

A. Preamble

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
3. The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional Plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
5. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
6. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
7. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub-Clause 13.5 and Clause 13.6 of the General Conditions.
8. The method of measurement of completed work for payment shall be in accordance with *[insert the name of a standard reference guide, or full details of the methods to be used]*.¹

B. Work Items

1. The Bill of Quantities usually contains the following part Bills, which have been grouped according to the nature or timing of the work:
 - Bill No. 1—General Items;
 - Bill No. 2—Earthworks;
 - Bill No. 3—Culverts and Bridges;
 - Bill No. 4—etc., as required;

¹ The method of measurement should be spelled out precisely in the Preamble to the Bill of Quantities, describing for example the allowances (if any) for timbering in excavation, etc. Many national standard reference guides have been prepared on the subject, and one such guide is the *Standard Method of Measurement* of the U.K. Institution of Civil Engineers.

Daywork Schedule; and

Summary Bill of Quantities.

2. If BDS-ITB 15.1 (a) applies, Bidders shall price the Bill of Quantities in local currency only and shall indicate in the Appendix to Bid the percentage expected for payment in foreign currency or currencies. If BDS-ITB 15.1 (b) applies Bidders shall price the Bill of Quantities in the applicable currency or currencies.

**MWALA CLUSTER WATER SUPPLY PROJECT
SUMMARY PAGE**

BILL NO	DESCRIPTION	AMOUNT, KES
BILL 1	Preliminary and General items	
BILL 2	Dayworks	
BILL 3	Headworks	
BILL 4	Raw-Water Gravity Main	
BILL 5	Proposed Treatment Works - Mixing Chamber	
BILL 6	Proposed Treatment Works - Flocculation Unit	
BILL 7	Proposed Treatment Works - Sedimentation Basin	
BILL 8	Proposed Treatment Works - Rapid Gravity Filters	
BILL 9	Proposed Treatment Works - Alum and Soda Building	
BILL 10	Proposed Treatment Works -Switch Room and Generator House	
BILL 11	Proposed Treatment Works - 1000m3 Storage Tank	
BILL 12	Proposed Treatment Works - Clear Water Pumphouse	
BILL 13	Proposed Treatment Works - Overhead backwash water tank	
BILL 14	Proposed Treatment Works - Sludge Drying Bed	
BILL 15	Proposed Treatment Works - Administration Building	
BILL 16	Proposed Treatment Works - Senior Staff House	
BILL 17	Proposed Treatment Works - Guard House and Chlorine Dosing	
BILL 18	Proposed Treatment Works - Junior Staff House	
BILL 19	Proposed Treatment Works - Electrical Works	
BILL 20	Proposed Treatment Works - Site Ancillary Works	
BILL 21	Proposed Treatment Works - Interconnection Pipework & Relocation	
BILL 22	Transmission Pipework and Crossings	
BILL 23	Mwala - Muthei Hill Distribution Pipework	
BILL 24	Muthei - Masii Treated Water Gravity Main	
BILL 25	Makutano Distribution Pipework	
BILL 26	Gatuanyaga Munyu Raw Water	
BILL 27	Muthei hill -1000m3 RC storage tank	
SUB-TOTAL		
ALLOW 10% CONTIGENCIES		
GROSS TOTAL		
16% VAT		
GRAND TOTAL		

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1 Preliminary and General items

ITEM No.	DESCRIPTION	UNIT	Quantity	Rate, KES	Amount, KES
	CLASS A: GENERAL ITEMS				
1.01	Performance Security	L-Sum	1.00		
1.02	Insurance of the Works, Plant and Materials against loss or damage	L-Sum	1.00		
1.03	Insurance of Equipment against loss or damage	L-Sum	1.00		
1.04	Insurance against personal injury or death	L-Sum	1.00		
1.1	Specified requirements				
	Accommodation and Establishment of site office for the Resident Engineer's staff				
1.1.1	Provide a provisional sum of Kshs. 3,000,000 for the renting of Engineer's site office.	L-Sum	1.00		
1.1.2	Provide a provisional sum of Kshs. 1,000,000 for Laboratory testing as and when required. The Contractor to make available for independent testing of works sample by the Engineer. The Contractor may be required to witness the testing.	L-Sum	1.00		
1.1.3	Allow a P.C. Sum of Kshs. 100,000 per month for provision of furnished Accommodation for the use of the Resident Engineer, including day & night security, House Cleaner, Crockery, Electricity, Water Supply, Beddings etc. All to the satisfaction of the Engineer.	Months	24.00		
1.1.4.	Ditto but Kshs 80,000 for Assistant Resident Engineer	Months	24.00		
1.1.5	Ditto but Kshs 50,000 for Inspector of works (2Nr), CAD Technician (1 Nr), Lab tech (1 Nr)	Months	72.00		
1.1.6.	Ditto but Kshs 30,000 Engineers subordinate staff; Secretary, driver (5 Nr), cleaner, office attendant (2 Nr)	Months	192.00		
1.1.7	Contractors Overheads and Profit for Provisional Sums Items 1.11-1.16	%			
1.2	Services for the Engineer's Staff				
1.2.1	Allow a P.C. Sum of KShs. 11,500,000 for supply of 1Nr. 4WD Vehicle, Toyota Fortuner or approved equivalent, including road license, number plate, etc. The vehicles to revert to Employer after completion of Contract. Minimum specifications include but not limited to the following: o Engine - 3.0 litres Turbo Diesel o Rear Differential Gear Lock o Braking System to include ABS (Anti-Lock Brake System) o Power Steering with adjustable Steering Column o Electronic Fuel Injection System. o 5 Speed Automatic Transmission o Power Windows o Immobiliser and Alarm System o Fuel tank capacity between 80 litres and 100 litres o Front Bull Bar. The vehicles are to revert to the Client at the end of the Project. The vehicles are subject to approval by the Engineer.	P-sum	1.00		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1 Preliminary and General items

ITEM No.	DESCRIPTION	UNIT	Quantity	Rate, KES	Amount, KES
1.2.2	Allow a P.C. Sum of KShs.18,000,000 for supply of 3Nr. 4WD Vehicle, Toyota Double Cab or approved equivalent, including road license, number plate, etc. The vehicles to revert to Employer after completion of Contract. Minimum specifications include but not limited to the following: o Engine - 2.8 litres Turbo Diesel o Rear Differential Gear Lock o Braking System to include ABS (Anti-Lock Brake System) o Power Steering with adjustable Steering Column o Electronic Fuel Injection System. o 5 Speed Automatic Transmission o Power Windows o Immobiliser and Alarm System o Fuel tank capacity between 80 litres and 100 litres o Front Bull Bar and rear boot cover. The vehicles are to revert to the Client at the end of the Project. The vehicles are subject to approval by the Engineer.	P-sum	3.00		
1.2.3	Allow Kshs 100,000 per month for the maintenance of RE vehicle for the duration of the contract.	P-Sum	1.00		
1.2.4	Provide alternative transport of equivalent and equal specifications to Engineers staff before the acquisition of vehicles above.	km	40,000.00		
1.2.5	Contractors Overheads and Profit for Provisional Sums Items 1.2.1 & 1.2.2	%			
1.2.6	Provide ,fuel and maintain four (4) vehicles: Three (3) new 4WD double cabin pick ups Type II of minimum 2800 cc capacity engines and 1Nr. 4WD Vehicle, Toyota Fortuner or approved equivalent of 3000 cc or equivalent for the exclusive use of the Engineer, inclusive of the first 6000km per vehicle per month. Ownership to revert to Contractor at the end of the Contract.	Veh. Mth	12.00		
1.2.7	Extra over for mileage over 5,000 km per vehicle month	km	40,000.00		
1.2.8	P.C. Sum of Kshs. 500,000 for provision of communication facilities and services (telephone, email, fax, postal, courier services, etc.) for the Project / Site Offices and the Supervision Staff.	PC-sum	P.C		
1.2.9	Allow a provisional sum of Kshs 500,000 for the Engineer's staff mobile phone airtime charges	PC-sum	1.00		
1.2.10	Contractors Overheads and Profit for Provisional Sums Items 1.2.6 & 1.2.7	%			
1.2.11	Allow a provisional sum of Kshs 300,000 for the provision and maintenance of internet services in the Engineer's office for the duration of the contract	PC-sum	1.00		
1.2.12	Contractors Overheads and Profit for Provisional Sums Items 1.2.6 , 1.2.7 , 1.2.8.	%			
1.2.13	Allow for provisional of 2no. 4WD double cabin vehicle, to be hired for 3 months before the purchase of vehicle under item 1.2.1 and 1.2.2 above, for sole use and direction of the resident engineer, hiring will take care of the driver, maintenance and fuel for the period	months	3		
1.3	Engineer's Equipment				
1.3.1	Allow a P.C. Sum of Ksh. 3,500,000 for provision of furniture and equipment for the Resident Engineer's Offices The List of Furniture & Equipment to be procured will be provided by the Resident Engineer prior to commencement of Works. The furniture and equipment to revert to the Employer at the end of the Contract. All furniture to be made in good working order before returned to the Employer.	Item	P.C		
1.3.2	Contractors Overheads and Profit for Provisional Sums Items 1.3.1.	%			
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1 Preliminary and General items

ITEM No.	DESCRIPTION	UNIT	Quantity	Rate, KES	Amount, KES
1.4	Resident Engineer's Staff				
	Provide the following Staff for the Resident Engineer's Office. (Note: The Staff to be employed by the Contractor but to be under the exclusive day to day instruction of the Resident Engineer). The rate to include for all overtime, accomodation costs, requisite Governmet of Kenya mandotary deductions, etc. all neccesary for the Staff to perform their duties. The minimum relevant experience and qualifications for the Staff should be as indicated in the Specifications.				
1.4.1	5 N° Drivers @ Kes 35,000	month	120.00		
1.4.2	2 N° Chainmen @ Kes 25,000	month	48.00		
1.4.3	2 N° Laboratory Assistants' @ Kes 40,000	month	48.00		
1.4.4	1 N° Office Secretary @ Kes 40,000	month	24.00		
1.4.5	1 N° Surveying Assistant @ Kes 50,000	month	24.00		
1.4.6	2 N° Casuals and 1 No. office Assistant @ Kes 25,000	month	48.00		
1.4.7.1	Contractors Overheads and Profit for Provisional Sums Items 1.4.1-1.4.7	%			
1.4.8	Allow for inspection of electrical and Mechanical Component manufacturing by the Employer and Engineer.Rate to cover for a total of 3 Client and Engineer persons in term of Transport, accomodation and allowances.	Item	1.00		
1.4.9	Allow for inspection of pipe manufacturing confirmation by the Employer and Engineer,Rate to cover for a total of 3 Client and Engineer persons in terms of Transport,accomdation and allowances.	Item	1.00		
1.4.9.1	Contractors Overheads and Profit for Provisional Sums Items 1.4.8-1.4.9	%	1,000,000.00		
	Method Related Charges				
1.4.1.1	In addition to the items listed hereunder, a tenderer is to insert such items as he may decide to cover, items of work relating to his intended method of executing the works, costs of which are not to be considered as allowed in the rates and prices for the other items.	Item	1.00		
1.5	Services for the Engineer's Office for the Duration of the Contract				
1.5.1	P.C. Sum of Kshs. 2,000,000 for provision of communication facilities and services (telephone, email, fax, postal, courier services, etc.) for the Project / Site Offices and the Supervision Staff.				
1.5.2	Allow a provisional sum of Kshs 1,000,000 for the Engineer's staff mobile phone airtime charges				
1.5.3	Maintenance of Engineer's Site office and services.	Item	1.00		
1.5.3.1	Contractors Overheads and Profit for Provisional Sums Items 1.4.8-1.4.9	%			
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1 Preliminary and General items

ITEM No.	DESCRIPTION	UNIT	Quantity	Rate, KES	Amount, KES
1.6	Provisional Sums				
1.6.1	Allow a sum of Kshs 4,000,000 for the attendance to the Client's staff on site meetings.	P-Sum	1.00		
1.6.2	Allow a sum of Kshs 2,000,000 for reimbursement to the contractor for payment of the Resident Engineer's staff overtime and allowances.	P-Sum	1.00		
1.6.3	Allow a Provision sum of Kshs 3,000,000 for payment demanded by Authorities for the permanent diversion of existing services.	P-Sum	1.00		
1.6.4	Allow a Provision sum of Kshs 1,500,000 for payment demanded by Authorities for pipeline crossings.	P-Sum	1.00		
1.6.5	Allow a sum of Kshs 5,000,000 for Electricity company charges for power supply to sites.	P-Sum	1.00		
1.6.6	Allow a sum of Kshs 7,000,000 for Borehole testing, Equipping and Solar power connection.	L-sum	1.00		
1.6.7	Contractors Overheads and Profit for Provisional Sums Items 1.6.1, 1.6.2, 1.6.3, 1.6.4, 1.6.5, 1.6.6 .	%			
1.6.8	Supply, erect and maintain project sign-boards of size not less than 10m ² at locations and with the text directed by the Engineer until completion date.	nr	5.00		
1.6.9	Preparatory works for pipe laying works and corresponding civil works including all works as defined in the Technical Specifications including: .- complete topographic survey + drawings .- setting out of the works and pipelines .- investigations on existing pipelines and structures .- all tests on building materials .- all structural calculations .- preparation of all shop drawings and pipe laying schemes .- complete set of as built drawings .- preconstruction and implementation photographs .- all works, costs and services required for the preparation of the works not expressly stated in one of the other. Payment shall be made per lump sum pro rata of works progress.	Item	1.00		
1.6.10	Construction of temporary access roads, width not less than 4m including all works of site clearance, stripping of topsoil, grading, maintenance until completion of the works, etc. including river crossing access. After completion of the works the access road shall be removed and the stripped top soil shall be spread as directed by the Engineer. Payment shall be made per lump sum pro rata of works progress.	Item	1.00		
1.6.11	Allow a provisional sum of Kshs. 5,000,000 to cover cost for capacity building , training and internship to be expended by the project manager.	PS	1.00		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1 Preliminary and General items

ITEM No.	DESCRIPTION	UNIT	Quantity	Rate, KES	Amount, KES
1.6.12	Allow a Provisional sum of KES 3,000,000/- , to be spent in whole or part, for Enviromental Conservation and Water Resilience Program activities and campaigns to be spent as directed by the Engineer	PS	1.00		
1.6.13	Allow provisional sum of kshs.3,000,000 to be spent in whole or part, for project management, community sensitisation and mobilisation activities to be spent as directed by the Engineer	PS	1.00		
1.6.14	Include Percentage addition to item (1.7.1 to 1.7.7) for overheads and profits	%			
1.6.15	The contractors is reffred to the conditions of contract and the specifications and is to include in the item amounts necessary to endure compliance therewith except for the foregoing items shown eslewhere in the bills of quantities. If no sum is inserted here, it will be understood to have been included in the rates inserted aganist items elsewhere. The sum inserted here shall cover items which may be considered to have been omitted form the bills of quantites. the sontractor is required to describe the items sums inserted here	item			
BILL 1:	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1.2 : PROPOSED WATER TREATMENT WORKS - RESIDENT ENGINEER BUILDING.

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1.2 : PROPOSED WATER TREATMENT WORKS - RESIDENT ENGINEER BUILDING.

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1.2 : PROPOSED WATER TREATMENT WORKS - RESIDENT ENGINEER BUILDING.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<u>Doors</u>				
	<u>External steel doors</u>				
1.2.5.12	Supply and Fix single steel door size 2100 x 900 mm high (D1) , complete with 50x50x3mm fixed angle frame, 2mm thick mild steel plate build into the panel with union three (3) lever steel door lock, 3x200mm lockable tower bolts,	nr	5		
	<u>External wooden doors (Hardwood)</u>				
1.2.5.13	Supply and Fix single leaf wooden door size 2100 x 900 mm high (D4) , complete with 100x50 frame, with union three (3) lever steel door lock, 3x200mm lockable tower bolts. Rate to include painting.	nr	3		
	<u>Interior wooden flush doors (Hardwood)</u>				
1.2.5.14	Single leaf, standard. 800 mm wide	nr	2		
	<u>Steel Casement Windows</u>				
	<i>Supply and Fix the Following Standard Section Steel Casement Windows, including 4mm Thick Clear Sheet Glass glazed to Steel Casements with Putty, Complete with Opening Accessories, including Building in Lugs to Jambs and Head and Water-Proofing and Filling Around Opening With Approved Compound; and Including Burglar-Proofing Fabricated from 12 x 12mm Mild Steel Square Bars at 150mm Centres Vertically and 150mm Horizontally and Fixed Internally to Surrounding Wall with 12mm Mild Steel Fish-Tailed Lugs at Maximum 600mm Centres; all Finished with Three Coats Oil Paint:-</i>				
1.2.5.15	Window size 1800x 1200mm high with 2 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 2 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	5		
1.2.5.16	Window size 1200x 1200mm high with 1 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 1 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	2		
1.2.5.17	Window size 600 x 600mm high with 1 No. fixed and 1 No. side hung opening bottom sashes.	Nr	3		
	<u>Ceiling</u>				
	12mm Thick Approved Chipboard to BS 2604, Part 2, Density 480-640kgs, Per Square Meter in Sheets Size 2400 x 1200mm Fixed to and Including 50 x 50mm Sawn Cypress Grade 2 Battens at 600mm Centres in Both Directions Complete with Gauge Jointing Material				
1.2.5.18	Horizontal ceiling fixed to underside of trusses	m ²	100		
1.2.5.19	12mm Cornice 50mm high, plugged	m	100		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1.2 : PROPOSED WATER TREATMENT WORKS - RESIDENT ENGINEER BUILDING.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	PIPED BUILDING SERVICES				
1.2.5.20	Water supply to the office to include internal plumbing services, fittings and fixtures within the building, elevated plastic water tank 10,000L and associated pipework as directed by the engineer.	nr	1		
1.2.5.21	Wastewater system to include internal plumbing services, fittings and fixtures within the building, inspection chambers and associated pipework as directed by the engineer.	Sum	1		
1.2.5.22	Sanitary appliances and fittings include: Twyford's equivalent glazed W.C suit complete, wash hand basin complete, bowl urinal complete with automatic cistern (1 Person), recessed toilet paper roll holder, Recessed soap dish, Soap dispenser	nr	2		
	ELECTRICAL WORKS				
1.2.5.23	Lighting points wired in 1.5mm ² single core pvc insulated copper cables drawn in HG high impact pvc conduits and accessories all concealed in building fabric for one or two way switching, 13 Amps socket outlet points wired in 2.5mm ² single pvc insulated cables enclosed in pvc conduits, accessories and concealed in building fabric to form ring main circuits, 15mmx16mm diameter pure electrolyte copper earth rods including 35mm ² earth lead cable, deep driven to permanent moisture level. Note: Allow for the coupling of electrodes where readings or connection in parallel where readings are found to be high. Rate to include supply of all necessary materials and installation.	L. Sum	1		
	FLOOR FINISHES				
1.2.5.24	Ceramic floor tiles - to all rooms and verandah. Rate to include 38 mm thick cement sand screed.	m ²	100		
1.2.5.25	150x150x6mm White glazed wall tiles to WCs and shower rooms	m ²	50		
	FURNITURE				
1.2.5.26	Allow a provisional sum of KShs.1,000,000 purchase of furniture and equipment as directed by the Engineer.	P Sum	1		
1.2.5.27	Allow a percentage profit on item 3-12.A42*1 for profits and overheads Cost	%	1,000,000		
1.2.6	FENCING AND GATES				
	Excavate for post holes, provide all materials and construct chain link fence on concrete posts at 3 m centres all as per details, including straining posts at every 10th post and additional posts at corners	m	100		
1.2.6.1	Provide all materials and construct 6.0 m wide metal gate all to detailed.	Nr	1		
1.2.6.2	Provide all materials and construct 1.0 m wide metal pedestrian gate all to detailed.	Nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 1.2 : PROPOSED WATER TREATMENT WORKS - RESIDENT ENGINEER BUILDING.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	CLASS R: ROADS AND PAVINGS				
1.2.6.3	Provision, preparation and compaction of granular road material for access road and all parking areas. Depth exceeding 300mm. Rate to include provision, laying and jointing 255 mm x 125 mm precast concrete kerbs on and including 250 mm x 100 mm Class 15/20 concrete foundation and haunch 125 mm thick including all excavation, shuttering, jointing and bedding as specified.	m3	25		
1.2.6.4	Backfill average 300mm thick with selected well compacted hardcore fill, compacted in layers of 150mm thick using 10 tonne vibrating roller to receive paving slabs	m3	30		
1.2.7	FOUL SEWERAGE				
	Pipeline Excavation				
1.2.7.1	Provide and lay PVC 110mm diameter pipes, in trenches not exceeding 1.0m (all depths to inverts)	m	40		
	Inspection Chambers				
1.2.7.2	Excavate for, provide all materials, special shuttering etc. and construct 600mm x 450mm internal dimensions in-situ concrete inspection chambers on sewers diameter less than 160mm. Include for building in pipes, forming benching to falls, Grade 'B' Medium Duty cast iron covers, etc. Depth to invert n.e. 1.0m	Nr	5		
	Septic Tank				
1.2.7.3	Supply and install, including excavation, etc, plastic septic tank, capacity 2.5m ³ , including inlet and outlet chambers and pipework, radial arms etc. all as per suppliers instructions ("Septank" from Kentainers Ltd or approved equivalent)	Nr	1		
1.2.7.4	Rent for temporary RE's office	Months	7		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

APPENDIX A TO BILL ITEM A231.13 ENGINEERS'S SURVEY EQUIPMENT

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (KSHS)	AMOUNT (KSHS)
A233.1	GEODETIC GLOBAL NAVIGATION SATELLITE SYSTEM SPECIFICATIONS (GNSS)				
	Provide full set of Surveying equipment for the exclusive use of Engineer and Engineer's staff for the duration of construction. The equipment shall be maintained in good operation and shall be replaced if found defective or misleading in service. Equipment shall belong to the Contractor (the equipment shall be full set of Trimble RTK or approved equivalent, Autolevel, and GPS complete with download software and process).				
	Provide Geodetic Set enabled for both Static and RTK functions with respective supporting software and accessories as per the specifications below	No.	1		
	Specific Specifications				
	1. Channels: At least 120 enabled for simultaneous signal tracking				
	2. Reception				
	Must be enabled for Multi - Constellation / Frequency i.e. current systems e.g. GPS (L1, L2, L2C, L5)				
	GLONASS (L1C/A, L1P, L2C/A); SBAS (EGNOS, WAAS, MSAS, GAGAN, QZSS)				
	Galileo ready: E1, E5A, E5B				
	BeiDou ready (Compass) : B1, B2				
	Must have some multipath mitigation technology embedded				
	Note: Should be configured to receive new and upcoming constellations (if any)				
	2. Accuracy :				
	Real Time Kinematics (RTK)				
	- Horizontal: 8 mm + 1 ppm RMS				
	- Vertical: 15 mm + 1 ppm RMS				
	- Initialization time: typically < 5 s				
	- Initialization reliability >99.9%				
	Post Processing Static				
	- Horizontal: 3 mm + 0.5 ppm RMS				
	- Vertical: 5 mm + 0.5 ppm RMS				
	- Baseline Length: ≤ 80 km				
	3. Special functionalities				
	Extended RTK range - base setup				
	- the base receiver to be able to stream RTK data via integrated GSM modem and to support up to 10 rovers simultaneously				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

APPENDIX A TO BILL ITEM A231.13 ENGINEERS'S SURVEY EQUIPMENT

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (KSHS)	AMOUNT (KSHS)
	- the base to provide WiFi hotspot functionality for better control/setup of the receiver				
	- the base to provide web interface functionality via any smart phone, tablet or computer				
	- the base to provide NTRIP caster and dyndns functions				
	Increased reliability - rover setup				
	- the rover to provide a mode for better performance under difficult conditions (close to buildings, trees and urban areas)				
	- the rover to be able to connect to any CORS GNSS networks or Single stations via internet				
	4. Communications				
	a) I/O				
	· 2x TNC connector (1 for UMTS antenna and 1 for UHF antenna)				
	· 2x LEMO				
	· 1x high speed USB				
	· Integrated GSM/GPRS modem				
	· Integrated Bluetooth class 2				
	· Optional radio modem (2):				
	- Internal Rx/Tx: 403-473 MHz				
	- External Radio: 1W - 35W adjustable (at least 12Km range)				
	· Should be configured to log into any upcoming CORS protocol				
	· Should be enabled to use SIM card				
	b) Radio Transmission Protocols (RTK)				
	- RTCM2.1, RTCM2.3, RTCM3.0, CMR, CMR+ input and output				
	- NMEA0183 output				
	5. Data Storage:				
	· Must be able to store raw data				
	· Must have at least 4 GB internal storage				
	· Optional external microSD storage				
	· Device should mount as a USB external hard drive				
	6. Power Supply				
	· Battery life: at least 5 hours in RTK mode				
	· Must have External power input option				
	· Each set should be supplied with two internal battery packs				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

APPENDIX A TO BILL ITEM A231.13 ENGINEERS'S SURVEY EQUIPMENT

[BILL 1.0.2 SURVEY EQ] Page 14 of 164

APPENDIX A TO BILL ITEM A231.13 ENGINEERS'S SURVEY EQUIPMENT

[BILL 1.0.2 SURVEY EQ] Page 15 of 164

BILL 1 Collection Sheet

BILL TOTAL CARRIED TO GRAND SUMMARY	
--	--

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 2 - Dayworks

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 2 - Dayworks

Item No.	Description	Unit	Nominal Quantity	Unit Rate (Ksh)	Amount (Ksh)
2.3	MATERIALS				
1	ordinary Portland cement - bagged	Tons	5		
2	ordinary Portland cement - bulk	Tons	5		
3	fine aggregate	m ³	15		
4	coarse aggregate	m ³	10		
5	concrete mix at central batch plant characteristic strength 20 MPa, slump 80mm atid maximum aggregate size 20 mm	m ³	10		
6	reinforcing steel	Tons	2		
7	reinforcing fabric	Tons	2		
8	structural steel	Tons	2		
9	explosive - gelatine	Tons	1		
10	explosive - ammonium nitrate	Tons	1		
11	timber - primary hardwood	m ³	5		
12	timber - secondary hardwood	m ³	5		
13	waterproof plywood - 7.5 mm	m ³	5		
14	waterproof plywood - 15 mm	m ³	5		
15	waterproof plywood - 20 mm	m ³	5		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 2 - Dayworks

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL NO. 3 : MUNYU WEIR

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
3.1	CLASS D:GENERAL ITEMS				
3.1.1	Clear area within Intake Site of all grass, bushes, shrubs etc. and cart away to tips as directed by the Engineer	Ha	1		
3.1.2	Allow for all materials, equipment etc. for construction of cofferdam(s) to divert flow at location of proposed weir across Ndarugu River to facilitate construction of intake weir and intake chamber. The Bidder must submit proposed method statement with the Bid for execution of these Works.	Item	L.S		
3.2	CLASS E: EARTH WORKS				
	Excavate for concrete intake structure, weir, etc., part backfill after construction and remainder cart away to approved tips.				
3.2.1	Bulk Excavation in soft/normal Material depth n.e. 1.5 m	m ³	150		
3.2.2	Bulk Excavation in soft/normal Material depth n.e. 1.5 m - 2.5m	m ³	100		
3.2.3	Bulk Excavation in soft/normal Material depth n.e. 2.5 m - 4 m	m ³	100		
3.2.4	Extra Over item E225 for excavation in Hard rock as per specifications	m ³	100		
3.3	IN-SITU CONCRETE				
3.3.1	DESIGNED MIX FOR ORDINARY STRUCTURAL CONCRETE FOR CLASS B EXPOSURE USING ORDINARY PORTLAND CEMENT Grade 42.5 to Specs. Provide vibrated reinforced Concrete Grade: 15				
3.3.2	20 mm aggregate	m ³	100		
	Provide vibrated reinforced Concrete Grade: 30				
3.3.3	20 mm aggregate	m ³	500		
3.4	CLASS G: CONCRETE ANCILLARIES				
3.4.1	Reinforcement- Provide and fix high tensile reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified				
3.4.1.1	Assorted sizes of high yield steel bars to SSRN 126 or 127	Kg	27000		
3.4.2	FORMWORK: FAIR FINISH				
	Plane vertical				
3.4.2.1	Fair finish to vertical sides of mass concrete footing width between 200mm and 400mm	m ²	200		
3.4.2.2	Ditto but to wall faces exc 1200mm	m ²	600		
3.5	CLASS I, J AND K PIPEWORK, FITTINGS AND VALVES				
3.5.1	Supply and install 600mm x 600mm square penstock non-rising stem type with extended spindle length 3000mm (to suite site) and removable T-Key for operation, complete as per the drawings to Engineer's specifications	No	1		
3.5.2	Supply and install lockable galvanized mild steel sheet metal cover to details on Drawings over access manholes to Intake Chamber, size 600mm x 600mm.	No	2		
3.5.3	Supply and Install Cast Iron Step Irons on walls of Intake Chamber.	No	24		
3.5.4	Supply and fix GMS coarse screen, size 600mm x width 600mm using GMS bars to detail.	No	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

BILL NO. 3 : MUNYU WEIR

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
3.6	FITTINGS OUTLET				
	Approved Lined Steel Pipes				
3.6.1	450mm diameter flanged bell mouth	No	1		
3.6.2	450mm dia. flanged spigot pipe 1200mm long - (Cut to suite site)	No	2		
3.6.3	Straight Flexible Coupling DN 450 mm epoxy coated	No.	1		
3.6.4	Flanged AVK Sluice valve DN 450 mm dia. PN25	No.	1		
3.6.5	450mm dia. Single flanged spigot pipe 2000mm long - (Cut to suite site)	No	1		
3.6.7	Provision for an 100mm air vent on the outlet pipe after AVK Sluice valve	No.	1		
3.6.9	500/450mm dia. HDPE/Steel adaptor	No	2		
3.6.10	150mm diameter flanged bell mouth	No	1		
3.6.11	150mm dia. flanged spigot pipe 1200mm long - (Cut to suite site)	No	2		
3.6.12	Straight Flexible Coupling DN 150 mm epoxy coated	No.	1		
3.6.13	Flanged AVK Sluice valve PN25 DN 150 mm dia.	No.	1		
3.6.14	150mm dia. Single flanged spigot pipe 2000mm long - (Cut to suite site)	No	1		
3.6.15	Provision for an 50mm air vent on the outlet pipe after AVK Sluice valve	No.	1		
3.6.16	180/150mm dia. HDPE/Steel adaptor	No	2		
3.6.17					
3.7	WASHOUT FITTINGS				
3.7.1	200mm diameter flanged bell mouth	No	1		
3.7.2	Single Flanged spigot pipe DN 200mm 1.2m Long with a puddle flange	No.	2		
3.7.3	Straight Flexible Coupling DN 200 mm epoxy coated	No.	1		
3.7.4	Provide and Install 200mm dia. double flanged AVK gate valve PN25, to specifications.	No.	1		
3.7.5	200mm Single flanged spigot	No.	1		
3.7.7	Provision for an 100mm air vent on the outlet pipe after AVK Sluice valve	No.	1		
3.8	CLASS N: MISCELLANEOUS METALWORKS				
3.8.1	Supply and install 50mm Steel diameter pipe to be welded to form handrail to access areas as shown on drawings.	m	40		
3.8.2	Supply and install 50mm by 50mm Thrust Mass concrete stop logs for Trashrack on Drawings and as directed by the Engineer.	No	2		
3.8.3	Supply and install staff gauge to the intake as directed by the Engineer.	No	2		
3.9	RIVER EMBANKMENT & RIVER BED PROTECTION WORKS				
3.9.1	Excavate along river embankment and river bed for the laying of gabions from the existing ground level to the bottom of embankment to approval of Engineer. Depth n.e. 3.0m including disposal of surplus material	m3	300		
3.9.2	Provide and lay of 1m x 1m x 2m Maccaferri or equivalent galvanized gabions to specifications.	m2	300		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 3 - WEIR

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

Bill 4. RAW WATER GRAVITY MAIN - HEADWORKS TO TREATMENT WORKS.

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
4.1	GENERAL ITEMS				
	<u>Testing of works</u>				
	Carry out pressure testing, cleansing and sterilizing of the pipeline in accordance with the specifications.				
4.1.1	OD 500mm HDPE pipe PN12.5	m	5,000.00		
4.2	DEMOLITION AND SITE CLEARANCE				
4.2.1	General clearance to remove bushes and small trees of girth less than 500mm.	ha	1.40		
4.2.2	Trees of girth more than 500 mm.	nr	20.00		
	CLASS E: EXCAVATION				
	NOTE:- Excavate below stripped level to invert level in soft/normal material, part backfill after construction , fully backfill after testing and remainder, cart away to tips or use as fill on site, all as directed by the Engineer.				
	Trench width and minimum cover to pipes is as per the Specification , as shown in drawings and as directed by the Engineer. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material or from suitable import material for compaction in bed and surround to backfilling of trenches, etc., all as specified. The rate to include for removing all the roots encountered in the trench and disposal as directed by the Engineer.				
	Rate to include for ground investigation for services such as water lines, fibre optic, power lines, telecommunications lines etc underneath the proposed pipe route. After the identification, the contractor shall present a methodology to the Resident engineer on the relocation procedure. Contractor shall bear the cost of reinstatement of destruction if this process of ground truthing is not adhered to. This includes any penalties imposed by the service provider. In case of water supply lines, the contractor shall provide an alternative source of water to the affected consumers up and until the service is restored.				
4.2.3	HDPE Pressure Pipes - PE 100 ND 500mm OD , ND 170mm OD or steel DN450 mm n.e. PN16,in trench, depth not exceeding 1.5 m in soft/normal material	m ³	6,775.56		
4.2.4	Ditto but depth 1.5 m - 2.5 m	m ³	1,806.82		
4.2.5	Ditto but depth 2.5 m - 3.5 m	m ³	451.70		
4.2.6	Ditto but depth 3.5 m - 5 m	m ³	25.00		
4.2.7	Ditto but depth exceeding 5 m	m ³	20.00		
4.2.8	E.O for excavation in Hard rock as per specifications (provisional)	m ³	3,764.20		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

Bill 4. RAW WATER GRAVITY MAIN - HEADWORKS TO TREATMENT WORKS.

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
4.3	<u>PIPEWORK - PIPES</u>				
	<i>Provide, lay, backfill HDPE or Steel pipes & fittings with socket and spigot or welded joints to Engineer's satisfaction</i>				
4.3.1	DN 500mm steel pipes PN16 Epoxy coated/cement lined steel pipe with compression joints in trenches depth n.e 2.0m.	m	200.00		
	Provide, lay, joint and test the following flexible spigot and socket pipe and fittings. Rates to include for all jointly materials, cutting wastage and anchorage.				
4.3.2	Note: The following have been used on the drawings to specify pipe diameters/types/classes. Pipe dimensions/working pressures shall conform to KS-06-149 Part 2:2000. Handle, transport, lay and test HDPE Pressure Pipes - PE 100 500mm Outer Diameter n.e. PN12.5. The rate to include for all the couplings, reducers, adaptors	M	4,800.00		
4.4	<u>PIPEWORK - FITTINGS AND VALVES</u>				
4.4.1.	<u>Bends - long Radius</u>				
	<i>Plain ended</i>				
4.4.1.1	500mm steel 90 degree bend	nr	6.00		
4.4.1.2	500mm steel 45 degree bend	nr	6.00		
4.4.1.3	500mm steel 22.5 degree bend	nr	4.00		
4.4.1.4	500mm steel 11.25 degree bend	nr	4.00		
4.4.2	<u>Tapers and couplings</u>				
	<i>Flexible coupling (VJ Type)</i>				
4.4.2.1	500mm VJ couplings	nr	5.00		
4.4.2.2	DN500/450 HDPE/steel Flange Adaptors	nr	10.00		
4.4.3	<u>A.R.I Airvalves</u>				
4.4.3.1	DN 500 Double flanged	nr	4.00		
4.4.4	<u>Wash outs</u>				
4.4.4.1	DN 500/450 Double Flanged including concrete outfall works	nr	5.00		
4.4.5	<u>Bulk water meter</u>				
4.4.5.1	Supply, install and test diameter 450mm AVK or equivalent approved Electro magnetic Water Meter complete with all gasket bolts , accessories etc. Rate to include for all associated fittings	nr	1.00		
4.4.5.2	Supply, install and test diameter 450mm AVK or equivalent approved Y- Strainer and Y-Screen complete with all gasket bolts , accessories etc. Rate to include for all associated fittings	No	1		
4.5	<u>PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</u>				
	<i>Extra to excavation and backfilling</i>				
4.5.1	<u>Excavation of Rock</u>				
4.5.1.1	In pipe trenches, chambers, bridges, foundations etc.	m ³	1,750.00		
	<i>Excavation of Hard Material</i>				
4.5.1.2	In pipe trenches, chambers, bridges, foundations etc.	m ³	750.00		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

Bill 4. RAW WATER GRAVITY MAIN - HEADWORKS TO TREATMENT WORKS.

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 4. RAW WATER MAIN

[illegible]

MWALA CLUSTER WATER AND SANIATION PROJECT

Bill 5 : MIXING CHAMBER

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
5.1.	GENERAL EXCAVATION				
	NB:All excavations exceeding 1.5m shall be done by equipment. Contrators to allow provision of timbering, shoring and strutting in their rates.				
5.1.1	Excavate 200mm top soil and dispose	m ²	30		
5.1.2	General excavation works for the foundation of Mixing Chamber and disposal	m ³	100		
5.1.3	Extra over excavation rock, depth 2-5m for re-use	m ³	50		
	Filling				
5.1.4	300 mm thick handpacked well compacted hardcore fill	m ³	20		
5.1.5	Provide and compact Murrum/Quarry dust in 75mm thick layers.	m ³	5		
5.1.6	Provide and install approved polythene gauge to DPM as per the specifications, drawings and as directed by the Engineer	m ²	40		
5.2.	IN-SITU CONCRETE				
	DESIGNED MIX FOR ORDINARY STRUCTURAL				
	CONCRETE FOR CLASS B EXPOSURE USING				
	ORDINARY FORTLAND CEMENT Grade 42.5 to Specs.				
	Provide and place Concrete Grade: 15				
5.2.1	20 mm aggregate	m ³	2		
	Provide and place Concrete Grade: 30				
5.2.2	20mm aggregate	m ³	23		
5.3.	CONCRETE ANCILLARIES				
5.3.1	FORMWORK				
	Plane vertical				
5.3.1.1	formworks to Mixing Chamber floor slab, walls etc	m ²	110		
5.4.	REINFORCEMENT				
	High yield steel bars to SSRN 126 or 127				
5.4.1	Diameter - 10 mm	Kgs	1,000		
5.4.2	Diameter - 12 mm	Kgs	2,500		
5.5.	JOINTS				
5.5.1	Provide and install the following water stops in construction joints including all surface treatment, formwork, forming of rebate 20mm x 20mm and sealing of rebate with polysulphide sealant all as per Drawings and Specifications.				
	200mm wide expandite super-cast water foil PVC or similar approved waterstop in construction joints in walls.	m	25		
5.6.	CONCRETE ACCESSORIES				
	Finishing of top surfaces				
5.6.1	steel trowel finishes to concrete works	m ²	50		
5.7.	STEEL PIPES AND FITTINGS- SUPPLY & INSTALL				
	Supply, Transport to Site and Store in Secure Place Including Jointing Material, Bolts, Gaskets, Packing, Jointing Glue, testing, etc., As Applicable. Pressure rating PN16				
5.7.1	Single Flanged spigot pipe DN 450mm 1m Long with a puddle flange	No.	2		
5.7.2	DN 450 mm dia. flanged AVK Sluice valve to BS163 PN16	No.	1		
5.7.3	Straight Flexible Coupling DN 450mm epoxy coated	No.	2		
5.7.4	Flanged adaptor DN 450mm	No.	2		
5.7.5	450mm dia. single flanged 900 bend	No.	2		
5.7.6	450mm dia. double flanged pipe, length 540mm with puddle flange at 270mm from one end	No.	4		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER AND SANIATION PROJECT

Bill 5 : MIXING CHAMBER

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 5. MIXING CHAMBER

[illegible]

MWALA CLUSTER WATER AND SANIATION PROJECT

BILL 6 : PROPOSED WATER TREATMENT WORKS - FLOCCULATION BASIN

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
6.1	<u>EARTHWORKS</u>				
	The rates shall include for all strutting, shuttering, stabilizing the excavation faces and keeping the excavation free of water by pumping, bailing or other means. For depths exceeding 1.5m, equipment to be used. Excavate for foundations, part backfill after construction and remainder, cart away to tips or use as fill on site, all as directed by the Engineer				
	GENERAL EXCAVATION				
6.1.1	Excavate 200mm top soil and dispose	m ²	400		
6.1.2	Excavate for flocculator foundations and Flocculated water Channel to depth specified in the drawing to any depth. Rate to include disposal of material.	m ³	300		
6.1.3	Rock excavation, depth n.e 3m	m ³	150		
6.2	FILLING AND COMPACTION				
6.2.1	300 mm thick handpacked well compacted hardcore fill top layer blinded with 75mm thick murrum.	m ²	100		
6.2.2	Treat surface of hardcore with approved anti termite solution applied strictly in accordance with the manufacturers instructions.	m2	360		
6.2.3	Provide and install approved polythene gauge to DPM as per the specifications, drawings and as directed by the Engineer	m ²	360		
6.3	IN-SITU CONCRETE				
	DESIGNED MIX FOR ORDINARY STRUCTURAL				
	CONCRETE FOR CLASS B EXPOSURE USING				
	ORDINARY PORTLAND CEMENT Grade 42.5 to Specifications.				
	Provide Concrete Grade: 15				
6.3.1	20 mm aggregate	m ³	30		
	Provide Concrete Grade: 30				
6.3.2	20 mm aggregate	m ³	450		
6.4	CONCRETE ANCILLARIES				
	FORMWORK: F3 FINISH				
	Provide and fix shuttering including propping, strutting and striking all as specified on Sedimentation tank, all to F3 finish as per the specification				
	Plane vertical				
6.4.1	Fair finish to vertical sides of mass concrete footing width between 200mm and 400mm	m ²	30		
6.4.2	Ditto but to wall faces exc 1200mm	m ²	1,200		
6.5	REINFORCEMENT				
6.5.1	Assorted sizes of high yield steel bars to SSRN 126 or 127	Kgs	60,000		
	JOINTS				
	Formed surface joint with filler				
6.5.2	Width of depth: not exceeding 0.5 m.	m ²	60		
	Provide and install the following water stops in construction joints including all surface treatment, formwork, forming of rebate 20mm x 20mm and sealing of rebate with polysulphide sealant all as per Drawings and Specifications.				
6.5.3	200mm wide expandite super-cast water foil PVC or similar approved waterstop in construction joints in walls.	m	80		
	CONCRETE ACCESSORIES				
	Finishing of top surfaces UF3				
6.5.4	Ditto vertical walls	m ²	500		
6.5.5	Ditto manholes base slabs	m ²	20		
6.5.6	Ditto vertical walls in manholes	m ²	70		
6.5.7	Ditto channels, walkways and launders	m ²	50		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER AND SANIATION PROJECT

BILL 6 : PROPOSED WATER TREATMENT WORKS - FLOCCULATION BASIN

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 6. FLOCULATOR

[illegible]

MWALA CLUSTER WATER AND SANIATION PROJECT

BILL 7 : PROPOSED WATER TREATMENT WORKS - SEDIMENTATION BASIN

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
7.1	EARTHWORKS				
	The rates shall include for all strutting, shuttering, stabilizing the excavation faces and keeping the excavation free of water by pumping, bailing or other means. For depths exceeding 1.5m, equipment to be used. Excavate for foundations, part backfill after construction and remainder, cart away to tips or use as fill on site, all as directed by the Engineer				
	GENERAL EXCAVATION				
7.1.1	Excavate 200mm top soil and dispose	m ²	25		
7.1.2	Excavate for Sedimentation tank foundations including trimming to plane and depth specified in the drawing complete with excavation for washout gulley trap and washout pipes as shown in the drawing or as directed by the Engineer	m ³	500		
7.1.3	Rock excavation, to any depth	m ³	300		
7.2	FILLING AND COMPACTION				
7.2.1	300 mm thick handpacked well compacted hardcore fill and blind with compacted Murram/Quarry dust in 75mm thick layers.	m ³	125		
7.2.2	Treat surface of hardcore with approved anti termite solution applied strictly in accordance with the manufacturers instructions.	m ²	420		
7.2.3	Provide and install approved polythene gauge to DPM as per the specifications, drawings and as directed by the Engineer	m ²	420		
7.2.4	Filling to structures	m ³	60		
7.3	IN-SITU CONCRETE				
	DESIGNED MIX FOR ORDINARY STRUCTURAL CONCRETE FOR CLASS B EXPOSURE USING				
	ORDINARY PORTLAND CEMENT Grade 42.5 to Specifications				
	Provide Concrete Grade: 15				
7.3.1	20 mm aggregate	m ³	35		
	Provide Concrete Grade: 30				
7.3.2	20 mm aggregate	m ³	700		
7.4	CONCRETE ANCILLARIES				
	FORMWORK: F3 FINISH				
	Provide and fix shuttering including propping, strutting and striking all as specified on Sedimentation tank, all to F3 finish as per the specification				
	Plane vertical				
7.4.1	Fair finish to vertical sides of mass concrete footing width between 200mm and 400mm	m ²	100		
7.4.2	Ditto but to wall faces exc 1200mm	m ²	1500		
7.4.3	Ditto but to clarified water channel soffit and sides	m ²	200		
7.5	REINFORCEMENT				
7.5.1	Assorted sizes of high yield steel bars to SSRN 126 or 127	Kgs	120000		
7.6	JOINTS				
	Formed surface joint with filler				
7.6.1	Width of depth: not exceeding 0.5 m.	m ²	80		
	Provide and install the following water stops in construction joints including all surface treatment, formwork, forming of rebate 20mm x 20mm and sealing of rebate with polysulphide sealant all as per Drawings and Specifications.				
7.6.2	200mm wide expandite super-cast water foil PVC or similar approved waterstop in construction joints in walls.	m	200		
7.7	CONCRETE ACCESSORIES				
	Finishing of top surfaces UF3				
7.7.1	Ditto vertical walls	m ²	1000		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER AND SANIATION PROJECT

BILL 7 : PROPOSED WATER TREATMENT WORKS - SEDIMENTATION BASIN

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
7.7.2	Ditto manholes base slabs	m ²	20		
7.7.4	Ditto channels, walkways and launders	m ²	1000		
7.7.3	Ditto vertical walls in manholes	m ²	50		
7.8	PIPE WORKS, VALVES AND FITTINGS- SUPPLY AND INSTALL				
	Supply Transport to Site and Store in Secure Place including Jointing Material, Bolts Gaskets, Packing, Jointing Glues, etc. as Applicable				
	Sludge Draw Off Pipework - Approved Lined Steel Pipes. Rating PN 16				
7.8.1	400mm dia. single flanged 900 bend	No	2		
7.8.2	4000mm dia. all flanged AVK Sluice valve Euro 20 Series, type 23 or approved equivalent	No	2		
7.8.3	400mm dia. flanged spigot pipe, length 1200mm with puddle flange at 715mm from spigot end	No	2		
7.8.4	400mm dia. flanged spigot pipe, length 1200mm with puddle flange at 535mm from spigot end	No	2		
7.8.5	400mm dia. couplings	No	2		
7.8.6	400mm dia. plain ended pipe, length 6700mm (cut to suit on site)	No	2.00		
7.8.7	4000mm dia. plain ended pipe, length 3700mm (cut to suit on site)	No	2		
7.8.8	400mm dia. plain ended pipe, length 1200mm with one end beveled, and a puddle flange at 150mm from beveled end	No	2		
	Leak Proof Testing				
7.8.10	Allow for leak-proof testing of all Sedimentation Tanks and flocculation water channel as specified	Item	L.S		
	CLASS N: MISCELLANEOUS METAL WORK				
	All steelwork to be completely cleaned by acid dipping prior to galvanizing				
	Galvanized mild steel tubular balustrades all framed and welded together, including all necessary labours and fittings on tubings:				
7.8.11	Provide and fix 900 mm high level balustrades of 40 mm diameter tubing Class B throughout, consisting of handrail and parallel middle rail 450 mm below the hand rail with balusters at maximum 1500 mm centers all as detailed in Drawing.	m	200		
7.8.12	Provide and fix 250 x 250mm x 8500mm long stainless steel decanting trough to detail & Specifications. The trough to be deep hot galvanised to Specifications.	No	4		
7.8.13	500mm x 500mm square opening penstock non-rising stem type with extended stainless steel spindle & head stock (Ham baker or approved equivalent)	No	4		
	CLASS V:PAINTING AND DECORATING				
7.8.14	Provide and apply mordant solution, undercoat and 2 Coats gloss enamel paint to 0.9m balustrade/handrail.	m	200		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 7. SEDIMENTATION BASIN

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 8 : PROPOSED WATER TREATMENT WORKS - RAPID GRAVITY FILTERS AND CHLORINE CONTACT TANK					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
8.1.	EARTHWORKS				
	GENERAL EXCAVATION				
	The rates shall include for all strutting, shuttering, stabilizing the excavation faces and keeping the excavation free of water by pumping, bailing or other means				
	Excavate for foundations, part backfill after construction and remainder, cart away to tips or use as fill on site, all as directed by the Engineer.				
	Rate to include trimming to plane and depth specified in the drawing complete with excavation for washout gulley trap and washout pipes as shown in the drawing or as directed by the Engineer				
8.1.1	Excavate for foundations of filters, filter gallery, filter water channel and settle water channel and stair case room part backfill after construction and remainder, cart away to tips or use as fill on site, all as directed by the Engineer.	m ²	200		
8.1.2	Excavate in material from depth of 2 m to any depth for disposal	m ³	560		
8.1.3	Extra over for excavation in Hard rock as per specifications , blasting not permitted (Provisional)	m ³	150		
	FILLING AND COMPACTION				
8.1.4	300 mm thick handpacked well compacted hardcore fill and blind with compacted Murram/Quarry dust in 75mm thick layers.	m ³	36		
8.1.5	Treat surface of hardcore with approved anti termite solution applied strictly in accordance with the manufacturers instructions.	m ³	200		
8.1.6	Provide and install approved polythene gauge 30mm as a DPM as per the specifications, drawings and as directed by the Engineer	m ²	200		
8.2	IN-SITU CONCRETE				
8.2.1	DESIGNED MIX FOR ORDINARY STRUCTURAL CONCRETE FOR CLASS B EXPOSURE USING ORDINARY PORTLAND CEMENT Grade 42.5				
	Provide, mix and place concrete as directed to Base, Wall, Tie beams, Walkways, Cantilever platforms etc.				
8.2.2	Reinforced Concrete Class 15/20	m ³	10		
8.2.3	Ditto Reinforced Concrete Class 30/20	m ³	400		
	CONCRETE ANCILLARIES				
8.3	FORMWORK				
	Provide and fix shuttering including propping, strutting and striking all as specified on drawings, all to F3 finish as per the specification				
8.3.1	Prepare sloping surface for floor gutters and basement footings	m ²	20		
	Plane vertical				
8.3.2	Fair finish to vertical sides of mass concrete footing width between 200mm and 400mm	m ²	15		
8.3.3	Ditto but to wall faces exc 1200mm	m ²	800		
8.3.4	Ditto but to bottom of floor slab above wall faces exc 1200mm	m2	200		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 8 : PROPOSED WATER TREATMENT WORKS - RAPID GRAVITY FILTERS AND CHLORINE CONTACT TANK					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
8.10	OTHER				
8.10.1	65 mm dia GS flanged socket to fit DN 65 mm flanged branches	nr	8		
8.10.2	DN 400mm PN16 epoxy coated steel pipe heaworks from Tworks to Clear Water Tank and Inlet	m	90		
8.10.3	Allow for a provisional sum a of Ksh. 2,000,000 to be spent as directed by the Engineer for fittings and extra works that may be deemed necessary as a result of any other reinstatent of modification of works on site	Prov. Sum	1		
8.10.4	Add % for profit, administration, attendance upon, overheads, etc. for Item above as deemed necessary.	%	2000000		
8.11	Filtered water Pipework schedule				
8.11.1	DIN 500 Double flanged pipe with puddle flange at centre, L=650mm		5		
8.11.2	DN 500 Flanged Manifold with a blank flange on one end, L=6000 mm. With 22 No. 63mm Dia BSP threaded tappings @250mm c/c		5		
8.11.3	Blank flange DN 500		5		
8.11.4	DN 500X400 AllFlanged Tapper, L=450mm		5		
8.11.5	DN 400X250 All Flanged concentric taper		5		
8.11.6	DN 250 All flanged 90° Bend, L= 650mm		5		
8.11.7	Butterfly valve DN 250 with extension spindle, length 5745 mm and headstock with hand wheel		5		
8.11.8	DIN 400X 400 all flanged Cross Tee		5		
8.11.9	DN400 Flanged butterfly valve with extension spindle , L=5745mm		5		
8.11.10	DN 400 Single Flanged pipe with puddle flange 100mm from plain end side, L=1000mm.		5		
8.11.11	DN 500 mm Flanged ended pipe with epoxy coated cut to suit on site.	M	10		
8.11.12	DN500 Flange Adaptor		1		
8.11.13	DN 500x400 all Flanged Tee		1		
8.11.14	DN 400 Flanged VJ Adaptor		1		
8.11.15	ALL Flanged Tee 500 x 400		1		
8.11.16	All flanged branch tee 500 mm x 500 mm x 80mm		1		
8.11.17	DN 500 Single flanged pipe with a puddle flange, 100mm from plain end side L= 4800MM		1		
8.11.18	DN 500 blank Flange		1		
	Backwash Pipework				
8.11.19	400mm dia. double flanged sluice valve, with extension spindle, length 5745 mm and headstock with hand wheel		5		
8.11.20	DN 400X400 All Flanged Equal Tee		5		
8.11.21	DN 400 Single Flanged Pipe, L=3600		5		
8.11.22	DN 400 Flange Adaptor		5		
8.11.23	DN 400 double Flanged Pipe, L=750mm		5		
8.11.24	DN 400 Blank flange		5		
8.11.25	DN 400 All Flanged 90 Deg bend pipe.		10		
8.11.26	DN 400 All Flanged pipe, L=3600mm		5		
	Wash water Outlet pipework				
8.11.27	300mm dia. flanged spigot pipe 600mm long with puddle flange at 125mm from spigot end	No	5		
8.11.28	300mm dia. all flanged 900 short radius special bend	No	5		
8.11.29	300mm dia. all flanged Butterfly valve with extended non-rising spindle, length 4.0m and non-rising type headstock with hand wheel to SRN 501	No	5		
8.11.30	Overflow pipework.		5		
8.11.31	200mm dia. all flanged butterfly valve with extended non-rising spindle, length 4.0m and non-rising type headstock with hand wheel to SRN 501 (Mark 21)	No	5		
8.11.32	200mm dia. flanged spigot pipe 600mm long with puddle flange at 125mm from spigot end	No	5		
8.11.33	200mm dia. all flanged 900 short radius special bend	No	6		
8.11.34	300mm dia. Single flanged pipe , L = 3000	no	7		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 8 : PROPOSED WATER TREATMENT WORKS - RAPID GRAVITY FILTERS AND CHLORINE CONTACT TANK					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
	<u>Air Main Pipework - Approved lined Steel pipes</u>				
8.11.35	100mm dia. flanged spigot pipe 6000mm long with spigot end blanked off and 25No. 12mm dia. holes and hexagon nuts welded at 215mm and 310mm c/c on underside as per details (Mark a)	No	5		
8.11.36	100mm dia. all flanged special tee with 2No. 12mm dia. holes and hexagon nuts welded at 215mm c/c on underside (Mark b)	No	5		
8.11.37	100mm dia. flanged spigot pipe 200mm long with spigot end blanked off and 1No. 12mm dia. hole and hexagon nut welded at 90mm from spigot end as per details (Mark c)	No	5		
8.11.38	100 mm dia. all flanged pipe, 3200 mm long (Mark d)	No	5		
8.11.39	100 mm dia. all flanged 90o bend (Mark e)	No	10		
8.11.40	100 mm dia. flanged spigot pipe, 1780mm long (Mark f)	No	5		
8.11.41	100 mm dia. flange adaptor (Mark g)	No	5		
8.11.42	100 mm dia. all flanged butterfly valve with extended non-rising spindle length 1670mm and headstock with hand wheel to SRN 501 (Mark h)	No	7		
8.11.43	100mm x 100mm dia. all flanged tee (Mark i)	No	7		
8.11.44	100mm dia. blank flange (Mark k)	No	5		
8.11.45	100mm dia socket spigot pipe from air blower	M	70		
8.11.46	63mm GI tee	No.	110		
8.11.47	12mm air nipples	No.	110		
8.11.48	Ditto - 63 mm diameter uPVC Class 'E' pipe 1800 mm long lateral with 8 pairs of 10 mm diameter holes	No	220		
8.11.49	Ditto 63 mm diameter uPVC end cap	No	220		
8.11.50	Ditto 63 mm diameter uPVC faucet socket with G.I. male threaded on one end and PVC socket on the other end	No	220		
	Support Brackets - Provide and Fix:				
8.11.51	Mass Concrete Class 20/20 finished fair on all surfaces support blocks 220 mm x 100 mm x 180 mm for brackets for uPVC laterals with half round groove for resting laterals as detailed on Drawing. No. TWSB/KK/FFG/009 Include fixing with mortar. Include for top GMS support plate & bolts as detailed.	No	440		
	METAL WORK				
	All steelwork to be completely cleaned by acid dipping prior to galvanizing.				
8.11.52	Provide and fix C.I. Medium duty inspection cover size 600 mm x 450 mm with frames on filtered water channel	No	5		
8.11.53	Provide and fix 900 mm high level balustrades of 40 mm diameter tubing Class 'B' throughout consisting of handrail and parallel middle rail 450mm below the handrail with balusters at maximum 1500 mm centers, all as detailed	m	250		
8.11.54	Provide and fix 40 x 40 x 3mm thick angle irons with fish tail lungs at the edges of R.C. stairs	m	50		
	Galvanized Mild Steel Staircase				
	Rates to include for Supply and fixing of all Fittings Inclusive of Foundations				
8.11.55	Provide all material and construct a mild steel external ladder, 4m high on L-Section braced columns consisting of chequer plate treads and landing welded on stringers and tubular handrails on L-Section posts. Note: Details shown on the drawing are only indicative. Contractor to submit to the Engineer for approval, detailed design calculations and workshop drawings of all steel work from an approved and reputable structural steel fabricator prior to fabrication.	Item	LS		
8.11.56	Provide all materials and construct a 1m high mild steel ladder in the filter gallery, all as detailed.	Item	LS		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 8 : PROPOSED WATER TREATMENT WORKS - RAPID GRAVITY FILTERS AND CHLORINE CONTACT TANK					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
8.12	MISCELLANEOUS				
8.12.1	Boxing out holes in concrete walls or slabs and making good after laying of pipes	Item	L.S		
8.12.2	- Ditto - but 600 mm x 450 mm holes for inspection chambers	No	5		
8.12.3	Provide all materials and fix to concrete air pipe supports as per details on Drawing No. TWSB/KK/FFG/008 include for 3 coats of paint	No	10		
8.12.4	Allow for cutting, grouting and making good any holes, chases etc. for all fittings and pipework fixing and electrical work in the filters, filter gallery and filter control room	Item	L.S		
8.12.5	Allow for leak proof testing of all the filters as specified	Item	L.S		
8.12.6	Provide, prepare and apply one coat mordant solution, one undercoat and two coats gloss enamel paint on galvanized metalwork externally on handrail pipe and fittings in 900 mm high level balustrade	m	250		
8.12.7	Provide concrete support for wash water outlet and overflow measuring 740mm x 400mm x 300mm high with bituminous felt padding and 80mm x 6mm flat anchored to the support by 2 No. 6mm diameter bolts as per detail on Drawing. No. TWSB/KK/FFG/002	No	20		
8.12.8	Provide mass concrete class 15/20 thrust blocks under 400mm dia. gate valves as per details on Drawing. No. TWSB/KK/SD/020	No	10		
8.12.9	Ditto but for 250mm dia. gate valve as per details on Drawing. No. TWSB/KK/FFG/005	No	10		
8.12.10	-Ditto but under 150mm dia. butterfly valves as per details on Drawing. No. TWSB/KK/FFG/005	No	10		
8.12.11	Allow for painting of all air wash pipework to approved standards	Item	L.S		
8.12.12	-Ditto- but for filtered water pipework	Item	L.S		
8.12.13	-Ditto- but for wash water inlet and wash water outlet pipework	Item	L.S		
8.12.14	-Ditto - but for overflow pipework.	Item	L.S		
8.12.15	Provide and apply Epoxy wall and floor coating, "MASTERTOP 1110T" or approved equivalent, on internal surfaces of filter walls and floor.	m²	560		
	PIPEWORK, FITTINGS & VALVES				
	Supply, transport to site and store in secure place, including jointing material, bolts, gaskets, packing, jointing glues, etc. as applicable				
	Note: Dimensions of Pipes and Fittings to be as shown on Drawings. Nos.				
	Filter Inlet				
8.12.16	400 mm square Inlet Control penstock non-rising stem type complete with extension spindle and headstock with hand wheel HamBaker or approved equivalent	No	5		
8.12.17	Deflector plates as per the drawings	No.	15		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 8. FILTERS

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 9 : PROPOSED WATER TREATMENT WORKS - CHEMICAL BUILDING

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
9.1.	<u>EARTHWORKS</u>				
	GENERAL EXCAVATION				
9.1.1	Clear site of all shrubs and undergrowth including grabbing up of roots and dispose off.	m ²	450		
9.1.2	Excavate 200mm top soil and dispose	m ³	90		
9.1.3	Excavate in class III material for strip footing max. depth 2 m for disposal	m ³	100		
9.1.4	Extra over all excavation for excavating rock	m ³	45		
	FILLING AND COMPACTION				
9.1.5	Provide and compact hardcore material in 300mm thick layers.	m ³	72		
9.1.6	Provide and compact Murram/Quarry in 75mm thick layers.	m ³	20		
9.1.7	Provide and install approved polythene gauge 30mm as a DPM as per the specifications, drawings and as directed by the Engineer	m ²	240		
9.2.	<u>IN-SITU CONCRETE</u>				
	DESIGNED MIX FOR ORDINARY STRUCTURAL				
	CONCRETE FOR CLASS B EXPOSURE USING				
	ORDINARY PORTLAND CEMENT Grade 42.5 to Specifications.				
	<u>Provide Concrete Grade: 15</u>				
9.2.1	20 mm aggregate	m ³	20		
	<u>Provide Concrete Grade: 20</u>				
9.2.2	20 mm aggregate	m ³	80		
	CONCRETE ANCILLARIES				
	Formwork: Fair finish				
	Plane vertical				
9.2.3	Fair finish to vertical sides of floor slab and ring beam	m ²	80		
	REINFORCEMENT				
	High yield steel bars to SSRN 126 or 127				
9.2.4	Assorted sizes of high yield steel bars to SSRN 126 or 127	Kgs	3,000		
9.2.5	Wire weld fabric Bs REF. A252	m ²	240		
9.3.	CONCRETE ACCESSORIES				
	<u>Finishing of top surfaces</u>				
9.3.1	40mm screed, cement: sand 1:3 1% fall smooth trowel finish	m ²	240		
9.3.2	Screed to chemical tank floors 2% fall	m ²	24		
9.2.3	Ditto tank walls	m ²	80		
	Floor Tiling				
	<u>Acid-proof Granito Floor industrial Tiles :-</u>				
9.2.4	Floor tiles laid on screed (measured separately) with straight joints both ways	m ²	240		
9.2.5	Tiles laid to risers and treads of steps on screed (measured separately) with straight joints both ways	m ²	15		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 9 : PROPOSED WATER TREATMENT WORKS - CHEMICAL BUILDING

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
9.3.	<u>TIMBER</u>				
	<u>Fittings and fastenings</u>				
9.3.1	Bolts	nr	300.00		
	<u>Roofing</u>				
9.3.2	Roofing timber cypress 150x50	m	600.00		
9.3.3	Ditto cypress 100x50	m	600.00		
9.3.4	300 x 25 Faccia Board	m	80.00		
9.3.5	100 x 50 wall plate	m	100.00		
9.3.6	75 x 50 Purlins	m	500.00		
	<u>Anti- termite treatment</u>				
	Premise 200 sc' anti -termite insecticide or equivqlent similar treatment applied strictly in accordance with manufacturer instructions to tops of fill and foundation wall	m2	450.00		
	<u>Concrete, single lap interlocking roof tiles on and including sawn cypress (Grade 2) battens size 40 x 40mm pressure impregnated with approved</u>				
9.3.7	Roof tiles	m ²	320		
	<u>Extra over roofing tiles for:-</u>				
9.3.8	Ridge capping including bedding and pointing in cement sand (1:4) mortar with colouring to match colour of tiles	m	62		
9.3.9	Hip capping including bedding and pointing in cement sand (1:4) mortar with colouring to match colour of tiles	m	66		
9.3.1.1	Valley tiles including bedding and pointing in cement sand (1:4) mortar with colouring to match colour of tiles	m	28		
9.3.1.2	Filled ends of ridge capping or hip capping	nr	26		
9.3.1.3	Gauge 28 galvanised corrugated sheets laid as laid as underlay and nailed to rafters	m ²	320		
9.3.1.4	Fair raking cutting roofing tiles	m	207		
9.3.1.5	Fair raking cutting corrugated sheet roofing	m	207		
9.4.	<u>BRICKWORK, BLOCKWORK & MASONRY</u>				
	<u>Lightweight concrete blockwork</u>				
	<u>One block construction</u>				
	Smooth machine cut natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x3mm thick hoop iron in every alternate course				
9.4.1	Vertical walls: Thickness 150 - 250mm for both substructure and superstructure.	m ²	330		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 9 : PROPOSED WATER TREATMENT WORKS - CHEMICAL BUILDING

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 9 : PROPOSED WATER TREATMENT WORKS - CHEMICAL BUILDING

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 9. Alum and Soda Bldg

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
10.1	SUBSTRUCTURES (PROVISIONAL)				
	<u>Excavations and Earthworks</u>				
10.1.1	Excavate average 200mm deep to remove vegetable soil and cart away	m ²	63		
	<u>Excavate 0.00-1.50m deep starting from stripped level to receive :-</u>				
10.1.2	Foundations	m ³	28		
	<u>Extra over excavation in any position for:-</u>				
10.1.3	Excavating in compacted gravel or decomposed rock	m ³	6		
10.1.4	Excavating in soft rock or hard material	m ³	3		
	<u>Approved selected Filling</u>				
10.1.5	Fill and ram selected excavated materials around foundations and buildings	m ³	21		
	<u>Approved filling as described:-</u>				
10.1.6	Provide and deposit approved hardcore fill material 300mm thick in making up levels including achieving satisfactory compaction	m ²	50		
10.1.7	Provide, lay and level out, 50mm thick fine crushed stone, sand or gravel blinding to surface of filling, including watering and rolling to achieve satisfactory compaction	m ²	50		
	<u>Disposal of Surplus Spoil:-</u>				
10.1.8	Cart away surplus excavated materials to an approved dumping site	m ³	16		
	<u>Anti-Termite Treatment</u>				
10.1.9	Chemical anti-termite treatment to surface of filling with an approved insecticide	m ²	51		
	<u>Damp-proof Membrane</u>				
10.1.10	500 Gauge polythene sheeting, laid over hardcore in two layers	m ²	51		
	<u>Concrete Work: Cement Grade 42.5 to Specifications</u>				
	<u>Mass Concrete Class P (1:4:8) , 40mm maximum aggregate as described in:-</u>				
10.1.11	50mm thick blinding under foundation concrete	m ²	19		
	<u>Guaranteed Strength Reinforced Concrete Class 20/20mm maximum aggregate as described in:-</u>				
10.1.12	Foundation trenches, columns and piers combined with foundation trenches	m ³	4		
10.1.13	100mm Thick surface bed	m ²	51		
10.1.14	100mm Thick ramp laid to slope not exceeding 15 degrees from horizontal	m ²	10		
10.1.15	Generator plinth	m ³	3		
10.1.16	Extra over concrete for tamping whilst still green to make ribbed finish	m ²	10		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house

PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
	Walling.				
	Natural Stone Block Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at every third course, and Bedded, Jointed and Pointed in Cement Mortar (1:5):-				
10.1.24	200 mm Walling	m ²	57		
	Damp-proof course:				
	Bituminous felt damp-proof course as described:-				
10.1.25	200mm Wide under walls	m	41		
	Plinths.				
10.1.26	15mm Cement and sand (1:4) render to plinth walls, finished with a wood float	m ²	14		
10.1.27	Prepare and apply two coats of bituminous paint on rendered plinth walls	m ²	14		
	uPVC Cable Ducts				
10.1.28	150mm Diameter uPVC pipes as cable ducts laid under floor slab	m	8		
	Disposal of Water				
10.1.29	Keep excavations free from all water except spring or running water	Item	L.S		
	Planking and Strutting				
10.1.30	Allow for normal planking and strutting to uphold sides of excavations (except special shoring or sheet steel piling)	Item	L.S		
	SUPERSTRUCTURE				
10.2.0	CONCRETE, FORMWORK, REINFORCEMENT				
	Guaranteed Strength Reinforced Concrete Class 25/20mm as described in:-				
10.2.1	150mm Thick solid suspended slab	m ²	56		
10.2.2	Columns	m ³	2		
10.2.3	Beams	m ³	4		
10.2.4	Plinths	m ³	4		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
	Formwork				
	<u>Provide and fix shuttering including propping, strutting and striking, all as specified.</u>				
	<u>Sawn Formwork - Class F1 Finish :-</u>				
10.2.5	Horizontal soffits of suspended slabs	m ²	48		
	<u>Wrot Formwork - Class F3 Finish :-</u>				
10.2.6	Vertical sides of columns	m ²	31		
10.2.7	Sides and soffits of beams	m ²	48		
10.2.8	Sides of plinths	m ²	7		
	Reinforcement				
	<u>Provide and Fix High Tensile Steel Reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified :-</u>				
10.2.9	Reinforcement, all diameters	Kg	1,440		
10.3.0	WALLING				
	External Walls				
	<u>Selected Natural Stone Block Walling, Fine Chisel Dressed or Machine Dressed, Reinforced with 20 swg Hoop Iron at every third courses, and Bedded, jointed and Pointed in Cement Mortar (1:5):-</u>				
10.3.1	200mm Thick walling	m ²	41		
	Labours				
10.3.2	Extra over walling for ruled horizontal and flush vertical joints	m ²	41		
	<u>Precast Concrete Louvre Block Walling :-</u>				
10.3.3	200mm Thick louvre block walling with twin section with plastic coated coffee tray wire sandwiched between sections	m ²	25		
	Dressed Stone Cills				
10.3.4	200mm Thick x 275mm wide dressed stone cill bedded, jointed and pointed in cement mortar on top of 200mm wall	m	5		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
	Internal Walls				
	Solid Concrete Block Walling With Concrete Blocks to BS 2028, Type "A" with Minimum Crushing Strength of 3.7N/mm² at 28 Days, Bedded, Jointed and Pointed in Cement Mortar (1:5):-				
10.3.5	200mm Thick walling	m ²	26		
10.4.0	ROOF COVERINGS				
	Concrete, single lap interlocking roof tiles on and including sawn cypress (Grade 2) battens size 40 x 40mm pressure impregnated with approved preservative:-				
10.4.1	Roof tiles	m ²	85		
	Extra over roofing tiles for:-				
10.4.2	Ridge capping including bedding and pointing in cement sand (1:4) mortar with colouring to match	m	5		
10.4.3	Hip capping including bedding and pointing in cement sand (1:4) mortar with colouring to match colour of	m	20		
10.4.4	Filled ends of ridge capping or hip capping	nr	10		
10.4.5	500 Gauge polythene underlay lapped 150mm horizontally and 300mm vertically, and nailed at maximum 300mm centres	m ²	85		
10.4.6	Fine chicken mesh wire laid and nailed across rafters as support to underlay	m ²	85		
10.4.7	Fair raking cutting roofing tiles	m	40		
10.5.0	CARPENTRY AND JOINERY				
	Carpentry				
	Roof Timbers				
	Double Pitch Roof Truss in Sawn Cypress Grade II Seasoned and Pressure Impregnated with Wood Preservative and timber joints with bolted and nailed connections to the Engineer's approval :-				
10.5.1	Equal truss 5000mm clear span and 1036mm high with 600mm eaves projection, in 150 x 50mm rafters and 100 x 50mm struts and ties	nr	4		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
	<u>Other Roof Members</u>				
	<u>Sawn Cypress Grade II Maximum Moisture Content 12% Seasoned and Pressure Impregnated with Wood Preservative and timber joints with bolted and nailed connections to the Engineer's approval:-</u>				
10.5.2	150 x 50mm Intermediate rafters	m	86		
10.5.3	150 x 50mm Hip rafters	m	20		
10.5.4	150 x 75mm Purlins	m	46		
10.5.5	180 x 50mm Ridge board	m	5		
10.5.6	100 x 50mm Wall plate tied to wall with 20 s.w.g. hoop iron at 900mm centres	m	32		
	<u>Sundries</u>				
10.5.7	Bed wall plate in cement mortar (1:4)	m	32		
	<u>Joinery</u>				
	<u>General Timbers</u>				
	<u>Wrot Prime Grade Cypress</u>				
10.5.8	200 x 40mm Fascia board	m	36		
10.6.0	<u>METALWORK</u>				
	<u>Gantry Girder</u>				
10.16.1	Shop-primed gantry girder made out of 205 x 102 x 22 kilogrammes per metre universal beam	Kg	141		
	<u>Steel Doors</u>				
	<u>Pressed Metal Louvre Doors</u>				
	<u>Supply and Fix the following Pressed Metal Louvre Doors with 100 x 50mm Stiles and Top Rails, 150 x 50mm Middle and Bottom Rails With Pressed Metal Infill Louvres and 100 x 50mm Pressed Metal Frames, Including Hinges, Pad Bolts and Tower Bolts, All To Manufacturer's Details, with one coat lead oxide primer complete with opening accessories including bedding and and pointing around frames in cement mortar:-</u>				
10.6.2	Double door size 1600 x 2300 mm high in two equal panels (D1)	nr	3		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
10.6.3	Single door size 800 x 2300 mm high (D1c)	nr	1		
	<u>Steel Casement Windows</u>				
	<u>Supply and Fix the following Standard Section Horizontal Bar Type Steel Casement Windows with one coat lead oxide primer complete with opening accessories including bedding and pointing around frames in cement mortar:-</u>				
10.6.4	Window size 1197 x 597mm high with 2 No. fixed lights, and with 1 No. top-hung ventilator with permanent ventilator hood over (W7a)	nr	4		
	<u>Burglar-Proofing to Windows</u>				
	<u>Burglar-proofing comprising 25 x 3mm thick vertical and horizontal mild steel members at 150mm centres, including one coat lead oxide primer and fixing to the following windows :-</u>				
10.6.5	To window size 1197 x 597mm high (W7a)	nr	4		
10.7.0	<u>PLASTERING</u>				
	<u>12.5mm Thick Gauged Cement Plaster as described internally on :-</u>				
10.7.1	Concrete or blockwork	m ²	115		
10.7.2	Horizontal soffits suspended slabs	m ²	48		
	<u>Screeds</u>				
	<u>Bonded cement and sand (1:4) screed bed in one coat, well bonded to concrete base as described:-</u>				
10.7.3	40mm thick paving with wood float finish on concrete	m ²	49		
10.7.4	100 x 20mm thick skirting laid with a square top edge and coved junction with floor finish	m	45		
10.8.0	<u>GLAZING</u>				
	<u>4mm Thick Clear Sheet Glass And Glazing to Steel Casements with putty in panes:-</u>				
10.8.1	0.10 - 0.50 square metres	m ²	3		
10.9.0	<u>PAINTING AND DECORATING</u>				
	<u>Prepare, knot, prime, stop and apply three coats first quality gloss paint to wood surfaces</u>				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 10 : PROPOSED WATER TREATMENT WORKS - Switch Room and Generator house					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs.	AMOUNT Kshs.
	<u>Externally on:-</u>				
10.9.1	General surfaces of fascia boards	m ²	16		
	<u>Prepare, touch up primer and apply three coats gloss paint:-</u>				
	<u>Internally on:-</u>				
10.9.2	General surfaces of gantry girder	Kg	141		
	<u>Prepare, touch up primer and apply three coats gloss paint:-</u>				
	<u>Externally on:-</u>				
10.9.3	General surfaces of glazed metal windows, including burglar-proofing (measured flat overall)	m ²	3		
10.9.4	General surfaces of louvred metal doors (measured flat overall)	m ²	11		
	<u>Internally on:-</u>				
10.9.5	General surfaces of glazed metal windows, including burglar-proofing (measured flat overall)	m ²	3		
10.9.6	General surfaces of louvred metal doors (measured flat overall)	m ²	15		
	<u>Prepare and apply three coats exterior quality plastic emulsion paint:-</u>				
	<u>Externally on:-</u>				
10.9.7	Fair-faced vertical concrete columns	m ²	18		
10.9.8	Fair-faced horizontal sides and soffits of beams	m ²	14		
	<u>Prepare and apply three coats interior quality plastic emulsion paint:-</u>				
	<u>Internally on:-</u>				
10.9.9	Plastered concrete or blockwork	m ²	115		
10.9.10	Plastered horizontal soffits of suspended slabs	m ²	48		
	<u>Prepare and apply High Strength Non-skid Epoxy Flooring Paint to:-</u>				
10.9.11	Cement and sand screed floors, skirtings, treads, risers, etc.	m ²	54		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 11. 1000m3 RC CWT

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 11 : PROPOSED WATER TREATMENT WORKS -1000m³ R.C CWT Storage tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
11.1.	CLASS E: EARTHWORKS				
	General excavation				
	Excavate in Topsoil for Storage tank Works				
11.1.1	Maximum depth not exceeding 0.25 m	m ²	324		
11.1.2	Maximum depth 0.25 - 0.5 m	m ³	82		
	Excavate in material other than topsoil, rock or artificial hard material for Storage tank Works.				
11.1.3	Maximum depth 0.5 - 1 m	m ³	164		
11.1.4	Maximum depth 1 - 2 m	m ³	328		
11.1.5	Maximum depth 2 - 5 m	m ³	260		
	Excavate in Rock for Storage tank Works.				
11.1.6	Maximum depth 0.25 - 0.5 m	m ³	10		
11.1.7	Maximum depth 1 - 2 m	m ³	300		
11.1.8	Removal and disposal of existing structures as per the instruction of the engineer	item	1		
	Filling				
	Hardcore				
11.1.8	Provide approved hardcore and compact in layers of 150mm, blinded with final material 25mm thick	m ³	100		
	Provide fill material to Storage tank Works structures				
11.1.9	Excavated topsoil	m ³	25		
11.1.10	Selected excavated material other than topsoil or rock	m ³	264		
11.1.1	CLASS F: IN SITU CONCRETE Cement Grade 42.5 to Specifications.				
	Mass concrete Class 15/20				
11.1.1.1	Strength Grade 15/20 (1:3:6) blinding concrete 75 mm thick the tank, with sulphate resisting cement	m ³	25		
	Reinforced concrete Class 25/20:				
11.1.1.2	Foundation, Base and ground slab concrete	m ³	115		
11.1.1.3	Walls	m ³	220		
11.1.1.4	Beams	m ³	10		
11.1.1.5	Columns	m ³	9		
11.1.1.6	Paparet Wall	m ³	5		
11.1.1.7	Suspended Slab	m ³	60		
11.1.1.8	Gutter	m ³	1		
	Formwork				
	Provide and fix shuttering including propping, strutting and striking, all as specified				
	(i) Vertical Formwork - Class F3 Finish				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 11 : PROPOSED WATER TREATMENT WORKS -1000m³ R.C CWT Storage tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
11.2.	CLASS G: CONCRETE ANCILLIARIES				
11.2.1	Sides of the Rectangular Base Concrete	m ²	22		
11.2.2	Outer Sides of the Wall	m ²	340		
11.2.3	Sides of the Parapet Wall	m ²	38		
11.2.4	Inner sides of the storage tank wall	m ²	320		
11.2.5	Sides of Columns width 0.3m	m ²	14		
11.2.6	Sides of Beams	m ²	12		
11.2.7	Soffit of the suspended slab	m ²	200		
11.2.8	Inner sides of O&M channel	m ²	5		
11.2.9	Inner and Outer sides of the gutter, overflow channel	m ²	32		
11.2.10	Boxing out 500mm dia. holes 250mm thick in concrete slab for evnt pipe instatllation and make it good after installation	Nr	2		
11.2.11	Boxing out 1600x1600x250 in concrete top slab for eaccess manholes	Nr	2		
	Reinforcement				
	Provide and fix high tensile steel reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified				
11.2.12	High yield tensile steel 16mm diameter	kg	20,000		
11.2.13	High yield tensile steel 12mm diameter	kg	16,000		
11.2.14	High yield tensile steel 10mm diameter	kg	4,000		
	Concrete Surface Finish				
11.2.15	Provide Class UF3 Finish for top of base slab of tank	m ²	200		
11.2.16	Provide Class UF3 Finish for top suspended slab	m ²	240		
	Leak proof testing				
11.2.17	Allow for leak proof testing.	Item	1		
11.3.	CLASS H: PRECAST CONCRETE				
11.3.1	Provide ,supply and install 1000x1000x50mm thick manhole covers complete with handling accessories	nr	2		
11.3.2	Provide and lay with all leads and lifts etc. complete 600 x 600 x 50 mm thick precast paving slabs on and including 50 mm thick sand bed as per the drawings	m ²	100		
11.3.3					
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 11 : PROPOSED WATER TREATMENT WORKS -1000m³ R.C CWT Storage tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
11.4.	CLASS K: MANHOLES				
11.4.1	Excavate for, provide all materials and construct masonry chamber for the regular valves , chamber size 1700mm x 1000mm internal dimensions, to any depth. Include for supply and fixing of GMS metal covers, step irons, Class 15/20 concrete benching, backfilling. Stack material on site for use as backfill in other areas as directed by the Engineer.	nr	4		
11.4.2	Excavate for, provide all materials and construct masonry chamber for the Tees , chamber size 1700mm x 1000mm internal dimensions, depth n.e. 1.5m. Include for supply and fixing of GMS metal covers, step irons, Class 15/20 concrete benching, backfilling. Stack material on site for use as backfill in other areas as directed by the Engineer.	nr	1		
11.4.3	Excavate for, provide all materials and construct masonry chamber for the AVK gate valve , chamber size 1700mm x 1000mm internal dimensions, to any depth. Include for supply and fixing of GMS metal covers, step irons, Class 15/20 concrete benching, backfilling. Stack material on site for use as backfill in other areas as directed by the Engineer.	nr	1		
11.4.4	Excavate for, provide all materials and construct masonry chamber for the Overflow pipe chamber , chamber size 1700mm x 1000mm internal dimensions, to any depth. Include for supply and fixing of GMS metal covers, step irons, Class 15/20 concrete benching, backfilling. Stack material on site for use as backfill in other areas as directed by the Engineer.	nr	2		
11.5.	CLASS N: MISCELLANEOUS METAL WORK				
	All steelwork to be completely cleaned by acid dipping prior to galvanising				
	Access Traps				
11.5.1	Provide, supply and install 200 X 200 X 200 x 6mm iron stirrups for O&M complete with bolting and welding facilities	nr	30		
	Access Ladder				
11.5.2	M.S flat vertical guard strips 40 x 3mm including M.S cleats 40 x 6mm bolted to distribution chamber walls, M.S stringer 40 x 6mm all fillet welded	m	4		
11.6.	CLASS U: BRICKWORK, BLOCKWORK AND MASONRY				
	Walling.				
	Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 11 : PROPOSED WATER TREATMENT WORKS -1000m³ R.C CWT Storage tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
11.6.1	450mm Baffle Wall with 250x250 holes	m ²	81		
11.6.2	plastic or rubber waterstop width: not exc 300mm	m	200		
11.6.3	Provision for an 100mm air vent	No.	16		
11.6.4	Overflow PIPEWORK				
11.6.4.1	DN 400 Epoxy Coated Steel Flanged spigot pipe with puddle flange 100mm from spigot end	Nr	1		
11.6.4.2	DN 400 All flanged 90deg bend	Nr	1		
11.6.4.3	DN 400 Flanged Spigot pipe with spigot end Beveled, length 3000mm	Nr	1		
11.6.5	Scour Pipework				
11.6.5.1	DN 300 Plain ended pipe with puddle flange 120mm from one end cut to suit on site, length 7000mm	Nr	1		
11.6.5.2	DN 300 Coupling	Nr	1		
11.6.5.3	DN 300 flanged Spigot pipe with puddle flange @ 430mm from flanged end, length 1200mm	Nr	1		
11.6.5.4	DN 300 All flanged AVK gate valve PN25	Nr	1		
11.6.5.5	DN 300 Flange adaptor	Nr	1		
11.6.5.6	DN 300 Plain ended 90 deg bend	Nr	1		
11.6.6	Inlet Pipework				
11.6.6.1	DN 400 Flanged special bell mouth	Nr	1		
11.6.6.2	DN 400 All flanged 90 deg bend with puddle flange 250mm from one end	Nr	1		
11.6.6.3	DN 400 Steel flanged spigot pipe with puddle flange at 2630mm from one end, length 8250mm	Nr	1		
11.6.6.4	DN 400 Couplings	Nr	2		
11.6.6.5	DN 400 Steel flanged spigot pipe with puddle flange 1450mm from spigot end, length 1200mm	Nr	1		
11.6.6.6	DN 400 All flanged AVK Sluice valve PN25 Euro-20 series type 23 or approved equivalent	Nr	1		
11.6.6.7	DN 400 Flange adaptor	Nr	1		
11.6.6.8	DN 400 Plain ended pipe with puddle flange at 720mm from one end, length 1200mm	Nr	1		
11.6.6.9	DN 400 Plain ended pipe with puddle flange at 450mm from one end, length 1200mm	Nr	1		
11.6.6.10	DN 400 Coupling	Nr	1		
11.6.7	Outlet Pipework				
11.6.7.1	DN 400 Flanged special bell mouth	Nr	1		
11.6.7.2	DN 400 Pipe with Puddle flange 400mm from one end	Nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 11 : PROPOSED WATER TREATMENT WORKS -1000m³ R.C CWT Storage tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
11.6.7.3	DN 400 Steel flanged spigot pipe with puddle flange at 3530mm from flanged end, length 3300mm	Nr	1		
11.6.7.4	DN 400 Couplings	Nr	2		
11.6.7.5	DN 400 Steel flanged spigot pipe with puddle flange 775mm from spigot end, length 1200mm	Nr	1		
11.6.7.6	DN 400 All flanged 400mm x 400mm x 250mm tee	Nr	1		
11.6.7.7	DN 400 All flanged AVK gate valve PN25 PN25 (euro 20 series type 23 or approved equivalent), length 250mm	Nr	1		
11.6.7.8	DN 400 Flange adaptor	Nr	2.00		
11.6.7.9	DN 400 Plain ended pipe with puddle flange at 445mm from one end, length 1200mm	Nr	1		
11.6.7.10	DN 250 All flanged AVK gate valve PN25 PN25 (Euro 20 series type 23 or approved equivalent)	Nr	1		
11.6.7.11	DN 250 Flange adaptor	Nr	2.00		
11.6.7.12	DN 400 Plain ended pipe with puddle flange at 605mm from one end, length 1200mm	Nr	1		
11.6.7.13	DN 400 Couplings	Nr	1		
11.6.8	Formed surface joint with filler, width of depth not exceeding 0.5 m	m2	60.00		
11.6.9	Flanged AVK Sluice valve PN25 DN 350 mm dia.	No.	1.00		
11.6.10	Provide & lay 300mm wide x 12mm thick Ruberoid layer between wall & roof slab.	m	110		
11.6.11	DN400 mm Bellmouth for Overflow	nr	1.00		
11.6.12	DN400 mm x 90° Double flanged bend for overflow	nr	1.00		
11.6.13	DN150 mm AVK Sluice valve PN25 to BS5163 PN16 for Inlet	nr	1.00		
11.6.14	DN 100, AVK Sluice valve PN25 to BS5163 for washout	nr	1.00		
11.6.15	DN 350 PN 25 AVK Sluice valve to BS5163 for Outlet	nr	1.00		
11.6.16	DN 300 Steel bends- PN 16 11.25°	Nr	1.00		
11.6.17	22.5°	Nr	1.00		
11.6.18	45°	Nr	1.00		
11.6.19	90°	Nr	1.00		
11.6.20	Couplings DN 300 mm	Nr	1.00		
11.6.21	Provide pumice aggregates and spread at 300mm to the roof of tank	m3	150		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 11. 1000m3 RC CWT

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 12 : WATER TREATMENT WORKS - PUMPHOUSE AND GENERATOR					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
12.1.	EARTHWORKS				
	GENERAL EXCAVATION				
12.1.1	Excavate 200mm top soil and dispose	m2	17		
12.1.2	Excavate in class III material max. depth 0.5 - 1 m for disposal	m3	170		
	FILLING AND COMPACTION				
12.1.3	Hardcore Using excavated Class I material.	m3	17		
12.1.4	50mm stone dust blinding	m3	3		
	IN-SITU CONCRETE				
12.2.	DESIGNED MIX FOR ORDINARY STRUCTURAL CONCRETE FOR CLASS B EXPOSURE USING ORDINARY PORTLAND CEMENT Grade 42.5 to Specifications. Provide and placeConcrete Grade: 15				
12.2.1	20 mm aggregate	m3	9		
	Provide and place Concrete Grade: 20				
12.2.2	20 mm aggregate	m3	22		
	CONCRETE ANCILLARIES				
	FORMWORK: FAIR FINISH				
12.2.3	Fair finish to vertical sides of floor slab and ring beam	m ²	35		
	REINFORCEMENT				
	High yield steel bars to SSRN 126 or 127				
12.2.4	Diameter: 10 mm	kg	330		
12.2.5	Diameter: 12 mm	kg	150		
12.2.6	Wire weld fabric BS Ref. A252	m2	85		
12.3.	TIMBER				
	Fittings and fastenings				
12.3.1	Bolts	nr	120		
	Roofing				
12.3.2	Roofing timber cypress 150x50 well celurised and treated	m	72		
12.3.3	Ditto cypress 100x50	m	144		
12.3.4	300x25 Fascia Board	m	36		
12.3.5	100x50 wall plate	m	42		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 12 : WATER TREATMENT WORKS - PUMPHOUSE AND GENERATOR					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
	Cladding				
12.3.6	24 gauge GCI sheeting	m2	72		
12.3.7	Ridge cap	m	12		
12.4.	<u>BRICKWORK, BLOCKWORK & MASONRY</u>				
	Lightweight concrete blockwork				
	<u>Solid concrete blocks bedded and jointed in cement and sand (1:4) mortar</u>				
12.4.1	Vertical walls: Thickness 150 - 250mm both for substructure and superstructure, inclusive of joint reinforcement using hoop iron ties in every other course.	m2	177		
	<u>Blockwork ancillaries</u>				
12.4.2	Damp proof course.	m	42		
	<u>Damp proof membrane</u>				
12.4.3	Single layer of 500 gauge polythene sheeting laid on blinded hardcore with 150mm side laps to receive concrete	m2	72		
	<u>Anti-Termite treatment</u>				
12.4.4	Treat surface of hardcore with approved anti termite solution applied strictly in accordance with the manufacturers instructions.	m2	72		
12.5.	PAINTING				
12.5.1	3 coats (one undercoat and two other coats) of silicon based emulsion paint to external wall surfaces as in Crown Permacote ultra guard rain-proof silicone paint or approved equivalent.	m2	126		
12.5.2	3 coats (one undercoat and two other coats) of emulsion paint to interior wall surfaces as in Crown Vinyl Matt Emulsion with Teflon Surface protector or approved equivalent.	m2	140		
12.6.	WATERPROOFING				
	DAMP PROOFING				
	<u>Rendering with proprietary mix mortar</u>				
12.6.1	Internal 20mm mortar rendering, cement/sand 1:4 painted 'soft white' to Ks 10 B 15 or similar	m2	106		
12.7.	<u>MISCELLANEOUS WORK</u>				
	<u>Drainage to structures above ground</u>				
12.7.1	Gutters inclusive of all the fittings	m	24		
12.7.2	Downpipes inclusive of all the fittings	m	20		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 12 : WATER TREATMENT WORKS - PUMPHOUSE AND GENERATOR					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE, KES	AMOUNT, KES
	Windows				
12.7.3	Provide and install Window as specified in the drawing	nr	1		
12.7.4	HD 4FS window as specified in the drawing	nr	2		
	Doors				
12.7.5	Mild steel, external Single leaf, standard, 900mm wide	nr	1		
12.7.6	Ditto, 1500mm wide double leaf door.	nr	2		
	Other				
12.7.7	Precast concrete vent blocks of approved type	m2	5		
12.8.	CEILING				
12.8.1	Supply and install 12mm thick approved Chipboard ceiling in sheets size 2400 x 1200mm fixed to and including 50 x 50mm sawn cypress Grade 2 battens at 600mm centres in both directions complete with jointing material, including painting	m ²	46		
12.8.2	Provide for supply and installation of all electrical fittings in the house as directed by the Engineer. Include for complete wiring, installation of consumer meters, power sockets, lighting systems and connection to existing grid as directed.	Sum	1		
12.8.3	Finishing of top surfaces 40mm screed, cement: sand 1:3 fall smooth trowel finish	m2	46		
	Backwash Pumps				
12.8.4	Supply and install the following 2 No. (one duty, one standby) horizontal multistage centrifugal and end suction pumps. The pumps are to be mounted on plinths with suitable mountings. Pumps be supplied complete with control panels. CAPRARI Model MEC A1/65, Low-Pressure Centrifugal Pump 1) Discharge 55 m ³ /h; 2) H = 25.225 m; 3) Surface Mounted Pump Motor 3x400V 50 HZ Nominal Speed 2900 RPM, Power 7.5KW.	nr	2		
	AirBlower				
12.8.5	Provide all materials, supply, deliver to site and install Air Scouring system for the backwashing of filters. The Air Scouring System comprises of: Air Blower and its accessories suitably rated for total production of 7,000 m3/day filtered water in 8no. Filters, tubes, pipes, valves, fittings, power supply and switching and control arrangements. Air Blower plant to be installed in the pump house. The Air Scouring System to consist of 1no. Duty and 1no. Standby Scouring blowers. The Contractor must include all cost for the complete installation testing and commissioning of the air scouring system. The Contractor is required to submit their proposed system with tenders.	nr	2		
12.8.6	Supply and install Control panel/electrical board for the blower and use both systems (manual and automatic) and installed in the pump house, electronic control panel units for monitoring and protection. The protection to include for: duty and stand by mode, dry run, under or over voltage, phase failure, motor temperature, motor defect. The panel to have Starter ON/OFF selector switch, all faults indicator lights. Include for low level and high level floats/probes and all accessories to automate the operation of the pumps.	nr	1		
12.9.	PUMP PIPEWORK				
	Suction pipework				
	DN80*50 double flanged Eccentric taper				
	DN150*80 double flanged Eccentric taper	nr	2		
12.9.1	DN 150 AVK gate valve PN25	nr	2		
12.9.2	DN 150 coupling	nr	2		
12.9.3	DN 150 flange adaptor	nr	5		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

[illegible]

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
12.3	TREATMENT WORKS CONTROL ROOM				
12.3.1	ELEMENT NO 1				
	FRAME				
12.3.2	Concrete ; reinforced ; class 20/ (20mm) vibrated				
12.3.3	Ring beam	m ³	13		
12.3.4	Ditto columns	m ³	12		
	ELEMENT NO 2				
	Reinforcement (provisional)				
	Bars: high yield steel- cold worked to B.S 4461				
	including bends, hooks, tying wire and distance blocks				
12.3.5	Assorted reinforcement	Kg	1,800		
12.3.6	Sawn formwork to concrete as described				
12.3.7	To sides and soffits of beams	m ²	120		
12.3.8	To sides of columns	m ²	84		
	ELEMENT NO. 3				
	WALLING				
	NATURAL STONE WALLING				
	Smooth machine cut natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x3mm thick hoop iron in every alternate course				
12.3.9	200mm thick walling Externally	m ²	280		
12.3.10	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand (1:3) mortar one coat of bituminous	m ²	20		
	ELEMENT NO.4				
	METAL WORK - PURPOSE MADE UNITS				
12.3.11	Double Door ,1200x2400mm high, in two equal panels including 3 parts 150mm long purpose made hinges, ditto	No	4		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

	Iron mongery				
	Supply and fix the following to UNION catalogue or other equal and approved				
12.3.12	To soft , hardwood or the like fixing with screws	No	70		
12.3.13	Three lever mortice lock complete with set lever aluminum handle furniture	No	4		
12.3.14	Two lever mortice lock complete with set lever aluminum handle furniture	No	4		
12.3.15	Indicator bolt	No	10		
12.3.16	150mm steel and butt hinges	PRS	25		
	To concrete or block work , fixing with bolts , plugging				
12.3.17	Rubber door stop complete with 38mm rawl bolt	No	4		
	To metal work or the like fixing with screws or welded smooth				
	Glazing				
12.3.18	4mm thick clear sheet glass panes to timber fan lights	m ²	2		
12.3.19	6mm thick clear sheet glass panes to metal surfaces ; fixing with putty	m ²	2		
	Painting and decorations Prepare and apply one coat etching primer, one undercoat and two coats of gloss oil paint				
12.3.20	General surfaces of metal doors both;internally and externally	m ²	25		
12.3.21	Backs of frame, board etc.	LM	25		
	ELEMENT NO.5				
	WINDOWS				
	PURPOSE MADE METAL WORK				
	Supply and fix the following purpose made steel casement window fabricated from standard sections complete with frames, mullions and transoms including all necessary ironmongery once shop primed before delivery to site				
12.3.22	Window, overall size 1500 x 1500mm high	No	18		
	Burglar proofing				
12.3.23	Overall size 1500 x 1500mm high comprising of 25 x 6mm mild steel flat framing and 12mm diameter horizontal and vertical round bars at 125mm centers	No	18		
12.3.24	4mm thick clear sheet glass pane over 0.1 but not exceeding 0.5m2 fixing with putty	m ²	40		
12.3.25	Ditto but obscured panes ditto	m ²	40		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

	Bull- nosed burnt clay, finishing fair on all exposed surfaces and hoisting and placing in position , bedding , jointing and pointing in pigments cement and sand (1:3) mortar				
12.3.26	Window cill : 250x50 mm extreme height ; once weathered; once throated ; reinforced as necessary for handling ; surface fair finish 275mm girth ; bedding , jointing and pointing in cement sand (1:3) mortar.	LM	30		
	Wrot Mahogany				
12.3.27	150 x 25mm thick window boards including bull – nosed edges and 25x25mm bearer, plugged, counter sinking and flush pelleting	LM	25		
12.3.28	15 x15mm quadrant bead	LM	25		
	Wrot cypress pelmet box				
12.3.29	Comprising 150x25mm wide fascia 150x25mm ends 100mm long 100x25mm block board top; and 50x25mm wrot cypress bearer, plugged	LM	35		
	Curtain Tracks				
12.3.30	“Silent Gliss” standard I – section light duty brass single curtain track screwed to soffits of timber pelmet top (m/s) with brass plated screws, one bracket runner per 75mm of rail, two and stops per length and complete accessories to approval	LM	35		
	Painting and Decorations				
	On metal work Prepare and apply three coats oil paint full gloss to Crown Solo or other equal and approved to:-				
12.3.31	General window surfaces; over 300mm girth internal	m ²	40		
12.3.32	General window surfaces ; over 300mm girth external	m ²	40		
12.3.33	Surfaces of metal over 300mm girth (burglar proofing grills	m ²	40		
	ELEMENT NO.6				
	FINISHES				
	Wall Finish				
	Render, 15mm thick 1 no coatwork of cement and sand (1:3) wood floated to concrete and stone wall				
12.3.34	Beams externally	m ²	135		
	Plaster 15mm thick 2 No coat work, 12mm first coat of cement (1:3) second coat of cement lime putty (1:9) steel trowelled to concrete and stone wall				
12.3.35	Walls, beams and column; internal	m ²	350		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

	Coloured ceramic tiles as saj ceramics ‘ or any approved bedding and jointing in cement and sand (1:3) mortar H/20 and flushing pointed in white cement				
12.3.36	150x150x6mm thick tiles	m ²	250		
	ELEMENT NO.7				
	ROOFING CONSTRUCTION				
12.3.37	Supply and install 28G prepainted Box profile sheets as DECRA or other equal and approved complete with all accessories	m ²	370		
12.3.38	Ridge cap	LM	70		
12.3.39	Hip valley	LM	20		
12.3.40	Rake cutting roofing tiles	LM	370		
12.3.41	Supply and fix 150x150mm Box gutter: fixed to fascia with and including steel flat brackets at 1500 mm (maximum) centres: holes for down pipes as necessary: closed ends. Rate to include fixing accessories.	LM	115		
12.3.42	Supply and fix 150 x 150 mm square section rain water downpipe: holderbats at 1500 mm (maximum) centres (4No. pipes)	Lm	60		
12.3.43	Extra over ditto for 800 mm swan neck offset	No	8		
12.3.44	Ditto for shoe	No	8		
12.3.45	Supply and fix wrought cypress 200 x 25 mm Fascia board. Rate to include nails and jointing materials.	Lm	150		
12.3.46	Ditto: barge board	Lm	50		
12.3.47	Prepare surfaces: and apply undercoat and two finishing coats first grade gloss enamel paint as "Crown Paints" or other equal approved: on wooden surfaces: to fascia and barge boards :surfaces over 200 but not exceeding 300 mm girth	Lm	200		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

	The following Double Pitch Roof Truss minimum 1500mm c/c span with 600mm eaves projection, in 150 x 50mm Rafters, Ceiling Joists, Struts and Ties in Sawn Cypress Grade II Seasoned and Pressure Impregnated with Wood Preservative and Timber Joints With Bolted and Nailed Connections to the Engineer's Approval :-				
12.3.48	100x50 tie beam	LM	230		
12.3.49	16 mm and mild steel bolts 300mm long fixed on ring beam	No	75		
	Carpentry				
	The following in sawn celcurised cypress				
12.3.50	150x50mm Intermediate, hip and valley rafters	LM	470		
12.3.51	75 x50mm purlins	LM	400		
12.3.52	225x25mm thick fascia board	LM	115		
12.3.53	15x 100mm T& G boarding on underside of roof overhang	m ²	80		
12.3.54	Raking flashing overall 400mm girth	LM	15		
12.3.55	100 x 50mm Wall plate tied to wall with 20 s.w.g. hoop iron at 900mm centres and bedded in cement mortar (1:4) on top of wall	LM	115		
	Ceiling				
12.3.56	12mm thick chipboard ceiling fixed with clout nails onto timber branderings (ms)	m ²	260		
12.3.57	12mm Cornice 50mm high, plugged	LM	110		
12.3.58	Extra over ceiling lining for forming removable access trap door size 600 x 600mm with 100 x 38mm sawn treated cypress trimming joists between tie beams. 120 x 20mm (finished) wrot cypress frame all round and 20mm blockboard removabled panel set loose on top of framing	No	2		
	ELEMENT NO.8				
	Floor Finish				
	Cement and sand (1:4) screeding smooth trowelled				
12.3.59	40mm thick screed	m ²	240		
12.3.60	30mm thick to receive ceramic tile	m ²	240		
	Ceramic tiles bedded and jointed in cement sand (1:3) mortar and flush pointed with white cement				
12.3.62	300x300x10mm tiles	m ²	240		
	ELEMENT NO.9				
	Painting				
	Knot, prime, stop , prepare and apply three coats of first quality emulsion paint to:				
12.3.63	Walls, beams and columns internal	m ²	300		
12.3.64	Three coats of gloss paint to walls, beams and columns externally	m ²	300		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

	Electrical Works				
	Electrical Works				
	ELECTRICAL INSTALLATION				
	<i>Supply install, test and commission in accordance to BS 7671:1998, (cables as East African cables and accessories as Crabtree or equal approved) the following as described below:</i>				
12.3.65	Supply and fix 9-way Consumer Unit with 9 No. MCBs as required complete with integral isolators	No.	2		
12.3.66	Supply and lay 1.5 mm ² single core cable Red, Black and Green/Yellow for internal and external lighting as East African cables or equal approved	Roll (100m)	8		
12.3.67	Supply and lay 2.5 mm ² single core cable Red, Black and Green/Yellow for heater and sockets as East African cables or equal approved	Roll (100m)	8		
12.3.68	Supply and lay 25mm plastic conduit 6m long each	No.	50		
12.3.69	Supply and lay 20mm plastic conduit 4m long each	No.	30		
12.3.70	Supply and fix switchbox single	No.	28		
12.3.71	Supply and fix switchbox twin	No.	4		
12.3.72					
12.3.73	Supply and fix switches as Crabtree or equal and approved as described:				
12.3.74	a) One gang one way	No.	4		
12.3.75	b) One gang two way	No.	2		
12.3.76	c) Two gang two way	No.	2		
12.3.77	Supply and fix ball fitting 20W, 240V, 50HZ energy saving bulbs	No.	24		
12.3.78	Supply and fix 20W, 240V, 50HZ energy saving bulbs	No.	24		
	Supply and fix 5ft, 58W, 240V fluorescent fitting single with tube for:				
12.3.79	a) External lighting	No.	10		
12.3.80	b) Internal lighting	No.	4		
12.3.81	Supply and fix double sockets	No.	4		
12.3.82	Supply and fix single sockets	No.	8		
12.3.83	Supply and fix heater switch with neon lamp	No.	2		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

[illegible]

**MWALA CLUSTER WATER SUPPLY PROJECT
BILL 12**

ITEM No.	COLLECTION FROM PAGE TOTAL	Amount, KES
	CW PUMPHOUSE	
	Page Total - Page 1	
	Page Total - Page 2	
	Page Total - Page 3	
	Page Total - Page 4	
	CONTROL ROOM	
	Page Total - Page 1	
	Page Total - Page 2	
	Page Total - Page 3	
	Page Total - Page 4	
	Page Total - Page 5	
	Page Total - Page 6	
	Page Total - Page 7	
	BILL TOTAL CARRIED TO GRAND SUMMARY	

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 13 : PROPOSED WATER TREATMENT WORKS - ELEVATED BACKWASH TANK - 150m³

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 13 Backwash tank

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 14 : PROPOSED TREATMENT WORKS - SLUDGE DYING BEDS

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
14.1	CLASS E: EARTHWORKS				
	<u>Excavations for Foundations</u>				
	Excavations shall include for strutting, Shuttering, stabilizing excavated surfaces and keeping excavations free of water bailing out, pumping or other means, preparation of the surface receiving parmanent works thereof, plus disposal of any excess excavated materials.				
	<i>Sludge drying beds surface area of approx 13m wide x 13m long.</i>				
14.1.1	General clearance	ha	0.02		
14.1.2	Topsoil, depth n.e 0.25m	m ²	170		
14.1.3	Material other than topsoil or rock depth 0.25 - 0.5m	m ³	45		
14.1.4	Ditto but depth 0.5 - 1.0m	m ³	90		
14.1.5	Ditto but depth 1.0 - 2.0m	m ³	170		
14.1.6	Extra over excavation in rock depth 1.0 - 2.0m	m ³	100		
	<u>Filling To structures</u>				
14.1.7	300 mm handpacked well compacted hardcore.	m ³	20		
14.1.8	Murrum/quary dust fill to 75 mm thick blinding layer.	m ³	10		
14.2	CLASS F: IN SITU CONCRETE				
	<u>Provision and Placement of Concrete. Cement Grade 42.5 to Specifications.</u>				
	<u>Mass Concrete</u>				
14.2.1	C15 Blinding, 50mm thick	m ³	17		
	<u>Reinforced Concrete</u>				
	<u>Footings</u>				
14.2.2	C30 - Strip footing, 500mm thick	m ³	10		
	<u>Inlet Channel</u>				
14.2.3	C30 - 200mm walls	m ³	25		
	<u>Base Slabs</u>				
14.2.4	C30 - Base slab, minimum thickness, 300mm	m ³	25		
	<u>Masonry Walls</u>				
14.2.5	200mm thick masonry walls	m ²	124		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 14 : PROPOSED TREATMENT WORKS - SLUDGE DYING BEDS

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 14 sludge drying beds

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 15 : PROPOSED WATER TREATMENT WORKS - ADMINISTRATION BUILDING.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
15.1	CLASS E: EARTHWORKS				
15.1.1	Excavation of surfaces to reduce the level, depth not exceeding 0.25m	m ²	250		
15.1.2	Foundations and bases for depth not exceeding 1200 mm for strip footing	m ³	70		
	Excavation Ancillaries				
15.1.3	Trimming of excavated surfaces to receive blinding concrete	m ²	160		
	Filling as Described:-				
	Hardcore				
15.1.4	200mm thick hand packed well compacted hardcore including 75 mm thick blinding layer	m ³	50		
	50 mm Stone dust blinding layer to hardcore	m ³	10		
	Disposal of Surplus Spoil:-				
15.1.5	Cart away surplus excavated materials to an approved dumping site	m ³	70		
	Damp-Proof Membrane				
15.1.6	1000 Gauge polythene sheeting, laid over hardcore in two layers	m ²	160		
15.2	CLASS F: INSITU CONCRETE:				
	Mass Concrete Class 15/20mm :-				
15.2.1	75mm Thick blinding under strip footing	m ³	8		
	Provide and place Vibrated Reinforced Concrete Reinforced Concrete Class 25/20mm:-				
15.2.2	200mm thick ground slab with BRC A142 mesh laid 40 mm from the top	m ³	20		
15.2.3	200 mm Thick Class 25/20 concrete to 700 mm wide strip footing	m ³	14		
15.2.4	200x300 Ring Beam concrete	m ³	6		
15.3	CLASS G: CONCRETE ANCILLARIES				
	Formwork				
	Formwork - Fair Finish:-				
15.3.1	Formwork to sides of 300 mm deep ring beam	m ²	55		
15.3.2	Vertical Sides of the 150mm ground slab	m ²	9		
15.3.3	Soffit ring beam 200 mm wide	m ²	6		
	Reinforcement				
	Provide and Fix High Tensile Steel Reinforcement to SRN 127 Including Cutting, Bending, Propping with Spacers and Tying as Specified :-				
15.3.4	High yield tensile steel 12mm diameter to ring beam	kg	360		
15.3.5	High yield tensile steel 10mm diameter to strip footing	kg	400		
15.3.6	High yield tensile steel 8mm diameter links to ring beam	kg	200		
	Fabric Reinforcement No. A142 Mesh Size 150 x 150mm Weighing 2.22 kgs Per m² , Including Bends, Tying Wire and Distance Blocks:-				
15.3.7	Fabric reinforcement with minimum 200mm wide side and end laps, laid in bed- A142 mesh at 25mm from the top	m ²	100		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 15 : PROPOSED WATER TREATMENT WORKS - ADMINISTRATION BUILDING.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
15.4	CLASS H: PRECAST CONCRETE				
	<u>Precast Concrete Slabs(Provisional)</u>				
15.4.1	Paving Slabs, cover slabs over	m ²	60		
	<u>Ventilation</u>				
15.4.2	Precast Concrete Ventilation Blocks	m ²	0.30		
	<u>Walling</u>				
	Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-				
15.4.3	200 mm thick masonry wall in substructure	m ²	120		
15.4.4	200 mm smooth dressed walling in superstructure	m ²	225		
	<u>Damp-Proof Course: Bituminous Felt Damp-Proof Course as Described:-</u>				
15.4.5	200mm Wide under walls	m	94		
	<u>Finishes</u>				
15.4.6	20 mm 1:4 Cement/sand plaster to internal of walls	m ²	262		
15.4.7	Rendering to exposed parts of substructure including floor slab	m ²	150		
15.4.8	3 coats (one undercoat and two other coats) of silicon based emulsion paint to external wall surfaces as in Crown Permacote ultra guard rain-proof silicone paint or approved equivalent.	m ²	150		
15.4.9	3 coats (one undercoat and two other coats) of emulsion paint to interior wall surfaces as in Crown Vinyl Matt Emulsion with Teflon Surface protector or approved equivalent.	m ²	262		
15.5	CLASS O: TIMBER				
	<u>Roof</u>				
15.5.1	50x 100 mm Rafter: in trusses	m	90		
15.5.2	50x 100 mm: tie beam	m	70		
15.5.3	100 x 50 mm: Struts and ties	m	70		
15.5.4	100 x 50mm ridge piece	m	22		
15.5.5	100 x 50 mm Wall plate: fixed to concrete with approved bolts at 1800 mm centres	m	55		
15.5.6	75 x 50mm purlins	m	180		
15.5.7	26 Gauge Blue prepainted roof sheets	m ²	180		
15.5.8	500 Girth blue prepainted, 24 Gauge ridge cap	m	22		
15.5.9	250 x 25 Fascia board including painting	m	60		
15.6.	MISCELLANEOUS WORK				
	<u>Drainage to structures above ground</u>				
15.6.1	Gutters and gutters fittings	m	40		
15.6.2	Downpipes and all the fittings	m	20		
	<u>Doors</u>				
	<u>External steel doors</u>				
15.6.3	Supply and Fix single steel door size 2100 x 900 mm high (D1) , complete with 50x50x3mm fixed angle frame, 2mm thick mild steel plate build into the panel with union three (3) lever steel door lock, 3x200mm lockable tower bolts,	nr	5		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 15 : PROPOSED WATER TREATMENT WORKS - ADMINISTRATION BUILDING.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<u>External wooden doors</u>				
15.6.4	Supply and Fix single leaf wooden door size 2100 x 900 mm high (D4) , complete with 100x50 frame, with union three (3) lever steel door lock, 3x200mm lockable tower bolts. Rate to include painting.	nr	3.00		
	<u>Interior wooden flush doors</u>				
15.6.5	Single leaf, standard. 800 mm wide	nr	2.00		
	<u>Steel Casement Windows</u>				
	<i>Supply and Fix the Following Standard Section Steel Casement Windows, including 4mm Thick Clear Sheet Glass glazed to Steel Casements with Putty, Complete with Opening Accessories, including Building in Lugs to Jambs and Head and Water-Proofing and Filling Around Opening With Approved Compound; and Including Burglar-Proofing Fabricated from 12 x 12mm Mild Steel Square Bars at 150mm Centres Vertically and 150mm Horizontally and Fixed Internally to Surrounding Wall with 12mm Mild Steel Fish-Tailed Lugs at Maximum 600mm Centres; all Finished with Three Coats Oil Paint:-</i>				
15.6.6	Window size 1800x 1200mm high with 2 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 2 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	5		
15.6.7	Window size 1200x 1200mm high with 1 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 1 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	2		
15.6.8	Window size 600 x 600mm high with 1 No. fixed and 1 No. side hung opening bottom sashes.	Nr	3		
15.7	<u>Ceilling</u>				
	12mm Thick Approved Chipboard to BS 2604, Part 2, Density 480-640kgs, Per Square Meter in Sheets Size 2400 x 1200mm Fixed to and Including 50 x 50mm Sawn Cypress Grade 2 Battens at 600mm Centres in Both Directions Complete with Gauge Jointing Material				
15.7.1	Horizontal ceiling fixed to underside of trusses	m ²	100		
15.7.2	12mm Cornice 50mm high, plugged	m	100		
15.8	<u>PIPED BUILDING SERVICES</u>				
	Water supply to the office to include internal plumbing services, fittings and fixtures within the building, 10,000l elevated plastic water tank on a tower and associated pipework as directed by the engineer.	nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 15 : PROPOSED WATER TREATMENT WORKS - ADMINISTRATION BUILDING.

[illegible]

**MWALA CLUSTER WATER SUPPLY PROJECT
BILL 15 ADMIN BLDG**

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 16 : PROPOSED WATER TREATMENT WORKS - SENIOR STAFF HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
16.1	CLASS E: EARTHWORKS				
16.1.2	Excavation of surfaces to reduce the level, depth not exceeding 0.25m	m ³	240.00		
16.1.3	Foundations and bases for depth not exceeding 1200 mm for strip footing	m ³	54.00		
	Excavation Ancillaries				
16.1.4	Trimming of excavated surfaces to relieve blinding concrete	m ²	150.00		
	Filling as Described:-				
	Hardcore				
16.1.5	200mm thick hand packed well compacted hardcore including 75 mm thick blinding layer	m ³	40.00		
	50 mm Stone dust blinding layer to hardcore	m ³	12.00		
	Disposal of Surplus Spoil:-				
16.1.6	Cart away surplus excavated materials to an approved dumping site	m ³	65.00		
	Damp-Proof Membrane				
16.1.7	1000 Gauge polythene sheeting, laid over hardcore in two layers	m ²	150.00		
16.2	CLASS F: INSITU CONCRETE:				
	Mass Concrete Class 15/20mm :-				
16.2.1	75mm Thick blinding under strip footing	m ³	3.00		
	Provide and place Vibrated Reinforced Concrete Reinforced Concrete Class 25/20mm:-				
16.2.2	200mm thick ground slab with BRC A142 mesh laid 40 mm from the top	m ³	25.00		
16.2.3	200 mm Thick Class 25/20 concrete to 700 mm wide strip footing	m ³	10.00		
16.2.4	200x300 Ring Beam concrete	m ³	5.00		
16.3	CLASS G: CONCRETE ANCILLARIES				
	Formwork				
	Formwork - Fair Finish:-				
16.3.1	Formwork to sides of 300 mm deep ring beam	m ²	45.00		
16.3.2	Vertical Sides of the 150mm ground slab	m ²	15.00		
16.3.3	Soffit ring beam 200 mm wide	m ²	5.00		
	Reinforcement				
	Provide and Fix High Tensile Steel Reinforcement to SRN 127 Including Cutting, Bending, Propping with Spacers and Tying as Specified :-				
16.3.4	High yield tensile steel 12mm diameter to ring beam	kg	270.00		
16.3.5	High yield tensile steel 10mm diameter to strip footing	kg	370.00		
16.3.6	High yield tensile steel 8mm diameter links to ring beam	kg	150.00		
	Fabric Reinforcement No. A142 Mesh Size 150 x 150mm Weighing 2.22 kgs Per m² , Including Bends, Tying Wire and Distance Blocks:-				
16.3.7	Fabric reinforcement with minimum 200mm wide side and end laps, laid in bed- A142 mesh at 40mm from the top	m ²	120.00		
16.4	CLASS H: PRECAST CONCRETE				
	Precast Concrete Slabs(Provisional)				
16.4.1	Paving Slabs, cover slabs over	m ²	30.00		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 16 : PROPOSED WATER TREATMENT WORKS - SENIOR STAFF HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	<u>Ventilation</u>				
16.4.2	Precast Concrete Louvre Blocks	m ²	10.00		
	<u>Walling</u>				
	Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-				
16.4.3	200 mm thick masonry wall in substructure	m ²	75.00		
16.4.4	200 mm smooth dressed walling in superstructure	m ²	210.00		
	<u>Damp-Proof Course: Bituminous Felt Damp-Proof Course as Described:-</u>				
16.4.5	200mm Wide under walls	m	75.00		
	<u>Finishes</u>				
16.4.6	20 mm 1:4 Cement/sand plaster to internal of walls	m ²	300.00		
16.4.7	Rendering to exterior surfaces	m ²	125.00		
16.4.8	3 coats (one undercoat and two other coats) of silicon based emulsion paint to external wall surfaces as in Crown Permacote ultra guard rain-proof silicone paint or approved equivalent.	m2	125.00		
16.4.9	3 coats (one undercoat and two other coats) of emulsion paint to interior wall surfaces as in Crown Vinyl Matt Emulsion with Teflon Surface protector or approved equivalent.	m2	300.00		
16.5	<u>CLASS O: TIMBER</u>				
	<u>Roof</u>				
16.5.1	50x 100 mm Rafter: in trusses	m	90.00		
16.5.2	50x 100 mm: tie beam	m	70.00		
16.5.3	100 x 50 mm: Struts and ties	m	84.00		
16.5.4	100 x 50mm ridge piece	m	14.00		
16.5.5	100 x 50 mm Wall plate: fixed to concrete with approved bolts at 1800 mm centres	m	25.00		
16.5.6	75 x 50mm purlins	m	150.00		
16.5.7	26 Gauge Blue prepainted roof sheets	m ²	155.00		
16.5.8	500 Girth blue prepainted, 24 Gauge ridge cap	m	14.00		
16.5.9	250 x 25 Fascia board including painting	m	50.00		
	<u>MISCELLANEOUS WORK</u>				
	<u>Drainage to structures above ground</u>				
16.5.10	Gutters and gutters fittings	m	28.00		
16.5.11	Downpipes and all the fittings	m	20.00		
	<u>Internal Doors</u>				
	45mm Solid core Flush door size 800 x 2100mm with lipping. Including Door lever handle set, 100mm Pressed steel butt hinges 2-Lever mortice lock 150mm Heavy duty pull handle Rubber door stop.	nr	6		
	DITTO but 800x2100mm for Ordinary semi-solid flush door	nr	3		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 16 : PROPOSED WATER TREATMENT WORKS - SENIOR STAFF HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	<u>External steel doors</u>				
16.5.12	Supply and Fix single leaf steel door size 2100 x 900 mm high (D1) , complete with 50x50x3mm fixed angle frame, 2mm thick mild steel plate build into the panel with union three (3) lever steel door lock, 3x200mm lockable tower bolts,	nr	2.00		
	<u>Steel Casement Windows</u>				
	<i>Supply and Fix the Following Standard Section Steel Casement Windows, including 4mm Thick Clear Sheet Glass glazed to Steel Casements with Putty, Complete with Opening Accessories, including Building in Lugs to Jambs and Head and Water-Proofing and Filling Around Opening With Approved Compound; and Including Burglar-Proofing Fabricated from 12 x 12mm Mild Steel Square Bars at 150mm Centres Vertically and 150mm Horizontally and Fixed Internally to Surrounding Wall with 12mm Mild Steel Fish-Tailed Lugs at Maximum 600mm Centres; all Finished with Three Coats Oil Paint:-</i>				
16.5.13	Window size 1800x 1200mm high with 2 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 2 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	6.00		
16.5.14	Window size 600 x 600mm high with 1 No. fixed and 1 No. side hung opening bottom sashes.	Nr	6.00		
	<u>Ceiling</u>				
	12mm Thick Approved Chipboard to BS 2604, Part 2, Density 480-640kgs, Per Square Meter in Sheets Size 2400 x 1200mm Fixed to and Including 50 x 50mm Sawn Cypress Grade 2 Battens at 600mm Centres in Both Directions Complete with Gauge Jointing Material. Raate to include painting as er specifications.				
16.5.15	Horizontal ceiling fixed to underside of trusses	m ²	120.00		
16.5.16	12mm Cornice 50mm high, plugged	m	120.00		
16.6	<u>PIPED BUILDING SERVICES</u>				
16.6.1	Water supply to the building to include internal plumbing services, fittings and fixtures within the building, 10,000l elevated plastic water tank on a tower and associated pipework as directed by the engineer.	nr	1.00		
16.6.2	Wastewater system to include internal plumbing services, fittings and fixtures within the building, inspection chambers and associated pipework as directed by the engineer.	Sum	1.00		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 16 : PROPOSED WATER TREATMENT WORKS - SENIOR STAFF HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
16.6.3	Sanitary appliances and fittings include: Twyfords equivalent glazed W.C suit complete, wash hand basin complete, bowl urinal complete with automatic cistern (1 Person), recessed toilet paper roll holder, Recessed soap dish, Soap dispenser	nr	2.00		
16.7	ELECTRICAL WORKS				
16.7.1	Lighting points wired in 1.5mm ² single core pvc insulated copper cables drawn in HG high impact pvc conduits and accessories all concealed in building fabric for one or two way switching, 13 Amps socket outlet points wired in 2.5mm ² single pvc insulated cables enclosed in pvc conduits, accessories and concealed in building fabric to form ring main circuits, 15mmx16mm diameter pure electrolyte copper earth rods including 35mm ² earth lead cable, deep driven to permanent moisture level. Note: Allow for the coupling of electrodes where readings or connection in parallel where readings are found to be high. Rate to include supply of all necessary materials and installation.	L. Sum	1.00		
	FLOOR FINISHES				
16.7.2	Ceramic floor tiles - to all rooms and verandah. Rate to include 38 mm thick cement sand screed.	m ²	150		
16.7.3	150x150x6mm White glazed wall tiles to WCs and shower rooms	m ²	50		
	FURNITURE				
16.7.4	Allow a provisional sum of KShs.1,000,000 purchase offurniture and equipment as directed by the Engineer.	Prov Sum	1		
16.7.5	Allow a percentage profit on item 16.7.4 for profits and overheads Cost	%			
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 16. - SENIOR STAFF HSE

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 17 : WATER TREATMENT WORKS & INTAKE- GUARD HOUSE 2NR.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
17-1.1	CLASS E: EARTHWORKS				
17-1.1.1	Excavation of surfaces to reduce the level, depth not exceeding 0.25m	m ³	8.00		
17-1.1.2	Foundations and bases for depth not exceeding 1200 mm for strip footing	m ³	30.00		
	Excavation Ancillaries				
17-1.1.3	Trimming of excavated surfaces to receive blinding concrete	m ²	36.00		
	Filling as Described:-				
	Hardcore				
17-1.1.4	200mm thick hand packed well compacted hardcore including 75 mm thick blinding layer	m ³	9.00		
	Disposal of Surplus Spoil:-				
17-1.1.5	Cart away surplus excavated materials to an approved dumping site	m ³	10.00		
	Damp-Proof Membrane				
17-1.1.6	1000 Gauge polythene sheeting, laid over hardcore in two layers	m ²	36.00		
17-1.2	CLASS F: INSITU CONCRETE:				
	Mass Concrete Class 15/20mm :-				
17-1.2.1	75mm Thick blinding under strip footing	m ³	2.00		
	Vibrated Reinforced Concrete Reinforced Concrete Class 25/20mm:-				
17-1.2.2	200mm thick ground slab with BRC A142 mesh laid 40 mm from the top	m ³	7.20		
17-1.2.3	200 mm Thick Class 25/20 concrete to 700 mm wide strip footing	m ³	5.00		
17-1.2.5	200x300 Ring Beam concrete	m ³	2.60		
17-1.3	CLASS G: CONCRETE ANCILLARIES				
	Formwork				
	Formwork - Fair Finish:-				
17-1.3.1	Formwork to sides of 300 mm deep ring beam	m ²	26.00		
17-1.3.2	Vertical Sides of the 150mm ground slab	m ²	6.00		
17-1.3.3	Soffit ring beam 200 mm wide	m ²	2.20		
	Reinforcement				
	Provide and Fix High Tensile Steel Reinforcement to SRN 127 Including Cutting, Bending, Propping with Spacers and Tying as Specified :-				
17-1.3.4	High yield tensile steel 12mm diameter to ring beam	kg	150.00		
17-1.3.5	High yield tensile steel 10mm diameter to strip footing	kg	100.00		
17-1.3.6	High yield tensile steel 8mm diameter links to ring beam	kg	80.00		
17-1.3.7	Fabric Reinforcement No. A142 Mesh Size 150 x 150mm Weighing 2.22 kgs Per m², Including Bends, Tying Wire and Distance Blocks:- Fabric reinforcement with minimum 200mm wide side and end laps, laid in bed- A142 mesh at 25mm from the top	m ²	36.00		
17-1.4	CLASS H: PRECAST CONCRETE				
	Precast Concrete Slabs(Provisional)				
17-1.4.1	Paving Slabs, cover slabs over scour, overflow channel	m	50.00		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 17 : WATER TREATMENT WORKS & INTAKE- GUARD HOUSE 2NR.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	<u>Ventilation</u>				
17-1.4.2	Precast Concrete Ventilation Blocks	m ²	0.60		
	<u>Walling.</u>				
	Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-				
17-1.4.3	200 mm thick masonry wall in substructure	m ²	7.72		
17-1.4.4	200 mm smooth dressed walling in superstructure	m ²	115.80		
	<u>Damp-Proof Course: Bituminous Felt Damp-Proof Course as Described:-</u>				
17-1.4.5	200mm Wide under walls	m	40.00		
	<u>Finishes.</u>				
17-1.4.6	20 mm 1:4 Cement/sand plaster to internal of walls	m ²	120.00		
17-1.4.7	Rendering to exterior surfaces.	m ²	92.00		
17-1.4.8	3 coats (one undercoat and two other coats) of silicon based emulsion paint to external wall surfaces as in Crown Permacote ultra guard rain-proof silicone paint or approved equivalent.	m2	92.00		
17-1.4.9	3 coats (one undercoat and two other coats) of emulsion paint to interior wall surfaces as in Crown Vinyl Matt Emulsion with Teflon Surface protector or approved equivalent.	m2	120.00		
17-1.5	<u>CLASS O: TIMBER</u>				
	<u>Roof</u>				
17-1.5.1	50x 100 mm Rafter: in trusses	m	27.48		
17-1.5.2	50x 100 mm: tie beam	m	34.40		
17-1.5.3	100 x 50 mm: Struts and ties	m	25.20		
17-1.5.4	100 x 50mm ridge piece	m	8.60		
17-1.5.5	100 x 50 mm Wall plate: fixed to concrete with approved bolts at 1800 mm centres	m	172.80		
17-1.5.6	75 x 50mm purlins	m	51.60		
17-1.5.7	26 Gauge Blue prepaired roof sheets	m ²	28.00		
	<i>Supply and Fix the Following Pressed Metal Louvre Doors with 100 x 50mm Stiles and Top Rails, 150 x 50mm Middle and Bottom Rails With Pressed Metal Infill Louvres and 100 x 50mm Pressed Metal Frames, Including Hinges, Pad Bolts and Tower Bolts, All To Manufacturer's Details, With Three Coats Gloss Paint Complete With Opening Accessories Including Bedding and Pointing Around Frames in Cement Mortar:-</i>				
17-1.6	<u>Panel doors</u>				
17-1.6.1	Single steel door size 2100 x 900 mm high (D1) , complete with 50x50x3mm fixed angle frame, 3mm thick chekered plate build into the panel with union three (3) lever steel door lock, 3x200mm lockable tower bolts	Nr	2.00		
17-1.6.2	Single leaf flush door size 2100 x 900 mm high (D1) , complete with frame, with union three (3) lever door lock and any other ironmongery.	nr	2.00		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 17 : WATER TREATMENT WORKS & INTAKE- GUARD HOUSE 2NR.

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	<u>Steel Casement Windows</u>				
	<i>Supply and Fix the Following Standard Section Steel Casement Windows, including 4mm Thick Clear Sheet Glass glazed to Steel Casements with Putty, Complete with Opening Accessories, including Building in Lugs to Jambs and Head and Water-Proofing and Filling Around Opening With Approved Compound; and Including Burglar-Proofing Fabricated from 12 x 12mm Mild Steel Square Bars at 150mm Centres Vertically and 150mm Horizontally and Fixed Internally to Surrounding Wall with 12mm Mild Steel Fish-Tailed Lugs at Maximum 600mm Centres; all Finished with Three Coats Oil Paint:-</i>				
17-1.6.3	Window size 1200x 1200mm high with 1 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 1 No. top-hung top ventilators 200mm high with permanent ventilator hood over	Nr	6.00		
17-1.7	<u>Ceilling</u>				
	12mm Thick Approved Chipboard to BS 2604, Part 2, Density 480-640kgs, Per Square Meter in Sheets Size 2400 x 1200mm Fixed to and Including 50 x 50mm Sawn Cypress Grade 2 Battens at 600mm Centres in Both Directions Complete with Gauge Jointing Material				
17-1.7.1	Horizontal ceiling fixed to underside of trusses	m ²	26.00		
17-1.7.2	12mm Cornice 50mm high, plugged	m	40.00		
17-1.8	<u>PIPED BUILDING SERVICES</u>				
17-1.8.1	Water supply to the office to include internal plumbing services, fittings and fixtures within the building, 5000 l elevated plastic water tank and associated pipework as directed by the engineer.	nr	2.00		
17-1.8.2	Wastewater system to include internal plumbing services, fittings and fixtures within the building, inspection chambers and associated pipework as directed by the engineer. Rate to include 1.2 m3 biodigester and connection.	Sum	2.00		
17-1.8.3	Sanitary appliances and fittings include: Twyford's equivalent glazed W.C suit complete, wash hand basin complete, bowl urinal complete with automatic cistern (1 Person), recessed toilet paper roll holder, Recessed soap dish, Soap dispenser	nr	4.00		
17-1.9	<u>ELECTRIFICATION FITTINGS</u>				
17-1.9.1	Lighting points wired in 1.5mm ² single core pvc insulated copper cables drawn in HG high impact pvc conduits and accessories all concealed in building fabric for one or two way switching, 13 Amps socket outlet points wired in 2.5mm ² single pvc insulated cables enclosed in pvc conduits, accessories and concealed in building fabric to form ring main circuits, 15mmx16mm diameter pure electrolyte copper earth rods including 35mm ² earth lead cable, deep driven to permanent moisture level. Note: Allow for the coupling of electrodes where readings or connection in parallel where readings are found to be high. Rate to include supply of all necessary materials and installation.	L. Sum	2.00		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 17.2: PROPOSED WATER TREATMENT WORKS - CHLORINATION BUILDING & CHLORINE DOSING ROOM

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	<u>CHLORINATION BUILDING</u>				
17-2.1	<u>SUBSTRUCTURES (PROVISIONAL)</u>				
	<u>Excavations and Earthworks</u>				
17-2.1.1	Excavate average 150mm deep to remove vegetable soil and cart away	m ²	126		
	<u>Excavate 0.00-1.50m deep starting from stripped level to receive :-</u>				
17-2.1.2	Foundations	m ³	80		
	<u>Extra over excavation in any position for:-</u>				
17-2.1.3	Excavating in compacted gravel or decomposed rock	m ³	3		
17-2.1.4	Excavating in soft rock or hard material	m ³	10		
	<u>Approved selected Filling</u>				
17-2.1.5	Fill and ram selected excavated materials around foundations and buildings	m ³	23		
	<u>Approved filling as described:-</u>				
17-2.1.6	Provide and deposit approved imported murram in maximum 150mm thick layers in making up levels over 300mm thick including achieving satisfactory compaction	m ³	31		
17-2.1.7	Provide and deposit approved hardcore fill material 300mm thick in making up levels including achieving satisfactory compaction	m ²	108		
17-2.1.8	Provide, lay and level out, 50mm thick fine crushed stone, sand or gravel blinding to surface of filling, including watering and rolling to achieve satisfactory compaction	m ²	106		
	<u>Disposal of Surplus Spoil:-</u>				
17-2.1.9	Cart away surplus excavated materials to an approved dumping site	m ³	13		
	<u>Anti-Termite Treatment</u>				
17-2.1.1	Chemical anti-termite treatment to surface of filling with an approved insecticide	m ²	170		
	<u>Damp-proof Membrane</u>				
17-2.1.11	500 Gauge polythene sheeting, laid over hardcore in two layers	m ²	116		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	Concrete Work:				
	Mass Concrete Class 15/40mm maximum aggregate as described in:-				
17-2.1.12	50mm Thick blinding under foundation concrete	m ²	33		
	Guaranteed Strength Reinforced Concrete Class 20/20mm maximum aggregate as described in:-				
17-2.1.13	Foundation trenches, columns and piers combined with foundation trenches	m ³	10		
17-2.1.14	Entrance steps	m ³	1		
17-2.1.15	150mm Thick surface bed	m ²	116		
17-2.1.16	Extra over concrete for tamping whilst still green to make ribbed finish	m ²	17		
17-2.1.17	Form channel internal size 200mm wide x 150mm deep in concrete floor slab including forming rebate 50mm wide x 75mm deep to top inner edges of channel wall to receive precast concrete cover slabs (m.s.)	m	12		
	Guaranteed Strength Reinforced Concrete Class 25/20mm maximum aggregate as described in:-				
17-2.1.18	Isolated columns and piers in foundations	m ³	2		
	Reinforcement				
	Fabric Reinforcement No. A142 Mesh Size 150 x 150mm Weighing 2.22 kgs Per m2 . Including Bends, Tying Wire and Distance Blocks:-				
17-2.1.19	Fabric reinforcement with minimum 150mm wide side and end laps, laid in bed	m ²	116		
	Provide and Fix High Tensile Steel Reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified :-				
17-2.1.2	Reinforcement, all diameters	Kg	3,408		
	Formwork				
	Provide and fix shuttering including propping, strutting and striking, all as specified.				
	Sawn Formwork - Class F1 Finish:-				
17-2.1.21	Vertical sides of columns in foundations	m ²	24		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	<u>Wrot Formwork - Class F3 Finish:-</u>				
17-2.1.22	Edges of beds and pavings 75 - 150mm wide	m	49		
17-2.1.23	Ditto risers of steps 75-150mm high	m	5		
17-2.1.24	Raking open string edge of entrance steps 325mm (extreme) high including cutting top edge to profile of treads and risers	m	2		
	<u>Walling.</u>				
	<u>Natural Stone Block Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at every third course, and Bedded, Jointed and Pointed in Cement Mortar (1:5):-</u>				
17-2.1.25	200 mm Walling	m ²	59		
	<u>Damp-proof course:</u>				
	<u>Bituminous felt damp-proof course as described:-</u>				
17-2.1.26	200mm Wide under walls	m	55		
	<u>Plinths.</u>				
17-2.1.27	15mm Cement and sand (1:4) render to plinth walls, finished with a wood float	m ²	20		
17-2.1.28	Prepare and apply two coats of bituminous paint on rendered plinth walls	m ²	20		
	<u>uPVC Cable Ducts</u>				
17-2.1.29	150mm Diameter uPVC pipes as cable ducts laid under floor slab	m	5		
	<u>Disposal of Water</u>				
17-2.1.3	Allow for keeping excavations free from all water except spring or running water	Item	L.S		
17-2.1.31	Allow for keeping all excavation free from spring or running water	Item	L.S		
	<u>Planking and Strutting</u>				
17-2.1.32	Allow for normal planking and strutting to uphold sides of excavations (except special shoring or sheet steel piling)	Item	L.S		
17-2.2	<u>CONCRETE, FORMWORK, REINFORCEMENT</u>				
	<u>Guaranteed Strength Reinforced Concrete Class 25/20mm as described in:</u>				
17-2.2.1	100mm Thick doser support slabs	m ²	4		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
17-2.2.2	150mm Thick tank walls	m ²	3		
17-2.2.3	200mm Thick tank walls	m ²	39		
17-2.2.4	200mm Thick channel walls	m ²	12		
17-2.2.5	250mm Thick channel walls	m ²	13		
17-2.2.6	150mm Thick tank base slab	m ²	9		
17-2.2.7	200mm Thick channel base slab	m ²	15		
17-2.2.8	150mm Thick solid suspended slab	m ²	24		
17-2.2.9	150mm Thick suspended ramp laid to slope not exceeding 15 degrees from horizontal	m ²	22		
17-2.2.1	250mm Thick solid suspended slab	m ²	57		
17-2.2.11	Stairs	m ²	1		
17-2.2.12	Columns	m ³	5		
17-2.2.13	Beams	m ³	8		
17-2.2.14	Labour and material in forming lip in mixing tank concrete walls and partitions, lip 75mm wide x 150mm high with 75 x 75mm chamfered bottom edge	m	11		
17-2.2.15	Form rebate 50mm wide x 75mm deep to top inner edges of channel wall to receive precast concrete cover slabs (m.s.)	m	26		
	Formwork				
	Provide and fix shuttering including propping, strutting and striking, all as specified				
	Sawn Formwork - Class F1 Finish :-				
17-2.2.16	Horizontal soffites of suspended slabs	m ²	21		
17-2.2.17	Sloping soffites of ramp not exceeding 15 degrees from horizontal	m ²	20		
17-2.2.18	Sloping soffites of staircase exceeding 15 degrees from horizontal	m ²	3		
17-2.2.19	Edges of slabs 150mm high	m	21		
17-2.2.2	Sloping edges of ramp slab 150mm high	m	18		
17-2.2.21	Edges of slabs 250mm high	m	6		
17-2.2.22	Risers of steps 160mm high	m	9		
17-2.2.23	Raking open string edge of staircase 325mm (extreme) high including cutting bottom edge to profile of treads and risers	m	2		
	Wrot Formwork - Class F3 Finish :-				
17-2.2.24	Vertical sides of tank walls	m ²	80		
17-2.2.25	Vertical sides of channel walls	m ²	55		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
17-2.2.26	Horizontal soffites of suspended tank slabs	m ²	12		
17-2.2.27	Bottom edge of partition 150mm wide	m	6		
17-2.2.28	Vertical edge of doser slab 100mm high	m	14		
17-2.2.29	Vertical sides of columns	m ²	66		
17-2.2.3	Sides and soffites of beams	m ²	80		
	Reinforcement				
	<u>Provide and Fix High Tensile Steel Reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified :-</u>				
17-2.2.31	Reinforcement, all diameters	Kg	6,502		
	<u>Precast Reinforced Concrete (1:2:4) with minimum cube strength of 14 N/square millimetre at 7 days and 21 N/ square millimetre at 28 days as described in:</u>				
17-2.2.32	Channel cover slab 800mm long x 300mm wide x 75mm thick including setting in formed rebate on top of channel wall	nr	42		
17-2.2.33	Channel cover slab 300mm long x 300mm wide x 75mm thick including setting in formed rebate on top of channel	nr	40		
17-2.3	WALLING				
	<u>External Walls</u>				
	<u>Selected Machine Dressed Natural Stone Block Walling, Reinforced with 20 swg Hoop Iron at every third courses and Bedded, Jointed and Pointed in Cement Mortar (1:5):-</u>				
17-2.3.1	200mm Thick walling	m ²	105		
	<u>Labours</u>				
17-2.3.2	Extra over walling for ruled horizontal and flush vertical joints	m ²	105		
	<u>Precast Concrete Louvre Block Walling :-</u>				
17-2.3.3	200mm Thick louvre block walling with twin section with plastic coated coffee tray wire sandwiched between sections	m ²	33		
	<u>Dressed Stone Cills</u>				
17-2.3.4	200mm Thick x 275mm wide dressed stone cill bedded, jointed and pointed in cement mortar on top of 200mm wall	m	17		
	<u>Internal Walls</u>				
	<u>Solid Concrete Block Walling With Concrete Blocks to BS 2028, Type "A" with Minimum Crushing Strength of 3.7N/mm² at 28 Days. Bedded, Jointed and Pointed in Cement Mortar (1:5):-</u>				
17-2.3.5	200mm Thick walling	m ²	15		
17-2.4	ROOF COVERINGS				
	<u>Concrete, single lap interlocking roof tiles on and including sawn cypress (Grade 2) battens size 40 x 40mm pressure impregnated with approved preservative:-</u>				
17-2.4.1	Roof tiles	m ²	160		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	Extra over roofing tiles for:-				
17-2.4.2	Ridge capping including bedding and pointing in cement sand (1:4) mortar with colouring to match colour of tiles	m	12		
17-2.4.3	Hip capping including bedding and pointing in cement sand (1:4) mortar with colouring to match colour of tiles	m	22		
17-2.4.4	Filled ends of ridge capping or hip capping	nr	10		
17-2.4.5	Gauge 28 galvanised corrugated sheets laid as underlay and nailed to rafters	m ²	160		
17-2.4.6	Fair raking cutting roofing tiles	m	45		
17-2.4.7	Fair raking cutting corrugated sheet roofing	m	45		
17-2.5	<u>CARPENTRY AND JOINERY</u>				
	<u>Carpentry</u>				
	<u>Roof Timbers</u>				
	<u>Double Pitch Roof Truss in Sawn Cypress Grade II Seasoned and Pressure Impregnated with Wood Preservative and timber joints with bolted and nailed connections to the Engineer's approval :-</u>				
17-2.5.1	Equal scissor truss 6000mm clear span and 900mm high with 600mm eaves projection, in 200 x 50mm rafters and 150 x 50mm sloping ceiling joists	nr	7		
	<u>Other Roof Members</u>				
	<u>Sawn Cypress Grade II Maximum Moisture Content 12% Seasoned and Pressure Impregnated with Wood Preservative and timber joints with bolted and nailed connections to the Engineer's approval:-</u>				
17-2.5.2	150 x 50mm Intermediate rafters	m	189		
17-2.5.3	150 x 50mm Hip rafters	m	22		
17-2.5.4	150 x 75mm Purlins	m	39		
17-2.5.5	180 x 50mm Ridge board	m	12		
17-2.5.6	100 x 50mm Wall plate tied to wall with 20 s.w.g. hoop iron at 900mm centres	m	55		
17-2.5.7	Scarfed joint to 180 x 50mm timber member	nr	1		
17-2.5.8	Scarfed joint to 150 x 75mm timber member	nr	4		
	<u>Sundries</u>				
17-2.5.9	Bed wall plate in cement mortar (1:4)	m	55		
	<u>Joinery</u>				
	<u>General Timbers</u>				
	<u>Wrot Prime Grade Cypress</u>				
17-2.5.1	250 x 40mm Fascia board	m	54		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
17-2.6	CEILING				
	<u>12mm thick approved Plasterboard in sheets size 2400 x 1200mm fixed to and including 50 x 50mm sawn cypress Grade 2 battens at 600mm centres in both directions complete with gauge jointing material</u>				
17-2.6.1	Ceiling laid to slope not exceeding 15 degrees fixed to underside of trusses	m ²	109		
17-2.6.2	12mm Cornice 50mm high laid to slope, plugged	m	60		
17-2.6.3	<u>Extra over</u> ceiling lining for forming removable access trap door size 600 x 600mm with 100 x 38 mm sawn treated cypress trimming joists between tie beams, 120 x 20mm (finished) wrought cypress frame all round and 20mm blockboard removable panel set loose on top of framing	nr	1		
17-2.7	METALWORK				
	Steel Doors				
	Pressed Metal Louvre Doors				
	<u>Supply and Fix the following Pressed Metal Louvre Doors with 100 x 50mm Stiles and Top Rails, 150 x 50mm Middle and Bottom Rails With Pressed Metal Infill Louvres and 100 x 50mm Pressed Metal Frames. Including Hinges, Pad Bolts and Tower Bolts, All To Manufacturer's Details, with one coat lead oxide primer complete with opening accessories including bedding and pointing around frames in cement mortar:-</u>				
17-2.7.1	Single door size 900 x 2400 mm high	nr	2		
17-2.7.2	Double door size 1800 x 2400 mm high in two equal panels	nr	1		
17-2.7.3	Double door size 1800 x 2500 mm high in two equal panels	nr	1		
	Aluminium Windows				
	<u>Supply Assemble and Fix the following Bronze Anodised Aluminium Windows complete with opening accessories and "snap-on" glazing, including building in lugs to jambs and head and water-proofing and filling around opening with approved compound :-</u>				
17-2.7.4	Window size 1500 x 1200mm high with 1 No. fixed and 2 No. top hung opening bottom sashes and with 3 No. top-hung top ventilators 200mm high with permanent ventilator hood over	nr	11		
	Balustrades and Railings				
	<u>Balustrade Unit 1000mm High comprising 40mm Diameter Galvanised Pipe Top, Middle and Bottom Rails and 40mm Diameter Galvanised Pipe Balusters. Spaced at Maximum 1000mm centres and bottom end bent, fanged and built into mortice in concrete, including all necessary Welding:-</u>				
17-2.7.5	Balustrade unit 2770mm long, 1770mm on rake and 1000mm on level	nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
17-2.7.6	Raking balustrade unit 8800mm long	nr	1		
	<u>RENDERING</u>				
	<u>12.5mm Thick Cement and Sand Render as described externally on :-</u>				
17-2.7.7	Columns	m ²	39		
17-2.7.8	Horizontal sides and soffites of beams	m ²	30		
17-2.8	<u>PLASTERING</u>				
	<u>12.5mm Thick Gauged Cement Plaster as described internally on :-</u>				
17-2.8.1	Concrete or blockwork	m ²	149		
17-2.8.2	Reveals of openings	m ²	14		
17-2.8.3	Sloping soffites of ramp not exceeding 15 degrees from horizontal	m ²	19		
17-2.8.4	Sloping soffites of staircase exceeding 15 degrees from horizontal	m ²	3		
17-2.8.5	Raking open string edge of staircase 295mm (extreme) high	m	2		
17-2.8.6	Horizontal soffites of suspended slabs	m ²	23		
	<u>Screeds</u>				
	<u>Bonded cement and sand (1:4) screed bed in one coat, well bonded to concrete base as described:-</u>				
17-2.8.7	38mm Thick screed laid level to receive granito floor tiling (measured separately)	m ²	75		
17-2.8.8	12mm (minimum) Thick Cement and sand backing (1:4) with approved plasticiser to receive granito floor laid to skirtings, treads and risers (measured separately)	m ²	9		
	<u>Bonded cement and sand (1:4) screed bed in one coat with approved hardener incorporated in the mix, well bonded to concrete base as described:-</u>				
17-2.8.9	38mm Thick screed laid level to receive epoxy lining (measured separately)	m ²	53		
17-2.8.1	150 x 20mm Thick skirting with hardener laid with a square top edge and coved junction with floor finish	m	25		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	Floor Tiling				
	Acid-proof Granito Floor Tiles :-				
17-2.8.11	Floor tiles laid on screed (measured separately) with straight joints both ways	m ²	75		
17-2.8.12	Tiles laid to risers and treads of steps on screed (measured separately) with straight joints both ways	m ²	3		
17-2.8.13	Tiles laid as skirting 150mm high	m	40		
	Water Based Epoxy Floor and Wall Coating as 'MASTERTOP 1110T' applied strictly in accordance with the Manufacturer's printed instruction :-				
17-2.8.14	Coating laid to floors	m ²	53		
17-2.8.15	Coating laid to mixing tank walls and partitions	m ²	87		
17-2.8.16	Coating laid to vertical skirting or upstand surfaces	m ²	11		
17-2.9	GLAZING				
	4mm Thick Clear Sheet Glass And Glazing to Aluminium Casements with putty in panes:-				
17-2.9.1	0.10 - 0.50 Square metres	m ²	3		
17-2.9.2	0.50 - 1.00 Square metres	m ²	17		
17-2.10	PAINTING AND DECORATING				
	Prepare, knot, prime, stop and apply three coats first quality gloss paint to wood surfaces				
	Externally on:-				
17-2.10.1	General surfaces of fascia boards	m ²	29		
	Prepare, touch up primer and apply three coats gloss paint :				
	Externally on:-				
17-2.10.2	General surfaces of louvred metal doors (measured flat overall)	m ²	7		
	Internally on:-				
17-2.10.3	General surfaces of louvred metal doors (measured flat overall)	m ²	20		
	Prepare and apply three coats exterior quality plastic emulsion paint:-				
	Externally on:-				
17-2.10.4	Fair-faced vertical concrete columns	m ²	39		
17-2.10.5	Fair-faced horizontal sides and soffites of beams	m ²	30		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	<u>Prepare and apply three coats interior quality plastic emulsion paint:-</u>				
	<u>Internally on:-</u>				
17-2.10.6	Plastered concrete or blockwork	m ²	149		
17-2.10.7	Ditto reveals of openings	m ²	14		
17-2.10.8	Ditto sloping soffites of ramp not exceeding 15 degrees from horizontal	m ²	19		
17-2.10.9	Ditto sloping soffites of staircase exceeding 15 degrees from horizontal	m ²	3		
17-2.10.1	Ditto raking open string edge of staircase 295mm (extreme) high	m	2		
17-2.10.11	Plastered horizontal soffites of suspended slabs	m ²	23		
	<u>Prepare and apply three washable distemper as described to:-</u>				
17-2.10.12	Sloping soffites of suspended plasterboard ceilings	m ²	109		
17-2.10.13	Ditto 100-200mm girth	m	60		
17-2.11	<u>CHLORINE/SODA ASH MIXING TANKS</u>				
	Note: All technical details including type, material, specification, etc. to be submitted with Tender for all chemical mixing equipment and pipework. Non-submission of above requirement will result in equipment to be supplied to approval of the Engineer and the cost quoted will deem to include the required approved materials and equipment				
17-2.11.1	Provide and place 6mm stainless steel chemical dissolving tray as per details on Drg. No. M376/K/TW/CB/07	nr	4		
	<u>Ranges for Soda Ash / Chlorine mixing tanks in chlorination building</u>				
	Supply all equipment to site, store, install, commission and maintain the following ranges and equipment, including all nuts, bolts, washers, packing etc.				
17-2.11.2	Four ranges complete of 25mm HDPE pipework for water supply to Soda Ash mixing tank and chlorine mixing tanks including for making connection to domestic water supply main as per details	Item	L.S		
17-2.11.3	Four ranges complete of 50mm diameter HDPE pipes and fittings for outlet from Soda Ash mixing tank and chlorine mixing tanks to solution feed dosers as per details	Item	L.S		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
17-2.11.4	Four ranges complete of 80mm diameter HDPE pipes and fittings for overflow and for washout to Soda Ash mixing tank and chlorine mixing tanks as per details. Include for all anchoring and supporting of all pipework and fittings	Item	L.S		
17-2.11.5	Four ranges of pipework of 40mm diameter reinforced nylon pipe from chlorine mixing tank to clear water channel / chlorine dosing building as per the drawings	Item	L.S		
	Provide and fix approved "Epofloor" lining in accordance with the manufacturer's instructions (supplied by Robbialac Paints or approved equivalent)				
17-2.11.6	5mm lining to bottom of mixing tanks	m ²	8		
17-2.11.7	5mm lining to sides of mixing tanks	m ²	28		
17-2.11.8	Provide and fix PC2 gravity solution feed dosers type FRN 1 or approved equivalent complete with outlet funnels and flashes for Soda Ash and Chlorine dosing	nr	4		
17-2.11.9	Provide and fix 300mm diameter exhaust extractor fan to be fixed in the chlorine mixing room and chlorine store	nr	4		
17-2.11.10	Provide and fix electrically driven mixers for chemical mixing tanks. The shaft and impellers to be of non-corrosive material driven by electric motor (2.0 kw). Include for fixing on tanks by means of holding down bolts, R.H.S. section and alternative arrangement for manual operation Allow for installation, testing and commissioning of electrical distribution feeder as per load requirement	nr	4		
	Flow Meter				
17-2.11.11	Supply, install and commission ultrasonic flow meter to measure and record flow in treated water open channel. The instrument should be complete with measurement of instantaneous flow and totalised flow. The cost should include for fixing brackets, battery backup, sensors / integrator, cables, flow connector and calibration.	nr	1		
17-2.11.12	Provide and install remote indicator located in the Administration building of instantaneous flow and total flows from the treated water flow meter. Include for control cables, ducting, trenching for installation of remote indicators. Maximum length 100m from meter to remote location of indicator	nr	1		
17-2.11.13	Provide, install and fix 12mm thick double galvanised mild steel full width weir plate, size 1150mm x 575mm. Include for fish tail lugs and grouting of plate into rebates in walls and floor of clear water channel	nr	1		
17-2.11.14	Provide and fix 3mm thick stainless steel graduated scale as detailed on Drg. No. M376/K/TW/SWD/02	nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
17-2.12	MISCELLANEOUS				
17-2.12.1	Form 200mm x 150mm deep dosing pipework channel and scour/overflow channel in base slab of chlorine mixing room. Apply 3 coats of approved epoxy paint to internal surfaces of channels	m	12		
17-2.12.2	Form rebate 50mm x 50mm for precast concrete cover slabs over the dosing pipework and scour/overflow channels. Apply 3 coats of approved epoxy paint to surfaces of rebates	m	24		
17-2.12.3	Provide and fix precast concrete slabs 500mm x 290mm x 45mm thick, each slab coated with 3 layers of approved epoxy paint	nr	24		
17-2.12.4	Provide and fix 12mm thick Acrilin Wall Tiles fixed with tile adhesive with straight joints both ways	m ²	45		
17-2.13	CHLORINE DOSING ROOM				
17-2.13.1	Excavate for, provide all materials and construct Chlorine Dosing Room with electrical distribution, light fittings, etc., all as per the drawings Include for all finishes, painting, etc.	Item	L.S		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

**MWALA CLUSTER WATER SUPPLY PROJECT
BILL 17 GUARD HOUSE & CHLORINE DOSING BUILDING**

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 18 : WATER TREATMENT WORKS - JUNIOR STAFF HOUSES

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
18.1	CLASS E: EARTHWORKS				
18.1.1	Excavation of surfaces to reduce the level, depth not exceeding 0.25m	m ³	112		
18.1.2	Foundations and bases for depth not exceeding 1200 mm for strip footing	m ³	51		
	Excavation Ancillaries				
18.1.3	Trimming of excavated surfaces to receive blinding concrete	m ²	150		
	Filling as Described:-				
	Hardcore				
18.1.4	200mm thick hand packed well compacted hardcore including 75 mm thick blinding layer	m ³	24		
	50 mm Stone dust blinding layer to hardcore	m ³	12		
	Disposal of Surplus Spoil:-				
18.1.5	Cart away surplus excavated materials to an approved dumping site	m ³	80		
	Damp-Proof Membrane				
18.1.6	1000 Gauge polythene sheeting, laid over hardcore in two layers	m ²	80		
18.2	CLASS F: INSITU CONCRETE:				
	Mass Concrete Class 15/20mm :-				
18.2.1	75mm Thick blinding under strip footing	m ³	4		
	Provide and place Vibrated Reinforced Concrete Reinforced Concrete Class 25/20mm:-				
18.2.2	200mm thick ground slab with BRC A142 mesh laid 40 mm from the top	m ³	12		
18.2.3	200 mm Thick Class 25/20 concrete to 700 mm wide strip footing	m ³	10		
18.2.4	200x300 Ring Beam concrete	m ³	5		
18.3	CLASS G: CONCRETE ANCILLARIES				
	Formwork				
	Formwork - Fair Finish:-				
18.3.1	Formwork to sides of 300 mm deep ring beam	m ²	40		
18.3.2	Vertical Sides of the 150mm ground slab	m ²	8		
18.3.3	Soffit ring beam 200 mm wide	m ²	3		
	Reinforcement				
	Provide and Fix High Tensile Steel Reinforcement to SRN 127 Including Cutting, Bending, Propping with Spacers and Tying as Specified :-				
18.3.4	High yield tensile steel 12mm diameter to ring beam	kg	300		
18.3.5	High yield tensile steel 10mm diameter to strip footing	kg	350		
18.3.6	High yield tensile steel 8mm diameter links to ring beam	kg	150		
	Fabric Reinforcement No. A142 Mesh Size 150 x 150mm Weighing 2.22 kgs Per m² , Including Bends, Tying Wire and Distance Blocks:-				
18.3.7	Fabric reinforcement with minimum 200mm wide side and end laps, laid in bed- A142 mesh at 25mm from the top	m ²	80		
18.4	CLASS H: PRECAST CONCRETE				
	Precast Concrete Slabs(Provisional)				
18.4.1	Paving Slabs, cover slabs over	m ²	70		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 18 : WATER TREATMENT WORKS - JUNIOR STAFF HOUSES

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	<u>Ventilation</u>				
18.4.2	Precast Concrete Ventilation Blocks	m ²	5		
	<u>Walling</u>				
	Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-				
18.4.3	200 mm thick masonry wall in substructure	m ²	70		
18.4.4	200 mm smooth dressed walling in superstructure	m ²	170		
	<u>Damp-Proof Course: Bituminous Felt Damp-Proof Course as Described:-</u>				
18.4.5	200mm Wide under walls	m	70		
	<u>Finishes</u>				
18.4.6	20 mm 1:4 Cement/sand plaster to internal of walls	m ²	131		
18.4.7	Rendering to exterior surfaces	m ²	125		
18.4.8	3 coats (one undercoat and two other coats) of silicon based emulsion paint to external wall surfaces as in Crown Permacote ultra guard rain-proof silicone paint or approved equivalent.	m ²	125		
18.4.9	3 coats (one undercoat and two other coats) of emulsion paint to interior wall surfaces as in Crown Vinyl Matt Emulsion with Teflon Surface protector or approved equivalent.	m ²	131		
18.5	<u>CLASS O: TIMBER</u>				
	<u>Roof</u>				
18.5.1	50x 100 mm Rafter: in trusses	m	65		
18.5.2	50x 100 mm: tie beam	m	42		
18.5.3	100 x 50 mm: Struts and ties	m	13		
18.5.4	100 x 50mm ridge piece	m	26		
18.5.5	100 x 50 mm Wall plate: fixed to concrete with approved bolts at 1800 mm centres	m	48		
18.5.6	75 x 50mm purlins	m	160		
18.5.7	26 Gauge Blue prepaired roof sheets	m ²	130		
18.5.8	500 Girth blue prepaired, 24 Gauge ridge cap	m	26		
18.5.9	250 x 25 Fascia board including painting	m	62		
18.5.10					
18.5.11	<u>MISCELLANEOUS WORK</u>				
18.5.12	<u>Drainage to structures above ground</u>				
18.5.13	Gutters and gutters fittings	m	52		
18.5.14	Downpipes and all the fittings	m	20		
	<u>Internal Doors</u>				
18.5.15	45mm Solid core Flush door size 800 x 2100mm with lipping. Including Door lever handle set, 100mm Pressed steel butt hinges 2-Lever mortice lock 150mm Heavy duty pull handle Rubber door stop.	nr	6		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 18 : WATER TREATMENT WORKS - JUNIOR STAFF HOUSES

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	<u>External steel doors</u>				
18.5.16	Supply and Fix single leaf steel door size 2100 x 900 mm high (D1) , complete with 50x50x3mm fixed angle frame, 2mm thick mild steel plate build into the panel with union three (3) lever steel door lock, 3x200mm lockable tower bolts,	nr	4		
	<u>Steel Casement Windows</u>				
	<i>Supply and Fix the Following Standard Section Steel Casement Windows, including 4mm Thick Clear Sheet Glass glazed to Steel Casements with Putty, Complete with Opening Accessories, including Building in Lugs to Jambs and Head and Water-Proofing and Filling Around Opening With Approved Compound; and Including Burglar-Proofing Fabricated from 12 x 12mm Mild Steel Square Bars at 150mm Centres Vertically and 150mm Horizontally and Fixed Internally to Surrounding Wall with 12mm Mild Steel Fish-Tailed Lugs at Maximum 600mm Centres; all Finished with Three Coats Oil Paint:-</i>				
18.5.17	Window size 750x 1200mm high with 1 No. fixed and 1 No. side hung opening bottom sashes and with 1 No. fixed and 1 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	6		
18.5.18	Window size 1200x 1200mm high with 1 No. fixed and 2 No. side hung opening bottom sashes and with 2 No. fixed and 1 No. top-hung top ventilators 200mm high with permanent ventilator hood cover.	Nr	6		
18.5.19	Window size 600 x 600mm high with 1 No. fixed and 1 No. side hung opening bottom sashes.	Nr	4		
	<u>Ceiling</u>				
18.5.20	12mm Thick Approved Chipboard to BS 2604, Part 2, Density 480-640kgs, Per Square Meter in Sheets Size 2400 x 1200mm Fixed to and Including 50 x 50mm Sawn Cypress Grade 2 Battens at 600mm Centres in Both Directions Complete with Gauge Jointing Material				
18.5.21	Horizontal ceiling fixed to underside of trusses	m ²	80		
18.5.22	12mm Cornice 50mm high, plugged	m	52		
18.6	<u>PIPED BUILDING SERVICES</u>				
18.6.1	Water supply to the office to include internal plumbing services, fittings and fixtures within the building, elevated plastic water tank and associated pipework as directed by the engineer.	nr	1		
18.6.2	Wastewater system to include internal plumbing services, fittings and fixtures within the building, inspection chambers and associated pipework as directed by the engineer.	Sum	1		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 18 : WATER TREATMENT WORKS - JUNIOR STAFF HOUSES

[illegible]

**MWALA CLUSTER WATER SUPPLY PROJECT
BILL 18 JUNIOR STAFF HSE**

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 19 : PROPOSED WATER TREATMENT WORKS - ELECTRICAL WORKS.

ITEM No.	DESCRIPTION	UNIT	QUANTITY OF WORK	RATE (KES.)	AMOUNT (KES)
	SUPPLY, INSTALL SET TO WORK AND COMMISSION THE FOLLOWING WORKS:				
19.1	TRANSFORMER				
19.1.1	Allow provisional sum for the purchase of 315KVA, 11KV/433V transformer, construction of the switch, earthing and metering equipment to be installed at the pump house premises.	Item	Sum		
19.1.2	Allow provisional sum for 300mm ² PVC SWA Aluminium service line cable terminated at the TX and laid U/G IN 200 mm diameter Heavy Gauge High impact pvc sleeves and terminated at the main LV panel board, KPLC to carry out the work.	Item	Sum		
	MAIN LOW VOLTAGE (LV) PANEL BOARD				
19.1.3	The main LV panel board shall be of cubicle pattern and assembled using	Item	Sum		
	various items of switchgear in accordance with the schematic wiring				
	diagram. The complete switchboard shall be supplied by the electrical				
	contractor. All switchgear shall be of the specified make ie MERLIN				
	GERLIN and all MCCBs MUST be adjustable from renowned suppliers				
	eg specialised power Technics and ISO certified. Suitable for connections				
	to a standing generator. The panel board should also be supplied				
	with a 150 KVAR power factor corrections capacitor and 7-step LOWATO				
	controller and automatic change over switch with a mechanical interlock as a complete package.				
a)	Free standing cubicle type Main Switch Board & Motor Control Centre, 500A, 415V, Form 4 switchboard in 14 SWG galvanised mild steel sheet and finished in cream (or appropriate colour) powder coating, as Specialised Power Limited, Nairobi, manufacture or equal and approved, and complete with the following:				
b)	500A TP+ N + E busbars				
c)	#qww				
d)	1 No. 250A TPN MCCB (adjustable 0.6 - 1)				
e)	3 No. 125A MCCB (adjustable 0.6 - 1)				
f)	2 No. 63A TP MCCB (adjustable 0.6 - 1)				
g)	2 No. 32A TP MCCB (adjustable 0.6 - 1)				
h)	2 No. 20A TP MCCB				
i)	1 No. 32A SP MCB				
j)	2 No. 10A SP MCB				
k)	Space for KPLC's cut-outs. CTS and meters. The spaces to be provided with punched studs for installing KPLC seals.				
	25kA, 415V three-phase surge diverter as Furze ESP 415				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 19 : PROPOSED WATER TREATMENT WORKS - ELECTRICAL WORKS.

ITEM No.	DESCRIPTION	UNIT	QUANTITY OF WORK	RATE (KES.)	AMOUNT (KES)
l)	Digital multimeter capable of measuring voltage in the range 0 - 1000V, 3-phase, current in the range 0 - 1000A, 3-phase, and all power system parameters (KW, KVA, KWhr, KVARs, Frequency, P.F., harmonics and all the parameters). The multimeter to have an accessible terminal for connecting an external computer, and should be complete with selector switches for viewing/ displaying the various parameters.				
m)	120 KVAR's automatic power factor correction capacitor bank switched in 2 steps of 5 KVAR's, 2 steps of 10 KVAR's, 2 steps of 20 KVAR's and 2 steps of 25 KVAR's. The bank to be made from low-loss bio-degradable capacitive units, complete with earthed enclosure. All the contactors, controls and indicator lamps, including a digital read-out screen, to be included.				
n)	1 No. 7.5kW Star- Delta Starter for Bachwash Pump (one duty and one stand-by) complete with the following:- <ul style="list-style-type: none"> - Manual ON/OFF operation - Manual after trip reset button with delay - Duty selector switch - Running Hour Meters - RUN/STOP/TRIP Indicating Lamps - Ammeter with selector switch together with CTs - Over-load protection - UV / OV & Phase Sequence Protection. - Remote Push Button Station for Start / Stop Operation - Float switch dry run protection - High and Low Tank Water Level indicator lamps - Pressure switch cut-off (Delivery side) - Control Relays - Any other protection & Indications as required. 				
19.1.4	Allow provisional sum Cabling and ducting interconnection and distribution cables from the switching room to all the other buildings	Item	Sum		
19.1.5	Comprehensive protective multiple earthing of item No. 36.1.1 in 1500mm long 12mm diameter pure electrolytic copper earth rod deep driven to permanent moisture level, copper clamp. 70mm ² green earth lead complete with all accessories. (Note: Use parallel rods if effective earthing cannot be achieved with 1 No. rod).	Item	1		
19.1.6	Diesel Generator Set 100KVA STANDBY POWER GENERATOR, ENCLOSED IN A SOUND ATTENUATION CANOPY, POWERED BY A CUMMINS ENGINE WITH A DIGITAL LCD OPERATIONAL PARAMETER DISPLAY Note: The Tenderer must submit the catalogues including calculation for the rating of the standby generator for the approval of the Engineer The generator should be supplied complete with a battery, battery charger, control and ATS panel. The generator make should be F.G Wilson or Newage Stamford_UK. The Installation to include silencer and exhaust. Fuel capacity 200litres.				
19.1.7		Item	Sum		
19.1.8	Allow 200 litres for testing and commissioning of the genset.	Item	Sum		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 19 : PROPOSED WATER TREATMENT WORKS - ELECTRICAL WORKS.

ITEM No.	DESCRIPTION	UNIT	QUANTITY OF WORK	RATE (KES.)	AMOUNT (KES)
19.1.9	Allow for 1no oil filter,1no oil filter,1no air cleaner element,fuel filters, 40litres of engine oil and set of recommended tool kit	Item	Sum		
19.1.10	5.1KW star _Delta starters in control panels and enclosed in outdoor pillar boards and with 150A TP mcb and electronical motor protection device as GRUNDFOS MP204 ,voltmeter,ammeter,selector switches, run hour meter ,digital system monitor,start/stop/reset buttons,indicator light for run/trip,low level protection eletrodes and any other necessary ories for commissioning of the pumps.	nr	3		
	PILLER BOARDS				
19.1.11	Fabricate and equip PILLER BOARD NO.1 as per the design drawing	Item	Sum		
19.1.12	Fabricate and equip PILLER BOARD NO.2 as per the design drawing	Item	Sum		
	SUB_DISTRIBUTION BOARDS.				
19.1.13	Supply and install 12 way TPN distribution boards as MERLIN GERLIN	nr	8		
	c/w 125A-TP_mcb isolators				
	CABLE SCHEDULES COMPLETE WITH CABLE GLANDS,LUGS AND				
	ALL ACCESSORIES FOR TERMINATION				
19.1.14	Allow provisinal sum for cabling - as per instructions from the Engineer.	m	1,500		
	SECURITY LIGHTING AROUND THE TREATMENT PLANT AND STAFF QUARTERS				
19.1.15	Fabricate from 100mm diameter class B GI pipe _6metre high lighting	nr	20		
	posts, equipped with 6amps MCB mounted on a din rail inside the lighting pole at 1M height.				
	painted two coats of				
	aluminium first quality paint.				
19.1.16	Supply and install 125W LED Sreet lights fittings	nr	20		
	mounted on the above GI Poles				
19.1.17	Supply and install a photo cell and electrcal timer switch connected in	Item	Sum		
	parallel for for predetermined time of switching using 100 Amps TPN				
	Contractor				
19.1.18	Install LIGHTNING PROTECTION SYSTEM (LPS) to form a sphere around	Item	Sum		
	the pump house and guard room comprising Air terminals, copper tape .				
	network , copper tape as down conductors and earth matts and				
	accessories for protection during thunderstorms				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 19 : PROPOSED WATER TREATMENT WORKS - ELECTRICAL WORKS.

[illegible]

**MWALA CLUSTER WATER SUPPLY PROJECT
BILL 19 ELECTRICAL WORKS**

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 20 : PROPOSED WATER TREATMENT WORKS - SITE ANCILLARY WORKS

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs.)
20.1	CLASS R: ROADS AND PAVINGS				
	NB:All excavations exceeding 1.5m shall be done by equipment. Contrators to allow provision of timbering, shoring and strutting through their rates.				
20.1.1	Provision, preparation and compaction of granular road material for access road and all parking areas. Depth exceeding 300mm. Rate to include provision, laying and jointing 255 mm x 125 mm precast concrete kerbs on and including 250 mm x 100 mm Class 15/20 concrete foundation and haunch 125 mm thick including all excavation, shuttering, jointing and bedding as specified.	m ³	250.00		
20.1.2	Provide, lay and joint 125mm x 100mm precast concrete channels on and including 225mm x 125mm Class 15/20 concrete bed and haunch 100mm thick including all excavation, shuttering, jointing and bedding as specified.	m	400		
20.1.3	50mm thick approved and well compacted quarry dust blinding on hardcore surfaces	m ²	800		
20.1.4	Heavy duty industrial concrete paving blocks size (210x105x50mm) minimum strength 49N/mm square laid to slope on quarry dust and compacted	m ²	800		
	Footpaths				
20.1.5	Excavate below stripped level average 300mm deep	m ³	50		
20.1.6	Backfill average 300mm thick with selected well compacted hardcore fill, compacted in layers of 150mm thick using 10 tonne vibrating roller to receive paving slabs	m ³	50		
20.1.7	Precast Concrete Paving Slabs, 600 x 600 x 50mm thick, jointed with lime and sand (1:3)	m ²	150		
	Precast Concrete Drains				
20.1.8	Provide, lay and joint precast concrete invert block drain Type 'A' on 100mm murrum bed, including 75mm murrum filling both sides for height of block. Rate to include for all cutting, waste, etc.	m	60		
	Earth Drains				
20.1.9	Excavate trapezoidal earth drains - to the lines and levels directed by the Engineer. Allow for trimming of sides to correct slopes and cart excavated material to tips. Depth to invert n.e. 1.0m	m ³	50		
20.1.10	Provide and spread 100mm of approved top soil on the base of sides of the earth drain, rake and level to the requiried profiles as directed by the Engineer (Provisional)	m ³	144		
20.1.11	Supply and plant approved grass on base and sides of the earth drain and maintenance until it takes root to the satisfaction of the Engineer (Provisional)	m ³	1000		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 20 : PROPOSED WATER TREATMENT WORKS - SITE ANCILLARY WORKS

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs.)
	<u>DWC DN300 PN10 Pipes</u>				
20.1.12	Excavate trench to any depth, supply, lay and joint for 300mm diameter DWC pipes PN10 including concrete surround, backfill after laying of pipes, compact and cart away surplus material to tips.	m	1000		
	<u>FOUL SEWERAGE</u>				
	<u>Pipeline Excavation</u>				
20.1.13	Provide and lay DWC PN10 110mm diameter pipes, in trenches not exceeding 1.0m (all depths to inverts)	m	100		
	<u>Inspection Chambers</u>				
20.1.14	Excavate for, provide all materials, special shuttering etc. and construct 600mm x 450mm internal dimensions in-situ concrete inspection chambers on sewers diameter less than 160mm. Include for building in pipes, forming benching to falls, Grade 'B' Medium Duty cast iron covers, etc. Depth to invert n.e. 3.0m	Nr	10		
	<u>Septic Tank</u>				
20.1.15	Supply and install, including excavation, etc, plastic septic tank, capacity 2.5m ³ , including inlet and outlet chambers and pipework, radial arms etc. all as per suppliers instructions ("Septank" from Kentainers Ltd or approved equivalent)	Nr	1		
	<u>Extra Over for Excavations</u>				
20.1.16	Extra Over excavation items for excavation in rock Class 'A' in trenches for pipes, Inspection Chambers and Septic Tank	m ³	50		
20.1.17	-Ditto- but rock Class 'B'	m ³	50		
20.1.18	-Ditto- but rock Class 'C'	m ³	50		
	<u>SIGNBOARD</u>				
20.1.19	Provide all materials and construct signboard to detail. Include for painting, decorating and anchoring of the signboard to the ground using 300mm x 300mm x 600mm deep mass concrete footing, all as detailed	Nr	2		
	<u>NOTE: FINAL WORDING ON THE SIGN BOARD TO BE DECIDED IN CONSULTATION WITH THE CLIENT</u>				
	<u>FENCING AND GATES</u>				
20.1.20	Excavate for post holes, provide all materials and construct chain link fence on concrete posts at 3 m centres all as per drawing details, including straining posts at every 10th post and additional posts at corners and bottom concrete cover to ground level under the fence. Works to include provision and installation of a live fence protection.	m	770		
20.1.21	Provide all materials and construct 6.0 m wide metal gate all to detailed.	Nr	1		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 20 : PROPOSED WATER TREATMENT WORKS - SITE ANCILLARY WORKS

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 20 : PROPOSED WATER TREATMENT WORKS - SITE ANCILLARY WORKS

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL NO. 21 - INTERCONNECTING PIPEWORK AT TREATMENT WORKS SITE

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	UNIT, KES	AMOUNT, KES
21.1	ON-SITE WATER SUPPLY NETWORK				
21.1.1	Allow for supply and laying of pipes for On-site Water Supply Network as per detailed Layout Drawing	Item	1		
2	FROM MIXING CHAMBER TO FLOCCULATION TANK				
21.1.2	Dia 350mm push fit joint steel pipe	m	6		
21.1.3	Dia 350mm x 90 deg double flanged bend	nr	3		
21.1.4	Dia 350mm flexible couplings	nr	3		
21.1.5	Dia 350mm Flanged adaptor	nr	4		
21.1.6	DN 350 mm AVK gate valve PN25	nr	2		
21.1.7	Thrust blocks	nr	3		
3	FROM SEDIMENTATION TANK TO FILTER PIPES				
21.1.8	DN 350mm Single flanged pipes,	m	6		
	BENDS				
21.1.9	Dia 350mm x 90 ^o all flanged bend	nr	2		
	COUPLINGS				
21.1.10	Dia 350mm VJ Flanged adaptor	nr	2		
21.1.11	DN 350mm Straight coupling	nr	2		
	AVK gate valves				
21.1.12	Dia 350mm flanged AVK gate valve PN25	nr	1		
4	FROM FILTER TO CHLORINE CONTACT TANK ALL PN16				
21.1.13	Dia 350mm x 90 deg all flanged bend	nr	2		
21.1.14	Dia 300mm VJ Flanged adaptor	nr	4		
21.1.15	Dia 350mm push fit steel pipe	m	12		
21.1.16	Dia 350mm flanged AVK gate valve PN25.	nr	1		
21.1.17	Dia 350mm flexible couplings	nr	4		
21.1.18	AVK Sluice valve chamber	nr	1		
21.1.19	Thrust blocks	nr	4		
5	SUCTION PIPE OF BACKWASH PUMP(CLEAR WATER TANK TO PUMP HOUSE) - ALL PN 16				
21.1.20	Dia 150mm X 45 ^o plain ended bend	nr	2		
21.1.21	Dia 150mm push fit joint steel pipe	m	6		
21.1.22	DN 150mm flange adaptors	nr	4		
21.1.23	DN 150mm flexible couplings	nr	4		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL NO. 21 - INTERCONNECTING PIPEWORK AT TREATMENT WORKS SITE

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	UNIT, KES	AMOUNT, KES
6	DELIVERY PIPE OF BACKWASH PUMPS, ALL PN 16				
21.1.24	Dia 150mm Socket and spigot pipe.	m	18		
21.1.25	Dia 150mm X 6000mm long all flanged pipe	nr	3		
21.1.26	Dia 150mm X 90° plain ended bend	nr	3		
21.1.27	Dia 150mm X 90° Double flanged bend	nr	4		
21.1.28	Dia 150mm x 1000mm long single flanged pipe(cut to suit)	nr	2		
21.1.29	Dia 150mm all flanged AVK gate valve PN25	nr	1		
7	BACKWASH TANK TO FILTER				
21.1.30	DN 250mm push fit steel pipes	M	36		
21.1.31	DN 250mm single flanged pipes, L=8000mm	M	2		
21.1.32	DN 250mm gate valve PN25	nr	1		
21.1.33	DN250 flange adaptor (VJ Type)	nr	4		
21.1.34	DN250 single flanged pipe L=1m	nr	2		
21.1.35	DN250 straight coupling	nr	4		
21.1.36	DN250 double flanged 90° bend	nr	2		
21.1.37	DN250 Plain ended 90° bend	nr	2		
8	RAW WATER TANK TO MIXING CHAMBER				
21.1.38	DN 350mm AVK gate valve PN25	nr	1		
21.1.39	DN 350mm x 1m long single flanged spigot	nr	1		
21.1.40	DN 350mm flanged adaptor	nr	1		
21.1.41	DN 350mm VJ Coupling	nr	1		
21.1.42	DN 350mm Double flanged 90° bend	nr	1		
21.1.43	AVK Sluice valve Chamber	nr	2		
21.1.44	ALUM&SODA ASH BUILDING TO MIXING CHAMBER				
	OD160mm PN6 HDPE pipe sleeve	m	20		
21.1.45	CHLORINE BUILDING TO CLEAR WATER TANK				
	OD160mm PN6 HDPE pipe sleeve	m	20		
	<u>Bulk water meter</u>				
21.1.46	Supply, install and test diameter 350mm AVK or equivalent approved Water Meter complete with all gasket bolts etc. Rate to include for all associated fittings	nr	1		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 33: RELOCATION OF SERVICES

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	The quantities in this bill are provisional. Though careful considerations have been made to quantify the relocation quantities the contractor is hereby instructed to give a rate which takes care of any abnormal exccalation in the quantities. No new rate shall be given in the case of exccalation in the quantities in this bill.				
33.1	SHOP FRONTS				
K742	Provide for demolition of pavements surfaces, verandahs and other similar surfaces for pipe laying.Rate to include for cartaway and disposal to spoil.	m3	150		
F521	Provide and place concrete class 15/20 100mm thick slab as directed by the engineer for reinstatement of pavements, verandahs and other similar surfaces after laying of pipes. The rate shall include all cost for placing and compaction of suitable material underneath the slab.	m3	150		
	RELOCATION OF EXISTING WATER SERVICES				
	Allow for providing for pipes and fittings destroyed in the course of the carrying out of the main works. Contractor to exercise utmost care and engage with managements of the existing water systems to prevent deliberate destruction of the existing systems. Pipes destroyed due to the contractors failure to consult, or careless action by his personnel shall be at his own cost.				
	Excavate for and reinstate removed existing uPVC, HDPE, steel pipes. Rate to include for jointing and fittings for the same.				
D610.17	Smaller than DN110	m	50		
D610.23	DN 110 and larger pipes	m	50		
	CULVERTS AND DRAINAGE WORKS.				
	No separate payment shall be made for the haulage of surplus or unsuitable excavated material and the cost of such haulage shall be included in the rates and/or prices				
D525	Demolish existing reinforced concrete culvert and cart away debris	m ³	50		
E221.1	Excavate for inlet,outfall,mitre,side and catch water drains in soft material	m ³	500		
E221.2	Excavation in soft material for pipe culverts, headwalls wingwalls,apron,toewalls,and drop inlets and compact as specified or as directed by the engineer	m ³	300		
E242	Excavation in hard material	m ³	50		
E532	Provide, place and compact to 95% MDD AASHTO T180 selected backfill material	m ³	100		
J483.1	Provide and lay 600mm dia. Ogee jointed concrete pipes	m	30		
J483.2	As for 8.05A but 900mm diamater	m	15		
J483.3	As for 8.05A but 1200mm diamater	m	15		
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
G484.1	Provide and place class 15/20 concrete to beds, surround and haunches	m ³	50		
G484.2	Provide place and compact class 25/20 concrete for headwalls, wingwalls, aprons, and toe walls to pipe culvert including all form work and the provision and placing of reinforcement as shown in the drawings.	m ³	10		
G484.3	Provide 150mm thick stone pitching and grout with mortar as specified or as directed by the engineer.	m ²	100		
G484.4	Provide all materials and construct 600mm wide (internal dimension) rectangular concrete drains 200mm thick, class 25/20. Include the steel reinforcement for concrete drain and concrete class 15(20) blinding as specified	m ³	10		
H521	Provide and Place reinforced precast concrete slabs 1000mm x 770mm x 100mm and place over open drains as shown in the books of drawing	No.	50		
G484	Provide all materials and construct 1500mm wide (internal dimension) rectangular concrete drains 200mm thick, class 25/20. Include the steel reinforcement for concrete drain and concrete class 15(20) blinding as specified	m ³	20		
H521	Provide and Place reinforced precast concrete slabs 1000mm x 1660mm x 150mm and place over open drains as shown in the books of drawing	No.	25		
U151.1	Provide all materials and construct 1500mm wide (internal dimension) rectangular masonry drains wall 150mm thick	m ²	60		
U151.2	Construct in concrete class 15/20 side drains scour checks as instructed	m ³	20		
G561	Provide and place A193 fabric wire mesh reinforcement (cross culverts)	m ²	100		
U151	Provide all materials and construct 1500mm X1500mm (internal dimension) rectangular masonry drains wall 150mm thick	m ²	50		
	SIGN POST				
K752	The works shall include the dismantling and reinstatement of existing signboards, their supports and foundations, including storage of dismantled material at site, removal, loading, handling, transport to Contractor's deposit within a radius of 20km from the site, unloading and disposal of any debris, supply and transport of material required for reinstatement.				
	The unit rate shall include all materials, labour, equipment, tools and other incidental costs required to complete the works.				
	Payment shall be made per lump sum for the dismantling and reinstatement of all signboards required to be removed or as directed by the Engineer. No separate payment will be made for excavation, backfilling, compaction, dewatering of holes and trenches, loading, handling, transport of any surplus or backfill material to or from a site approved by the				
	Engineer and situated within a radius of 20km, unloading and disposal of debris, which shall be deemed to have been included in the present unit rates.				
K752.1	Dismantle and reinstate existing signboards.	No.	150		
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	HEDGES AND FENCES				
	Hedges and Fences Reinstatement				
K752	The works shall include the reinstatement live fence, accompanying wooden or concrete supports, foundations, fertilizers including supply and transport of any other material necessary for reinstatement.				
	The unit rate shall include all materials, labour, equipment, tools and other incidental costs required to complete the works. Negotiations for the reinstatement with the land owner shall be the sole responsibility of the contractor				
	Payment shall be made per area in meters squared based on the measurement of the area of fence actually reinstated and approved by the Engineer.				
	No separate payment will be made for excavation, backfilling, compaction, dewatering of holes and trenches, watering of live fence to maturity, loading, handling, transport of any surplus or backfill material to or from a site approved by the Engineer and situated within a radius of 20km, unloading, which shall be deemed to have been included in the present unit rates.				
	LIVE FENCES				
K752.1	Provide for the reinstatement of Live fences as described above.	m2	500		
X192.1	Provide for removal of mature live fences of various types, Kei apple, Durantas, Hakea, Lantana etc. girth 0-1m, grub roots, cart away to tips as identified by the contractor with the local authorities and approved by the engineer. Rate to include any wire, posts etc. accompanying it. Level the ground as directed by the Engineer.	m2	1,500		
	CHAINLINK & BARBED WIRE FENCE				
X123	"The works shall include the demolition, dismantling, removal, and reinstatement, loading, handling, transport to Contractor's deposit within a radius of 20km from the demolition site and unloading of the wire or metallic fence, wooden or concrete supports and the foundations or their storage on site for reuse, as directed by the Engineer.				
	The unit rate shall include all materials, labour, equipment, tools and other incidental costs required to complete the works.				
	Payment shall be made per linear meter based on the measurement of the length of fence actually removed and approved by the Engineer."				
	No separate payment will be made for excavation, backfilling, compaction, dewatering of holes and trenches, loading, handling, transport of any surplus or backfill material to or from a site approved by the Engineer and situated within a radius of 20km, unloading and disposal or storage, which shall be deemed to have been included in the present unit rates.				
X123.1	Provide for removal and reinstatement of chainlink fence of either concrete or wood post	m	300		
X123.2	Provide for removal and reinstatement of barbed wire fence of either concrete or wood post	m	750		
PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET					

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
Bill 21

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22 : TRANSMISSION PIPEWORK - NDARUGU TO MWALA TREATED WATER GRAVITY MAIN

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
22.1	CLASS A: GENERAL ITEM				
	Testing of works				
22.1.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	55,900		
22.1.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	55,900		
22.2	CLASS D: DEMOLITION AND SITE CLEARANCE				
22.3	CLASS I: PIPE WORK - PIPES				
	Supply and Pipe Laying				
	Supply and Transport to site. Transport from site store, lay and joint pipes in trench, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling.				
	Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified. All Excavated depth exceeding 1.5m must be timbered to the satisfaction of the Engineer. Contractor to provide methodology and design for all temporary works required for safe working in trenches				
	HDPE Pipes to KS-ISO-4427 or Approved Similar				
22.3.1	HDPE Pressure Pipes - PE 100 400mm Outer Diameter PN12.5 - 12 metre length	m	25,000		
22.3.2	HDPE Pressure Pipes - PE 100 400mm Outer Diameter PN16 - 12 metre length	m	800		
22.3.3	HDPE Pressure Pipes - PE 100 400mm Outer Diameter PN20 - 12 metre length	m	1,500		
22.3.4	HDPE Pressure Pipes - PE 100 400mm Outer Diameter PN25 - 12 metre length	m	2,100		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22 : TRANSMISSION PIPEWORK - NDARUGU TO MWALA TREATED WATER GRAVITY MAIN

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22 : TRANSMISSION PIPEWORK - NDARUGU TO MWALA TREATED WATER GRAVITY MAIN

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	Flanged Steel Adaptors				
22.4.17	DN 400-429 mm	Nr	200		
22.4.18	DN 350-370 mm	Nr	200		
22.4.19	DN 250-280 mm	Nr	150		
22.4.20	DN 250-267 mm	Nr	150		
22.4.21	DN 200-225 mm	Nr	16		
22.4.22	DN 100-125 mm	Nr	10		
	Tees				
22.4.23	DN 350 X 350 X 200, All flanged tee	Nr	2		
22.4.24	DN 300 X 300 X 200, All flanged tee	Nr	3		
22.4.25	DN 300 X 300 X 100 All flanged tee	Nr	3		
22.4.26	DN 250 X 250 X 200 All flanged tee	Nr	3		
22.4.27	DN 200 X 200 X 100 All flanged tee	Nr	2		
	All Flanged Steel Reducers				
22.4.28	400/355mm Reducer PN25	Nr	1		
22.4.29	355/280mm Reducer PN25	Nr	1		
22.4.30	280/250mm Reducer PN25	Nr	1		
22.4.31	250/200mm Reducer PN20	Nr	1		
	Wash Out valves				
	Rate to include all fittings, level inverted scour tees, isolating valves and concrete outfall				
22.4.32	DN 350 PN 16	nr	15		
22.4.33	DN 300, PN 25	nr	4		
22.4.34	DN 250, PN 25	nr	11		
22.4.35	DN 200, PN 25	nr	11		
	A.R.I Airvalves				
	Rates to include all fittings, isolating valves etc				
22.4.36	DN 350 PN 16	nr	20		
22.4.37	DN 300, PN 25	nr	4		
22.4.38	DN 250, PN 25	nr	9		
22.4.39	DN 200, PN 25	nr	11		
	Sectional Valves / Sluice valves				
	Rates to include all fittings, valves				
22.4.40	DN 400 PN 16	nr	20		
22.4.41	DN 350 PN 25	nr	4		
22.4.42	DN 300, PN 25	nr	9		
22.4.43	DN 250, PN 25	nr	8		
22.4.44	DN 200, PN 25	nr	15		
22.4.45	DN 100, PN 25	nr	10		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22 : TRANSMISSION PIPEWORK - NDARUGU TO MWALA TREATED WATER GRAVITY MAIN

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT ,KES
22.5	CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES				
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.				
	Note:- Items for work in this class shall include:-				
	- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of Excavation, backfilling and removal of redundant services.				
	- Concrete, reinforcement, formwork, joints and finishes.				
	- Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.				
	In Situ Chambers				
	Provide all materials and construct valve chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing.				
22.5.1	Wash outs Depth; not exceeding 1.5 -2 m	nr	41		
22.5.2	Ditto A.R.I Airvalves	nr	44		
	Crossings				
22.5.3	Allow for crossing existing underground services (water lines, sewer lines, telephone/electricity ducts etc.), including reinstatement to original states and liaison with the relevant body for the inspection/ approval during execution of the works. Nominal bore n.e.300mm	Item	1		
	Reinstatement				
	Breaking up, temporary and permanent reinstatement of roads				
22.5.4	Allow for crossing roads - Micro-tunnelling inclusive of excavation in rock or normal material, steel sleeve in accordance with relevant authorities as per the drawings and as directed by the Engineer	m	200		
	Other Ancillaries				
	Supply and fix marker posts for water main route, road crossings,				
	change of direction, A.R.I Airvalves, washouts, fire hydrants and valve				
	chambers. All in accordance with drawings and specifications				
22.5.5	Washouts, inscribe WO	nr	41		
22.5.6	AVK Sluice valves, inscribe SV	nr	44		
22.5.7	Pipeline , PIPES	nr	30		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22 : TRANSMISSION PIPEWORK - NDARUGU TO MWALA TREATED WATER GRAVITY MAIN

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
22.6	CLASS L:- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES				
	TO LAYING AND EXCAVATION				
29.5.1	Excavation to trench, depth not exceeding 1.5 m in soft/normal material All Excavated depth exceeding 1.5m must be timbered to the satisfaction of the Engineer. Contractor to provide methodology and design for all temporary works required for safe working in trenches	m ³	50,310		
29.5.2	Ditto but depth 1.5 m - 2.5 m	m ³	33,540		
29.5.3	Ditto but depth 2.5 m -3.5 m	m ³	100		
29.5.4	Ditto but depth 3.5 m -5 m	m ³	25		
	Extras to Excavation and Backfilling (Provisional)				
22.6.1	Excavation in trench for rock class "A"	m ³	1,278		
22.6.2	Excavation in trench for rock class "B"	m ³	1,278		
22.6.3	Excavation in trench for rock class "C"	m ³	1,278		
22.6.4	Excavation for Chambers for rock class "A"	m ³	10		
22.6.5	Excavation for Chambers for rock class "B"	m ³	10		
22.6.6	Excavation for Chambers for rock class "C"	m ³	10		
	Concrete Support, Thrust Blocks and Anchor Blocks				
22.6.7	Thrust blocks for bends	nr	106		
22.6.8	Ditto for Tees	nr	10.00		
22.6.9	Provide all materials and construct a 225m3 masonry tanks as per the specifications	Item	1.00		
22.6.10	Provide a PC sum of KES 2,500,000 for connection to the existing system as directeds along the pipeline corridor has directed by the Engineer.	PC sum	1.00		
22.6.11	Add % for profit, administration, attendance upon, overheads, etc. for Item 22.6.10 above.	%	0.10		
22.6.12	1000 Gauge polythene sheeting, laid over hardcore in two layers	m ²	50.00		
	All steelwork to be completely cleaned by acid dipping prior to galvanising for Masonry tank				
	Access Traps				
22.6.13	Provide, supply and install 200 X 200 X 200 x 6mm iron stirrups for O&M complete with bolting and welding facilities	nr	30.00		
	Access Ladder				
22.6.14	M.S flat vertical guard strips 40 x 3mm including M.S cleats 40 x 6mm bolted to distribution chamber walls, M.S stringer 40 x 6mm all fillet welded	m	4.00		
	Supply and Transport to site. Transport from site store, lay and joint pipes in trench, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling.				
22.6.15	ND 350 PN 16 Steel pipes in trench	m	300.00		
22.6.16	Repair of existing structures to engineer's satisfaction	item	1.00		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22 : TRANSMISSION PIPEWORK - NDARUGU TO MWALA TREATED WATER GRAVITY MAIN

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 22: CROSSINGS

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs	AMOUNT Kshs
	Allow in the rates hereby for equipment and personnel for working conditions in the rivers and steep valleys-River diversions, temporary bridges, access roads etc. . For the road crossings , allow for traffic management .Allow for coordination with the relevant government agencies like KERRA, KURA, WARMA , County government, other stakeholders				
22.1	RIVER AND GULLEY CROSSINGS				
22.1.1	Excavate for river training/DIVERSION in soft material	m ³	3,000		
22.1.2	E.O for excavation in Hard rock as per specifications (provisional)	m ³	150		
	CLASS D: SITE CLEARANCE				
22.1.3	Clear site for works as instructed, including removal of trees and stumps with girths less than 0.5m, hedges, bushes and other vegetation or deleterious organic material, and back filling of holes left by removal of stumps and roots using approved material.	m ²	13,000		
	Tree Cutting (Provisional)				
	Cut down trees, grub up roots and cart away to tips				
22.1.4	Girth: 0.5 m - 1.0 m	Nr	25		
22.1.5	Girth: 1.0 m - 2 m	Nr	30		
22.1.6	Girth: Exceeding 2 m	Nr	45		
	Note:- Girth shall be measured 1.0 m above the ground level				
	CLASS E: EXCAVATION				
	NOTE:- Excavate below stripped level to invert level in soft/normal material, part backfill after construction , fully backfill after testing and remainder, cart away to tips or use as fill on site, all as directed by the Engineer.				
	Trench width and minimum cover to pipes is as per the Specification , as shown in drawings and as directed by the Engineer. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material or from suitable import material for compaction in bed and surround to backfilling of trenches, etc., all as specified. The rate to include for removing all the roots encountered in the trench and disposal as directed by the Engineer.				
22.1.7	Excavation in trench, depth not exceeding 1.5 m in soft/normal material	m ³	1,200		
22.1.8	Ditto but depth 1.5 m - 2.5 m	m ³	90		
22.1.9	Ditto but depth 2.5 m -3.5 m	m ³	72		
22.1.10	Ditto but depth 3.5 m -5 m	m ³	58		
22.1.11	Ditto but depth exceeding 5 m	m ³	200		
22.1.12	E.O for excavation in Hard rock as per specifications (provisional)	m ³	81		
	CLASS F: IN SITU CONCRETE				
22.1.13	Construct reinforced concrete column River and Steep Valley pipe crossing, all in accordance with details shown on drawings. Include for provision and fixing of clips, heavy duty steel pipe clamps and heavy duty triangular mild steel frame as detailed in the drawings	m ³	250		
22.1.14	Reinforced Concrete Anchor and thrust blocks as detailed in the drawings	m ³	150		
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
22.2	ROAD CUTTING				
	<i>Reinforcement; Deformed High Yield Steel Bars to BS4449</i>				
	Rate to include for cutting, bending, supporting, trying and securing reinforcement				
22.1.15	Nominal size up to 12mm	Kg	42,000		
22.1.16	Nominal size above 12mm	Kg	18,000		
	ROAD CROSSINGS				
22.1.17	Allow for micro tunneling across tarmacked road for steel pipe of diameter 400 - 500mm as detailed the drawings and as directed by the engineer. Rate inclusive of steel casing minimum internal diameter 800mm.	m	25		
22.1.18	Ditto but for pipe of DN 150 - 350mm	m	25		
22.1.19	Ditto item K731 AND K732 but in Hard rock as per specifications	m	25		
22.1.20	Allow for micro tunneling across all weather road ,murrum, earthen and similar roads for steel pipe if diameter 400 -500mm as detailed in the drawings and directed by the engineer. Rate to be inclusive of the steel casing.	m	25		
22.1.21	Ditto but for pipe of DN 150 - 350mm	m	25		
22.1.22	Ditto item K712 AND K711 but in Hard rock as per specifications	m	25		
22.2.1	Breaking up, temporary and permanent reinstatement of tarmac road with suitable selected excavated material and 300mm thick well graded stabilised gravel with 3% cement content base, compacted using an 8-10 tonne roller and at-least 50mm thick bitumen macadam, all to the satisfaction of the Engineer. Contractor to include for road cutting, excavation of compacted hardcore / murrum, blinding of concrete base, base wall / concrete with Class 25/20 BRC mesh A142, sand fill, precast concrete cover slabs, etc. Nominal pipe bore n.e. 300mm. Contractor to allow for provision of requisite diversion signage, controls and safety precaution in his rates, nominal bore not exceeding 200mm.	m	50		
22.2.2	Breaking up, temporary and permanent reinstatement of murrum road with 300mm thick well graded stabilised gravel with 3% cement base compacted using an 8-10 tonne roller to the satisfaction of the Engineer. Nominal bore n.e. 300mm. Contractor to allow for provision of requisite diversion signage, controls and safety precaution in his rates, nominal bore not exceeding 200mm.	m	50		
22.2.3	Breaking up, temporary and permanent reinstatement of all murrum footpaths to the satisfaction of the Engineer. Nominal bore n.e. 300mm	m			
22.2.4	Breaking up, temporary and permanent reinstatement of all paved footpaths to the satisfaction of the Engineer. Nominal bore n.e. 300mm	m	250		
22.2.5	Provide all materials and construct 150mm thick Class 25/20 concrete raft slab protection over water pipe at murrum / footpath road crossings with A142 BRC fabric mesh reinforcement, pipe outside diameter n.e. 300mm.	m ²	200		
	VALVE CHAMBERS				
22.2.6	Valve Chamber (2000 x 1500 x 2000mm) - To suite site or as directed by the Engineer. (20 No.)				
22.2.7	Excavation in normal soil	m ³	100		
	Ditto but in rock	m ³	20		
PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET					

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs	Kshs
	Concrete				
	Vibrated reinforcement in situ concrete grade 20; with minimum cube crushing strength of 25N/mm ² at 28 days as specified; including formwork and reinforcement				
22.2.8	To floor slab	m ³	25		
22.2.9	To roof slab	m ³	10		
	<u>Reinforcement; Deformed High Yield Steel Bars to BS4449</u>				
	Rate to include for cutting, bending, supporting, tying and securing reinforcement				
22.2.10	Nominal size up to 16mm	Kg	5,250		
	Stonework				
22.2.11	200mm thick natural stone walling to chamber	m ²	250		
22.2.12	300mm thick natural stone walling to chamber	m ²	180		
	Cover				
22.2.13	Lockable inspection reinforced concrete cover and frame to BS 497 Table 6 Grade 0 and bedding frame in cement mortar and setting cover in grease to opening size 600 x 450mm	No.	20		
PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET					

**MWALA CLUSTER WATER SUPPLY PROJECT
BILL 22 TRANSMISSION SYSTEM & CROSSINGS**

[illegible]

BILL 23 Mwala Muthel Hill Pipeline					
ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
23.1	CLASS A: GENERAL ITEM				
	Testing of works				
23.1.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	10,660		
23.1.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 23 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	10,660		
23.2	CLASS D: DEMOLITION AND SITE CLEARANCE				
23.3	CLASS E: PIPE WORK - PIPES				
	Supply and Pipe Laying				
	Supply and Transport to site. Transport from site store, lay and joint pipes in trench, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling.				
	Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified.				
23.3.1	ND 200 PN 32 Steel pipes in trench, depth not exceeding 2.5 m. Rate to include all interconnection fittings.	m	2,600		
23.3.2	HDPE Pressure Pipes - PE 100 250mm Outer Diameter PN25 - 12 metre length	m	4,800		
23.3.3	HDPE Pressure Pipes - PE 100 250mm Outer Diameter PN20 - 12 metre length	m	2,000		
23.3.4	HDPE Pressure Pipes - PE 100 250mm Outer Diameter PN16 - 12 metre length	m	910		
23.3.5	HDPE Pressure Pipes - PE 100 250mm Outer Diameter PN12.5- 12 metre length	m	350		
23.4	CLASS F: PIPE WORK - FITTINGS AND VALVES				
	Supply, Transport to site. Transport from site store, lay and joint.				
	DN 200 All Flanged Steel bends - PN 25				
23.4.1	11.25°	Nr	15		
23.4.2	22.5°	Nr	15		
23.4.3	45°	Nr	10		
23.4.4	90°	Nr	10		
	DN 250 Flanged Steel adapters				
23.4.5	DN 250-267 mm PN25	Nr	150		
23.4.6	DN 200-225 mm PN32	Nr	16		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 23 Mwala Muthei Hill Pipeline

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	Wash Out valves				
	Rate to include all fittings, valves and concrete outfall				
23.4.7	DN 200 PN 25	nr	11		
	Air valves				
	Rate to include all fittings, isolating valves etc				
23.4.8	DN 200 PN 25	nr	7		
23.5	CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES				
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.				
	Note:- Items for work in this class shall include:-				
	- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of Excavation, backfilling and removal of redundant services.				
	- Concrete, reinforcement, formwork, joints and finishes.				
	- Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.				
	In Situ Chambers				
	Provide all materials and construct wash out valve chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing.				
23.5.1	Depth: not exceeding 1.5 -2 m	nr	7		
23.5.2	Ditto Air Valves	nr	11		
	Crossings				
23.5.3	Allow for crossing existing underground services (water lines, sewer lines, telephone/electricity ducts etc.), including reinstatement to original states and liaison with the relevant body for the inspection/ approval during execution of the works. Nominal bore n.e.300mm	Item	1		
	Reinstatement				
	Breaking up, temporary and permanent reinstatement of roads				
23.5.4	Allow for crossing roads - Micro-tunnelling inclusive of excavation in rock or normal material, steel sleeve (Minimum internal Diameter 400 mm) in accordance with relevant authorities as per the drawings and as directed by the Engineer	m	50		
	Other Ancillaries				
	Supply and fix marker posts for water main route, road crossings, change of direction, air valves, washouts, fire hydrants and valve chambers. All in accordance with drawings and specifications				
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 23 Mwala Muthei Hill Pipeline

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
23.5.5	Washouts, inscribe WO	nr	7		
23.5.6	AV Valves, inscribe AV	nr	11		
23.5.7	Pipeline , PIPES	nr	20		
23.6	CLASS L- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION				
			10,660		
29.5.1	Excavation to trench, depth not exceeding 1.5 m in soft/normal material	m ³	9,594		
29.5.2	Ditto but depth 1.5 m - 2.5 m	m ³	6,396		
29.5.3	Ditto but depth 2.5 m -3.5 m	m ³	355		
29.5.4	Ditto but depth 3.5 m -5 m	m ³	25		
	Extras to Excavation and Backfilling (Provisional)				
23.6.1	Excavation in trench for rock class "A"	m ³	500		
23.6.2	Excavation in trench for rock class "B"	m ³	500		
23.6.3	Excavation in trench for rock class "C"	m ³	500		
23.6.4	Excavation for Chambers for rock class "A"	m ³	10		
23.6.5	Excavation for Chambers for rock class "B"	m ³	10		
23.6.6	Excavation for Chambers for rock class "C"	m ³	10		
	Concrete Support, Thrust Blocks and Anchor Blocks				
23.6.7	Thrust blocks for bends	nr	70		
23.6.8	Ditto for Tees	nr	10		
	ELECTROMECHANICAL				
23.6.9	Supply, Install, test and commission surface water pump of duty point Q=100m ³ /hr, and H=300m complete with appropriately 50hz sized 3 phase motor and 318-415V, and electronic control panel units for monitoring and protection. The protection to include for: dry run, under or over voltage, phase failure, motor temperature, motor defect. The panel to have Starter ON/OFF selector switch, all faults indicator lights. Include for low level and high level floats/probes and all accessories to automate the operation of the pumps.	Item	2		
23.6.10	Provide all materials and construct a 4000mm x3000mm Pump house as per the specifications	Item	2		
23.6.11	Provide all materials and construct a 50m ³ masonry sump tanks as per the specifications	Item	1		
23.6.12	Allow an item for the interconnection fittings including sluice valves from pipeline to the pumphouse (Inlet DN250 PN25 and Outlet DN200 PN25)	Item	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT					
BILL 23 Mwala Muthei Hill Pipeline					
ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
23.6.13	1000 Gauge polythene sheeting, laid over hardcore in two layers	m ²	50		
	All steelwork to be completely cleaned by acid dipping prior to galvanising for the sump				
	Access Traps				
23.6.14	Provide, supply and install 200 X 200 X 200 x 6mm iron stirrups for O&M complete with bolting and welding facilities	nr	30		
	Access Ladder				
23.6.15	M.S flat vertical guard strips 40 x 3mm including M.S cleats 40 x 6mm bolted to distribution chamber walls, M.S stringer 40 x 6mm all fillet welded	m	4		
23.6.16	Provide 150mm approved compacted hardcore as fill	m3	200		
	Crossings				
	River crossing	m	30		
	RIVER EMBANKMENT & RIVER BED PROTECTION WORKS				
23.6.17	Excavate along river embankment and river bed for the laying of gabions from the existing ground level to the bottom of embankment to approval of Engineer. Depth n.e. 3.0m including disposal of surplus material	m3	200		
23.6.18	Provide and lay of 1m x 1m x 2m Maccaferri or equivalent galvanized gabions to specifications.	m2	200		
23.6.19	Provide 150mm approved hardcore as fill in gabions	m3	200		
23.5	PUMP HOUSE				
	Supply, install, test and commission in accordance to BS 7671:1998, the following as described below:				
	LIGHTING INSTALLATION				
23.5.1	Lighting points wired in 3x 1.5 sq.mm PVC insulated single core copper cable drawn in 20mm dia.GI conduit surface mounted in building fabric for one way switching.	No.	4		
23.5.2	Lighting outlet point comprising wiring in 3x2.5mm sq. single core PVC insulated copper cables drawn in 25 mm diameter GI steel conduits surface mounted in floor complete with all the necessary accessories and photo-cell switched.	No.	4		
	10A 500V metal clad switchplate as Clipsal or equal and approved as described:				
23.5.3	a) One gang one way.	No.	2		
	Supply, install, test and commission in accordance to BS 7671:1998, the following as described below:				
	Supply and install the following lighting fixtures complete with the control switchgears and lamp as per description and symbols:				
23.5.4	a) 2x 58watts IP65 rated dust and moisture resistant fluorescent fitting with injection moulded GRP canopy, acrylic diffuser and stainless steel toggles, fitted with warm start high frequency ballast as Thorn Corrosionproof 2, as type 'SF	No.	2		
23.5.5	b) As Item 1.4a) above but with emergency version 'SFE	No.	4		
23.5.6	c) Polycarbonate bulkhead with black base, tool-less gear tray fixation with honeycomb prismatic diffuser as Thorn Leopard, as type 'B3	No.	4		
	Supply, install, test and commission in accordance to BS 7671:1998, the following as described below:				
	SMALL POWER INSTALLATION				
23.5.7	Ringmains circuit power points wired in 3x 2.5 sq.mm PVC insulated single core copper cable drawn in GI steel conduit surface mounted in building fabrics.	No.	3		
	Radial circuit power points wired in 70.0 sq.mm PVC SWA PVC four core copper cable laid in cable tray rawl bolted to wall for: (Cable tray measured elsewhere)				
23.5.8	a) water pump	LM	250		
	Radial circuit power points wired in 3x 2.5 sq.mm PVC insulated single core copper cable drawn in GI conduit concealed in building fabrics for:	No.	3		
23.5.9	300x 25mm x 16SWG stainless steel perforated cable tray rawl bolted to wall complete with its associated accessories	LM	100		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 23 Mwala Muthei Hill Pipeline

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	Metal Clad socket plates as Clipsal or equal and approved as described:				
23.5.10	a) 13A single standard switched.	No.	3		
23.5.11	b) 32A TPN isolator as Clipsal	No.	2		
	Supply, install, test and commission in accordance to BS 7671:1998, the following as described below:				
	POWER DISTRIBUTION AND SUBMAINS INSTALLATION				
23.5.12	8 Ways 125A TP MCBs surface mounted Distribution Board 'DB-TW' complete with integral isolator and front lockable cover as Merlin Gerin or equal and approved.	No.	1		
23.5.13	Earthing comprising 1500mm, 12mm diameter earth electrode, 6metres of 16mm sq.earth lead drawn in 20mm diameter conduit concealed in wall, 300x300x300mm earth pit as Furse or equal and approved, complete with all accessories.	Item	1		
23.5.14	Labelling for the above DB	Item	1		
	MCBs for the items above:				
23.5.15	a) 10A SP.	No.	2		
23.5.16	b) 20A SP.	No.	1		
23.5.17	c) 30A SP.	No.	3		
23.5.18	d) 32A TP	No.	4		
23.5.19	Submains comprising 2x4 core 300 mm sq. Cu XLPE armoured cable cable laid in power duct from main distribution board in switch room to Pump House distribution board "PH" and complete with cable lugs, glands, ties and all the necessary accessories.	LM.	100		
	LV SUB BOARD				
	Supply, Install, test and commission in accordance to BS 7671:1998, the following as described below:				
	Free standing cubicle type Main Switch Board 'MB', 300A,600V, 1cu 25kA, Form 4b type 4, as Power Technics, Nairobi, manufacture or equal and approved and complete with the following:				
	i) 300 A TP+ N + E bushars				
	ii) 1No.300 A TP+ N Isolators for Mains.				
	iii) 1 No. 300 A TPN MCCB Adj.Incomer MCCB with shunt tripcoil.				
	iv) 1 No. 100-300 A TP Adj. MCCB outgoing				
	vii) 5 No.100 A TP MCCB outgoing				
	vii) 2 No.63 A SP MCCB outgoing for lagoon recirculation pump				
	vii) 2 No.63 A SP MCCB outgoing for back wash pump				
	viii) 300 A TPN electrically and mechanically interlocked Automatic Transfer Switch panel incorporated in the main switch board complete with internal wiring.				
	ix) 40 kVAr digital programmed,free standing modular type,8 automatic stepped in 1:2:2:4 with alarm for low power factor, Power Factor Correction bank complete with interconnecting cables and switching MCBs.				
	x) 300 A TPN manual by-pass for the main power supply AMF.				
	xi) Space for KPLC CT Metering and cut-outs				
	xii) 25kA,415V three-phase surge diverter as Furse ESP 415				
	xiii) 0-300A , Ammeter				
	xiv) 0-600V , Volt meter				
	xv) Current transformers, phase Indicators and selector switches				
23.5.20	xvi) Earthing	Item	1		
23.5.21	Fabrication of EOT crane support I-beam per drawings	t	2		
23.5.22	Erection of steel EOT crane support members complete with all bolts and nuts including site protective painting to specifications	sum	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 23 Mwala Muthei Hill Pipeline

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	Stand-by Generator Sets				
	Design, supply, deliver to site, install, test and commission stand by diesel generating sets rated 350kVA at 0.8 p.f. 3 phase, 415V, 50Hz complete with control panels, control and monitoring equipment, 63dB at 3 meters sound-proof canopy and an integral base belly daily service fuel tank supplied full with an operational running capacity of 8 hours	No	1		
	Design, supply and install complete external exhaust pipework for the above generators including all supports, hangers, hot air discharge ducting and weather grille, flanges and flexible connections, fixings, lagging and cladding with gauge 22 aluminium sheet and all other materials as necessary for the works	LM	15		
	Design, supply and install generators synchronizing panel comprising 1500Amps TP/N copper busbars, 2No 630Amps TP adjustable incomer MCCBs, 1000Amps (Adjustable) TP outgoing MCCB with numeric protection and telecontrol equipment, load sensing/sequencing / synchronizing programable Logic Controller (PLC) panel with human interface unit for contro, and all other necessary accessories required for complete installation of the panel	No			
	Supply and install earthing arrangements for the above generator sets comprising 50sq.mm earth lead, 1800mm long x 15mm diameter copper earth electrode with driving stud and clamp, 300mm x 300mm x 300mm deep concrete manhole, with removable cover, 1000mm x 1000mm copper earth mat, marconite backfill, red soil and all other necessary accessories to earth electrode resistance below 10 - ohms	No.	3		
	Cabling between the generator comprising set of 2x150.0 sq.mm PVC/SWA/PVC single core copper cables per phase & neutral + 120.0 sq.mm ECC between the diesel engine generator sets and the synchronizing panel	LM	10		
	Cabling between the generator comprising set of 2x300.0 sq.mm PVC/SWA/PVC single core copper cable per phase & neutral + 300.0 sq.mm ECC between the diesel engine generator sets and the synchronizing panel	LM	50		
	Supply, install, test and commission 230V AC / 12V DC power supply trickle battery charger complete with all the necessary wiring and accessories for each of the generator sets. The trickle chargers shall only charge the batteries when the generator sets are not running	No.	1		
	Allow for testing and commissioning the entire generating system installation using a load bank capable of delivering full load.	Item	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 23 Mwala Muthei Hill Pipeline

ITEM No.	D E S C R I P T I O N	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	FUEL TANKS AND PUMPING SYSTEM				
	Design, supply, deliver to site, install, test and commission to the approval of the engineer a daily service tank of not less than 6mm thick black mild steel with a operational capacity 1000 litres complete with a level indicator, vent, gauges, painting, oil resistant flexible hoses, oil trip trays etc plus all necessary accessories required for functioning of the fuel tank. The tank is to be complete with 1M stand made 50mm x 3mm thick steel angle bars and all interconnecting black mild steel class 'B' pipe work and all other necessary accessories	No.	1		
	Allow for interconnection between the base belly diesel fuel tanks for the generator sets and the daily service tank in the above item. The rate to be inclusive of black mild steel class "B" pipe work, valves and all other necessary accessories	Sum	1		
	Design, supply, deliver to site, install, test and commission an appropriate duty / standby 230V AC explosion proof fuel booster pumpset complete with DOL starter and control panel, level switches and all interconnecting black mild steel piping and all necessary accessories for automatic operation of the pumps. The pump shall be capable of 300 litres / hour flow rate at 10M head	Sum	1		
	Allow for all the necessary cabling, cable trays & accessories required for complete installation of the above booster pumpset	Item	1		
	Supply, deliver to site, install test and commission manual diesel dispensing pump as a back up alternative for item under 8.2.4 above complete with supports, drip tray, hose connection, offloading drum and other works necessary for the works	No.	1		
	Allow for supply and delivery to site of diesel fuel for testing, commissioning and free running of the diesel engine generator sets for 8 Hours	Sum	1		
	Allow for topping-up of all the daily service fuel tank, bulk storage underground fuel tank and the genset base belly fuel tank with diesel fuel upon satisfactory completion of testing and commissioning	Sum	1		
	Design, supply and install the automatic fuel pumping system (auto start / auto stop) for the fuel tanks in Items 2.1 and 2.3 above. The fuel system should be able to auto-pump fuel from the underground tank to the high level and from the high level tank to the base belly tank for each generator set	Sum	1		
	Supply and install earthing arrangements for the above fuel tanks comprising 25sq.mm earth lead, 1800mm long x 15mm diameter copper earth electrode with driving stud and clamp, 300mm x 300mm x 300mm deep concrete manhole, with removable cover, 1000mm x 1000mm copper earth mat, marconite backfill, red soil and all other necessary accessories	No	1		
	Supply, install appropriate transducers to the fuel tank system - fuel levels, alarms, indicators to the telemetering equipment complete with all other necessary accessories	Sum	1		
	Allow for manual control of the fuel system	Sum	1		
	Allow for full load testing and commissioning of the entire fuel system	Sum	1		
	Allow for recommended spare parts, tools and lubricators (Specify)	Sum	1		
	Provide and install DN200 all flanged multifunctional water pump control valve for the 2 nr. Pumps of PN32	No	2		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 23 Mwala Muthei Hill

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 24 : Muthei Hill - Masii Pipe Line

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
24.1	CLASS A: GENERAL ITEM				
	Testing of works				
24.1.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	7,900		
24.1.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	7,900		
24.2	CLASS D: DEMOLITION AND SITE CLEARANCE				
24.3	CLASS I: PIPE WORK - PIPES				
	Supply and Pipe Laying				
	Supply and Transport to site. Transport from site store, lay and joint pipes in trench, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling.				
	Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified.				
	HDPE Pipes to KS-ISO-4427 or Approved Similar				
25.3.1	ND 200 PN16 HDPE pipes in trench	m	2,500		
24.3.2	ND 110 PN16 HDPE pipes in trench	m	5,400		
	Supply and Transport to site. Transport from site store, lay and joint pipes in trench, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling.				
4-'A42.177	ND 200 PN 16 Steel pipes in trench with all connection fittings	m	100		
24.4	CLASS J: PIPE WORK - FITTINGS AND VALVES				
	Supply, Transport to site. Transport from site store, lay and joint.				
	OD 200 HDPE				
24.4.1	11.25°	Nr	5		
24.4.2	22.5°	Nr	5		
24.4.3	45°	Nr	4		
24.4.4	90°	Nr	4		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 24 : Muthei Hill - Masii Pipe Line

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	OD 110 HDPE				
24.5.5	11.25°	Nr	10		
24.5.6	22.5°	Nr	10		
24.5.7	45°	Nr	10		
24.5.8	90°	Nr	10		
	All Flanged AVK Valves PN 16				
24.5.9	DN 100 PN 16	nr	1		
	Flanged Steel / HDPE Adaptors				
24.5.10	200/225mm flexible Steel/HDPE Adaptor	Nr	20		
24.5.11	110/100mm flexible Steel/HDPE Adaptor	Nr	50		
	Wash Out valves				
	Rate to include all fittings, valves and concrete outfall				
24.5.12	DN 200 PN 16	nr	2		
24.5.13	DN 110, PN 16	nr	4		
	Air valves				
	Rates to include all fittings, isolating valves etc				
24.5.14	DN 200 PN 16	nr	2		
24.5.15	DN 110, PN 16	nr	5		
	All Flanged Tee (Special)				
24.5.16	DN 200x100x150 PN 16	nr	1		
	CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES				
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.				
	Note:- Items for work in this class shall include:-				
	- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of Excavation, backfilling and removal of redundant services.				
	- Concrete, reinforcement, formwork, joints and finishes.				
	- Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.				
	In Situ Chambers				
	Provide all materials and construct wash out valve chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing.				
24.5.17	Depth: not exceeding 1.5 -2 m	nr	7		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 24 : Muthei Hill - Masii Pipe Line

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
24.5.16	Ditto Air Valves	nr	5		
	Crossings				
24.5.17	Allow for crossing existing underground services (water lines, sewer lines, telephone/electricity ducts etc.), including reinstatement to original states and liaison with the relevant body for the inspection/ approval during execution of the works. Nominal bore n.e.300mm	Item	1		
	Reinstatement				
	Breaking up, temporary and permanent reinstatement of roads				
24.5.18	Allow for crossing roads - Micro-tunnelling inclusive of excavation in rock or normal material, sleeve (Min. internal dia. 400 mm) and liason with relevant authorities as per the drawings and as directed by the Engineer	m	100		
	Other Ancillaries				
	Supply and fix marker posts for water main route, road crossings,				
	change of direction, air valves, washouts, fire hydrants and valve				
	chambers. All in accordance with drawings and specifications				
24.5.19	Washouts, inscribe WO	nr	7		
24.5.20	Sluice Valves, inscribe SV	nr	8		
24.5.21	Pipeline , PIPES	nr	20		
24.6	CLASS L:- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES				
	TO LAYING AND EXCAVATION				
			7,900		
24.5.1	Excavation to trench, depth not exceeding 1.5 m in soft/normal material	m ³	7,110		
24.5.2	Ditto but depth 1.5 m - 2.5 m	m ³	4,740		
24.5.3	Ditto but depth 2.5 m -3.5 m	m ³	263		
24.5.4	Ditto but depth 3.5 m -5 m	m ³	25		
	Extras to Excavation and Backfilling (Provisional)				
24.6.1	Excavation in trench for rock class "A"	m ³	150		
24.6.2	Excavation in trench for rock class "B"	m ³	150		
24.6.3	Excavation in trench for rock class "C"	m ³	150		
24.6.4	Excavation for Chambers for rock class "A"	m ³	150		
24.6.4	Excavation for Chambers for rock class "B"	m ³	10		
24.6.5	Excavation for Chambers for rock class "C"	m ³	10		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

[illegible]

BILL 24
Mwala

BILL TOTAL CARRIED TO GRAND SUMMARY	
--	--

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 25 : Makutano Offtake

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
	Wash Out valves				
	Rate to include all fittings, valves and concrete outfall				
25.4.6	DN 160 PN 6	nr	6		
	Air valves				
25.4.7	DN 160 PN 16	nr	6		
	All Flanged AVK Valves PN 16				
25.4.8	DN 150 PN 16	nr	1		
25.5	CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES				
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.				
	Note:- Items for work in this class shall include:-				
	- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of Excavation, backfilling and removal of redundant services.				
	- Concrete, reinforcement, formwork, joints and finishes.				
	- Tips for disposal of excavated material or debris to be identified by the				
	Contractor in liaison with the Local Authority.				
	In Situ Chambers				
	Provide all materials and construct wash out valve chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing.				
25.5.1	Depth: not exceeding 1.5 -2 m	nr	6		
25.5.2	Ditto Air Valves	nr	6		
	Crossings				
	Allow for crossing existing underground services (water lines, sewer lines, telephone/electricity ducts etc.), including reinstatement to original states and liaison with the relevant body for the inspection/ approval during execution of the works. Nominal bore n.e.300mm	Item	1		
	Reinstatement				
	Breaking up, temporary and permanent reinstatement of roads				
	Allow for crossing roads - Micro-tunnelling inclusive of excavation in rock or normal material, steel sleeve (minimum internal dia. 400mm) in accordance with relevant authorities as per the drawings and as directed by the Engineer	m	100		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

[illegible]

[illegible]

BILL 25 Makutano Offtake

BILL TOTAL CARRIED TO GRAND SUMMARY	
--	--

MWALA CLUSTER WATER SUPPLY PROJECT

Bill 26 : MUNYU RAW WATER GRAVITY MAIN - HEADWORKS TO TREATMENT WORKS.

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
26.1	GENERAL ITEMS				
26.1	<u>Testing of Pipeline</u>				
26.1.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	800		
26.1.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	800		
26.2	<u>DEMOLITION AND SITE CLEARANCE</u>				
26.2.1	General clearance to remove bushes and small trees of girth less than 500mm.	ha	1		
26.2.2	Trees of girth more than 500 mm.	nr	5		
26.3	<u>PIPEWORK - PIPES</u>				
	<u>Provide and lay HDPE pipes.</u>				
26.3.1	HDPE Pressure Pipes - PE 100 180mm Outer Diameter PN10 - 12 metre length	m	1,000		
26.3.2	Handle, transport, lay and test Steel Epoxy coated pipes 200mm PN16. The rate to include for all the couplings, reducers, adaptors	M	100		
26.4	<u>PIPEWORK - FITTINGS AND VALVES</u>				
	<u>Bends - long Radius</u>				
	<u>Plain ended</u>				
26.4.1	150mm HDPE 90 degree bend	nr	2		
26.4.2	150mm HDPE 45 degree bend	nr	1		
26.4.3	150mm HDPE 22.5 degree bend	nr	1		
26.4.4	150mm HDPE 11.25 degree bend	nr	1		
	<u>Bulk water meter</u>				
26.4.5	Supply, install and test diameter 150mm AVK or equivalent approved Water Meter complete with all gasket bolts etc. Rate to include for all associated fittings	nr	1		
26.5	<u>PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</u>				
26.5.1	Excavation to trench, depth not exceeding 1.5 m in soft/normal material	m ³	900		
26.5.2	Ditto but depth 1.5 m - 2.5 m	m ³	600		
26.5.3	Ditto but depth 2.5 m - 3.5 m	m ³	300		
26.5.4	Ditto but depth 3.5 m - 5 m	m ³	25		
PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET					

MWALA CLUSTER WATER SUPPLY PROJECT

Bill 26 : MUNYU RAW WATER GRAVITY MAIN - HEADWORKS TO TREATMENT WORKS.

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
Bill 26 Munyu Raw Water

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 27: - 1000m³ B.C Storage tank Muthei Hill tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
26.1.	CLASS E: EARTHWORKS				
	General excavation				
	Excavate in Topsoil for Storage tank Works				
26.1.1	Maximum depth not exceeding 0.25 m	m ²	324		
26.1.2	Maximum depth 0.25 - 0.5 m	m ³	82		
	Excavate in material other than topsoil, rock or artificial hard material for Storage tank Works.				
26.1.3	Maximum depth 0.5 - 1 m	m ³	164		
26.1.4	Maximum depth 1 - 2 m	m ³	328		
26.1.5	Maximum depth 2 - 5 m	m ³	260		
	Excavate in Rock for Storage tank Works.				
26.1.6	Maximum depth 0.25 - 0.5 m	m ³	10		
26.1.7	Maximum depth 1 - 2 m	m ³	300		
	Hardcore				
26.1.8	Provide approved hardcore and compact in layers of 150mm, blinded with final material 25mm thick	m ³	100		
	Filling				
	Provide fill material to Storage tank Works structures				
26.1.9	Excavated topsoil	m ³	25		
26.1.10	Selected excavated material other than topsoil or rock	m ³	264		
26.2.	CLASS F: IN SITU CONCRETE				
	Mass concrete Class 15/20				
26.2.1	Strength Grade 15/20 (1:3:6) blinding concrete 75 mm thick the tank, with sulphate resisting cement	m ³	25		
	Reinforced concrete Class 25/20:				
26.2.2	Foundation, Base and ground slab concrete	m ³	115		
26.2.3	Walls	m ³	140		
26.2.4	Beams	m ³	3		
26.2.5	Columns	m ³	1		
26.2.6	Paparet Wall	m ³	1		
26.2.7	Suspended Slab	m ³	60		
26.2.8	Gutter	m ³	1		
26.3.	CLASS G: CONCRETE ANCILLIARIES				
	Formwork				
	Provide and fix shuttering including propping, strutting and striking, all as specified				
	(i) Vertical Formwork - Class F3 Finish				
26.3.1	Sides of the Rectangular Base Concrete	m ²	22		
26.3.2	Outer Sides of the Wall	m ²	340		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 27 : - 1000m³ R.C Storage tank Muthei Hill tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
26.3.3	Sides of the Parapet Wall	m ²	38		
26.3.4	Inner sides of the storage tank wall	m ²	320		
26.3.5	Sides of Columns width 0.3m	m ²	14		
26.3.6	Sides of Beams	m ²	12		
26.3.7	Soffit of the suspended slab	m ²	200		
26.3.8	Inner sides of O&M channel	m ²	5		
26.3.9	Inner and Outer sides of the gutter, overflow channel	m ²	32		
26.3.10	Boxing out 500mm dia. holes 250mm thick in concrete slab for evnt pipe instatlantion and make it good after installation	Nr	2		
26.3.11	Boxing out 1600x1600x250 in concrete top slab for eaccess manholes	Nr	2		
26.3.12	Demolition of existing works including concrete blinding etc.	Item	1		
	Reinforcement				
26.3.12	Provide and fix high tensile steel reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified				
26.3.12	High yield tensile steel 16mm diameter	kg	20,000		
26.3.13	High yield tensile steel 12mm diameter	kg	16,000		
26.3.14	High yield tensile steel 10mm diameter	kg	4,000		
	Concrete Surface Finish				
26.3.15	Provide Class UF3 Finish for top of base slab of tank	m ²	200		
26.3.16	Provide Class UF3 Finish for top suspended slab	m ²	240		
	Leak proof testing				
26.3.17	Allow for leak proof testing.	Item	1		
26.4.	CLASS H: PRECAST CONCRETE				
26.4.1	Provide ,supply and install 1000x1000x50mm thick manhole covers complete with handling accessories	nr	2		
26.4.2	Provide and lay with all leads and lifts etc. complete 600 x 600 x 50 mm thick precast paving slabs on and including 50 mm thick sand bed as per the drawings	m ²	100		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 27 : - 1000m³ R.C Storage tank Muthei Hill tank

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 27 : - 1000m³ R.C Storage tank Muthei Hill tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
26.7.	CLASS U: BRICKWORK, BLOCKWORK AND MASONRY Walling.				
	Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-				
26.7.1	450mm Baffle Wall with 250x250 holes	m ²	81		
26.80	Overflow PIPEWORK				
26.8.1	DN 300 Epoxy Coated Steel Flanged spigot pipe with puddle flange 100mm from spigot end	Nr	1		
26.8.2	DN 300 All flanged 90deg bend	Nr	1		
26.8.3	DN 300 Flanged Spigot pipe with spigot end Beveled, length 3000mm	Nr	1		
26.90	Scour Pipework				
26.9.1	DN 300 Plain ended pipe with puddle flange 120mm from one end cut to suit on site, length 7000mm	Nr	1		
26.9.2	DN 300 Coupling	Nr	1		
26.9.3	DN 300 flanged Spigot pipe with puddle flange @ 430mm from flanged end, length 1200mm	Nr	1		
26.9.4	DN 300 All flanged AVK gate valve PN25	Nr	1		
26.9.5	DN 300 Flanged adaptor	Nr	2		
26.9.6	DN 300 Plain ended 90 deg bend	Nr	1		
26.10.	Inlet Pipework				
26.10.1	DN 300 Flanged special bell mouth	Nr	1		
26.10.2	DN 300 All flanged 90 deg bend with puddle flange 250mm from one end	Nr	1		
26.10.3	DN 300 Steel flanged spigot pipe with puddle flange at 2630mm from one end, length 8250mm	Nr	1		
26.10.4	DN 300 Couplings	Nr	2		
26.10.5	DN 300 Steel flanged spigot pipe with puddle flange 1450mm from spigot end, length 1200mm	Nr	1		
26.10.6	DN 300 All flanged AVK Sluice valve PN25 Euro-20 series type 23 or approved equivalent	Nr	1		
26.10.7	DN 300 Flange adaptor	Nr	1		
26.10.8	DN 300 Plain ended pipe with puddle flange at 720mm from one end, length 1200mm	Nr	1		
26.10.9	DN 300 Plain ended pipe with puddle flange at 450mm from one end, length 1200mm	Nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 27 : - 1000m³ R.C Storage tank Muthei Hill tank

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE, KES	AMOUNT, KES
26.10.10.	DN 300 Coupling	Nr	1		
26.10.11	DN250 Flanged Steel / HDPE Adaptor PN16	Nr	1		
26.10.12	DN 300x250 All flanged steel reducer PN16	Nr	1		
26.11	Outlet Pipework				
26.11.1	DN 300 Flanged special bell mouth	Nr	1		
26.11.2	DN 300 Pipe with Puddle flange 400mm from one end	Nr	1		
26.11.3	DN 300 Steel flanged spigot pipe with puddle flange at 3530mm from flanged end, length 3300mm	Nr	1		
26.11.4	DN 300 Couplings	Nr	2		
26.11.5	DN 300 Steel flanged spigot pipe with puddle flange 775mm from spigot end, length 1200mm	Nr	1		
26.11.6	All flanged 300mm x 300mm x 200mm tee	Nr	1		
26.11.7	DN 300 All flanged AVK gate valve PN25 PN25 (euro 20 series type 23 or approved equivalent), length 250mm	Nr	1		
26.11.8	DN 300 Flange adaptor	Nr	1		
26.11.9	DN 300 Plain ended pipe with puddle flange at 445mm from one end, length 1200mm	Nr	1		
26.11.10.	DN 300 All flanged AVK gate valve PN25 PN25 (Euro 20 series type 23 or approved equivalent)	Nr	1		
26.11.11	DN 300 Flange adaptor	Nr	1		
26.11.12	DN 300 Plain ended pipe with puddle flange at 605mm from one end, length 1200mm	Nr	1		
26.11.13	DN 300 Couplings	Nr	1		
26.11.14	Formed surface joint with filler, width of depth not exceeding 0.5 m	m2	60		
26.11.15	Flanged AVK Sluice valve PN25 DN 200 mm dia.	No.	1		
26.11.16	Provide & lay 300mm wide x 12mm thick Ruberoid layer between wall & roof slab.	m	110		
26.11.17	DN300 mm Bellmouth for Overflow	nr	1		
26.11.18	DN300 mm x 90° Double flanged bend for overflow	nr	1		
26.11.19	DN300 mm AVK Sluice valve PN25 to BS5163 PN16 for Inlet	nr	1		
26.11.20.	DN 250, AVK Sluice valve PN25 to BS5163 for washout	nr	1		
26.11.21	DN 200 PN 25 AVK Sluice valve to BS5163 for Outlet	nr	1		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION SHEET				

MWALA CLUSTER WATER SUPPLY PROJECT

BILL 27: - 1000m³ R.C Storage tank Muthei Hill tank

[illegible]

MWALA CLUSTER WATER SUPPLY PROJECT
BILL 29 1000m3 RC Storage Tank

[illegible]

Daywork Schedule

General

1. Reference should be made to Sub-Clause 13.6 of the General Conditions. Work shall not be executed on a daywork basis except by written order of the Engineer. Bidders shall enter basic rates for daywork items in the Schedules, which rates shall apply to any quantity of daywork ordered by the Engineer. Nominal quantities have been indicated against each item of daywork, and the extended total for Daywork shall be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for daywork shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

Daywork Labour

2. In calculating payments due to the Contractor for the execution of daywork, the hours for labour will be reckoned from the time of arrival of the labour at the job site to execute the particular item of daywork to the time of return to the original place of departure, but excluding meal breaks and rest periods. Only the time of classes of labour directly doing work ordered by the Engineer and for which they are competent to perform will be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.
3. The Contractor shall be entitled to payment in respect of the total time that labour is employed on daywork, calculated at the basic rates entered by the Contractor in the **Schedule of Daywork Rates:**
 1. **Labour**, together with an additional percentage payment on basic rates representing the Contractor's profit, overheads, etc., as described below:
 - (a) The basic rates for labour shall cover all direct costs to the Contractor, including (but not limited to) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labour for social benefits in accordance with *[country of Borrower]* law. The basic rates will be payable in local currency only.
 - (b) The additional percentage payment to be quoted by the bidder and applied to costs incurred under (a) above shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities, and insurances and allowances to labour, timekeeping, and clerical and office work, the use of consumable stores, water, lighting, and power; the use and repair of stagings, scaffolding, workshops, and stores, portable power tools, manual plant, and tools; supervision by the Contractor's staff, foremen, and other supervisory personnel; and charges incidental to the foregoing. Payments under this item shall be made in the following currency proportions:
 - (i) foreign: ____ percent (to be stated by bidder).²
 - (ii) local: _____ percent (to be stated by bidder).

² The bidder shall state the percentage in a common foreign currency equivalent required for payment and the exchange rates and official sources used.

Daywork Materials

4. The Contractor shall be entitled to payment in respect of materials used for daywork (except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore), at the basic rates entered by the Contractor in the **Schedule of Daywork Rates: 2. Materials**, together with an additional percentage payment on the basic rates to cover overhead charges and profit, as follows:
 - (a) the basic rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site. The basic rates shall be stated in local currency, but payment will be made in the currency or currencies expended upon presentation of supporting documentation.
 - (b) the additional percentage payment shall be quoted by the bidder and applied to the equivalent local currency payments made under (a) above. Payments under this item will be made in the following currency proportions:
 - (i) foreign: ____ percent (to be stated by the bidder);³
 - (ii) local: _____ percent (to be stated by the bidder);
 - (c) the cost of hauling materials for use on work ordered to be carried out as daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labour and Construction in this schedule.

Daywork Contractor's Equipment

5. The Contractor shall be entitled to payments in respect of Contractor's Equipment already on Site and employed on daywork at the basic rental rates entered by the Contractor in the **Schedule of Daywork Rates: 3. Contractor's Equipment**. Said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity, and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead, profit, and administrative costs related to the use of such equipment. [***Note to the Employer:** This is an example of wording to include overhead and profit, etc., in the daywork rates. A separate percentage addition could be used as for labour and materials.*] The cost of drivers, operators, and assistants will be paid for separately as described under the section on Daywork Labour. [***Note to the Employer:** An alternative, sometimes adopted for administrative convenience, is to include the cost of drivers, operators, and assistants in the basic rates for Contractor's Equipment. The last sentence of this paragraph 5 should then be modified accordingly.*]
6. In calculating the payment due to the Contractor for Contractor's Equipment employed on daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the travelling time from the part of the Site where the Contractor's Equipment was located when ordered by the Engineer to be employed on daywork and the time for return journey thereto shall be included for payment.

³ The bidder shall state the percentage in a single foreign currency equivalent and the exchange rates and official sources used.

7. The basic rental rates for Contractor's Equipment employed on daywork shall be stated in local currency, but payments to the Contractor will be made in currency proportions, as follows:
- (a) foreign: _____ percent (to be stated by the bidder).⁴
 - (b) local: _____ percent (to be stated by the bidder).

⁴ The bidder shall state the percentage in a single foreign currency equivalent and the exchange rates and official sources used.

Schedule of Daywork Rates: 1. Labour

Technical Bid

- **Technical Bid-Base Bid**
- **Site Organization**
- **Method Statement**
- **Mobilization Schedule**
- **Construction Schedule**
- **ES Management Strategies and Implementation Plans**
- **Code of Conduct (ES)**
- **Equipment**
- **Key Personnel Schedule**
- **Others**

Technical Bid-Base Bid

[Note for information of Bidder: Bidders shall demonstrate compliance with the Employer's requirements and Technical Specifications as described in Section VII of the Bidding Documents. Any departures or deviations from the required Technical Specifications shall be highlighted and if there are none, full compliance shall be confirmed.]

The Bidder shall provide the Technical Bid for the Base-Bid complete in all respect including Technical information and standards, codes, designs and specifications, of Works offered along with all documentation mentioned in ITB 16 and Section VII of the Bidding Document. This will include relevant literatures, data or drawings, test results and other supporting documents, including all information requested in the Bidding Document and as may be necessary to establish conformity with the Employer's Specifications and requirements.

Any deviations in the technical standards, codes, designs or specifications or other requirements from those stated in the Bidding Documents shall be explained indicating their impact on the performance requirements, characteristics or parameters of the works. To this end, for any such deviations to be acceptable, Bid shall establish to the satisfaction of the Employer substantial responsiveness to the required technical specifications by explaining and documenting for the offered works, equivalency with or improvement to the required technical standards, codes, designs and Specifications.

Any Major deviation from the Employer's requirements shall be the cause for rejection of the Bid. Any deviation which in the Bidder's opinion is considered minor, the Bidder shall provide evidence to this effect including evidence of any monetary implications caused by such deviation. The Employer's evaluation shall be independent of Bidder's opinion on such matters and shall be final]

Site Organization

[insert Site Organization information]

Method Statement

[insert Method Statement]

Mobilization Schedule

[insert Mobilization Schedule]

In accordance with the Particular Conditions, Sub-Clause 4.1, the Contractor shall not carry out mobilization to Site unless the Engineer gives consent that appropriate measures are in place to address environmental and social risks and impacts, which as a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel, submitted as part of the Bid and agreed as part of the Contract.

Construction Schedule

[insert Construction Schedule]

The construction schedule shall include the following key milestones:

- *No-objection to the Contractor's MSIPs, which collectively form the C-ESMP, in accordance with the Particular Conditions – Special provisions Sub-Clause 4.1.*
- *Constitution of the DAAB*

ES Management Strategies and Implementation Plans

(ES-MSIP)

The Bidder shall submit comprehensive and concise Environmental **and Social (ES)** Management Strategies and Implementation Plans (ES-MSIP) as required by ITB 11.1 (j) of the Bid Data Sheet. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the ES provisions of the contract including those as may be more fully described in the Works Requirements in Section VII.

Code of Conduct for Contractor's Personnel (ES) Form

Note to the Bidder:

The minimum content of the Code of Conduct form as set out by the Employer shall not be substantially modified. However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

We are the Contractor, [*enter name of Contractor*]. We have signed a contract with [*enter name of Employer*] for [*enter description of the Works*]. These Works will be carried out at [*enter the Site and other locations where the Works will be carried out*]. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, labourers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “**Contractor's Personnel**” and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.

4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling sexual exploitation, sexual abuse and sexual harassment cases, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [] or by telephone at [] or in person at []; or
2. Call [] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR CONTRACTOR'S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor's contact person with relevant experience*] requesting an explanation.

Name of Contractor's Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

ATTACHMENT 1: Behaviors constituting Sexual Exploitation and Abuse (SEA) and behaviors constituting Sexual Harassment (SH)

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM

BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviors.

(1) Examples of sexual exploitation and abuse include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) Examples of sexual harassment in a work context

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Form EQU: Equipment

The Bidder 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 Bidder.

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

Omit the following information for equipment owned by the Bidder.

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	

Form PER -1

Contractor's Representative and Key Personnel Schedule

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

Contractor' Representative and Key Personnel

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

4.	Title of position: <i>[Social Specialist]</i>	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
5.	Title of position: Sexual Exploitation, Abuse and Harassment Expert <i>[Where a Project SEA risks are assessed to be substantial or high, Key Personnel shall include an expert with relevant experience in addressing sexual exploitation, , sexual abuse and sexual harassment cases]</i>	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
6.	Title of position: <i>[insert title]</i>	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

Form PER-2:
Resume and Declaration
Contractor's Representative and Key Personnel

Name of Bidder

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

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

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

Declaration

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

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

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

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

- (a) be taken into consideration during Bid evaluation;
- (b) result in my disqualification from participating in the Bid;
- (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 Bidder:

Signature: _____

Date: (day month year): _____

Commercial Terms and Conditions

[Bidder shall specify any deviations to the provisions of the Bidding Document (other than Technical Specifications) in particular those specified in Part 3 of the Bidding document including General and Particular Conditions of Contract. If “None” it shall be confirmed accordingly]

Bidders Qualification without prequalification

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

Form ELI -1.1

Bidder Information Form

Date: _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4 <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1 <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6, documents establishing: <ul style="list-style-type: none">• Legal and financial autonomy• Operation under commercial law• Establishing that the Bidder is not under the supervision of the Employer
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. <i>[If required under BDS ITB 47.1, the successful Bidder shall provide additional information on beneficial ownership, using the Beneficial Ownership Disclosure Form.]</i>

Form ELI -1.2

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

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of the Reporting Firm _____

JV Information of the Reporting Firm

Bidder'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 <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. <i>[If required under BDS ITB 47.1, the successful Bidder shall provide additional information on beneficial ownership for each JV member using the Beneficial Ownership Disclosure Form.]</i>

Form ELI -1.3

Eligible Materials, Equipment and Services Form

(to be completed by the Bidder)

Bidder's Name: _____

Date: _____

OCBI/LCB No. and title: _____

Page _____ of _____

pages

Eligible Materials, Equipment and Services: In compliance with ITB 5, provide the following information for all Materials, Equipment and Services included under the Contract. Instead of listing each and every item, broad categories are listed below. Include all items in these categories unless any item to be supplied is not covered by any one of them in which case list them separately.

1	2	3		5
S. No.	Description of Broad Category of Materials/Equipment and Services	Estimated Quantity- [Indicate: "All quantity as required" or quantity by subcategory of items]	Estimated Aggregate Value (US Dollar Equivalent)	Countries of Origin
1	All Construction and Testing Materials including raw materials, Cement, Steel, Timber, Lime, Sand, Aggregates, Plastics, Bitumen, Oils, Lubricants, etc. as per specification			
2	All types of Plants, Equipment including Laboratory and Testing Equipment, All types of Vehicles, Furniture, Fittings and Fixtures, Pipes, Tools, Steel and Other Structures, Utensils, Computers and Other IT Equipment, etc. as per specification			
3	All Types of Services including Construction, Installation, Assembly, Inspection, Supervision, Care of Sites, Labor (Skilled and Unskilled), Drilling,			

	Mapping, Transportation and Insurance, etc. as per specification			

Form CON – 2

Historical Contract Non-Performance, Pending Litigation and Litigation History

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV]

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of the Reporting Firm _____

Historical Contract Non-Performance, Pending Litigation and Litigation History of the Reporting Firm

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

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			

Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification]</p> <p>Name of Employer: <i>[insert full name]</i></p> <p>Address of Employer: <i>[insert street/city/country]</i></p> <p>Matter in dispute: <i>[indicate main issues in dispute]</i></p> <p>Party who initiated the dispute: <i>[indicate “Employer” or “Contractor”]</i></p> <p>Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i></p>	<i>[insert amount]</i>

Form CON – 3

Environmental and Social (ES) Performance Declaration

[The following table shall be filled in by the Bidder, by each member of a Joint Venture and each Specialized Subcontractor]

Bidder's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member's or Specialized Subcontractor's Name: *[insert full name]*

OCBI/LCB No. and title: *[insert IFB number and title]*

Page *[insert page number]* of *[insert total number]* pages

Name of the Reporting Firm _____

Environmental and Social (ES) Performance Declaration of the Reporting Firm

Environmental and Social Performance Declaration			
in accordance with Section III, Qualification Criteria, and Requirements			
<input type="checkbox"/> No suspension or termination of contract: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5.			
<input type="checkbox"/> Declaration of suspension or termination of contract: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5. Details are described below:			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. gender-based violence; sexual exploitation or sexual abuse breaches]</i>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
...	...	<i>[list all applicable contracts]</i>	...

Performance Security called by an employer(s) for reasons related to ES performance		
Year	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for calling of performance security: <i>[indicate main reason(s) e.g. for gender-based violence; sexual exploitation, or sexual abuse breaches]</i>	<i>[insert amount]</i>

Form FIN – 3.1: Financial Situation and Performance

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV]

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of the Reporting Firm _____

Financial Situation and Performance of the Reporting Firm

1. Financial data

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

*Refer to ITB 15 for the exchange rate

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 (US\$ equivalent)
1		
2		
3		

3. Financial documents

The Bidder 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 Bidder 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 statements⁵ for the _____years required above; and complying with the requirements

⁵ If the most recent set of financial statements is for a period earlier than 12 months from the date of Bid, the reason for this should be justified.

Form FIN – 3.2: Average Annual Construction Turnover

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV]

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of the Reporting Firm _____

Average Annual Construction Turnover of the Reporting Firm

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

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

Form FIN – 3.3: Financial Resources

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV]

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of Reporting Firm: _____

Financial Resources of the Reporting Firm

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 consistent with information provided under form FIN--3.4

Financial Resources		
No.	Source of financing	Amount (US\$ equivalent)
1		
2		
3		

Form FIN – 3.4: Current Contract Commitments / Works in Progress

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV]

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of Reporting Firm: _____

Current Contract Commitments / Works in Progress of the Reporting Firm

Bidders 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.

Based on value of all outstanding works and average monthly invoicing, the Bidder and each Member to a JV shall explain how completion by estimated time is proposed to be achieved for each contract listed.

The Bidder and each Member of a JV shall also demonstrate based on access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments consistent with information provided by the Bidder/Each JV Member under Forms FIN--3.1, FIN 3.3 and this Form FIN 3.4 how the overall cash flow requirements for this Contract and their all other current contract commitments will be met.

Current Contract Commitments and Cash-Flow Requirements

1	2	3	4	5	6	7
S. No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [Current US\$ Equivalent]	Estimated Completion Date/Time in Months to complete	Average Monthly Invoicing Over Last Six Months [US\$/month]	Estimated Cash-Flow Required for every 4 months= [Value under column 4 divided by Months under column 5 times 4]

Explanation:

Form EXP - 4.1: General Construction Experience

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV]

Bidder's Name: _____

Date: _____

JV Member's Name _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of the Reporting Firm _____

General Construction Experience of the Reporting Firm

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

Form EXP - 4.2(a): Specific Construction and Contract Management Experience

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV and specialized Sub-Contractors, if applicable]

Bidder's Name: _____

Date: _____

JV Member's Name if the Bidder is a JV _____

Specialized Subcontractor's Name *[Insert full name if permitted]* _____

OCBI/LCB No. and title: _____

Page _____ of _____ pages

Name of the Reporting Firm _____

Specific Construction and Contract Management Experience of the Reporting Firm

Similar Contract No.	Information			
Contract Identification	<i>[insert contract name and number, if applicable]</i>			
Name of the firm that was awarded the contract identified above				
Award date	<i>[insert day, month, year, e.g., 15 June 2016]</i>			
Completion date **	<i>[insert day, month, year, e.g., 03 May 2018]</i>			
Role in Contract identified above <i>[check the appropriate box. Check box as "Prime Contractor" if contract was awarded to the reporting firm as a single construction contractor. Check Box "Member in JV" if the contract was awarded to a JV and was a member of the JV. Check Box "Management Contractor" if the reporting firm signed the construction contract and was responsible for its performance and completion of works as per terms and conditions of the contract. Also see *** below. Check Box "Sub-Contractor" if the reporting firm was a sub-contractor appointed by the main contractor who was awarded the contract]</i>	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/> ***	Sub-contractor <input type="checkbox"/>

Total Contract Amount	<i>[insert total contract amount in local currency]</i>		US\$ <i>[insert Exchange rate and total contract amount in US\$ equivalent]*</i>
If reporting firm was a member in a “JV” or “sub-contractor”, as per box checked above, it can claim experience only for its’ own share of works actually performed under the contract and not the entire contract. As such, the reporting firm shall indicate its share as a percentage of the total Contract amount and also in absolute amount	<i>[insert the percentage of the total contract amount indicated above which represents reporting firm’s share under the contract performed]</i>	<i>[insert amount the reporting firm received or entitled to for the works performed as its share in the total contract amount in local currency]</i>	<i>[insert exchange rate and total contract amount in US\$ equivalent]*</i>
Roles and Responsibilities	<i>[Briefly describe roles and responsibilities of the Reporting firm under the above contract]</i>		
Employer's Name:	<i>[Insert Full Name]</i>		
Address:	<i>[indicate street / number / town or city / country]</i>		
Telephone/fax number	<i>[insert telephone/fax numbers, including country and city area codes]</i>		
E-mail:	<i>[insert e-mail address, if available]</i>		

* Refer Section III for guidance on the date and source of exchange rate.

** If contract is not fully completed but substantially completed then indicate the absolute total value of the completed part of the contract and also the percentage completion calculated as a percentage of the total value of the contract upon completion.

*** In claiming experience as a Management Contractor, the Bidder shall furnish copies of the contracts signed by the Bidder demonstrating scope of construction works performed. It should be noted that a Construction Manager is not the same as a Management Contractor. Construction Manager is a Consultant for or agent of the Borrower and mainly responsible for supervision of the construction works and does not take the risks associated with the performance of the construction contracts as the Management Contractor does. Instead of performing the works directly, a Management Contractor contracts out and manages the work of other contractors taking on full responsibility and risk for price, quality and timely performance as per the terms and conditions of contracts it signs with the Employers.

Form EXP - 4.2(a) (cont.): Specific Construction and Contract Management Experience (cont.)

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

Form EXP - 4.2(b): Construction Experience in Key Activities

[The form shall be filled in by the Bidder, and each member of a Joint Venture, if the Bidder is a JV and specialized Sub-Contractors, if applicable]

Bidder's Name: _____
 Date: _____
 Bidder's JV Member Name: _____
 Sub-contractor's Name⁶ (as per ITB 34): _____
 OCBI/LCB No. and title: _____
 Page _____ of _____ pages

Name of the Reporting Firm _____
 Construction Experience in Key Activities of the Reporting Firm under each contract
 completed or under implementation

Bidder, Members of the JV or proposed Specialized Contractors claiming experience for key activities must complete the information in this form as per ITB 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2. *[Provide information for each contract separately when claiming experience by aggregating quantities of the key activity completed in more than one contract]*

1. Key Activity No One: _____

	Information			
Contract Identification				
Award date				
Completion date as per Contract				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount			US\$	
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	Information			
	<i>[insert response to Employer's inquiry indicated in left column]</i>			

⁶ If applicable

	Information		
Quantity (Volume, number or rate of production, as applicable for the Key activity) performed under the contract per year or part of the year. For each year indicate quantities performed and specify both start and end months. <i>[Insert extent of participation indicating actual quantity of key activity successfully completed in the role performed]</i>	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)
Year 1 <i>[e.g. 2016 from January to September]</i>			
Year 2 <i>[e.g. 2017 from January to December]</i>			
Year 3			
Year 4			
In response to the criterion for rates of production in 12 consecutive months or less, if performance under more than one contract spread over more than one year are considered, the Applicant shall provide information by months for each such contract to demonstrate which same 12 consecutive months meet the minimum rate of production.			
Employer's Name:			
Address: Telephone/fax number E-mail:			

2. Activity No. Two

3.

Form EXP - 4.2(c)

Specific Experience in Managing ES aspects

[The following table shall be filled in for contracts performed by the Bidder, and each member of a Joint Venture]

Bidder's Name: _____

Date: _____

Bidder's JV Member Name: _____

RFB No. and title: _____

Page _____ of _____ pages

1. Key Requirement no 1 in accordance with 4.2 (c): _____

Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Subcontractor <input type="checkbox"/>
Total Contract Amount			US\$	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.2 (c): _____

3. Key Requirement no 3 in accordance with 4.2 (c): _____

Form of Bid Security - Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[Insert name and address of the Employer]*

Invitation for Bids No: _____ *[Insert reference number for the Invitation for Bids]*

OCBI/LCB No.: _____ *[Employer to insert same OCBI number as in procurement plan]*

Date: _____ *[Insert date of issue]*

BID GUARANTEE No.: _____ *[Insert guarantee reference number]*

Guarantor: _____ *[Insert Guarantor's name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _____ (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Bid (hereinafter called "the Bid") for the execution of _____ under Invitation for Bids No. _____ ("the IFB") and Open Competitive Bidding (International) No. _____ ("the OCBI").

Furthermore, we understand that, according to the Beneficiary's conditions, Bids must be supported by a Bid guarantee.

At the request of the Applicant to issue this guarantee, 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 Bid during the period of Bid validity set forth in the Applicant's Letter of Bid ("the Bid Validity Period"), or any extension thereto provided by the Applicant; or
- (b) having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance Security and, if required, the Environmental and Social (ES) Performance Security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's Bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, if required, the Environmental and Social (ES) Performance Security, issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

[signature(s)]

[Note: In case the Applicant is a Joint Venture indicate the name of the Joint Venture or names of all members of the Joint Venture that submitted or will submit the Bid]

Form of Bid-Securing Declaration

Date: _____

OCBI/LCB No.: *[insert number as in procurement plan]*.: _____

Alternative No.: _____

To:

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for Bidding in any contract with the Employer for the period of time of *[insert number of months or years consistent with BDS 19.9]* _____, if we are in breach of our obligation(s) under the Bid conditions, because we:

- (a) have withdrawn our Bid during the period of Bid validity specified in the Letter of Bid or any extension thereto provided by us; or
- (b) having been notified of the acceptance of our Bid by the Employer 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 and, if required, the Environmental and Social (ES) Performance Security, in accordance with the ITB 48.

The start date of suspension shall be the first date we perform any of the actions mentioned in paragraphs (a) and (b) above. We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder* _____

Name of the person duly authorized to sign the Bid on behalf of the Bidder** _____

Title of the person signing the Bid _____

Signature of the person named above _____

Date signed _____ day of _____, _____

* In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

** Person signing the Bid shall have the power of attorney given by the Bidder attached to the Bid

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members to the Joint Venture that submits the Bid.]

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Non-Consulting Services in Bank Group Financed Procurement

A. Provisions under Section 5 “Eligibility” of the Procurement Policy for Bank Group Funded Operations and Chapter A2 of the Operations Procurement Manual under Procurement Framework of the African Development Bank

1. The African Development Fund (ADF) permits firms and individuals from all countries to offer goods, works and services for ADF funded projects.

However, the proceeds of any Financing undertaken in the operations of the African Development Bank (ADB) and the Nigeria Trust Fund (NTF) shall be used for procurement of goods and works, including the related services, provided by bidders from Eligible¹ Countries.² Any conditions for participation shall be limited to those that are essential to ensure the firm’s capability to fulfill the contract in question. In the case of ADB and NTF, bidders from non-Member Countries offering goods, works and related services (including transportation and insurance) are not eligible even if they offer these from Eligible Member Countries. Any waiver to this rule will be in accordance with the Articles 17(1) (d) of the Agreement Establishing the African Development Bank and 4.1 of the Agreement Establishing the Nigeria Trust Fund.

B. Rules and Procedures for Procurement of Goods and Works

Overview

1. The eligibility criteria for participation in the supply of goods, works and related services, to be procured through the ADB and NTF Financing, derive from the requirements of the Agreement Establishing the African Development Bank, Article 17.1.d, and the Agreement Establishing the Nigeria Trust Fund, Article 4.1. The foregoing requirements basically prescribe two types of eligibility criteria:

- (a) The eligibility of the bidder;
- (b) The eligibility of the goods, works and related services.

Eligibility of the Bidder under the ADB and NTF Financing

2. The eligibility of the bidder shall be based on nationality, in accordance with the following rules:
 - (a) Natural Persons: A natural person is eligible if he or she is a national of a Member Country of the ADB. Where a person has more than one nationality, such a person shall be eligible if the nationality indicated in his or her bid is that of a Member Country of the ADB.
 - (b) Corporations: A corporation is eligible if it satisfies the following criteria:
 1. it is incorporated in a country that is a Member of the ADB;
 2. it is a national of a country that is a Member of the ADB, as determined by the law of its place of incorporation;
 3. it has its principal place of business in a country that is a Member of the ADB.

¹ Refer to Bank Procurement Framework for additional information on Eligibility.

² “Eligible Countries” shall mean: (a) in the case of the African Development Bank (ADB) and the Nigeria Trust Fund, the Member Countries of the ADB; and (b) in the case of the African Development Fund (ADF), any country.

- (c) Joint Ventures and Associations: An unincorporated joint venture, partnership, or association, shall be eligible if more than 50% of the value of its works and/or services is executed by its members satisfying the eligibility requirements for individuals or corporations.

Eligibility of the Goods, Works and Related Services

3. In order to be eligible, the goods to be procured must have been mined, grown, or produced, in the form in which they are purchased, in an Eligible Member Country.
4. For works contracts, which may include civil works, plant construction, or turnkey contracts, the contractor must satisfy the nationality criteria of eligibility, either as a natural person, or corporation, or joint venture and association. Labour, equipment, and materials needed for carrying out the works contract, shall be supplied from Eligible Member Countries.
5. For contracts, which have been awarded on the basis of Cost, Insurance and Freight (CIF), or Carriage and Insurance Paid (CIP), bidders shall be free to arrange for ocean and other transportation, and the related insurance, from any Eligible Member Country. On the other hand, where goods are shipped on FOB basis, and the Bank has agreed to finance transportation and insurance separately, which are arranged by the purchaser, under a separate contract, the Bank shall be satisfied that the services are supplied from Eligible Member Countries.

List of Eligible Countries

6. List of Eligible countries can be found in African Development Bank's website:

<https://www.afdb.org/en/about-us/corporate-information/members/>

Ineligible Countries in reference to ITB 4.8 and ITB 5.1

7. In reference to ITB 4.8 and ITB 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8(a) and ITB 5.1: *[insert a list of the countries following approval by the Bank to apply the restriction or state "none"]*.

Under ITB 4.8(b) and ITB 5.1: *[insert a list of the countries following approval by the Bank to apply the restriction or state "none"]*

Section VI - Fraud and Corruption

1. Purpose

1.1 The Bank's Integrity Framework and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption¹.

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, 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 party²;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party³ 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:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation 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
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank 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;

¹ In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

² For the purpose of this sub-paragraph, "another party" refers to a public official acting in relation to the procurement process or contract execution, including Bank staff and employees of other organizations taking or reviewing procurement decisions.

³ For the purpose of this sub-paragraph, "party" refers to a public official, including Bank staff and employees of other organizations taking or reviewing procurement decisions.; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution."

- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Banks Integrity Framework and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;⁴ (ii) to be a nominated⁵ sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants), consultants, contractors, and suppliers: and their sub-contractors, sub-consultants, service providers, suppliers, agents, personnel, permit the Bank to inspect⁶ 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 Bank.

⁴ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, 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.

⁵ A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

⁶ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank 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.



Part 2: Works' Requirements

Section VII - Works' Requirements

Contents

Scope of Works..... **Error! Bookmark not defined.**

Specification 120

Environmental and Social (ES) requirements 121

Contractor’s Representative and Key Personnel..... 122

Drawings 124

Supplementary Information 125

Scope of Works

The works specified under this contract shall include all general and ancillary works and work of any nature that is deemed necessary for the due and satisfactory construction, completion and maintenance of the works to the full extent and meaning of the Drawings and Specifications, whilst complying with all general Conditions of Contract whether specifically mentioned or not in the clause of the specifications.

Some of the Works detailed in this special specifications are only indicative of the Scope of Works associated with this contract and the Engineer may, where necessary, substitute some of the Works with others within the project areas without substantially altering the overall Scope of the Works. Any other activity not listed above but deemed to be necessary by the Engineer shall be carried out subject to the Engineer's formal instructions. Works shall be measured and paid using the relevant rates and prices in the Bill of Quantities.

The works will also include for any operations necessary for the safe and convenient passage of traffic at all times.

Compliance with Specification.

All materials, plant, labour and workmanship in and connected with the execution of the works shall be the best of their respective kinds without regard to any trade terms and the Contractor shall comply with these and all other respects with the relevant Clauses in the Specification and shall carry out the Contract in a proper and workmanship like manner and in strict accordance with Specifications, Working Drawings and Instructions of the Engineer.

Specification

The Special Specifications are to be read in conjunction with the Standard Specification for Road and Bridge Construction, Ministry of Transport and Communications, 1986 and the General/Particular Conditions of this contract.

Refer to the separate Book of Specification for the Construction for Mwala Cluster Water Supply Projects referred to as **VOL. II EMPLOYER'S REQUIREMENTS.**

Environmental and Social (ES) requirements

Refer to the separate Book of Specification for the Construction for Mwala Cluster Water Supply Projects referred to as **VOL. II EMPLOYER'S REQUIREMENTS**.

Contractor's Representative and Key Personnel

[Note: Insert in the following table, the minimum key specialists required to execute the contract, taking into account the nature, scope, complexity and risks of the contract.

Where a Project SEA risks are assessed to be substantial or high, the Employer shall include a Sexual Exploitation, Abuse and Harassment expert(s).]

Contractor's Representative and Key Personnel

Item No.	Position/Specialization	Relevant Academic Qualifications	Minimum Years Of Relevant Work Experience
1	Project Director/Contractor's Representative	Degree In Civil Engineering . Water Engineering, Or Equivalent	10 Years
2	One (1) Project/Contract Manager	Civil Engineering Degree Registered With EBK Or Equivalent	7 Years
3	One (1) Site Agent	(Civil Engineering Degree & Registered With EBK Or Equivalent)	7 Years
4	Two (2) Assistant Site Agents - - One (1) For Intake And Water Treatment Works - One (1) For Water Pipelines And Water Reservoirs.	All Civil Engineering Degree And Graduate Engineers With EBK	3 Years
5	Three (3) Construction Supervisors	Diploma In Water Or Civil Engineering, Or Equivalent)	3 Year
6	One (1) Surveyor	Degree In Surveying - Registered With ISK Or Equivalent	5 Years
7	One (1) Assistant Surveyor	With Minimum Ordinary Diploma (Ond) In Surveying	3 Years

8	Environmental	A Degree In Environmental Sciences Or Equivalent And Registred Lead Expert With Nema.	5 Years
9	Occupational Safety And Health Officer	A First Degree And Course In Occupational Safety And Health	5 Years
10	2 No. Sociologists	A Degree In Social Sciences Or Community Development	4 Years
11	Electromechanical Engineer	Degree In Electrical/ Mechanical Engineering.	10 Years
12	Sexual Exploitation, Abuse And Harassment Officer.	Degree In Social Science with experience in handling gender based issues.	5 Years

The Bidder shall provide details of the proposed personnel and their experience records using Forms PER-1 and PER-2 included in Section IV, Bidding Forms.

Personnel for the listed positions should either:

- Be fluent in written and spoken English or
- At least one interpreter who is fluent in written and spoken English shall be provided by the contractor for every four personnel who are themselves not fluent in written and spoken English.

Drawings

Refer to the separate Book of Drawings for the Construction for Mwala Cluster Water Supply Projects herein referred to as **VOL. III BOOK OF DRAWINGS**

Supplementary Information

Supplementary information comprise of the Materials Report and the Hydrological/ Hydraulics Report denoted as Volume (3A) and Volume (3B) of the Bidding Documents.

These reports are marked “FOR INFORMATION ONLY AND WILL NOT FORM PART OF THE CONTRACT”.

These reports only represent investigations and findings, with/without analysis or interpretation of results/ findings of a consultant and it is the Bidder’s responsibility for any source and quality of construction materials, without binding the Employer.



Part 3: Conditions of Contract & Contract Forms

Section VIII- Particular Conditions

The following Particular Conditions shall supplement the GC. Whenever there is a conflict, the provisions herein shall prevail over those in the GC.

Particular Conditions

Part A – Contract Data

Conditions	Sub-Clause	Data
Where the Contract allows for Cost Plus Profit, percentage profit to be added to the Cost	1.1.20	_____10_ %
Employer's name and address	1.1.31	Chief Executive Officer Athi Water Works Development Agency Athi Water Plaza, Muthaiga North Road, P.O Box 45283 - 00100 Nairobi, Kenya Tel: +254-20-2724292/3, 2711342 Fax: +254-20-2724295 Email: info@awwda.go.ke Website: www.awwda.go.ke
Engineer's name and address	1.1.35	Chief Executive Officer Tanathi Water Works Development Agency KIDP Building - Kalawa Road P.O Box Private Bag Kitui, Kenya
Bank's name	1.1.89	The Bank is: African Development Bank
Borrower's name	1.1.90	Government of Kenya
Time for Completion	1.1.84	730 days (24 months)
Defects Notification Period	1.1.27	365 days. (one year)
Sections	1.1.73	N/A
Electronic transmission system	1.3 (a) (ii)	Email: info@awwda.go.ke
Address of Employer for communications:	1.3(d)	The Employer's address for the purpose of communications is: Chief Executive Officer Athi Water Works Development Agency Athi Water Plaza, Muthaiga North Road, P.O Box 45283 - 00100 Nairobi, Kenya Tel: +254-20-2724292/3, 2711342

Conditions	Sub-Clause	Data
		Fax: +254-20-2724295 Email: info@awwda.go.ke
Address of Engineer for communications:	1.3(d)	Chief Executive Officer Tanathi Water Works Development Agency KIDP Building - Kalawa Road P.O Box Private Bag Kitui, Kenya
Address of Contractor for communications:	1.3(d)	
Governing Law	1.4	Laws of the Republic of Kenya
Ruling language	1.4	English
Language for communications	1.4	English
Time for the Parties to sign a Contract Agreement	1.6	28 days after receipt of the Letter of Acceptance
Number of additional paper copies of Contractor's Documents	1.8	3 (Three)
Total liability of the Contractor to the Employer under or in connection with the Contract	1.15	<i>Accepted Contract Sum (sum)</i>
Site	1.1 74	As Described in Specifications
Joint and Several Liability	1.14	e) Maximum numbers of members in the Joint Venture, Consortium or Association (JV) shall not exceed 3. (f) Minimum share of a member of Joint Venture, Consortium or Association (JV) in the contract shall not be less than 33% percent of the total value of the contract.
Time for access to the Site	2.1	28 days after Commencement Date
Sustainable procurement	4.1	<i>N/A</i>
Performance Security	4.2	The performance security will be in the form of unconditional bank guarantee acceptable to the employer in the amount(s) of 10% of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.

Conditions	Sub-Clause	Data
Environmental and Social (ES) Performance Security	4.2	N/A
Period for notification of errors in the items of reference	4.7.2 (a)	28 Days
Period of payment for temporary utilities	4.19	28 Days
Number of additional paper copies of progress reports	4.20	3 (Three)
Maximum allowable accumulated value of work subcontracted (as a percentage of the Accepted Contract Amount or volume of work-as per provision made under BDS of ITB 34.2)	5.1(a)	30%
Parts of the Works for which subcontracting is not permitted	5.1(b)	N/A
Normal working hours	6.5	Normal working hours are: 8 hours per day from Monday to Friday and 5 hours on Saturday except Sundays and Public Holidays.
Number of additional paper copies of program	8.3	3
Delay damages payable for each day of delay	8.8	0.1% of the Accepted Contract Amount per day, less provisional sum, for DAAB.
Maximum amount of delay damages	8.8	10% of the Accepted Contract Amount less provisional sum for DAAB.
Method of measurement	12.2	Civil Engineering Standard Method of Measurement (CESMM)
Percentage profit	12.3	<i>As stated under 1.1.20 above</i>
Percentage rate to be applied to Provisional Sums for overhead charges and profit	13.4 (b)(ii)	_10 %
Adjustments for changes in cost	13.7	Adjustment for changes in cost shall not apply.
Total advance payment	14.2	15% Percentage of the Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable.

Conditions	Sub-Clause	Data
Repayment of Advance payment	14.2.3	(a) Repayment to begin when the amount of certified works attains exceeds 20% of the portion of the Accepted Contract Amount payable in that currency less Provisional Sums (b) deductions shall be completed when certified works reach 80% of the Contract Sum.
Number of additional paper copies of Statements	14.3(b)	3 (Three)
Percentage of retention	14.3(iii)	10% of interim payment certificates
Limit of Retention Money (as a percentage of Accepted Contract Amount)	14.3(iii)	10% of the Accepted Contract Amount
Plant and Materials	14.5(b)(i)	N/A
	14.5(c)(i)	N/A
Minimum Amount of Interim Payment Certificates	14.6.2	_____5___ % of the Accepted Contract Amount.
Period of payment of Advance Payment to the Contractor	14.7(a)	_____56___ days
Period for the Employer to make interim payments to the Contractor under Sub-Clause 14.6 (interim Payment)	14.7b(i)	_____56___ days
Period for the Employer to make interim payments to the Contractor under Sub-Clause 14.13 (Final Payment)	14.7b(ii)	_____56___ days
Period for the Employer to make final payment to the Contractor	14.7(c)	_____56___ days
financing charges for delayed payment (percentage points above the average bank short-term lending rate as referred to under sub-paragraph (a))	14.8	N/A
Number of additional paper copies of draft Final Statement	14.11.1(b)	3 (Three)
Forces of nature, the risks of which are allocated to the Contractor	17.2(d)	N/A

Conditions	Sub-Clause	Data
Permitted deductible limits	19.1	<p>The minimum insurance amounts and deductibles shall be: insurance required for the Works: [KES. 3,000,000] insurance required for Goods: [KES. 5,000,000]</p> <p>insurance required for liability for breach of professional duty: [KES. 5,000,000]</p> <p>insurance required against liability for fitness for purpose (if any is required): N/A</p> <p>insurance required for injury to persons and damage to property: [KES. 3,000,000]</p> <p>insurance required for injury to employees: [KES. 5,000,000]</p>
Additional amount to be insured (as a percentage of the replacement value, if less or more than 15%)	19.2.1(b)	___N/A
List of Exceptional Risks which shall not be excluded from the insurance cover for the Works	19.2.1(iv)	N/A
Extent of insurance required for Goods	19.2.2	As in 19.1 above
Amount of insurance required for Goods		As in 19.1 above
amount of insurance required for liability for breach of professional duty	19.2.3(a)	As in 19.1 above
Insurance required against liability for fitness for purpose	19.2.3(b)	No
Period of insurance required for liability for breach of professional duty	19.2.3	As in 19.1 above
Amount of insurance required for injury to persons and damage to property	19.2.4	As in 19.1 above
Other insurances required by Laws and by local practice (give details)		N/A
Time for appointment of DAAB	21.1	42 days after signature by both parties of the Contract Agreement

Conditions	Sub-Clause	Data
The DAAB shall be comprised of	21.1	Three Members
List of proposed members of DAAB	21.1	Proposed by Employer <i>[Attach CVs to the bidding document and the Contract]</i> 1. _____ 2. _____ 3. _____ Proposed by Contractor <i>[Attach CVs to the Contract]</i> 1. _____ 2. _____ 3. _____
Appointment (if not agreed) to be made by	21.2	Chartered Institute of Arbitrators Kenya Chapter
Rules of arbitration	21.6(a)	Sub-Clause 21.6(a) of PART B – Specific Provisions shall apply.
	21.6 (b)	Sub-Clause 21.6(b) of PART B – Specific Provisions shall apply.
Place of arbitration	21.6(a)	<i>Arusha, Tanzania</i>

Table: Summary of Sections (if any)

Description of parts of the Works that shall be designated a Section for the purposes of the Contract (Sub-Clause 1.1.73)	Value: Percentage* of Accepted Contract Amount (Sub-Clause 14.9)	Time for Completion (Sub-Clause 1.1.84)	Delay Damages (Sub-Clause 8.8)

*These percentages shall also be applied to each half of the Retention Money under Sub-Clause 14.9

Part B - Specific Provisions

Sub-Clause 1.1.10 Contract	“the Contractor’s Proposal” is deleted.
Sub-Clause 1.1.49 Laws	The Sub-Clause is replaced with: “ Laws ” means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.”
Sub-Clause 1.1.74 Site	The Sub-Clause is replaced with: “ Site ” means the places where the Permanent Works are to be executed, including storage and working area, and to which Plant and Materials are to be delivered, and any other places specified in the Contract as forming part of the Site.”
Sub-Clause 1.1.77 Statement	On the second line after “Payment Certificate under...”, add “Sub-Clause 14.2.1 [Advance Payment Guarantee] (if applicable),”.
Sub-Clause 1.1.81 Tender	“the Contractor’s Proposal” is deleted.
Sub-Clause 1.1.89 to 1.1.91 are added after Sub-Clause 1.1.88	
Sub-Clause 1.1 89 Bank	“ Bank ” means the financing institution (if any) named in the Contract Data.
Sub-Clause 1.1.90 Borrower	“ Borrower ” means the person (if any) named as the borrower in the Contract Data.
Sub-Clause 1.1.91 ES	“ ES ” means Environmental and Social (including Sexual Exploitation and Assault (SEA)).

<p>Sub-Clause 1.1.92 Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)</p>	<p>“Sexual Exploitation and Abuse” “(SEA)” and Sexual Harassment (HS) mean the following:</p> <p>Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another.</p> <p>Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions; and</p> <p>“Sexual Harassment” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor’s Personnel with other Contractor’s or Employer’s Personnel.</p>
<p>Sub-Clause 1.2 Interpretation</p>	<p>Sub-paragraph (a) is replaced with the following:</p> <p>(a) “Words indicating one gender include all genders;</p> <p>“he/she” is replaced with: “it”;</p> <p>“him/her” is replaced with “it”;</p> <p>“his” and “his/her” are replaced with: “its”;</p> <p>“himself/herself” are replaced with: “itself”.</p> <p>Further, “and” is deleted from the end of sub-paragraph (i) and added at the end of sub-paragraph (j).</p> <p>sub-paragraph (k) is added:</p> <p>(k) “The word “tender” is synonymous with “bid” or “proposal”, the word tenderer with “bidder” or “proposer” and the words “tender documents” with “request for bids documents” or “request for proposal documents”, as applicable.”</p>

Sub-Clause 1.5 Priority of Documents	<p>The following documents are added in the list of Priority Documents after (e):</p> <p>“(f) the Particular Conditions Part C- Fraud and Corruption;</p> <p>(g) the Particular Conditions Part D- Environmental and Social (ES) Metrics for Progress Reports;”</p> <p>and the list renumbered accordingly.</p>
Sub-Clause 1.6 Contract Agreement	<p>The last paragraph is replaced with:</p> <p>“If the Contractor comprises a JV, <i>the authorised representative of the JV shall sign</i> the Contract Agreement in accordance with sub – clauses 1.14 (Joint and Several Liability).”</p>
Sub-Clause 1.12 Confidentiality	<p>The following is added at the end of the second paragraph: “The Contractor shall be permitted to disclose information required to establish its qualifications to compete for other projects.”</p> <p>“or” at the end of (b) is deleted.</p> <p>“or” at the end of (c) is added.</p> <p>The following is then added as (d): “is being provided to the Bank .”</p>
Sub-Clause 1.17 Inspections & Audit by the Bank	<p>The following Sub-Clause is added after Sub-Clause 1.16:</p> <p>“Pursuant to paragraph 2.2 e. of Particular Conditions - Part C- Fraud and Corruption, the Contractor shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the Bank. The Contractor’s and its Subcontractors’ and subconsultants’ attention is drawn to Sub-Clause 15.8 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Bank’s inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank’s prevailing sanctions procedures).”</p>
Sub-Clause 2.4	<p>The first paragraph is replaced with:</p>

Employer's Financial Arrangements	<p>“The Employer shall submit, before the Commencement Date, reasonable evidence that financial arrangements have been made for financing the Employer’s obligations under the Contract.”</p> <p>The following sub-paragraph is added at the end of Sub-Clause 2.4: “In addition, if the Bank has notified to the Borrower that the Bank has suspended disbursements under its loan, which finances in whole or in part the execution of the Works, the Employer shall give notice of such suspension to the Contractor with detailed particulars, including the date of such notification, with a copy to the Engineer, within 7 days of the Borrower having received the suspension notification from the Bank. If alternative funds will be available in appropriate currencies to the Employer to continue making payments to the Contractor beyond a date 60 days after the date of Bank notification of the suspension, the Employer shall provide reasonable evidence in its notice of the extent to which such funds will be available.”</p>
Sub-Clause 2.6 Employer-Supplied Materials and Employer’s Equipment	<p><i>[If Employer- Supplied Materials are listed in the Employer's Requirements for the Contractor's use in the execution of Works, the following provisions may be added]:</i></p> <p>The following is added after the last paragraph of Sub-Clause 2.6:</p> <p>“The Employer shall supply to the Contractor the Employer-Supplied Materials listed in the Specification, at the time(s) stated in the Specification (if not stated, within the times that shall be required to enable the Contractor to proceed with execution of the Works in accordance with the Programme).</p> <p>When made available by the Employer, the Contractor shall visually inspect the Employer-Supplied Materials and shall promptly give a Notice to the Engineer of any shortage, defect or default in them. Thereafter, the Contractor shall rectify such shortage, defect or default to the extent instructed by the Engineer. Such instruction shall be deemed to have been given under Sub-Clause 13.3.1 <i>[Variation by Instruction]</i>.</p> <p>After this visual inspection, the Employer-Supplied Materials shall come under the care, custody and control of the Contractor. The Contractor’s obligations of inspection, care, custody, and control shall not relieve the Employer of liability of any shortage, defect or default not apparent from a visual inspection.”</p> <p><i>[If Employer's Equipment are listed in the Specification for the Contractor's use in the execution of Works, the following provisions may be added]:</i></p> <p>The following is added after the last paragraph of Sub-Clause 2.6:</p>

	<p>“The Employer shall make the Employer’s Equipment listed in the Specification available to the Contractor at the time(s) stated in the Specification (if not stated, within the times that shall be required to enable the Contractor to proceed with execution of the Works in accordance with the Programme).</p> <p>Unless expressly stated otherwise in the Specification, the Employer’s Equipment shall be provided for the exclusive use of the Contractor.</p> <p>When made available by the Employer, the Contractor shall visually inspect the Employer’s Equipment and shall promptly give a Notice to the Engineer of any shortage, defect or default in them. Thereafter, the Contractor shall rectify such shortage, defect or default to the extent instructed by the Engineer. Such instruction shall be deemed to have been given under Sub-Clause 13.3.1 [<i>Variation by Instruction</i>].</p> <p>The Contractor shall be responsible for the Employer’s Equipment while it is under the Contractor’s control and/or any of the Contractor’s Personnel is operating it, driving it, directing it, using it, or in control of it.</p> <p>The Contractor shall not remove from the Site any items of the Employer’s Equipment without the consent of the Employer. However, consent shall not be required for vehicles transporting Goods or Contractor’s personnel to or from the Site.”</p>
Sub-Clause 3.1 The Engineer	<p>The following is added at the end of the first sub-paragraph: “The Engineer’s staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.”</p>
Sub-Clause 3.2 Engineer’s Duties and Authority	<p>The Engineer shall obtain the consent in writing of the Employer before taking action under the following Sub-Clauses of these Conditions:</p> <ul style="list-style-type: none"> (a) Sub-Clause 13.1: Right to vary - instructing a variation, except; <ul style="list-style-type: none"> (i) in an emergency situation as determined by the Engineer; or (ii) (if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Contract Data. (b) Sub-Clause 13.2 (Value Engineering): stating consent or otherwise to a value engineering proposal submitted by the Contractor in accordance with Sub-Clause 13.2.

	<p>Notwithstanding the obligation, as set out above, to obtain consent in writing, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, it may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of consent of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, and EOT if any, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.</p>
Sub-Clause 3.3 Engineer's Representative	<p>The following is added at the end of Sub-Clause 3.3:</p> <p>“The Engineer shall obtain the consent of the Employer before appointing or replacing an Engineer's Representative.”</p>
Sub-Clause 3.4 Delegation by the Engineer	<p>The following is added at the end of the second paragraph:</p> <p>“If any assistants are not fluent in this language, the Engineer shall make competent interpreters available during all working hours, in a number sufficient for those assistants to properly perform their assigned duties and/or exercise their delegated authority.”</p>
Sub-Clause 3.6 Replacement of the Engineer	<p>In the first paragraph, “42 days” is replaced with: “21 days”; In the third para, “shall” is replaced with: “should”.</p>
Sub-Clause 4.1 Contractor's General Obligations	<p>The following is inserted after the paragraph “The Contractor shall provide the Plant (and spare parts, if any) ...”:</p> <p>“All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country as defined by the Bank.”</p> <p>The following is inserted after the paragraph “The Contractor shall, whenever required by the Engineer...”:</p> <p>The Contractor shall not carry out mobilization to Site (e.g. limited clearance for haul roads, site accesses and work site establishment, geotechnical investigations or investigations to select ancillary features such as quarries and borrow pits) unless the Engineer gives consent, a consent that shall not be unreasonably delayed, that appropriate measures are in place to address environmental and social risks and impacts, which at a minimum shall include</p>

	<p>applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel submitted as part of the Bid and agreed as part of the Contract.</p> <p>The Contractor shall submit, to the Engineer for Review any additional MSIPs as are necessary to manage the ES risks and impacts of ongoing Works (e.g. excavation, earth works, bridge and structure works, stream and road diversions, quarrying or extraction of materials, concrete batching and asphalt manufacture). These MSIPs collectively comprise the Contractor's Environmental and Social Management Plan (C-ESMP). The Contractor shall review the C-ESMP, periodically (but not less than every six (6) months), and update it as required to ensure that it contains measures appropriate to the Works. The updated C-ESMP shall be submitted to the Engineer for Review</p> <p>The C-ESMP shall be part of the Contractor's Documents. The procedures for Review of the C-ESMP and its updates shall be as described in Sub-Clause 4.4.1 [<i>Preparation and Review</i>].</p> <p>The following is added as (g); (g) and (h) of the Sub-Clause are then renumbered as (h) and (i) respectively.</p> <p>(g) if so stated in the Specification, the Contractor shall:</p> <ul style="list-style-type: none"> (i) design structural elements of the Works taking into account climate change considerations; (ii) apply the concept of universal access (the concept of universal access means unimpeded access for people of all ages and abilities in different situations and under various circumstances; (iii) consider the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events; and (iv) any other requirement stated in the Specification." <p>The following is added at the end of the Sub-Clause:</p> <p>"The Contractor shall provide relevant contract- related information, as the Employer and/or Engineer may reasonably request to conduct Stakeholder engagements. "Stakeholder" refers to individuals or groups who:</p> <ul style="list-style-type: none"> (i) are affected or likely to be affected by the Contract; and (ii) may have an interest in the Contract. <p>The Contractor may also directly participate in Stakeholder engagements, as the Employer and/or Engineer may reasonably request."</p>
--	---

<p>Sub-Clause 4.2 Performance Security and ES Performance Security</p>	<p>The first paragraph is replaced with:</p> <p>“The Contractor shall obtain (at its cost) a Performance Security for proper performance and, if applicable, an Environmental and Social (ES) Performance Security for compliance with the Contractor’s ES obligations, in the amounts stated in the Contract Data and denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer. If amounts are not stated in the Contract Data, this Sub-Clause shall not apply.”</p> <p>In the following Sub-Clauses of the General Conditions, the term “Performance Security” is replaced with: “Performance Security and, if applicable, an Environmental and Social (ES) Performance Security”:</p> <p>2.1- Right of Access to the Site;</p> <p>14.2- Advance Payment;</p> <p>14.6- Issue of IPC;</p> <p>14.12- Discharge;</p> <p>14.13- Issue of FPC;</p> <p>14.14 Cessation of Employer’s Liability;</p> <p>15.2- Termination for Contractor’s Default;</p> <p>15.5- Termination for Employer’s Convenience.</p>
<p>Sub-Clause 4.2.1 Contractor’s obligations</p>	<p>The first paragraph is replaced with:</p> <p>“The Contractor shall deliver the Performance Security and, if applicable, an ES Performance Security to the Employer within 28 days after receiving the Letter of Acceptance and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank or financial institution selected by the Contractor and shall be in the form annexed to the Particular Conditions, as stipulated by the Employer in the Contract Data, or in another form approved by the Employer. The ES Performance Security shall be issued by a reputable bank selected by the Contractor and shall be in the form annexed to the Particular Conditions, as stipulated by the Employer in the Contract Data, or in another form approved by the Employer.”</p> <p>Thereafter, throughout Sub-Clause 4.2 “Performance Security” is replaced with: “Performance Security and, if applicable, ES Performance Security.”</p>

Sub-Clause 4.2.2 Claims under the Performance Security	The first paragraph is replaced in its entirety with: “The Employer shall not make a claim under the Performance Security, except for amounts for which the Employer is entitled under the Contract.”
Sub-Clause 4.2.3 Return of Performance Security	In sub-paragraph (a) “21 days” is replaced with: “28 days”.
Sub-Clause 4.3 Contractor’s Representative	The following is added at the end of the last paragraph: “If any of these persons is not fluent in this language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.”
Sub-Clause 4.6 Co-operation	On the second-last line of the first paragraph before “Contractor’s”, add “of the”. The following is added after the first paragraph: “The Contractor shall also, as stated in the Specification or as instructed by the Engineer, cooperate with and allow appropriate opportunities for the Employer’s Personnel to conduct any environmental and social assessment.
Sub-Clause 4.7 Setting out	In the second bullet-point of sub-paragraph (b) of Sub-Clause 4.7.3: - before “if the items of reference”, add: “when examining the items of reference within the period stated in sub-paragraph (a) of Sub-Clause 4.7.2” - On the second and third lines, the following is deleted “and the contractor’s Notice is given after the period stated in sub-paragraph (a) of Sub-Clause 4.7.2”.
Sub-Clause 4.8 Health and Safety Obligations	The following are included after deleting “and” at the end of (f) and replacing “.” with “;” at the end of (g): “ (h) provide health and safety training of Contractor’s Personnel as appropriate and maintain training records; (i) actively engage the Contractor’s Personnel in promoting understanding, and methods for, implementation of health and safety requirements, as well as in providing information to Contractor’s Personnel, training on occupational safety and health, and provision of personal protective equipment without expense to the Contractor’s Personnel;

	<p>(j) put in place workplace processes for Contractor's Personnel to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health.</p> <p>(k) Contractor's Personnel who remove themselves from such work situations shall not be required to return to work until necessary remedial action to correct the situation has been taken. Contractor's Personnel shall not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal;</p> <p>(l) subject to Sub-Clause 4.6, collaborate with the entities and Personnel under paragraph (a) , (b) and (c) of Sub-Clause 4.6, in applying the health and safety requirements. This is without prejudice to the responsibility of the relevant entities for the health and safety of their own personnel; and</p> <p>(m) establish and implement a system for regular (not less than six-monthly) review of health and safety performance and the working environment.”</p> <p>The second and third paragraphs are replaced with the following:</p> <p>“Subject to Sub-Clause 4.1, the Contractor shall submit to the Engineer for Review a health and safety manual which has been specifically prepared for the Works, the Site and other places (if any) where the Contractor intends to execute the Works. The procedures for Review of the health and safety manual and its updates shall be as described in Sub-Clause 4.4.1 [<i>Preparation and Review</i>].</p> <p>The health and safety manual shall be in addition to any other similar document required under applicable health and safety regulations and Laws.</p> <p>The health and safety manual shall set out all the health and safety requirements under the Contract,</p> <p>(a) which shall include at a minimum:</p> <ul style="list-style-type: none"> (i) the procedures to establish and maintain a safe working environment without risk to health at all workplaces, machinery, equipment and processes under the control of the Contractor, including control measures for chemical, physical and biological substances and agents; (ii) details of the training to be provided, records to be kept; (iii) the procedures for prevention, preparedness and response activities to be implemented in the case
--	--

	<p>of an emergency event (i.e. an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning);</p> <p>(iv) the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases,</p> <p>(v) the measures to be implemented to avoid or minimize the spread of communicable diseases (including transfer of Sexually Transmitted Diseases or Infections (STDs), such as HIV virus) and non-communicable diseases associated with the execution of the Works, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. This includes taking measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent Contract-related labour;</p> <p>(vi) the policies and procedures on the management and quality of accommodation and welfare facilities if such accommodation and welfare facilities are provided by the Contractor in accordance with Sub-Clause 6.6; and</p> <p>(b) any other requirements stated in the Specification.</p> <p>The paragraph starting with: “In addition to the reporting requirement of...” is deleted and replaced with the addition to GC Sub-Clause 4.20 in Sub-Clause 4.20 of the Special Provisions.</p>
Sub-Clause 4.15 Access Route	<p>The following is added at the end of Sub-Clause 4.15:</p> <p>“The Contractor shall take all necessary safety measures to avoid the occurrence of incidents and injuries to any third party associated with the use of Contractor’s Equipment on public roads or other public infrastructure.</p> <p>The Contractor shall monitor road safety incidents and accidents to identify negative safety issues, and establish and implement necessary measures to resolve them.”</p>
Sub-Clause 4.18 Protection of the Environment	<p>Sub-Clause 4.18 Protection of the Environment is replaced with:</p> <p>“The Contractor shall take all necessary measures to:</p> <p>(a) protect the environment (both on and off the Site); and</p>

	<p>(b) limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.</p> <p>The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Specification, nor those prescribed by applicable Laws.</p> <p>In the event of damage to the environment, property and/or nuisance to people, on or off Site as a result of the Contractor's operations, the Contractor shall agree with the Engineer the appropriate actions and time scale to remedy, as practicable, the damaged environment to its former condition. The Contractor shall implement such remedies at its cost to the satisfaction of the Engineer."</p>
Sub-Clause 4.20 Progress Reports	<p>Replace "4.20 (g) with: "the Environmental and Social (ES) metrics set out in Particular Conditions - Part D"</p> <p>The following is added at the end of the Sub-Clause:</p> <p>"In addition to the reporting requirement of this sub-paragraph (g) of Sub-Clause 4.20 [<i>Progress Reports</i>] the Contractor shall inform the Engineer immediately of any allegation, incident or accident, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel or Contractor's Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.</p> <p>The Contractor, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Engineer of any such incident or accident on the Subcontractors' or suppliers' premises relating to the Works which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel or Contractor's, its Subcontractors' and suppliers' personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Contractor shall provide full details of such incidents or accidents to the Engineer within the timeframe agreed with the Engineer.</p> <p>The Contractor shall require its Subcontractors and suppliers (other than Subcontractors) to immediately notify the Contractor of any incidents or accidents referred to in this Subclause."</p>

<p>Sub-Clause 4.21 Security of the Site</p>	<p>Sub-Clause 4.21 Security of the Site is replaced with: “Sub-Clause 4.21 Security of the Site The Contractor shall be responsible for the security of the Site, and:</p> <ul style="list-style-type: none"> (a) for keeping unauthorised persons off the Site; (b) authorised persons shall be limited to the Contractor’s Personnel, the Employer’s Personnel, and to any other personnel identified as authorised personnel (including the Employer’s other contractors on the Site), by a Notice from the Employer or the Engineer to the Contractor. <p>Subject to Sub-Clause 4.1, the Contractor shall submit for the Engineer’s No-objection a security management plan that sets out the security arrangements for the Site.</p> <p>The Contractor shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards Contractor’s Personnel, Employer’s Personnel and affected communities; and (iii) require the security personnel to act within the applicable Laws and any requirements set out in the Specification.</p> <p>The Contractor shall not permit any use of force by security personnel in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.</p> <p>In making security arrangements, the Contractor shall also comply with any additional requirements stated in the Specification.”</p>
<p>Sub-Clause 4.22 Contractor’s Operations on Site</p>	<p>On the third line of the second paragraph before “4.17”, “Sub-Clause” is added.</p>
<p>Sub-Clause 4.23 Archaeological and Geological Findings</p>	<p>The first paragraph is replaced with the following: “All fossils, coins, articles of value or antiquity, structures, groups of structures, and other remains or items of geological, archaeological, paleontological, historical, architectural or religious interest found on the Site shall be placed under the care and custody of the Employer. The Contractor shall:</p> <ul style="list-style-type: none"> (a) take all reasonable precautions, including fencing-off the area or site of the finding, to avoid further disturbance and prevent Contractor’s Personnel or other persons from removing or damaging any of these findings; (b) train relevant Contractor’s Personnel on appropriate actions to be taken in the event of such findings; and (c) implement any other action consistent with the requirements of the Specification and relevant Laws.”

<p>Sub-Clause 4.24 Suppliers (other than Subcontractors)</p>	<p>4.24.1 Forced Labour The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage forced labour including trafficked persons as described in Sub-Clause 6.21. If forced labour/trafficking cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.</p> <p>4.24.2 Child labour The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage child labour as described in Sub-Clause 6.22. If child labour cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.</p> <p>4.24.3 Serious Safety Issues The Contractor, including its Subcontractors, shall comply with all applicable safety obligations, including as stated in Sub-Clauses 4.8, 5.1 and 6.7. The Contractor shall also take measures to require its suppliers (other than Subcontractors) to adopt procedures and mitigation measures adequate to address safety issues related to their personnel. If serious safety issues are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.</p> <p>4.24.4 Obtaining natural resource materials in relation to supplier The Contractor shall obtain natural resource materials from suppliers that can demonstrate, through compliance with the applicable verification and/ or certification requirements, that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats such as unsustainably harvested wood products, gravel or sand extraction from river beds or beaches.</p> <p>If a supplier cannot continue to demonstrate that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to demonstrate that they are not significantly adversely impacting the habitats.</p>
---	---

Sub-Clause 4.25 Code of Conduct	<p>The Contractor shall have a Code of Conduct for the Contractor's Personnel.</p> <p>The Contractor shall take all necessary measures to ensure that each Contractor's Personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.</p> <p>These measures include providing instructions and documentation that can be understood by the Contractor's Personnel and seeking to obtain that person's signature acknowledging receipt of such instructions and/or documentation, as appropriate.</p> <p>The Contractor shall also ensure that the Code of Conduct is visibly displayed in multiple locations on the Site and any other place where the Works will be carried out, as well as in areas outside the Site accessible to the local community and project affected people. The posted Code of Conduct shall be provided in languages comprehensible to Contractor's Personnel, Employer's Personnel and the local community.</p> <p>The Contractor's Management Strategy and Implementation Plans shall include appropriate processes for the Contractor to verify compliance with these obligations.</p>
Sub-Clause 5.1 Subcontractors	<p>The following is added at the beginning of the second paragraph.</p> <p>"The Contractor shall require that its Subcontractors execute the Works in accordance with the Contract, including complying with the relevant ES requirements and the obligations set out in Sub-Clause 4.25 above."</p> <p>The following is added at the end of the last paragraph of Sub-Clause 5.1:</p> <p>"All subcontracts relating to the Works shall include provisions which entitle the Employer to require the subcontract to be assigned to the Employer under sub-paragraph (a) of Sub-Clause 15.2.3 [After Termination].</p> <p>Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from the Country to be appointed as Subcontractors."</p>
Sub-Clause 5.2.2 Objection to Nomination	<p>In sub-paragraph (a), on the first line before "Subcontractor", "nominated" is added.</p>

	<p>In sub-paragraph (c):</p> <p>“and” is deleted from the end of (i);</p> <p>“.” at the end of (ii) is replaced with: “, and”.</p> <p>The following is then added as (iii):</p> <p>“(iii) be paid only if and when the Contractor has received from the Employer payments for sums due under the Subcontract referred to under Sub-Clause 5.2.3 [<i>Payment to nominated Subcontractors</i>].”</p>
Sub-Clause 6.1 Engagement of Staff and Labour	<p>The following paragraphs are added at the end of the Sub-Clause:</p> <p>The Contractor shall provide the Contractor’s Personnel information and documentation that are clear and understandable regarding their terms and conditions of employment. The information and documentation shall set out their rights under relevant labour Laws applicable to the Contractor’s Personnel (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from any requirements in the Specification. The Contractor’s Personnel shall be informed when any material changes to their terms or conditions of employment occur.</p> <p>“The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications and experience from sources within the Country.”</p>
Sub-Clause 6.2 Rates of Wages and Conditions of Labour	<p>The following paragraphs are added at the end of the Sub-Clause:</p> <p>“The Contractor shall inform the Contractor’s Personnel about:</p> <ul style="list-style-type: none"> (a) any deduction to their payment and the conditions of such deductions in accordance with the applicable Laws or as stated in the Specification; and (b) their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of the Country for the time being in force. <p>The Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.</p> <p>Where required by applicable Laws or as stated in the Specification, the Contractor shall provide the Contractor’s Personnel written notice of termination of employment and details of severance payments in a timely manner. The Contractor shall have paid the Contractor’s Personnel (either directly or where appropriate for their benefit) all due wages and entitlements including, as applicable,</p>

	social security benefits and pension contributions, on or before the end of their engagement/ employment.”
Sub-Clause 6.5 Working Hours	<p>The following is inserted at the end of the Sub-Clause:</p> <p>“The Contractor shall provide the Contractor’s Personnel annual holiday and sick, maternity and family leave, as required by applicable Laws or as stated in the Specification.”</p>
Sub-Clause 6.6 Facilities for Staff and Labour	<p>The following is added as the last paragraph:</p> <p>“If stated in the Specification, the Contractor shall give access to or provide services that accommodate the physical, social and cultural needs of the Contractor’s Personnel. The Contractor shall also provide similar facilities for the Employer’s Personnel as stated in the Specification.”</p>
Sub-Clause 6.7 Health and Safety of Personnel	<p>In the second paragraph, “The Contractor” is replaced with:</p> <p>“Except as otherwise stated in the Specification, the Contractor...”</p>
Sub-Clause 6.9 Contractor’s Personnel	<p>The Sub-Clause is replaced with:</p> <p>“The Contractor’s Personnel (including Key Personnel, if any) shall be appropriately qualified, skilled, experienced and competent in their respective trades or occupations.</p> <p>The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor’s Representative and Key Personnel (if any), who:</p> <ul style="list-style-type: none"> (a) persists in any misconduct or lack of care; (b) carries out duties incompetently or negligently; (c) fails to comply with any provision of the Contract; (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment; (e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works; (f) has been recruited from the Employer’s Personnel in breach of Sub-Clause 6.3 [Recruitment of Persons]; (g) undertakes behavior which breaches the Code of Conduct for Contractor’s Personnel (ES). <p>If appropriate, the Contractor shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience. In the case of replacement of the Contractor’s Representative, Sub-Clause 4.3 [<i>Contractor’s Representative</i>] shall</p>

	<p>apply. In the case of replacement of Key Personnel (if any), Sub-Clause 6.12 [<i>Key Personnel</i>] shall apply.</p> <p>Subject to the requirements in Sub-Clause 4.3 [<i>Contractor's Representative</i>] and 6.12 [<i>Key Personnel</i>], and notwithstanding any requirement from the Engineer to remove or cause to remove any person, the Contractor shall take immediate action as appropriate in response to any violation of (a) through (g) above. Such immediate action shall include removing (or causing to be removed) from the Site or other places where the Works are being carried out, any Contractor's Personnel who engages in (a), (b), (c), (d), (e) or (g) above or has been recruited as stated in (f) above."</p>
Sub-Clause 6.12 Key Personnel	<p>The following is inserted at the end of the last paragraph:</p> <p>"If any of the Key Personnel are not fluent in this language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer."</p>
The following Sub-Clauses 6.13 to 6.27 are added after sub-clause 6.12	
Sub-Clause 6.13 Foreign Personnel	<p>The Contractor may bring into the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.</p> <p>The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.</p>
Sub-Clause 6.14 Supply of Foodstuffs	<p>The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.</p>
Sub-Clause 6.15 Supply of Water	<p>The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.</p>
Sub-Clause 6.16 Measures against Insect and Pest Nuisance	<p>The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The</p>

	Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
Sub-Clause 6.17 Alcoholic Liquor or Drugs	The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.
Sub-Clause 6.18 Arms and Ammunition	The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
Sub-Clause 6.19 Festivals and Religious Customs	The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.
Sub-Clause 6.20 Funeral Arrangements	The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.
Sub-Clause 6.21 Forced Labour	<p>The Contractor, including its Subcontractors, shall not employ or engage forced labour. Forced labour consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.</p> <p>No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harbouring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.</p>
Sub-Clause 6.22 Child Labour	<p>The Contractor, including its Subcontractors, shall not employ or engage a child under the age of 14 unless the national law specifies a higher age (the minimum age).</p> <p>The Contractor, including its Subcontractors, shall not employ or engage a child between the minimum age and the age of 18 in a manner that is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.</p> <p>The Contractor including its Subcontractors, shall only employ or engage children between the minimum age and the age of 18 after an</p>

	<p>appropriate risk assessment has been conducted by the Contractor with the Engineer's consent. The Contractor shall be subject to regular monitoring by the Engineer that includes monitoring of health, working conditions and hours of work.</p> <p>Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Such work activities prohibited for children include work:</p> <ul style="list-style-type: none"> (a) with exposure to physical, psychological or sexual abuse; (b) underground, underwater, working at heights or in confined spaces; (c) with dangerous machinery, equipment or tools, or involving handling or transport of heavy loads; (d) in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or (e) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.
Sub-Clause 6.23 Employment Records of Workers	<p>The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked, and wages paid to all workers. These records shall be summarised on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].</p>
Sub-Clause 6.24 Workers' Organisations	<p>In countries where the relevant labour laws recognise workers' rights to form and to join workers' organisations of their choosing and to bargain collectively without interference, the Contractor shall comply with such laws. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. Where the relevant labour laws substantially restrict workers' organisations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. The Contractor shall not seek to influence or control these alternative means. The Contractor shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organisations and collective bargaining or alternative mechanisms. Workers' organisations are expected to fairly represent the workers in the workforce.</p>
Sub-Clause 6.25	<p>The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The</p>

Non-Discrimination and Equal Opportunity	<p>Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.</p> <p>Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with Sub-Clause 6.22).</p>
Sub-Clause 6.26 Contractor's Personnel Grievance Mechanism	<p>The Contractor shall have a grievance mechanism for Contractor's Personnel, and where relevant the workers' organizations stated in Sub-Clause 6.24, to raise workplace concerns. The grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The mechanism shall address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned in a language they understand, without any retribution, and shall operate in an independent and objective manner.</p> <p>The Contractor's Personnel shall be informed of the grievance mechanism at the time of engagement for the Contract, and the measures put in place to protect them against any reprisal for its use. Measures will be put in place to make the grievance mechanism easily accessible to all Contractor's Personnel.</p> <p>The grievance mechanism shall not impede access to other judicial or administrative remedies that might be available, or substitute for grievance mechanisms provided through collective agreements.</p> <p>The grievance mechanism may utilize existing grievance mechanisms, providing that they are properly designed and implemented, address concerns promptly, and are readily accessible to such project workers. Existing grievance mechanisms may be supplemented as needed with Contract-specific arrangements.</p>
Sub-Clause 6.27 Training of Contractor's Personnel	<p>The Contractor shall provide appropriate training to relevant Contractor's Personnel on ES aspects of the Contract, including appropriate sensitization on prohibition of SEA, and health and safety training referred to in Sub-Clause 4.8</p> <p>As stated in the Specification or as instructed by the Engineer, the Contractor shall also allow appropriate opportunities for the relevant</p>

	<p>Contractor's Personnel to be trained on ES aspects of the Contract by the Employer's Personnel.</p> <p>The Contractor shall provide training on SEA, including its prevention, to any of its personnel who has a role to supervise other Contractor's Personnel.</p>
Sub-Clause 7.3 Inspection	<p>The following is added in the first paragraph after "Employer's Personnel" "(including the Bank staff or consultants acting on the Bank's behalf, stakeholders and third parties, such as independent experts, local communities, or non-governmental organizations)"</p> <p>The following is added as (b) (iv): "(iv) carryout environmental and social audit, and"</p>
Sub-Clause 7.7 Ownership of Plant and Materials	<p>The following is added before the first paragraph: "Except as otherwise provided in the Contract,"</p>
Sub-Clause 8.1 Commencement of Work	<p>The Sub- Clause is replaced in its entirety with the following:</p> <p>"The Engineer shall give a Notice to the Contractor stating the Commencement Date, not less than 14 days before the Commencement Date.</p> <p>The Notice shall be issued promptly after the Engineer determines the fulfilment of the following conditions:</p> <ul style="list-style-type: none"> (a) signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of the Country; (b) delivery to the Contractor of reasonable evidence of the Employer's financial arrangements (under Sub-Clause 2.4 [Employer's Financial Arrangements]); (c) except if otherwise specified in the Contract Data, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works; <p>Subject to Sub-Clause 4.1 on the Management Strategies and Implementation Plans and the C-ESMP and Sub-Clause 4.8 on the health and safety manual, the Contractor, shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay."</p>
Sub-Clause 11.7	<p>In the second paragraph, "Whenever the Contractor intends to access any part of the Works during the relevant DNP:" is replaced with:</p>

Right of Access after Taking Over	“Whenever, until the date 28 days after issue of the Performance Certificate, the Contractor intends to access any part of the Works:”
Sub-Clause 13.3.1 Variation by Instruction	Subparagraph 13.3.1 (a) is replaced with: “a description of the varied work performed or to be performed, including details of the resources and methods adopted or to be adopted by the Contractor, and sufficient ES information to enable an evaluation of ES risks and impacts;”
Sub-Clause 13.4 Provisional Sums	The following is inserted as the penultimate paragraph: “The Provisional Sum shall be used to cover the Employer's share of the DAAB members’ fees and expenses, in accordance with Clause 21. No prior instruction of the Engineer shall be required with respect to the work of the DAAB. The Contractor shall submit the DAAB members’ invoices and satisfactory evidence of having paid 100% of such invoices as part of the substantiation of those Statements submitted under Sub-Clause 14.3.
Sub-Clause 13.6 Adjustments for Changes in Laws	The following paragraph is added at the end of the Sub-Clause: “Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the Table of Adjustment Data in accordance with the provisions of Sub-Clause 13.7 [Adjustments for Changes in Cost].”
Sub-Clause 13.7 Adjustments for changes in Cost	Add the following paragraph at the end only if Contract Data specifies adjustment shall apply. Otherwise, prices shall be fixed during the duration of the Contract: Schedule of Cost Indexation: Formula for Adjustment for Change in Cost: $P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots$ where: “P _n ” is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period “n”, this period being a month unless otherwise stated in the Contract Data; “a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments; “b”, “c”, “d”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the

<p>Sub-Clause 14.1 The Contract Price</p>	<p>Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;</p> <p>“Ln”, “En”, “Mn”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and</p> <p>“Lo”, “Eo”, “Mo”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.</p> <p>The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table)</p> <p>If the currency in which the Contract price is expressed is different from the currency of the country of origin of the indices, a correction factor will be applied to avoid incorrect adjustments of the Contract price. The correction factor shall be: Z_0 / Z_1, where,</p> <p>Z_0 = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price on the Base date, and</p> <p>Z_1 = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price on the Date of Adjustment.</p> <p><i>[Note to the Employer: include one of the following two alternative texts as applicable]</i></p> <p>The following is added at the end of the Sub-Clause:</p> <p><i>[Alternative 1]</i> “Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts therefor, imported by the Contractor for the sole purpose of executing the Contract shall be exempt from the payment of import duties and taxes upon importation.”</p> <p><i>[Alternative 2]</i> “Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts therefore, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes</p>
---	---

	<p>upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry an approved export bond or bank guarantee, valid until the Time for Completion plus six months, in an amount equal to the full import duties and taxes which would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and callable in the event the Contractor's Equipment is not exported from the Country on completion of the Contract. A copy of the bond or bank guarantee endorsed by the customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon export of individual items of Contractor's Equipment or spare parts, or upon the completion of the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's Equipment and spare part to be exported, based on the depreciation scale (s and other criteria used by the customs authorities for such purposes under the provisions of the applicable Laws. Import duties and taxes shall be due and payable to the customs authorities by the Contractor on (a) the difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to exported; and (b) on the initial imported value of the Contractor's Equipment and spare parts remaining in the Country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining.”</p>
<p>Sub-Clause 14.2.1 Advance Payment Guarantee</p>	<p>The first paragraph is replaced with:</p> <p>“The Contractor shall obtain (at the Contractor’s cost) an Advance Payment Guarantee in amounts and currencies equal to the advance payment, and shall submit it to the Employer with a copy to the Engineer. This guarantee shall be issued by reputable bank or financial institution selected by the Contractor and shall be based on the sample form annexed to the Particular Conditions or in another form agreed by the Employer (but such agreement shall not relieve the Contractor from any obligation under this Sub-Clause).”</p>
<p>Sub-Clause 14.3 Application for Interim Payment</p>	<p>The following is inserted at the end of (vi) after: <i>[Agreement or Determination]</i>: “any reimbursement due to the Contractor under the Dispute Avoidance/ Adjudication Agreement. (Appendix General Conditions of Dispute Avoidance/ Adjudication Agreement).”</p>
<p>Sub-Clause 14.6.2 Withholding (amounts in) an IPC</p>	<p>“and/or” from subparagraph (b) is deleted.</p> <p>The following is then added as subparagraph (c) and sub-paragraph (c) of the Sub-Clause is renumbered as (d):</p> <p>“(c) if the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Engineer, may be</p>

	<p>withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Engineer, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:</p> <ul style="list-style-type: none"> (i) failure to comply with any ES obligations or work described in the Works' Requirements which may include: working outside site boundaries, excessive dust, damage to offsite vegetation, pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archaeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion; (ii) failure to regularly review C-ESMP and/or update it in a timely manner to address emerging ES issues, or anticipated risks or impacts; (iii) failure to implement the C-ESMP e.g. failure to provide required training or sensitization; (iv) failing to have appropriate consents/permits prior to undertaking Works or related activities; (v) failure to submit ES report/s (as described in Particular Conditions - Part D), or failure to submit such reports in a timely manner; (vi) failure to implement remediation as instructed by the Engineer within the specified timeframe (e.g. remediation addressing non-compliance/s)."
Sub-Clause 14.7 Payment	<p>At the end of sub-paragraph (b): "and" is replaced with "or" and the following inserted as (iii):</p> <p>"(iii) at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor within 14 days after such statement is submitted, any discrepancy being rectified in the next payment to the Contractor; and"</p> <p>At the end of sub-paragraph (c): "." is replaced with ";" and the following inserted:</p> <p>"or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended the undisputed amount shown in the Final Statement within 56 days after the date of notification of the suspension in accordance with Sub-Clause 16.2 [Termination by Contractor]."</p>

Sub-Clause 14.9 Release of Retention Money	<p>The following is added at the end of Sub-Clause 14.9:</p> <p>“Unless otherwise stated in the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a guarantee, in the form annexed to the Particular Conditions or in another form approved by the Employer and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money. The Contractor shall ensure that the guarantee is in the amounts and currencies of the second half of the Retention Money and is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security and, if applicable, an ES Performance Security in Sub-Clause 4.2. On receipt by the Employer of the required guarantee, the Engineer shall certify and the Employer shall pay the second half of the Retention Money. The release of the second half of the Retention Money against a guarantee shall then be in lieu of the release after the latest of the expiry dates of the Defects Notification Periods. The Employer shall return the guarantee to the Contractor within 21 days after receiving a copy of the Performance Certificate.</p> <p>If the Performance Security and, if applicable, an ES Performance Security required under Sub-Clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under them when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount guaranteed under the Performance Security and, if applicable, an ES Performance Security, when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security and, if applicable, an ES Performance Security.”</p>
Sub-Clause 14.12 Discharge	<p>On the seventh line of the first paragraph, “Sub-Clause 21.6 [Arbitration]” is replaced with: “Clause 21 [<i>Disputes and Arbitration</i>]’.</p>
Sub-Clause 14.15 Currencies of Payment	<p>Throughout Sub-Clause 14.15, “Contract Data” is replaced with: “Schedule of Payment Currencies”.</p>
Sub-Clause 15.1 Notice to Correct	<p>“and” is deleted from (b) and</p> <p>“.” is replaced by: “; and” in (c).</p> <p>The following is then added as (d)</p>

	<p>“(d) specify the time within which the Contractor shall respond to the Notice to Correct.”</p> <p>In the third para., “shall immediately respond” is replaced with: “shall respond within the time specified in (d)”. Further, in the third para., “to comply with the time specified in the Notice to Correct.” is replaced with: “to comply with the time specified in (c).”</p>
Sub-Clause 15.2.1 Notice	Sub-paragraph (h) is replaced with: “based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph 2.2 of the Particular Conditions - Part C- Fraud and Corruption, in competing for or in executing the Contract.”
Sub-Clause 15.8 Fraud and Corruption	<p>The following new Sub-Clause is added:</p> <p>“</p> <p>15.8.1 The Bank requires compliance with it’s Integrity Framework comprising the African Development Bank Group’s Sanctions Procedures, the Bank’s Whistleblowing and Complaints Policy, the Bank’s Procurement Policy under the Procurement Framework and any other applicable Policies and Procedures including their updates , as set forth in Particular Conditions - Part C- Fraud and Corruption.</p> <p>15.8.2 The Employer 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.”</p>
Sub-Clause 15.9 Eligibility	<p>The following new Sub-Clause is added:</p> <p>“The Contractor and its Subcontractor or Suppliers shall have the nationality of an eligible country of the Bank in accordance with the Bank’s Procurement Policy for the Bank Group Funded Operation described under the Bank’s Procurement Framework, and as listed in Section V, Eligible Countries. The Contractor shall be deemed to have the nationality of a country if the Contractor 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 subconsultants for any part of the Contract including related Services. All materials, equipment and services to be supplied under the Contract shall have their country of origin in an eligible country of the Bank in accordance with the</p>

<p>Sub-Clause 16.1 Suspension by Contractor</p>	<p>Bank's Procurement Policy for Bank Group Funded Operations described under the Bank's Procurement Framework, and as set forth in Particular Conditions -Part E- Section V, Eligible Countries."</p> <p>The following paragraph is inserted after the first paragraph:</p> <p>"Notwithstanding the above, if the Bank has suspended disbursements under the loan or credit from which payments to the Contractor are being made, in whole or in part, for the execution of the Works, and no alternative funds are available as provided for in Sub-Clause 2.4 [Employer's Financial Arrangements], the Contractor may by notice suspend work or reduce the rate of work at any time, but not less than 7 days after the Borrower having received the suspension notification from the Bank."</p>
<p>Sub-Clause 16.2.1 Notice</p>	<p>Sub-paragraph (j) is deleted in its entirety.</p> <p>At the end of sub-paragraph (i): "; or" is replaced with: "."</p> <p>sub-paragraph (f) is replaced with:</p> <p>"(f) the Contractor does not receive a Notice of the Commencement Date under Sub-Clause 8.1 [<i>Commencement of Works</i>] within 180 days after receiving the Letter of Acceptance, for reasons not attributable to the Contractor."</p>
<p>Sub-Clause 16.2.2 Termination</p>	<p>The following is added at the end of Sub-Clause 16.2.2:</p> <p>"In the event the Bank suspends the loan or credit from which part or whole of the payments to the Contractor are being made, if the Contractor has not received the sums due to him upon expiration of the 14 days referred to in Sub-Clause 14.7 [Payment] for payments under Interim Payment Certificates, the Contractor may, without prejudice to the Contractor's entitlement to financing charges under Sub-Clause 14.8 [Delayed Payment], take one of the following actions, namely (i) suspend work or reduce the rate of work under Sub-Clause 16.1 above, or (ii) terminate the Contract by giving notice to the Employer, with a copy to the Engineer, such termination to take effect 14 days after the giving of the notice."</p>
<p>Sub-Clause 16.3 Contractor's Obligations After Termination</p>	<p><i>[If the Employer has made available any Employer- Supplied Materials and/or Employer's Equipment in accordance with Sub-Clause 2.6, include the following:]</i></p> <p>"and" is deleted from the end of sub-paragraph (b), sub-paragraph (c) deleted and the following added:</p>

	<p>(c) deliver to the Engineer all Employer- Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 <i>[Employer-Supplied materials and Employer's Equipment]</i>; and</p> <p>(d) remove all other Goods from the Site, except as necessary for safety, and leave the Site."</p>
Sub-Clause 17.1 Responsibility for Care of the Works	<p>On the fourth and fifth lines of the first paragraph, replace "Date of Completion of the Works" with "issue of the Taking- Over Certificate for the Works".</p> <p><i>[If Employer- Supplied Materials are listed in the Specification for the Contractor's use in the execution of Works, include the following provision. See also Sub-Clause 2.6 [Employer-Supplied Materials and Employer's Equipment]]</i></p> <p>After the two instances of "Goods" in the last paragraph, the following is added: "Employer- Supplied Materials".</p> <p><i>[If Employer's Equipment are listed in the Employer's Requirements for the Contractor's use in the execution of Works, include the following provision. See also Sub-Clause 2.6 [Employer-Supplied Materials and Employer's Equipment]]</i></p> <p>After the two instances of "Goods" in the last paragraph, the following is added: ", Employer's Equipment,".</p>
Sub-Clause 17.3 Intellectual and Industrial Property Rights	<p>On the first line of the second paragraph, replace "notice" is replaced with "a Notice".</p>
Sub-Clause 17.7 Use of Employer's Accommodation/Facilities	<p>The following Sub-Clause is added as 17.7:</p> <p>"The Contractor shall take full responsibility for the care of the Employer-provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works)</p> <p>If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at its own cost, rectify the loss or damage to the satisfaction of the Engineer."</p>
Sub-Clause 18.1 Exceptional Events	<p>Sub-paragraph (c) is substituted with:</p>

	“(c) riot, commotion, disorder or sabotage by persons other than the Contractor’s Personnel and other employees of the Contractor and Subcontractors;”
Sub-Clause 18.4 Consequences of an Exceptional Event	<p>The following is added at the end of sub-paragraph (b) after deleting the “.”:</p> <p>“, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Exceptional Events, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 19.2 [Insurance to be provided by the Contractor].”</p>
Sub-Clause 18.5 Optional Termination	In sub-paragraph (c), “and necessarily” is inserted after ““was reasonably”.
Sub-Clause 19.1 General Requirements	<p>The following paragraphs are added after the first:</p> <p>“Wherever the Employer is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with terms (if any) agreed by both Parties before the date of the Letter of Acceptance.</p> <p>This agreement of terms shall take precedence over the provisions of this Clause.”</p>
Sub-Clause 19.2 insurance to be provided by the Contractor	<p>The following is inserted as the first sentence in Sub-Clause 19.2:</p> <p>“The Contractor shall be entitled to place all insurances relating to the Contract (including, but not limited to the insurance referred to Clause 19) with insurers from any eligible source country.”</p>
Sub-Clause 19.2.1 The Works	On the last line of the second paragraph, “Clause 12 [<i>Tests after completion</i>]” is deleted.
Sub-Clause 19.2.5 Injury to employees	<p>The second paragraph is replaced with:</p> <p>“The Employer and the Engineer shall also be indemnified under the policy of insurance, against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor’s Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.”</p>
Sub-Clause 20.1 Claims	In a): “any additional payment” is replaced with “payment”.
Sub-Clause 20.2	The first paragraph is replaced with:

Claims for Payment and/or EOT	“If either Party considers that it is entitled to claim under 20.1 (a) or (b), the following claim procedure shall apply:”
Sub-Clause 21.1 Constitution of the DAAB	<p>In the second paragraph, at the end of the first sentence after deleting: “.”, the following is added: “, each of whom shall meet the criteria set forth in Sub-Clause 3.3 of Appendix- General Conditions of Dispute Avoidance/ Adjudication Agreement.”</p> <p>After the second paragraph insert the following paragraph: “If the Contract is with a foreign Contractor, the DAAB members shall not have the same nationality as the Employer or the Contractor.”</p>
Sub-Clause 21.2 Failure to Appoint DAAB Member (s)	For both (a) and (b): “by the date stated in the first paragraph of Sub-Clause 21.1 [<i>Constitution of the DAAB</i>]” is replaced with: “within 42 days from the date the Contract is signed by both Parties”
Sub-Clause 21.6 Arbitration	<p>In the first paragraph, delete starting from: “international arbitration” up to the end of (c), and replace with the following: “ arbitration. Arbitration shall be conducted as follows:</p> <p>(a) if the contract is with foreign contractors, unless otherwise specified in the Contract Data; the dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce; by one or three arbitrators appointed in accordance with these Rules. The place of arbitration shall be the neutral location specified in the Contract Data; and the arbitration shall be conducted in the ruling language defined in Sub-Clause 1.4 [Law and Language].</p> <p>(b) If the Contract is with domestic contractors, arbitration with proceedings conducted in accordance with the laws of the Employer’s country.”</p>

Appendix- General Conditions of Dispute Avoidance / Adjudication Agreement	
Title	“General Conditions of Dispute Avoidance/Adjudication Agreement” is replaced with “General Conditions of DAAB Agreement”.
1. Definitions	<p>Sub-Clause 1.2: In both the first and third lines, “DAA Agreement” is replaced with “DAAB Agreement”.</p> <p>Sub-Clause 1.3:</p> <ul style="list-style-type: none"> - In the first line, “Dispute Avoidance/Adjudication Agreement” or “DAA Agreement” means” is replaced with: - “DAAB Agreement” is as defined under the Contract and is”. - In the first line of sub-paragraph (c), “DAA Agreement” is replaced with “DAAB Agreement”. - In sub-paragraph (c)(ii), “chairman” is replaced with “chairperson”. <p>Sub-Clause 1.3 “DAAB Activities” is replaced with Sub-Clause 1.4 “DAAB Activities” and the subsequent Sub- Clauses under Clause 1 “Definitions” renumbered:</p> <p>Sub-Clause 1.7 to 12: Replace all instances of “DAA Agreement” with “DAAB Agreement”.</p> <p>In Sub-Clause 1.8 a(i):” authorised representative of the contractor or of the Employer” is replaced with: “Contractor’s Representative or authorised representative of the Employer”.</p> <p>Sub-Clause 2.2 is deleted in its entirety.</p>
2. General provisions	
3. Warranties	<p>Sub-Clause 3.3 is deleted and replaced with the following:</p> <p>“When appointing the DAAB Member, each Party relies on the DAAB Member’s representations, that he/she;</p> <ul style="list-style-type: none"> a) has at least a bachelor’s degree in relevant disciplines such as law, engineering, construction management or contract management; b) has at least ten years of experience in contract administration/management and dispute resolution, out of

	<p>which at least five years of experience as an arbitrator or adjudicator in construction-related disputes;</p> <p>c) has received formal training as an adjudicator from an internationally recognized organization;</p> <p>d) has experience and/or is knowledgeable in the type of work which the Contractor is to carry out under the Contract;</p> <p>e) has experience in the interpretation of construction and/or engineering contract documents;</p> <p>f) has familiarity with the forms of contract published by FIDIC since 1999, and an understanding of the dispute resolution procedures contained therein; and</p> <p>g) is fluent in the language for communications stated in the Contract Data (or the language as agreed between the Parties and the DAAB)."</p>
7. Confidentiality	<p>In Sub-Clause 7.3: "or" is deleted after sub-paragraph (b), and the following added:</p> <p>"or (d) is being provided to the Bank."</p>
9. Fees and Expenses	<p>In Sub-Clause 9.1 (c): "business class or equivalent" is replaced with: "in less than first class".</p>
	<p>In Sub-Clause 9.4: "and air fares" and "other" are deleted from the first and second sentences respectively.</p>
10. Resignation & Termination	<p>In Sub-Clause 10.3: "the DAA Agreement" is replaced with: "a DAAB member's DAAB Agreement".</p>
Annex- DAAB Procedural Rules	
Rule 4.2	On the fourth line, "chairman" is replaced with "chairperson".
Rule 8.3	On the sixth line, "chairman" is replaced with "chairperson".
Form of Dispute Avoidance/Adjudication Agreement	
<p>All instances of "DAA Agreement" are replaced with: "DAAB Agreement".</p> <p>In C (b): "chairman" is replaced with "chairperson".</p>	

Particular Conditions

Part C- Fraud and Corruption

(Text in this Particular Conditions - Part C shall not be modified)

1. Purpose

1.1 The Bank's Integrity Framework and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption¹.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, 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 party²;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party³ 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:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harass or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-

¹ In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

² For the purpose of this sub-paragraph, "another party" refers to a public official acting in relation to the procurement process or contract execution, including Bank staff and employees of other organizations taking or reviewing procurement decisions.

³ For the purpose of this sub-paragraph, "party" refers to a public official, including Bank staff and employees of other organizations taking or reviewing procurement decisions.; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution."

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;

- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Integrity Framework, and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner⁴; (ii) to be a nominated ⁵ sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect ⁶ all accounts, records and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.

⁴ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, 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.

⁵ A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

⁶ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank 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.

Particular Conditions

Part D- Environmental and Social (ES)

Metrics for Progress Reports

*[Note to Employer: the following metrics may be amended to reflect the specifics of the Contract. **The Employer shall ensure that the metrics provided are appropriate for the Works and impacts/key issues identified in the environmental and social assessment.]***

Metrics for regular reporting:

- a. environmental incidents or non-compliances with contract requirements, including contamination, pollution or damage to ground or water supplies;
- b. health and safety incidents, accidents, injuries that require treatment and all fatalities;
- c. interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);
- d. status of all permits and agreements:
 - i. work permits: number required, number received, actions taken for those not received;
 - ii. status of permits and consents:
 - list areas/facilities with permits required (quarries, asphalt & batch plants), dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);
 - list areas with landowner agreements required (borrow and spoil areas, camp sites), dates of agreements, dates submitted to resident engineer (or equivalent);
 - identify major activities undertaken in each area in the reporting period and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation);
 - for quarries: status of relocation and compensation (completed, or details of activities and current status in the reporting period).
- e. health and safety supervision:
 - i. safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;
 - ii. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);
- f. worker accommodations:
 - i. number of expats housed in accommodations, number of locals;
 - ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;

- iii. actions taken to recommend/require improved conditions, or to improve conditions.
- g. Health services: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);
- h. gender (for expats and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);
- i. training:
 - i. number of new workers, number receiving induction training, dates of induction training;
 - ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;
 - iii. number and dates of communicable diseases (including STDs) sensitization and/or training, no. workers receiving training (in the reporting period and in the past); same questions for gender sensitization, flag person training.
 - iv. number and date of SEA prevention sensitization and/or training events, including number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past), etc.
- j. environmental and social supervision:
 - i. environmentalist: days worked, areas inspected and numbers of inspections of each (road section, work camp, accommodations, quarries, borrow areas, spoil areas, swamps, forest crossings, etc.), highlights of activities/findings (including violations of environmental and/or social best practices, actions taken), reports to environmental and/or social specialist/construction/site management;
 - ii. sociologist: days worked, number of partial and full site inspections (by area: road section, work camp, accommodations, quarries, borrow areas, spoil areas, clinic, HIV/AIDS center, community centers, etc.), highlights of activities (including violations of environmental and/or social requirements observed, actions taken), reports to environmental and/or social specialist/construction/site management; and
 - iii. community liaison person(s): days worked (hours community center open), number of people met, highlights of activities (issues raised, etc.), reports to environmental and/or social specialist /construction/site management.
- k. Grievances: list new grievances (e.g. number of allegations of SEA) received in the reporting period and number of unresolved past grievances by date received, complainant's age and sex, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):
 - i. Worker grievances;
 - ii. Community grievances
- l. Traffic, road safety and vehicles/equipment:
 - i. traffic and road safety incidents and accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;

- ii. traffic and road safety incidents and accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;
 - iii. overall condition of vehicles/equipment (subjective judgment by environmentalist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).
- m. Environmental mitigations and issues (what has been done):
 - i. dust: number of working bowsters, number of waterings/day, number of complaints, warnings given by environmentalist, actions taken to resolve; highlights of quarry dust control (covers, sprays, operational status); % of rock/ spoil lorries with covers, actions taken for uncovered vehicles;
 - ii. erosion control: controls implemented by location, status of water crossings, environmentalist inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation;
 - iii. quarries, borrow areas, spoil areas, asphalt plants, batch plants: identify major activities undertaken in the reporting period at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation;
 - iv. blasting: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross-reference other sections as needed);
 - v. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination);
 - vi. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;
 - vii. details of tree plantings and other mitigations required undertaken in the reporting period;
 - viii. details of water and swamp protection mitigations required undertaken in the reporting period.
- n. compliance:
 - i. compliance status for conditions of all relevant consents/permits, for the Work, including quarries, etc.): statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;
 - ii. compliance status of C-ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - iii. compliance status of SEA prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - iv. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

- v. other unresolved issues from previous reporting periods related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spills not dealt with, continued compensation or blasting issues, etc. Cross-reference other sections as needed.

Particular Conditions

Part E-Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Non-Consulting Services in Bank Group Financed Procurement

A. Provisions under Section 5 “Eligibility” of the Procurement Policy for Bank Group Funded Operations and Chapter A2 of the Operations Procurement Manual under Procurement Framework of the African Development Bank

1. The African Development Fund (ADF) permits firms and individuals from all countries to offer goods, works and services for ADF funded projects.

However, the proceeds of any Financing undertaken in the operations of the African Development Bank (ADB) and the Nigeria Trust Fund (NTF) shall be used for procurement of goods and works, including the related services, provided by bidders from Eligible⁷ Countries.⁸ Any conditions for participation shall be limited to those that are essential to ensure the firm’s capability to fulfill the contract in question. In the case of ADB and NTF, bidders from non-Member Countries offering goods, works and related services (including transportation and insurance) are not eligible even if they offer these from Eligible Member Countries. Any waiver to this rule will be in accordance with the Articles 17(1) (d) of the Agreement Establishing the African Development Bank and 4.1 of the Agreement Establishing the Nigeria Trust Fund.

B. Rules and Procedures for Procurement of Goods and Works

Overview

1. The eligibility criteria for participation in the supply of goods, works and related services, to be procured through the ADB and NTF Financing, derive from the requirements of the Agreement Establishing the African Development Bank, Article 17.1.d, and the Agreement Establishing the Nigeria Trust Fund, Article 4.1. The foregoing requirements basically prescribe two types of eligibility criteria:

- (i) The eligibility of the bidder; and
- (ii) The eligibility of the goods, works and related services.

Eligibility of the Bidder under the ADB & NTF

2. The eligibility of the bidder shall be based on nationality, in accordance with the following rules:
 - (a) Natural Persons: A natural person is eligible if he or she is a national of a Member Country of the ADB. Where a person has more than one nationality, such a person shall be eligible if the nationality indicated in his or her bid is that of a Member Country of the ADB.
 - (b) Corporations: A corporation is eligible if it satisfies the following criteria:
 1. it is incorporated in a country that is a Member of the Bank, or State Participant of the Fund;

⁷ Refer to Bank Procurement Framework for additional information on Eligibility.

⁸ “Eligible Countries” shall mean: (a) in the case of the African Development Bank (ADB) and the Nigeria Trust Fund (NTF), the Member Countries of the ADB; and (b) in the case of the African Development Fund, any country.

2. it is a national of a country that is a Member of the ADB, as determined by the law of its place of incorporation; and
 3. it has its principal place of business in a country that is a Member of the ADB.
- (c) Joint Ventures and Associations: An unincorporated joint venture, partnership, or association, shall be eligible if more than 50% of the value of its works and/or services is executed by its members satisfying the eligibility requirements for individuals or corporations.

Eligibility of the Goods, Works and Related Services

3. In order to be eligible, the goods to be procured must have been mined, grown, or produced, in the form in which they are purchased, in an Eligible Member Country.
4. For works contracts, which may include civil works, plant construction, or turnkey contracts, the contractor must satisfy the nationality criteria of eligibility, either as a natural person, or corporation, or joint venture and association. Labour, equipment, and materials needed for carrying out the works contract, shall be supplied from Eligible Member Countries.
5. For contracts, which have been awarded on the basis of Cost, Insurance and Freight (CIF), or Carriage and Insurance Paid (CIP), bidders shall be free to arrange for ocean and other transportation, and the related insurance, from any Eligible Member Country. On the other hand, where goods are shipped on FOB basis, and the Bank has agreed to finance transportation and insurance separately, which are arranged by the purchaser, under a separate contract, the Bank shall be satisfied that the services are supplied from Eligible Member Countries.

List of Eligible Countries

6. List of Eligible countries can be found in African Development Bank's website:

<https://www.afdb.org/en/about-us/corporate-information/members/>

Ineligible Countries in reference to ITB 4.8 and ITB 5.1

7. In reference to ITB 4.8 and ITB 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8(a) and ITB 5.1: *[insert a list of the countries following approval by the Bank to apply the restriction or state "none"]*.

Under ITB 4.8(b) and ITB 5.1: *[insert a list of the countries following approval by the Bank to apply the restriction or state "none"]*

Section IX - General Conditions of Contract (GC)

[Name of Employer]

[Name of Contract]

Red Book

© FIDIC 2017. All rights reserved.

The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (“Red book”) Second edition 2017” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and the following “Particular Conditions” which comprise of the AfDB’s COPA and the amendments and additions to such General Conditions.

An original copy of the above FIDIC publication i.e. “*Conditions of Contract for Building and Engineering Works Designed by the Employer*” must be obtained from FIDIC.

International Federation of Consulting Engineers (FIDIC)

FIDIC Bookshop – Box- 311 – CH – 1215 Geneva 15 Switzerland

Fax: +41 22 799 49 054

Telephone: +41 22 799 49 01

E-mail: fidic@fidic.org

FIDIC code: ISBN13: 978-2-88432-084-9

Section X. General Conditions (GC)

Table of Clauses

General Provisions _____	100
Definitions _____	100
The Contract _____	100
Interpretation _____	105
Communications _____	105
Law and Language _____	106
Priority of Documents _____	106
Contract Agreement _____	106
Assignment _____	107
Care and Supply of Documents _____	107
Delayed Drawings or Instructions _____	107
Employer's Use of Contractor's Documents _____	108
Contractor's Use of Employer's Documents _____	109
Confidential Details _____	109
Compliance with Laws _____	109
Joint and Several Liability _____	110
Inspections and Audit by the Bank _____	110
The Employer _____	110
Right of Access to the Site _____	110
Permits, Licences or Approvals _____	111
Employer's Personnel _____	111
Employer's Financial Arrangements _____	111
Employer's Claims _____	112
The Engineer _____	113
Engineer's Duties and Authority _____	113
Delegation by the Engineer _____	114
Instructions of the Engineer _____	115
Replacement of the Engineer _____	115

Determinations _____	116
The Contractor _____	116
Contractor's General Obligations _____	116
Performance Security _____	117
Contractor's Representative _____	118
Subcontractors _____	119
Assignment of Benefit of Subcontract _____	119
Co-operation _____	119
Setting Out _____	120
Safety Procedures _____	121
Quality Assurance _____	121
Site Data _____	121
Sufficiency of the Accepted Contract Amount _____	122
Unforeseeable Physical Conditions _____	122
Rights of Way and Facilities _____	123
Avoidance of Interference _____	124
Access Route _____	124
Transport of Goods _____	124
Contractor's Equipment _____	125
Protection of the Environment _____	125
Electricity, Water and Gas _____	125
Employer's Equipment and Free-Issue Materials _____	126
Progress Reports _____	126
Security of the Site _____	127
Contractor's Operations on Site _____	127
Nominated Subcontractors _____	128
Definition of "nominated Subcontractor" _____	128
Objection to Nomination _____	129
Payments to nominated Subcontractors _____	129
Evidence of Payments _____	130
Staff and Labour _____	130
Engagement of Staff and Labour _____	130
Rates of Wages and Conditions of Labour _____	130
Persons in the Service of Employer _____	131
Labour Laws _____	131

Working Hours _____	131
Facilities for Staff and Labour _____	131
Health and Safety _____	132
Contractor's Superintendence _____	133
Contractor's Personnel _____	133
Records of Contractor's Personnel and Equipment _____	134
Disorderly Conduct _____	134
Foreign Personnel _____	134
Supply of Foodstuffs _____	135
Supply of Water _____	135
Measures against Insect and Pest Nuisance _____	135
Alcoholic Liquor or Drugs _____	135
Arms and Ammunition _____	135
Festivals and Religious Customs _____	135
Funeral Arrangements _____	136
Forced labour _____	136
Child labour _____	136
Employment Records of Workers _____	136
Workers' Organisations _____	136
Non-Discrimination and Equal Opportunity _____	137
Plant, Materials and Workmanship _____	137
Manner of Execution _____	137
Samples _____	138
Inspection _____	138
Testing _____	138
Rejection _____	139
Remedial Work _____	140
Ownership of Plant and Materials _____	140
Royalties _____	141
Commencement, Delays and Suspension _____	141
Commencement of Works _____	141
Time for Completion _____	142
Programme _____	142
Extension of Time for Completion _____	143
Delays Caused by Authorities _____	143

Rate of Progress _____	144
Delay Damages _____	144
Suspension of Work _____	145
Consequences of Suspension _____	145
Payment for Plant and Materials in Event of Suspension _____	146
Prolonged Suspension _____	146
Tests on Completion _____	146
Contractor's Obligations _____	146
Delayed Tests _____	147
Retesting _____	147
Failure to Pass Tests on Completion _____	147
Employer's Taking Over _____	148
Taking Over of the Works and Sections _____	148
Taking Over of Parts of the Works _____	149
Interference with Tests on Completion _____	150
Surfaces Requiring Reinstatement _____	151
Defects Liability _____	151
Completion of Outstanding Work and Remedying Defects _____	151
Cost of Remedying Defects _____	151
Extension of Defects Notification Period _____	152
Failure to Remedy Defects _____	152
Removal of Defective Work _____	153
Further Tests _____	153
Right of Access _____	153
Contractor to Search _____	154
Performance Certificate _____	154
Unfulfilled Obligations _____	154
Clearance of Site _____	154
Measurement and Evaluation _____	155
Works to be Measured _____	155
Method of Measurement _____	155
Evaluation _____	156
Omissions _____	157
Variations and Adjustments _____	157
Right to Vary _____	157

Value Engineering _____	158
Variation Procedure _____	159
Payment in Applicable Currencies _____	159
Provisional Sums _____	160
Day work _____	160
Adjustments for Changes in Legislation _____	161
Adjustments for Changes in Cost _____	162
Contract Price and Payment _____	163
The Contract Price _____	163
Advance Payment _____	164
Application for Interim Payment Certificates _____	166
Schedule of Payments _____	166
Plant and Materials intended for the Works _____	167
Issue of Interim Payment Certificates _____	169
Payment _____	169
Delayed Payment _____	170
Payment of Retention Money _____	171
Statement at Completion _____	172
Application for Final Payment Certificate _____	172
Discharge _____	173
Issue of Final Payment Certificate _____	173
Cessation of Employer's Liability _____	174
Currencies of Payment _____	174
Termination by Employer _____	175
Notice to Correct _____	175
Termination by Employer _____	175
Valuation at Date of Termination _____	177
Payment after Termination _____	177
Employer's Entitlement to Termination for Convenience _____	177
Fraud and Corruption _____	178
Suspension and Termination by Contractor _____	181
Contractor's Entitlement to Suspend Work _____	181
Termination by Contractor _____	182
Cessation of Work and Removal of Contractor's Equipment _____	183
Payment on Termination _____	183

Risk and Responsibility	183
Indemnities	183
Contractor's Care of the Works	184
Employer's Risks	185
Consequences of Employer's Risks	185
Intellectual and Industrial Property Rights	186
Limitation of Liability	187
Use of Employer's Accommodation/Facilities	187
Insurance	187
General Requirements for Insurances	188
Insurance for Works and Contractor's Equipment	189
Insurance against Injury to Persons and Damage to Property	192
Insurance for Contractor's Personnel	192
Force Majeure	192
Definition of Force Majeure	193
Notice of Force Majeure	193
Duty to Minimise Delay	193
Consequences of Force Majeure	194
Force Majeure Affecting Subcontractor	194
Optional Termination, Payment and Release	194
Release from Performance	195
Claims, Disputes and Arbitration	195
Contractor's Claims	195
Appointment of the Dispute Board	197
Failure to Agree on the Composition of the Dispute Board	198
Obtaining Dispute Board's Decision	198
Amicable Settlement	199
Arbitration	200
Failure to Comply with Dispute Board's Decision	201
Expiry of Dispute Board's Appointment	201

	General Conditions (GC)
1.	General Provisions
1.1	Definitions
<p>In the Conditions of Contract (“these Conditions”), which include Particular Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.</p>	
1.1.1	The Contract
	1.1.1.1 “Contract” means the Contract Agreement, the Letter of Acceptance, the Letter of Bid, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.
	1.1.1.2 “Contract Agreement” means the contract agreement referred to in GC Clause 1.6 [Contract Agreement].
	1.1.1.3 “Letter of Acceptance” means the letter of formal acceptance, signed by the Employer, of the Letter of Bid, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression “Letter of Acceptance” means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.
	1.1.1.4 “Letter of Bid” means the document entitled letter of bid, which was completed by the Contractor and includes the signed offer to the Employer for the Works.
	1.1.1.5 “Specification” means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.
	1.1.1.6 “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 Employer in accordance with the Contract.
	1.1.1.7 “Schedules” means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Bid, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

	1.1.1.8 “Bid” means the Letter of Bid and all other documents which the Contractor submitted with the Letter of Bid, as included in the Contract.
	1.1.1.9 “Bill of Quantities”, “Day work Schedule” and “Schedule of Payment Currencies” mean the documents so named (if any) which are comprised in the Schedules.
	1.1.1.10 “Contract Data” means the pages completed by the Employer entitled contract data which constitute Part A of the Particular Conditions.
1.1.2	Parties and Persons
	1.1.2.1 “Party” means the Employer or the Contractor, as the context requires.
	1.1.2.2 “Employer” means the person named as employer in the Particular Conditions and the legal successors in title to this person.
	1.1.2.3 “Contractor” means the person(s) named as contractor in the Letter of Bid accepted by the Employer and the legal successors in title to this person(s).
	1.1.2.4 “Engineer” means the person appointed by the Employer to act as the Engineer for the purposes of the Contract and named in the Particular Conditions, or other person appointed from time to time by the Employer and notified to the Contractor under GC Clause 3.4 [Replacement of the Engineer].
	1.1.2.5 “Contractor’s Representative” means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under GC Clause 4.3 [Contractor’s Representative], who acts on behalf of the Contractor.
	1.1.2.6 “Employer’s Personnel” means the Engineer, the assistants referred to in GC Clause 3.2 [Delegation by the Engineer] and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer’s Personnel.
	1.1.2.7 “Contractor’s Personnel” means the Contractor’s Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.
	1.1.2.8 “Subcontractor” means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.
	1.1.2.9 “DB” means the person or three persons appointed under GC Clause 20.2 [Appointment of the Dispute Board] or GC Clause 20.3 [Failure to Agree on the Composition of the Dispute Board]

	1.1.2.10 “FIDIC” means the Fédération Internationale des Ingénieurs-Conseils, the international federation of consulting engineers.
	1.1.2.11 “Bank” means the financing institution (if any) named in the Particular Conditions.
	1.1.2.12 “Borrower” means the person (if any) named as the borrower in the Particular Conditions.
1.1.3	Dates, Tests, Periods and Completion
	1.1.3.1 “Base Date” means the date 28 days prior to the latest date for submission of the Bid.
	1.1.3.2 “Commencement Date” means the date notified under GC Clause 8.1 [Commencement of Works].
	1.1.3.3 “Time for Completion” means the time for completing the Works or a Section (as the case may be) under GC Clause 8.2 [Time for Completion], as stated in the Particular Conditions (with any extension under GC Clause 8.4 [Extension of Time for Completion]), calculated from the Commencement Date.
	1.1.3.4 “Tests on Completion” means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried out under GC Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Employer.
	1.1.3.5 “Taking-Over Certificate” means a certificate issued under GC Clause 10 [Employer’s Taking Over].
	1.1.3.6 “Tests after Completion” means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Employer.
	1.1.3.7 “Defects Notification Period” means the period for notifying defects in the Works or a Section (as the case may be) under GC Clause 11.1 [Completion of Outstanding Work and Remedying Defects], which extends over twelve months except if otherwise stated in the Particular Conditions (with any extension under GC Clause 11.3 [Extension of Defects Notification Period]), calculated from the date on which the Works or Section is completed as certified under GC Clause 10.1 [Taking Over of the Works and Sections].
	1.1.3.8 “Performance Certificate” means the certificate issued under GC Clause 11.9 [Performance Certificate].
	1.1.3.9 “day” means a calendar day and “year” means 365 days.
1.1.4	Money and Payments

	1.1.4.1 “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.
	1.1.4.2 “Contract Price” means the price defined in GC Clause 14.1 [The Contract Price], and includes adjustments in accordance with the Contract.
	1.1.4.3 “Cost” means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.
	1.1.4.4 “Final Payment Certificate” means the payment certificate issued under GC Clause 14.13 [Issue of Final Payment Certificate].
	1.1.4.5 “Final Statement” means the statement defined in GC Clause 14.11 [Application for Final Payment Certificate].
	1.1.4.6 “Foreign Currency” means a currency in which part (or all) of the Contract Price is payable, but not the Local Currency.
	1.1.4.7 “Interim Payment Certificate” means a payment certificate issued under GC Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.
	1.1.4.8 “Local Currency” means the currency of the Country.
	1.1.4.9 “Payment Certificate” means a payment certificate issued under GC Clause 14 [Contract Price and Payment].
	1.1.4.10 “Provisional Sum” means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under GC Clause 13.5 [Provisional Sums].
	1.1.4.11 “Retention Money” means the accumulated retention moneys which the Employer retains under GC Clause 14.3 [Application for Interim Payment Certificates] and pays under GC Clause 14.9 [Payment of Retention Money].
	1.1.4.12 “Statement” means a statement submitted by the Contractor as part of an application, under GC Clause 14 [Contract Price and Payment], for a payment certificate.
1.1.5	Works and Goods
	1.1.5.1 “Contractor’s Equipment” means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor’s Equipment excludes Temporary Works, Employer’s Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

	1.1.5.2 “Goods” means Contractor’s Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.
	1.1.5.3 “Materials” means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.
	1.1.5.4 “Permanent Works” means the permanent works to be executed by the Contractor under the Contract.
	1.1.5.5 “Plant” means the apparatus, machinery and other equipment intended to form or forming part of the Permanent Works, including vehicles purchased for the Employer and relating to the construction or operation of the Works.
	1.1.5.6 “Section” means a part of the Works specified in the Particular Conditions as a Section (if any).
	1.1.5.7 “Temporary Works” means all temporary works of every kind (other than Contractor’s Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.
	1.1.5.8 “Works” mean the Permanent Works and the Temporary Works, or either of them as appropriate.
1.1.6	Other Definitions
	1.1.6.1 “Contractor’s Documents” means the calculations, computer programs and other software, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.
	1.1.6.2 “Country” means the country in which the Site (or most of it) is located.
	1.1.6.3 “Employer’s Equipment” means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Employer.
	1.1.6.4 “Force Majeure” is defined in GC Clause 19 [Force Majeure].
	1.1.6.5 “Laws” means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.
	1.1.6.6 “Performance Security” means the security (or securities, if any) under GC Clause 4.2 [Performance Security].

	1.1.6.7 “Site” means the places where the Permanent Works are to be executed including storage and working areas and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.
	1.1.6.8 “Unforeseeable” means not reasonably foreseeable by an experienced contractor by the Base Date.
	1.1.6.9 “Variation” means any change to the Works, which is instructed or approved as a variation under GC Clause 13 [Variations and Adjustments].
	1.1.6.10 “Notice of Dissatisfaction” means the notice given by either Party to the other under GC Clause 20.4 [Obtaining Dispute Board’s Decision] indicating its dissatisfaction and intention to commence arbitration.
1.2	Interpretation
	1.2.1 In the Contract, except where the context requires otherwise
	(a) words indicating one gender include all genders;
	(b) words indicating the singular also include the plural and words indicating the plural also include the singular;
	(c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing;
	(d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
	(e) the word “tender” is synonymous with “bid” and “tenderer” with “bidder” and the words “tender documents” with “bidding documents”.
	1.2.2 The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.
	1.2.3 In these Conditions, provisions including the expression "Cost plus profit" require this profit to be one-twentieth (5%) of this Cost unless otherwise indicated in the Particular Conditions.
1.3	Communications
	1.3.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:
	(a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Particular Conditions; and

	(b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Particular Conditions. However:
	(i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and
	(ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.
	Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party.
	1.3.2 When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Engineer or the other Party, as the case may be.
1.4	Law and Language
	<p>1.4.1 The Contract shall be governed by the law of the country or other jurisdiction stated in the Particular Conditions.</p> <p>The ruling language of the Contract shall be that stated in the Particular Conditions.</p> <p>The language for communications shall be that stated in the Particular Conditions. If no language is stated there, the language for communications shall be the ruling language of the Contract.</p>
1.5	Priority of Documents
	1.5.1 The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:
	(a) the Contract Agreement (if any),
	(b) the Letter of Acceptance,
	(c) the Tender,
	(d) the Particular Conditions – Part A,
	(e) the Particular Conditions – Part B
	(f) these General Conditions,
	(g) the Specification,
	(h) the Drawings, and

	(i) the Schedules and any other documents forming part of the Contract.
	If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.
1.6	Contract Agreement
	1.6.1 The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless the Particular Conditions establish otherwise. The Contract Agreement shall be based upon the form provided in Section IX, Contract Forms. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.
1.7	Assignment
	1.7.1 Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party:
	(a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party, and
	(b) may, as security in favour of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.
1.8	Care and Supply of Documents
	<p>1.8.1 The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor</p> <p>Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents</p> <p>The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times.</p> <p>If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect</p>

1.9	Delayed Drawings or Instructions
	<p>1.9.1 The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.</p> <p>If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus profit, which shall be included in the Contract Price
	<p>1.9.2 After receiving this further notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p> <p>However, if and to the extent that the Engineer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.</p>
1.10	Employer's Use of Contractor's Documents
	<p>1.10.1 As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.</p>
	<p>1.10.2 The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:</p>
	<ul style="list-style-type: none"> (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
	<ul style="list-style-type: none"> (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
	<p>in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.</p>

	1.10.3 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this GC Clause.
1.11	Contractor's Use of Employer's Documents
	1.11.1 As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.
1.12	Confidential Details
	1.12.1 . The Contractor's and the Employer's Personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow its proper implementation
	Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.
1.13	Compliance with Laws
	1.13.1 The Contractor shall, in performing the Contract, comply with applicable Laws.
	1.13.2 Unless otherwise stated in the Particular Conditions:
	(a) the Employer shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specification as having been (or to be) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and

	(b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.
1.14	Joint and Several Liability
1.14.1	1.14.1 If the Contractor constitutes (under applicable Laws) a joint venture, consortium or other unincorporated grouping of two or more persons:
	(a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract;
	(b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and
	(c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer.
1.15	Inspections and Audit by the Bank
	1.15.1 The Contractor shall permit the Bank and/or persons appointed by the Bank to inspect the Site and/or the Contractor's accounts and records relating to the performance of the Contract and to have such accounts and records audited by auditors appointed by the Bank if required by the Bank.
2	The Employer
2.1	Right of Access to the Site
	2.1.1 The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Particular Conditions. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.

	<p>2.1.2 If no such time is stated in the Particular Conditions, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under GC Clause 8.3 [Programme].</p>
	<p>2.1.3 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and</p> <p>(b) payment of any such Cost plus profit, which shall be included in the Contract Price.:</p>
	<p>2.1.4 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p>
	<p>2.1.5 However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.</p>
2.2	Permits, Licences or Approvals
	<p>2.2.1 The Employer shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly:</p> <p>(a) copies of the Laws of the Country which are relevant to the Contract but are not readily available, and</p> <p>(b) any permits, licences or approvals required by the Laws of the Country</p> <p>i). which the Contractor is required to obtain under GC Clause 1.13 [Compliance with Laws],</p> <p>ii). for the delivery of Goods, including clearance through customs, and</p> <p>iii). for the export of Contractor's Equipment when it is removed from the Site.</p>
2.3	Employer's Personnel
	<p>2.3.1 The Employer shall be responsible for ensuring that the Employer's Personnel and the Employer's other contractors on the Site:</p> <p>(a) co-operate with the Contractor's efforts under GC Clause 4.6 [Co-operation], and</p> <p>(b) take actions similar to those which the Contractor is required to take under GC Clauses 4.8.1(a), 4.8.1(b), and 4.8.1(c) [Safety Procedures] and under GC Clause 4.18 [Protection of the Environment].</p>

2.4	Employer's Financial Arrangements
	<p>2.4.1 The Employer shall submit, before the Commencement Date and thereafter within 28 days after receiving any request from the Contractor, reasonable evidence that financial arrangements have been made and are being maintained which will enable the Employer to pay the Contract Price punctually (as estimated at that time) in accordance with GC Clause 14 [Contract Price and Payment]. Before the Employer makes any material change to his financial arrangements, the Employer shall give notice to the Contractor with detailed particulars.</p>
	<p>2.4.2 In addition, if the Bank has notified to the Borrower that the Bank has suspended disbursements under its loan, which finances in whole or in part the execution of the Works, the Employer shall give notice of such suspension to the Contractor with detailed particulars, including the date of such notification, with a copy to the Engineer, within 7 days of the Borrower having received the suspension notification from the Bank. If alternative funds will be available in appropriate currencies to the Employer to continue making payments to the Contractor beyond a date 60 days after the date of Bank notification of the suspension, the Employer shall provide reasonable evidence in such notice of the extent to which such funds will be available.</p>
2.5	Employer's Claims
	<p>2.5.1 If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Employer or the Engineer shall give notice and particulars to the Contractor. However, notice is not required for payments due under GC Clause 4.19 [Electricity, Water and Gas], under GC Clause 4.20 [Employer's Equipment and Free-Issue Material], or for other services requested by the Contractor.</p>
	<p>2.5.2 The notice shall be given as soon as practicable and no longer than 28 days after the Employer became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.</p>
	<p>2.5.3 The particulars shall specify the GC Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Employer is entitled to be paid by the Contractor, and/or (ii) the extension (if any) of the Defects Notification Period in accordance with GC Clause 11.3 [Extension of Defects Notification Period].</p>

	2.5.4 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this GC Clause.
3	The Engineer
3.1	Engineer's Duties and Authority
	3.1.1 The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.
	3.1.2 The Engineer shall have no authority to amend the Contract.
	3.1.3 The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Particular Conditions. The Employer shall promptly inform the Contractor of any change to the authority attributed to the Engineer.
	3.1.4 However, whenever the Engineer exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Employer shall be deemed to have given approval.
	3.1.5 Except as otherwise stated in these Conditions: <ul style="list-style-type: none"> (a) whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Employer (b) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract (c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances; and (d) any act by the Engineer in response to a Contractor's request except otherwise expressly specified shall be notified in writing to the Contractor within 28 days of receipt
	3.1.6 The following provisions shall apply:

	<p>The Engineer shall obtain the specific approval of the Employer before taking action under the following Clauses of these Conditions:</p> <ul style="list-style-type: none"> (a) GC Clause 4.12: Agreeing or determining an extension of time and/or additional cost. (b) GC Clause 13.1: Instructing a Variation, except; <ul style="list-style-type: none"> i). in an emergency situation as determined by the Engineer, or ii). if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Particular Conditions. (c) GC Clause 13.3: Approving a proposal for Variation submitted by the Contractor in accordance with GC Clause 13.1 or 13.2 (d) GC Clause 13.4: Specifying the amount payable in each of the applicable currencies
	<p>3.1.7 Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with GC Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.</p>
3.2	Delegation by the Engineer
	<p>3.2.1 The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with GC Clause 3.5 [Determinations].</p>
	<p>3.2.2 Assistants shall be suitably qualified persons, who are competent to carry out these duties and exercise this authority, and who are fluent in the language for communications defined in GC Clause 1.4 [Law and Language].</p>

	<p>3.2.3 Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:</p> <ul style="list-style-type: none"> (a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials; (b) if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.
3.3	Instructions of the Engineer
	<p>3.3.1 The Engineer may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this GC Clause. If an instruction constitutes a Variation, GC Clause 13 [Variations and Adjustments] shall apply.</p>
3.3.2	<p>3.3.2 The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Engineer or a delegated assistant:</p> <ul style="list-style-type: none"> (a) gives an oral instruction, (b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and (c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation, <p>then the confirmation shall constitute the written instruction of the Engineer or delegated assistant (as the case may be).</p>
3.4	Replacement of the Engineer
	<p>3.4.1 If the Employer intends to replace the Engineer, the Employer shall, not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended replacement Engineer. If the Contractor considers the intended replacement Engineer to be unsuitable, he has the right to raise objection against him by notice to the Employer, with supporting particulars, and the Employer shall give full and fair consideration to this objection.</p>

3.5	Determinations
	3.5.1 Whenever these Conditions provide that the Engineer shall proceed in accordance with this GC Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.
	3.5.2 The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars within 28 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under GC Clause 20 [Claims, Disputes and Arbitration].
4	The Contractor
4.1	Contractor's General Obligations
	4.1.1 The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer's instructions, and shall remedy any defects in the Works.
	4.1.2 The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.
	4.1.3 All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country as defined by the Bank, in the Rules and Procedures for Procurement of Goods and Works.
	4.1.4 The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractors' Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.
	4.1.5 The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

	<p>4.1.6 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Particular Conditions:</p> <ul style="list-style-type: none"> (a) the Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract; (b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in GC Clause 1.4 [Law and Language], and shall include additional information required by the Engineer to add to the Drawings for co-ordination of each Party's designs; (c) the Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and (d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under GC Clause 10.1 [Taking Over of the Works and Sections] until these documents and manuals have been submitted to the Engineer.
4.2	Performance Security
	<p>4.2.1 The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the Particular Conditions and denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer. If an amount is not stated in the Particular Conditions, this GC Clause shall not apply.</p>
	<p>4.2.2 The Contractor shall deliver the Performance Security to the Employer within 28 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank or financial institution selected by the Contractor, and shall be in the form stipulated in Section IX, Contract Forms or in another form approved by the Employer.</p>
	<p>4.2.3 The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.</p>
	<p>4.2.4 The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled under the Contract.</p>

	4.2.5 The Employer shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Employer was not entitled to make the claim.
	4.2.6 The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.
	4.2.7 Without limitation to the provisions of the rest of this GC Clause, whenever the Engineer determines an addition or a reduction to the Contract Price as a result of a change in cost and/or legislation or as a result of a Variation, amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Engineer's request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage.
4.3	Contractor's Representative
	4.3.1 The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract.
	4.3.2 Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of GC Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.
	4.3.3 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.
	4.3.4 The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Engineer's prior consent, and the Engineer shall be notified accordingly.
	4.3.5 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under GC Clause 3.3 [Instructions of the Engineer].
	4.3.6 The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Engineer has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.

	<p>4.3.7 The Contractor's Representative shall be fluent in the language for communications defined in GC Clause 1.4 [Law and Language]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.</p>
4.4	Subcontractors
	<p>4.4.1 The Contractor shall not subcontract the whole of the Works.</p>
	<p>4.4.2 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Particular Conditions:</p> <ul style="list-style-type: none"> (a) the Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract; (b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors; (c) the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and (d) each subcontract shall include provisions which would entitle the Employer to require the subcontract to be assigned to the Employer under GC Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under GC Clause 15.2 [Termination by Employer].
	<p>4.4.3 The Contractor shall ensure that the requirements imposed on the Contractor by GC Clause 1.12 [Confidential Details] apply equally to each Subcontractor.</p>
	<p>4.4.4 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from the Country to be appointed as Subcontractors.</p>
4.5	Assignment of Benefit of Subcontract
	<p>4.5.1 If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Employer, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Employer for the work carried out by the Subcontractor after the assignment takes effect.</p>

4.6	Co-operation
	<p>4.6.1 The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:</p> <ul style="list-style-type: none"> (a) the Employer's Personnel, (b) any other contractors employed by the Employer, and (c) the personnel of any legally constituted public authorities, <p>who may be employed in the execution on or near the Site of any work not included in the Contract.</p>
	<p>4.6.2 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.</p>
	<p>4.6.3 If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Engineer in the time and manner stated in the Specification.</p>
4.7	Setting Out
	<p>4.7.1 The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.</p>
	<p>4.7.2 The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.</p>
	<p>4.7.3 If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

	<p>4.7.4 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in GC Clause 4.7.3(a) and (b) above related to this extent.</p>
4.8	Safety Procedures
	<p>4.8.1 The Contractor shall:</p> <ul style="list-style-type: none"> (a) comply with all applicable safety regulations, (b) take care for the safety of all persons entitled to be on the Site, (c) use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons, (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under GC Clause 10 [Employer's Taking Over], and (e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.
4.9	Quality Assurance
	<p>4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Engineer shall be entitled to audit any aspect of the system.</p>
	<p>4.9.2 Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor himself shall be apparent on the document itself.</p>
	<p>4.9.3 Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.</p>
4.10	Site Data
	<p>4.10.1 The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Employer shall similarly make available to the Contractor all such data which come into the Employer's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.</p>

	<p>4.10.2 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):</p> <ul style="list-style-type: none"> (a) the form and nature of the Site, including sub-surface conditions, (b) the hydrological and climatic conditions, (c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects, (d) the Laws, procedures and labour practices of the Country, and (e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.
4.11	Sufficiency of the Accepted Contract Amount
	<p>4.11.1 The Contractor shall be deemed to:</p> <ul style="list-style-type: none"> (a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount, and (b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in GC Clause 4.10 [Site Data].
4.11.2	<p>4.11.2 Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.</p>
4.12	Unforeseeable Physical Conditions
	<p>4.12.1 In this GC Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.</p>
	<p>4.12.2 If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.</p>

	<p>4.12.3 This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give. If an instruction constitutes a Variation, GC Clause 13 [Variations and Adjustments] shall apply.</p>
	<p>4.12.4 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost, which shall be included in the Contract Price.
	<p>4.12.5 Upon receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in GC 4.12.4(a) and (b) above related to this extent.</p>
	<p>4.12.6 However, before additional Cost is finally agreed or determined for item (ii) under GC Clause 4.12.5, the Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Bid. If and to the extent that these more favourable conditions were encountered, the Engineer may proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under GC 4.12.4(b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.</p>
	<p>4.12.7 The Engineer shall take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which shall be made available by the Contractor, but shall not be bound by the Contractor's interpretation of any such evidence.</p>
4.13	Rights of Way and Facilities
	<p>4.13.1 Unless otherwise specified in the Contract the Employer shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities outside the Site which he may require for the purposes of the Works.</p>

4.14	Avoidance of Interference
	<p>4.14.1 The Contractor shall not interfere unnecessarily or improperly with:</p> <ul style="list-style-type: none"> (a) the convenience of the public, or (b) the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others.
	<p>4.14.2 The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.</p>
4.15	Access Route
	<p>4.15.1 The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.</p>
	<p>4.15.2 Except as otherwise stated in these Conditions:</p> <ul style="list-style-type: none"> (a) the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes; (b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions; (c) the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route; (d) the Employer does not guarantee the suitability or availability of particular access routes; and (e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16	Transport of Goods
	<p>4.16.1 Unless otherwise stated in the Particular Conditions:</p> <ul style="list-style-type: none"> (a) the Contractor shall give the Engineer not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site; (b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and (c) the Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods, and shall negotiate and pay all claims arising from their transport.
4.17	Contractor's Equipment
	<p>4.17.1 The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.</p>
4.18	Protection of the Environment
	<p>4.18.1 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.</p>
	<p>4.18.2 The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.</p>
4.19	Electricity, Water and Gas
	<p>4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.</p>

	<p>4.19.2 The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specification. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.</p>
	<p>4.19.3 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Engineer in accordance with GC Clause 2.5 [Employer's Claims] and GC Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Employer.</p>
4.20	Employer's Equipment and Free-Issue Materials
	<p>4.20.1 The Employer shall make the Employer's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:</p> <ul style="list-style-type: none"> (a) the Employer shall be responsible for the Employer's Equipment, except that (b) the Contractor shall be responsible for each item of Employer's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it
	<p>4.20.2 The appropriate quantities and the amounts due (at such stated prices) for the use of Employer's Equipment shall be agreed or determined by the Engineer in accordance with GC Clause 2.5 [Employer's Claims] and GC Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Employer.</p>
	<p>4.20.3 The Employer shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Employer shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them, and shall promptly give notice to the Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Employer shall immediately rectify the notified shortage, defect or default.</p>
	<p>4.20.4 After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Employer of liability for any shortage, defect or default not apparent from a visual inspection.</p>

4.21	Progress Reports
	4.21.1 Unless otherwise stated in the Particular Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.
	4.21.2 Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.
	<p>4.21.3 Each report shall include:</p> <ul style="list-style-type: none"> (a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in GC Clause 5 [Nominated Subcontractors]), (b) photographs showing the status of manufacture and of progress on the Site; (c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of: <ul style="list-style-type: none"> (i) commencement of manufacture, (ii) Contractor's inspections, (iii) tests, and (iv) shipment and arrival at the Site (d) the details described in GC Clause 6.10 [Records of Contractor's Personnel and Equipment]; (e) copies of quality assurance documents, test results and certificates of Materials; (f) list of notices given under GC Clause 2.5 [Employer's Claims] and notices given under GC Clause 20.1 [Contractor's Claims]; (g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and (h) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.22	Security of the Site
4.22.1	<p>4.22.1 Unless otherwise stated in the Particular Conditions:</p> <p>(a) the Contractor shall be responsible for keeping unauthorised persons off the Site, and</p> <p>(b) authorised persons shall be limited to the Contractor's Personnel and the Employer's Personnel; and to any other personnel notified to the Contractor, by the Employer or the Engineer, as authorised personnel of the Employer's other contractors on the Site.</p>
4.23	Contractor's Operations on Site
	<p>4.23.1 The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Engineer as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.</p>
	<p>4.23.2 During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.</p>
	<p>4.23.3 Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.</p>
4.24	Fossils
	<p>4.24.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.</p>

	<p>4.24.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost, which shall be included in the Contract Price.
	<p>4.24.1 After receiving this further notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p>
5	Nominated Subcontractors
5.1	Definition of “nominated Subcontractor”
5.1.1	<p>5.1.1 In the Contract, “nominated Subcontractor” means a Subcontractor:</p> <ul style="list-style-type: none"> (a) who is stated in the Contract as being a nominated Subcontractor, or (b) whom the Engineer, under GC Clause 13 [Variations and Adjustments], instructs the Contractor to employ as a Subcontractor subject to GC Clause 5.2 [Objection to Notification].
5.2	Objection to Nomination

	<p>5.1.2 The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Engineer as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Employer agrees in writing to indemnify the Contractor against and from the consequences of the matter:</p> <ul style="list-style-type: none"> (a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength; (b) the nominated Subcontractor does not accept to indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or (c) the nominated Subcontractor does not accept to enter into a subcontract which specifies that, for the subcontracted work (including design, if any), the nominated Subcontractor shall: <ul style="list-style-type: none"> (i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract;
	<ul style="list-style-type: none"> (ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities; and (iii) be paid only if and when the Contractor has received from the Employer payments for sums due under the Subcontract referred to under GC Clause 5.3 [Payment to nominated Subcontractors].
5.3	Payments to nominated Subcontractors
5.3.1	<p>5.3.1 The Contractor shall pay to the nominated Subcontractor the amounts shown on the nominated Subcontractor's invoices approved by the Contractor which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with GC Clause 13.5.1(b) [Provisional Sums], except as stated in GC Clause 5.4 [Evidence of Payments].</p>

5.4	Evidence of Payments
	<p>5.4.1 Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:</p> <ul style="list-style-type: none"> (a) submits this reasonable evidence to the Engineer, or (b) <ul style="list-style-type: none"> (i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and (ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, <p>then the Employer may (at his sole discretion) pay, direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in this GC Clause 5.4.1(a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.</p>
6	Staff and Labour
6.1	Engagement of Staff and Labour
	<p>6.1.1 Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, feeding, transport, and, when appropriate, housing.</p>
	<p>6.1.2 The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications and experience from sources within the Country.</p>
6.2	Rates of Wages and Conditions of Labour
	<p>6.2.1 The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.</p>

	6.2.2 The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of the Country for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.
6.3	Persons in the Service of Employer
	6.3.1 The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.
6.4	Labour Laws
	6.4.1 The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
	6.4.2 The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.
6.5	Working Hours
	6.5.1 No work shall be carried out on the Site on locally recognised days of rest, or outside the normal working hours stated in the Particular Conditions, unless: <ul style="list-style-type: none"> (a) otherwise stated in the Contract, (b) the Engineer gives consent, or (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer.
6.6	Facilities for Staff and Labour
	6.6.1 Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.
	6.6.2 The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

6.7	Health and Safety
6.7.1	The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.
6.7.2	The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.
6.7.3	The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.
6.7.4	HIV-AIDS Prevention. The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.
6.7.5	The Contractor shall throughout the contract (including the Defects Notification Period): (i) conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labour (including all the Contractor's employees, all Sub-Contractors and Consultants' employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behaviour with respect to, of Sexually Transmitted Diseases (STD) - or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular; (ii) provide male or female condoms for all Site staff and labour as appropriate; and (iii) provide for STI and HIV/AIDS screening, diagnosis, counselling and referral to a dedicated national STI and HIV/AIDS programme, (unless otherwise agreed) of all Site staff and labour.

	<p>6.7.6 The Contractor shall include in the program to be submitted for the execution of the Works under GC Clause 8.3 an alleviation program for Site staff and labour and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation programme shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this GC Clause and the related specification. For each component, the programme shall detail the resources to be provided or utilised and any related sub-contracting proposed. The programme shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this programme shall not exceed the Provisional Sum dedicated for this purpose.</p>
6.8	Contractor's Superintendence
	<p>6.8.1 Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.</p>
	<p>6.8.2 Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in GC Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.</p>
6.9	Contractor's Personnel
	<p>6.9.1 The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:</p> <ul style="list-style-type: none"> (a) persists in any misconduct or lack of care, (b) carries out duties incompetently or negligently, (c) fails to conform with any provisions of the Contract, or (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.
	<p>6.9.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.</p>

6.10	Records of Contractor's Personnel and Equipment
	6.10.1 The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.
6.11	Disorderly Conduct
	6.11.1 The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.
6.12	Foreign Personnel
	6.12.1 The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use his best endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national or government permission required for bringing in the Contractor's personnel.
	6.12.2 The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.
6.13	Supply of Foodstuffs
	6.13.1 The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.
6.14	Supply of Water
	6.14.1 The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

6.15	Measures against Insect and Pest Nuisance
	6.15.1 The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
6.16	Alcoholic Liquor or Drugs
	6.16.1 The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereof by Contractor's Personnel.
6.17	Arms and Ammunition
	6.17.1 The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
6.18	Festivals and Religious Customs
	6.18.1 The Contractor shall respect the Country's recognised festivals, days of rest and religious or other customs.
6.19	Funeral Arrangements
	6.19.1 The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.
6.20	Forced labour
	6.20.1 The Contractor shall not employ forced labour, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour -contracting arrangements.

6.21	Child labour
	<p>6.21.1 The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where the relevant labour laws have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.</p>
6.22	Employment Records of Workers
	<p>6.22.1 The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarised on a monthly basis and submitted to the Engineer, and these records shall be available for inspection by Auditors during normal working hours. These records shall be included in the details to be submitted by the Contractor under GC Clause 6.10 [Records of Contractor's Personnel and Equipment].</p>
6.23	Workers' Organisations
	<p>6.23.1 In countries where the relevant labour laws recognise workers' rights to form and to join workers' organisations of their choosing without interference and to bargain collectively, the Contractor shall comply with such laws. Where the relevant labour laws substantially restrict workers' organisations, the Contractor shall enable alternative means for Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. In either case described above, and where the relevant labour laws are silent, the Contractor shall not discourage Contractor's Personnel from forming or joining workers' organisations of their choosing or from bargaining collectively, and shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organisations and bargain collectively. The Contractor shall engage with such workers representatives. Worker organisations are expected to fairly represent the workers in the workforce.</p>

6.24	Non-Discrimination and Equal Opportunity
	<p>6.24.1 The Contractor shall not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment relationship on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. In countries where the relevant labour laws provide for non-discrimination in employment, the Contractor shall comply with such laws. When the relevant labour laws are silent on non-discrimination in employment, the Contractor shall meet this Clause's requirements. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on inherent requirements of the job shall not be deemed discrimination.</p>
7	Plant, Materials and Workmanship
7.1	Manner of Execution
	<p>7.1.1 The Contractor shall carry out the manufacture of Plant, the production and manufacture of Materials, and all other execution of the Works:</p> <ul style="list-style-type: none"> (a) in the manner (if any) specified in the Contract, (b) in a proper workmanlike and careful manner, in accordance with recognised good practice, and (c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.
7.2	Samples
	<p>7.2.1 The Contractor shall submit the following samples of Materials, and relevant information, to the Engineer for consent prior to using the Materials in or for the Works:</p> <ul style="list-style-type: none"> (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and (b) additional samples instructed by the Engineer as a Variation.
	<p>7.2.2 Each sample shall be labelled as to origin and intended use in the Works.</p>

7.3	Inspection
	<p>7.3.1 The Employer's Personnel shall at all reasonable times:</p> <ul style="list-style-type: none"> (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained, and (b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.
	<p>7.3.2 The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.</p>
	<p>7.3.3 The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.</p>
7.4	Testing
	<p>7.4.1 This GC Clause shall apply to all tests specified in the Contract, other than the Tests after Completion (if any).</p>
	<p>7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.</p>
	<p>7.4.3 The Engineer may, under GC Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.</p>

	<p>7.4.4 The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.</p>
	<p>7.4.5 If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus profit, which shall be included in the Contract Price.
	<p>7.4.6 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p>
	<p>7.4.7 The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.</p>
7.5	Rejection
	<p>7.5.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.</p>
	<p>7.5.2 If the Engineer requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to GC Clause 2.5 [Employer's Claims] pay these costs to the Employer.</p>

7.6	Remedial Work
	<p>7.6.1 Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:</p> <ul style="list-style-type: none"> (a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract, (b) remove and re-execute any other work which is not in accordance with the Contract, and (c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.
	<p>7.6.2 The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under GC Clause 7.6.1(c).</p>
	<p>7.6.3 If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to GC Clause 2.5 [Employer's Claims] pay to the Employer all costs arising from this failure.</p>
7.7	Ownership of Plant and Materials
	<p>7.7.1 Except otherwise specified in the Contract, each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:</p> <ul style="list-style-type: none"> a. when it is incorporated in the Works; b. when the Contractor is paid the corresponding value of the Plant and Materials under GC Clause 8.10 [Payment for Plant and Materials in Event of Suspension].
7.8	Royalties
	<p>7.8.1 Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:</p> <ul style="list-style-type: none"> (a) natural Materials obtained from outside the Site, and (b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site are specified in the Contract.

8	Commencement, Delays and Suspension
8.1	Commencement of Works
	<p>8.1.1 Except as otherwise specified in the Particular Conditions, the Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Engineer's instruction recording the agreement of both Parties on such fulfilment and instructing to commence the Works is received by the Contractor:</p> <ul style="list-style-type: none"> (a) signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities in the Country; (b) delivery to the Contractor of reasonable evidence of the Employer's Financial arrangements (under GC Clause 2.4 [Employer's Financial Arrangements]); (c) except if otherwise specified in the Particular Conditions, effective access to and possession of the Site given to the Contractor together with such permission(s) under GC Clause 1.13.2(a) [Compliance with Laws] as required for the commencement of the Works; and <p>Receipt of Advance Payment under GC Clause 14.2 [Advance Payment] shall not be a condition precedence for commencement of works.</p>
	<p>8.1.2 If the above said Engineer's instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under GC Clause 16.2 [Termination by Contractor].</p>
	<p>8.1.3 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.</p>
8.2	Time for Completion
	<p>8.2.1 The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:</p> <ul style="list-style-type: none"> (a) achieving the passing of the Tests on Completion, and (b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under GC Clause 10.1 [Taking Over of the Works and Sections].

8.3	Programme
	<p>8.3.1 The Contractor shall submit a detailed time programme to the Engineer within 28 days after receiving the notice under GC Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:</p> <ul style="list-style-type: none"> (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing, (b) each of these stages for work by each nominated Subcontractor (as defined in GC Clause 5 [Nominated Subcontractors]), (c) the sequence and timing of inspections and tests specified in the Contract, and (d) a supporting report which includes: <ul style="list-style-type: none"> (i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and (ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage
	<p>8.3.2 Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.</p>
	<p>8.3.3 The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under GC Clause 13.3 [Variation Procedure].</p>
	<p>8.3.4 If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this GC Clause.</p>

8.4	Extension of Time for Completion
	<p>8.4.1 The Contractor shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of GC Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:</p> <ul style="list-style-type: none"> (a) a Variation (unless an adjustment to the Time for Completion has been agreed under GC Clause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract, (b) a cause of delay giving an entitlement to extension of time under a Clause of these Conditions, (c) exceptionally adverse climatic conditions, (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors.
	<p>8.4.2 If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with GC Clause 20.1 [Contractor's Claims]. When determining each extension of time under GC Clause 20.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time.</p>
8.5	Delays Caused by Authorities
	<p>8.5.1 If the following conditions apply, namely:</p> <ul style="list-style-type: none"> (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country, (b) these authorities delay or disrupt the Contractor's work, and (c) the delay or disruption was Unforeseeable <p>then this delay or disruption will be considered as a cause of delay under GC Clause 8.4.1(b) [Extension of Time for Completion].</p>

8.6	Rate of Progress
	<p>8.6.1 If, at any time:</p> <p>(a) actual progress is too slow to complete within the Time for Completion, and/or</p> <p>(b) progress has fallen (or will fall) behind the current programme under GC Clause 8.3 [Programme],</p> <p>other than as a result of a cause listed in GC Clause 8.4 [Extension of Time for Completion], then the Engineer may instruct the Contractor to submit, under GC Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.</p>
	<p>8.6.2 Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to notice under GC Clause 2.5 [Employer's Claims] pay these costs to the Employer, in addition to delay damages (if any) under GC Clause 8.7 below.</p>
	<p>8.6.3 Additional costs of revised methods, including acceleration measures, instructed by the Engineer to reduce delays resulting from causes listed under GC Clause 8.4 [Extension of Time for Completion] shall be paid by the Employer, without generating, however, any other additional payment benefit to the Contractor.</p>
8.7	Delay Damages
	<p>8.7.1 If the Contractor fails to comply with GC Clause 8.2 [Time for Completion], the Contractor shall subject to notice under GC Clause 2.5 [Employer's Claims] pay delay damages to the Employer for this default. These delay damages shall be the sum stated in the Particular Conditions, which shall be paid for every day which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this GC Clause shall not exceed the maximum amount of delay damages (if any) stated in the Particular Conditions.</p>
	<p>8.7.2 These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under GC Clause 15.2 [Termination by Employer] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.</p>

8.8	Suspension of Work
	8.8.1 The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.
	8.8.2 The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following GC Clauses 8.9, 8.10 and 8.11 shall not apply.
8.9	Consequences of Suspension
	8.9.1 If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under GC Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to: <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost, which shall be included in the Contract Price.
	8.9.2 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.
	8.9.3 The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with GC Clause 8.8 [Suspension of Work].
8.10	Payment for Plant and Materials in Event of Suspension
	8.10.1 The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/or Materials which have not been delivered to Site, if: <ul style="list-style-type: none"> (a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days, and (b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Engineer's instructions.

8.11	Prolonged Suspension
	8.11.1 If the suspension under GC Clause 8.8 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under GC Clause 13 [Variations and Adjustments] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under GC Clause 16.2 [Termination by Contractor].
8.12	Resumption of Work
	8.12.1 After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension after receiving from the Engineer an instruction to this effect under GC Clause 13 [Variations and Adjustments].
9	Tests on Completion
9.1	Contractor's Obligations
	9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this GC Clause and GC Clause 7.4 [Testing], after providing the documents in accordance with GC Clause 4.1.6(d) [Contractor's General Obligations].
	9.1.2 The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.
	9.1.3 In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works . As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.
9.2	Delayed Tests
	9.2.1 If the Tests on Completion are being unduly delayed by the Employer, GC Clause 7.4 [Testing] (fifth paragraph) and/or GC Clause 10.3 [Interference with Tests on Completion] shall be applicable.

	<p>9.2.2 If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.</p>
	<p>9.2.3 If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.</p>
9.3	Retesting
	<p>9.3.1 If the Works, or a Section, fail to pass the Tests on Completion, GC Clause 7.5 [Rejection] shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.</p>
9.4	Failure to Pass Tests on Completion
	<p>9.4.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under GC Clause 9.3 [Retesting], the Engineer shall be entitled to:</p> <ul style="list-style-type: none"> (a) order further repetition of Tests on Completion under GC Clause 9.3; (b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Employer shall have the same remedies as are provided in GC Clause 11.4.2(c) [Failure to Remedy Defects]; or (c) issue a Taking-Over Certificate, if the Employer so requests.
	<p>9.4.2 In the event of GC Clause 9.4.1(c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or (ii) determined and paid under GC Clause 2.5 [Employer's Claims] and GC Clause 3.5 [Determinations].</p>

10	Employer's Taking Over
10.1	Taking Over of the Works and Sections
	<p>10.1.1 Except as stated in GC Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Employer when (i) the Works have been completed in accordance with the Contract, including the matters described in GC Clause 8.2 [Time for Completion] and except as allowed in GC Clause 10.1.3(a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this GC Clause.</p>
	<p>10.1.2 The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.</p>
	<p>10.1.3 The Engineer shall, within 28 days after receiving the Contractor's application:</p> <ul style="list-style-type: none"> a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this GC Clause.
	<p>10.1.4 If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.</p>
10.2	Taking Over of Parts of the Works
	<p>10.2.1 The Engineer may, at the sole discretion of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works.</p>

	<p>10.2.2 The Employer shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Engineer has issued a Taking-Over Certificate for this part. However, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:</p> <ul style="list-style-type: none"> a) the part which is used shall be deemed to have been taken over as from the date on which it is used, b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer, and c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part
	<p>10.2.3 After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.</p>
	<p>10.2.4 If the Contractor incurs Cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to GC Clause 20.1 [Contractor's Claims] to payment of any such Cost plus profit, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine this Cost and profit.</p>
	<p>10.2.5 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under GC Clause 8.7 [Delay Damages], and shall not affect the maximum amount of these damages.</p>
10.3	Interference with Tests on Completion
	<p>10.3.1 If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Employer is responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.</p>

	<p>10.3.2 The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.</p>
	<p>10.3.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and b) payment of any such Cost plus profit, which shall be included in the Contract Price.
	<p>10.3.4 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p>
10.4	Surfaces Requiring Reinstatement
	<p>10.3.5 Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.</p>
11	Defects Liability
11.1	Completion of Outstanding Work and Remedying Defects
	<p>11.1.1 In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:</p> <ul style="list-style-type: none"> a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).
	<p>11.1.2 If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.</p>

11.2	Cost of Remedying Defects
	<p>11.2.1 All work referred to in GC Clause 11.1.1(b) [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:</p> <ul style="list-style-type: none"> a) any design for which the Contractor is responsible, b) Plant, Materials or workmanship not being in accordance with the Contract, or c) failure by the Contractor to comply with any other obligation.
	<p>11.2.2 If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and GC Clause 13.3 [Variation Procedure] shall apply.</p>
11.3	Extension of Defects Notification Period
	<p>11.3.1 The Employer shall be entitled subject to GC Clause 2.5 [Employer's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of a damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.</p>
	<p>11.3.2 If delivery and/or erection of Plant and/or Materials was suspended under GC Clause 8.8 [Suspension of Work] or GC Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this GC Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/or Materials would otherwise have expired.</p>
11.4	Failure to Remedy Defects
	<p>11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.</p>

	<p>11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under GC Clause 11.2 [Cost of Remedying Defects], the Employer may (at his option):</p> <ul style="list-style-type: none"> a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to GC Clause 2.5 [Employer's Claims] pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage; b) require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with GC Clause 3.5 [Determinations]; or c) if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.
11.5	Removal of Defective Work
	<p>11.5.1 If the defect or damage cannot be remedied expeditiously on the Site and the Employer gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.</p>
11.6	Further Tests
	<p>11.6.1 If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 28 days after the defect or damage is remedied.</p>
	<p>11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under GC Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.</p>
11.7	Right of Access
	<p>11.7.1 Until the Performance Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this GC Clause, except as may be inconsistent with the Employer's reasonable security restrictions.</p>

11.8	Contractor to Search
	11.8.1 The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under GC Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Engineer in accordance with GC Clause 3.5 [Determinations] and shall be included in the Contract Price.
11.9	Performance Certificate
	11.9.1 Performance of the Contractor's obligations shall not be considered to have been completed until the Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.
	11.9.2 The Engineer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued to the Employer.
	11.9.3 Only the Performance Certificate shall be deemed to constitute acceptance of the Works.
11.10	Unfulfilled Obligations
	11.10.1 After the Performance Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.
11.11	Clearance of Site
	11.11.1 Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.
	11.11.2 If all these items have not been removed within 28 days after receipt by the Contractor of the Performance Certificate, the Employer may sell or otherwise dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.
	11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer's costs, the Contractor shall pay the outstanding balance to the Employer.

12	Measurement and Evaluation
12.1	Works to be Measured
	<p>12.1.1 The Works shall be measured, and valued for payment, in accordance with this GC Clause. The Contractor shall show in each application under GC Clauses 14.3 [Application for Interim Payment Certificates], 14.10 [Statement at Completion], and 14.11 [Application for Final Payment Certificate] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.</p>
	<p>12.1.2 Whenever the Engineer requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:</p> <ul style="list-style-type: none"> a) promptly either attend or send another qualified representative to assist the Engineer in making the measurement, and b) supply any particulars requested by the Engineer.
	<p>12.1.3 If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) the Engineer shall be accepted as accurate.</p>
	<p>12.1.4 Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree the records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.</p>
	<p>12.1.5 If the Contractor examines and disagrees with the records, and/or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Engineer within 14 days after being requested to examine the records, they shall be accepted as accurate.</p>
12.2	Method of Measurement
	<p>12.2.1 Except as otherwise stated in the Contract and notwithstanding local practice:</p> <ul style="list-style-type: none"> a) measurement shall be made of the net actual quantity of each item of the Permanent Works, and b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

12.3	Evaluation
	12.3.1 Except as otherwise stated in the Contract, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine the Contract Price by evaluating each item of work, applying the measurement agreed or determined in accordance with the above GC Clauses 12.1 and 12.2 and the appropriate rate or price for the item.
	12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contract or, if there is no such item, specified for similar work.
	12.3.3 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.
	<p>12.3.4 However, a new rate or price shall be appropriate for an item of work if:</p> <p>a)</p> <ul style="list-style-type: none"> i. the measured quantity of the item is changed by more than 25% from the quantity of this item in the Bill of Quantities or other Schedule, ii. this change in quantity multiplied by such specified rate for this item exceeds 0.25% of the Accepted Contract Amount, iii. this change in quantity directly changes the Cost per unit quantity of this item by more than 1%, and iv. this item is not specified in the Contract as a “fixed rate item”; <p>or,</p> <p>b)</p> <ul style="list-style-type: none"> i. the work is instructed under GC Clause 13 [Variations and Adjustments], ii. no rate or price is specified in the Contract for this item, and iii. no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.
	12.3.5 Each new rate or price shall be derived from any relevant rates or prices in the Contract, with reasonable adjustments to take account of the matters described in GC Clause 12.3.4(a) and/or (b), as applicable. If no rates or prices are relevant for the derivation of a new rate or price, it shall be derived from the reasonable Cost of executing the work, together with profit, taking account of any other relevant matters.
	12.3.6 Until such time as an appropriate rate or price is agreed or determined, the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned Works commences.

12.4	Omissions
	<p>12.4.1 Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:</p> <ul style="list-style-type: none"> a) the Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount; b) the omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and c) this cost is not deemed to be included in the evaluation of any substituted work;
	<p>12.4.2 then the Contractor shall give notice to the Engineer accordingly, with supporting particulars. Upon receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.</p>
13	Variations and Adjustments
13.1	Right to Vary
	<p>13.1.1 Variations may be initiated by the Engineer at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal.</p>
	<p>13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.</p>

	<p>13.1.3 Each Variation may include:</p> <ul style="list-style-type: none"> a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation), b) changes to the quality and other characteristics of any item of work, c) changes to the levels, positions and/or dimensions of any part of the Works, d) omission of any work unless it is to be carried out by others, e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or f) changes to the sequence or timing of the execution of the Works.
	<p>13.1.4 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs or approves a Variation.</p>
13.2	Value Engineering
	<p>13.2.1 The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.</p>
	<p>13.2.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in GC Clause 13.3 [Variation Procedure].</p>
	<p>13.2.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:</p> <ul style="list-style-type: none"> a) the Contractor shall design this part, b) GC Clauses 4.1.6(a), 4.1.6(b), 4.1.6(c), and 4.1.6(d) [Contractor's General Obligations] shall apply, and

	<p>c) if this change results in a reduction in the contract value of this part, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:</p> <ul style="list-style-type: none"> i. such reduction in contract value, resulting from the change, excluding adjustments under GC Clause 13.7 [Adjustments for Changes in Legislation] and GC Clause 13.8 [Adjustments for Changes in Cost], and ii. the reduction (if any) in the value to the Employer of the varied works, taking account of any reductions in quality, anticipated life or operational efficiencies.
	<p>13.2.4 However, if amount (i) is less than amount (ii), there shall not be a fee.</p>
13.3	Variation Procedure
	<p>13.3.1 If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:</p> <ul style="list-style-type: none"> a) description of the proposed work to be performed and a programme for its execution, b) the Contractor's proposal for any necessary modifications to the programme according to GC Clause 8.3 [Programme] and to the Time for Completion, and c) the Contractor's proposal for evaluation of the Variation.
	<p>13.3.2 The Engineer shall, as soon as practicable after receiving such proposal (under GC Clause 13.2 [Value Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.</p>
	<p>13.3.3 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.</p>
	<p>13.3.4 Each Variation shall be evaluated in accordance with GC Clause 12 [Measurement and Evaluation], unless the Engineer instructs or approves otherwise in accordance with this GC Clause.</p>

13.4	Payment in Applicable Currencies
	<p>13.4.1 If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.</p>
13.5	Provisional Sums
	<p>13.5.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:</p> <ul style="list-style-type: none"> a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under GC Clause 13.3 [Variation Procedure]; and/or b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in GC Clause 5 [Nominated Subcontractors]) or otherwise; and for which there shall be included in the Contract Price: <ul style="list-style-type: none"> i. the actual amounts paid (or due to be paid) by the Contractor, and ii. a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in the Particular Conditions shall be applied.
	<p>13.5.2 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.</p>
13.6	Day work
	<p>13.6.1 For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a day work basis. The work shall then be valued in accordance with the Day work Schedule included in the Contract, and the following procedure shall apply. If a Day work Schedule is not included in the Contract, this GC Clause shall not apply.</p>
	<p>13.6.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.</p>

	<p>13.6.3 Except for any items for which the Day work Schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:</p> <ul style="list-style-type: none"> a) the names, occupations and time of Contractor's Personnel, b) the identification, type and time of Contractor's Equipment and Temporary Works, and c) the quantities and types of Plant and Materials used.
	<p>13.6.4 One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under GC Clause 14.3 [Application for Interim Payment Certificates].</p>
13.7	Adjustments for Changes in Legislation
	<p>13.7.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.</p>
	<p>13.7.2 If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and b) payment of any such Cost, which shall be included in the Contract Price.
	<p>13.7.3 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p>
	<p>13.7.4 Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of GC Clause 13.8 [Adjustments for Changes in Cost].</p>

13.8	Adjustments for Changes in Cost
	<p>13.8.1 In this GC Clause, “table of adjustment data” means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this GC Clause shall not apply.</p>
	<p>13.8.2 If this GC Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this GC Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other GC Clauses, the Accepted Contract Amount shall be deemed to have included amounts to cover the contingency of other rises and falls in costs.</p>
	<p>13.8.3 The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:</p> $P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots$ <p>where:</p> <p>“P_n” is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period “n”, this period being a month unless otherwise stated in the Particular Conditions;</p> <p>“a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;</p> <p>“b”, “c”, “d”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;</p> <p>“L_n”, “E_n”, “M_n”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and</p> <p>“L_o”, “E_o”, “M_o”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.</p>

	<p>13.8.4 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.</p>
	<p>13.8.5 In cases where the “currency of index” (stated in the table) is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the central bank of the Country, of this relevant currency on the above date for which the index is required to be applicable</p>
	<p>13.8.6 Until such time as each current cost index is available, the Engineer shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.</p>
	<p>13.8.7 If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price, whichever is more favourable to the Employer.</p>
	<p>13.8.8 The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.</p>

14	Contract Price and Payment
14.1	The Contract Price
	<p>14.1.1 Unless otherwise stated in the Particular Conditions:</p> <ul style="list-style-type: none"> (a) the Contract Price shall be agreed or determined under GC Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract; (b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in GC Clause 13.7 [Adjustments for Changes in Legislation]; (c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities: <ul style="list-style-type: none"> i. of the Works which the Contractor is required to execute, or ii. for the purposes of GC Clause 12 [Measurement and Evaluation]; and (d) the Contractor shall submit to the Engineer, within 28 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Engineer may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it; and (e) notwithstanding the provisions of GC Clause 14.1.1(b), Contractor's Equipment, including essential spare parts therefore, imported by the Contractor for the sole purpose of executing the Contract shall be exempt from the payment of import duties and taxes upon importation.
14.2	Advance Payment
	<p>14.2.1 The Employer shall make an advance payment, as an interest-free loan for cash flow support in mobilization, when the Contractor submits a guarantee in accordance with this GC Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the Particular Conditions.</p>
	<p>14.2.2 Unless and until the Employer receives this guarantee, or if the total advance payment is not stated in the Particular Conditions, this GC Clause shall not apply.</p>

	<p>14.2.3 The Engineer shall deliver to the Employer and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under GC Clause 14.3 [Application for Interim Payment Certificates]) and after the Employer receives (i) the Performance Security in accordance with GC Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by a reputable bank or financial institution selected by the Contractor, and shall be in the form furnished in Section IX, Contract Forms or in another form approved by the Employer.</p>
	<p>14.2.4 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.</p>
	<p>14.2.5 Unless stated otherwise in the Particular Conditions, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Engineer in accordance with GC Clause 14.6 [Issue of Interim Payment Certificates], as follows:</p> <ul style="list-style-type: none"> (a) deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 20 per cent (20%) of the Accepted Contract Amount less Provisional Sums; and (b) deductions shall be made at the amortisation rate stated in the Particular Conditions of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 80 per cent (80%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.
	<p>14.2.6 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works, or prior to termination under GC Clause 15 [Termination by Employer], GC Clause 16 [Suspension and Termination by Contractor] or GC Clause 19.6 [Optional Termination, Payment and Release] (as the case may be), the whole of the balance then outstanding shall immediately become due, and in case of termination under GC Clause 15 [Termination by Employer], except for GC Clause 15.5 [Employer's Entitlement to Termination for Convenience], payable by the Contractor to the Employer.</p>

14.3	Application for Interim Payment Certificates
	<p>14.3.1 The Contractor shall submit a Statement in six copies to the Engineer after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the progress during this month in accordance with GC Clause 4.21 [Progress Reports].</p>
	<p>14.3.2 The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:</p> <ul style="list-style-type: none"> (a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in this GC Clause 14.3.2 (b) to (g) below); (b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with GC Clause 13.7 [Adjustments for Changes in Legislation] and GC Clause 13.8 [Adjustments for Changes in Cost]; (c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Particular Conditions to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Particular Conditions
	<ul style="list-style-type: none"> (d) any amounts to be added for the advance payment (if more than one instalment) and to be deducted for its repayments in accordance with GC Clause 14.2 [Advance Payment]; (e) any amounts to be added and deducted for Plant and Materials in accordance with GC Clause 14.5 [Plant and Materials intended for the Works]; (f) any other additions or deductions which may have become due under the Contract or otherwise, including those under GC Clause 20 [Claims, Disputes and Arbitration]; and (g) the deduction of amounts certified in all previous Payment Certificates.

14.4	Schedule of Payments
	<p>14.4.1 If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:</p> <ul style="list-style-type: none"> (a) the instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of GC Clause 14.3.2(a) [Application for Interim Payment Certificates]; (b) GC Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and (c) if these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Engineer may proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based
	<p>14.4.2 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.</p>
14.5	Plant and Materials intended for the Works
	<p>14.5.1 If this GC Clause applies, Interim Payment Certificates shall include, under GC Clause 14.3.2(e) [Application for Interim Payment Certificates], (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under GC Clause 14.3.2(a) [Application for Interim Payment Certificates].</p>
	<p>14.5.2 If the lists referred to in GC Clause 14.5.3(b)(i), or GC Clause 14.5.3(c)(i) below are not included in the Schedules, this GC Clause shall not apply.</p>

	<p>14.5.3 The Engineer shall determine and certify each addition if the following conditions are satisfied:</p> <p>(a) the Contractor has:</p> <ul style="list-style-type: none"> i. kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and ii. submitted a statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence; <p>and either:</p> <p>(b) the relevant Plant and Materials:</p> <ul style="list-style-type: none"> i. are those listed in the Schedules for payment when shipped, ii. have been shipped to the Country, en route to the Site, in accordance with the Contract; and iii. are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Engineer together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Employer in amounts and currencies equal to the amount due under this GC Clause: this guarantee may be in a similar form to the form referred to in GC Clause 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; <p>or</p> <p>(c) the relevant Plant and Materials:</p> <ul style="list-style-type: none"> i. are those listed in the Schedules for payment when delivered to the Site, and ii. have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration, and appear to be in accordance with the Contract.
	<p>14.5.4 The additional amount to be certified shall be the equivalent of eighty percent of the Engineer's determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this GC Clause and of the contract value of the Plant and Materials.</p>
	<p>14.5.5 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under GC Clause 14.3.2(a) [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials</p>

14.6	Issue of Interim Payment Certificates
	<p>14.6.1 No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Engineer shall, within 28 days after receiving a Statement and supporting documents, deliver to the Employer and to the Contractor an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Engineer on the Statement.</p>
	<p>14.6.2 However, prior to issuing the Taking-Over Certificate for the Works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in the Particular Conditions. In this event, the Engineer shall give notice to the Contractor accordingly.</p>
	<p>14.6.3 An Interim Payment Certificate shall not be withheld for any other reason, although:</p> <ul style="list-style-type: none"> (a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or (b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.
	<p>14.6.4 The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction.</p>

14.7	Payment
	<p>14.7.1 The Employer shall pay to the Contractor:</p> <ul style="list-style-type: none"> (a) the first instalment of the advance payment within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents in accordance with GC Clause 4.2 [Performance Security] and GC Clause 14.2 [Advance Payment], whichever is later; (b) the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor within 14 days after such statement is submitted, any discrepancy being rectified in the next payment to the Contractor; and (c) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate; or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the undisputed amount shown in the Final Statement within 56 days after the date of notification of the suspension in accordance with GC Clause 16.2.
	<p>14.7.2 Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (for this currency) specified in the Contract.</p>
14.8	Delayed Payment
	<p>14.8.1 If the Contractor does not receive payment in accordance with GC Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges compounded monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in GC Clause 14.7 [Payment], irrespective (in the case of Clause 14.7.1(b)) of the date on which any Interim Payment Certificate is issued.</p>
	<p>14.8.2 Unless otherwise stated in the Particular Conditions, these financing charges shall be calculated at the annual rate of three percentage points above the discount rate of the central bank in the country of the currency of payment, or if not available, the interbank offered rate, and shall be paid in such currency.</p>
	<p>14.8.3 The Contractor shall be entitled to this payment without formal notice or certification, and without prejudice to any other right or remedy.</p>

14.9	Payment of Retention Money
	<p>14.9.1 When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.</p>
	<p>14.9.2 Promptly after the latest of the expiry dates of the Defects Notification Periods, the outstanding balance of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.</p>
	<p>14.9.3 However, if any work remains to be executed under GC Clause 11 [Defects Liability], the Engineer shall be entitled to withhold certification of the estimated cost of this work until it has been executed.</p>
	<p>14.9.4 When calculating these proportions, no account shall be taken of any adjustments under GC Clause 13.7 [Adjustments for Changes in Legislation] and GC Clause 13.8 [Adjustments for Changes in Cost].</p>
	<p>14.9.5 Unless otherwise stated in the Particular Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a guarantee, in the form stipulated in Section IX, Contract Forms or in another form approved by the Employer and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money. The Contractor shall ensure that the guarantee is in the amounts and currencies of the second half of the Retention Money and is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security in GC Clause 4.2. On receipt by the Employer of the required guarantee, the Engineer shall certify and the Employer shall pay the second half of the Retention Money. The release of the second half of the Retention Money against a guarantee shall then be in lieu of the release under GC Clause 14.9.2. The Employer shall return the guarantee to the Contractor within 21 days after receiving a copy of the Performance Certificate.</p>

	<p>14.9.6 If the Performance Security required under GC Clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under it when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount guaranteed under the Performance Security when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security.</p>
14.10	Statement at Completion
	<p>14.10.1 Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer six copies of a Statement at completion with supporting documents, in accordance with GC Clause 14.3 [Application for Interim Payment Certificates], showing:</p> <ul style="list-style-type: none"> (a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works, (b) any further sums which the Contractor considers to be due, and (c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion
	<p>14.10.2 The Engineer shall then certify in accordance with GC Clause 14.6 [Issue of Interim Payment Certificates].</p>
14.11	Application for Final Payment Certificate
	<p>14.11.1 Within 56 days after receiving the Performance Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:</p> <ul style="list-style-type: none"> (a) the value of all work done in accordance with the Contract, and (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.
	<p>14.11.2 If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require within 28 days from receipt of the said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the “Final Statement”.</p>

	<p>14.11.3 However if, following discussions between the Engineer and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under GC Clause 20.4 [Obtaining Dispute Board's Decision] or GC Clause 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Employer (with a copy to the Engineer) a Final Statement.</p>
14.12	Discharge
	<p>14.12.1 When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.</p>
14.13	Issue of Final Payment Certificate
	<p>14.13.1 Within 28 days after receiving the Final Statement and discharge in accordance with GC Clause 14.11 [Application for Final Payment Certificate] and GC Clause 14.12 [Discharge], the Engineer shall deliver to the Employer and to the Contractor, the Final Payment Certificate which shall state:</p> <ul style="list-style-type: none"> (a) the amount which he fairly determines is finally due, and (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.
	<p>14.13.2 If the Contractor has not applied for a Final Payment Certificate in accordance with GC Clause 14.11 [Application for Final Payment Certificate] and GC Clause 14.12 [Discharge], the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.</p>

14.14	Cessation of Employer's Liability
	<p>14.14.1 The Employer shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:</p> <ul style="list-style-type: none"> (a) in the Final Statement, and also (b) except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in GC Clause 14.10 [Statement at Completion].
	<p>14.14.2 However, this GC Clause shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.</p>

14.15	Currencies of Payment
	<p>14.15.1 The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:</p> <ul style="list-style-type: none"> (a) if the Accepted Contract Amount was expressed in Local Currency only: <ul style="list-style-type: none"> i. the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of Payment Currencies, except as otherwise agreed by both Parties; ii. payments and deductions under GC Clause 13.5 [Provisional Sums] and GC Clause 13.7 [Adjustments for Changes in Legislation] shall be made in the applicable currencies and proportions; and iii. other payments and deductions under GC Clauses 14.3.2(a), 14.3.2(b), 14.3.2(c), and 14.3.2(d) [Application for Interim Payment Certificates] shall be made in the currencies and proportions specified in GC Clause 14.15.1(a)(i) above; (b) payment of the damages specified in the Particular Conditions shall be made in the currencies and proportions specified in the Schedule of Payment Currencies; (c) other payments to the Employer by the Contractor shall be made in the currency in which the sum was expended by the Employer, or in such currency as may be agreed by both Parties; (d) if any amount payable by the Contractor to the Employer in a particular currency exceeds the sum payable by the Employer to the Contractor in that currency, the Employer may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and (e) if no rates of exchange are stated in the Schedule of Payment Currencies; they shall be those prevailing on the Base Date and determined by the central bank of the Country.
15	Termination by Employer
15.1	Notice to Correct
	<p>15.1.1 If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.</p>

15.2	Termination by Employer
	<p>15.2.1 The Employer shall be entitled to terminate the Contract if the Contractor:</p> <ul style="list-style-type: none"> (a) fails to comply with GC Clause 4.2 [Performance Security] or with a notice under GC Clause 15.1 [Notice to Correct], (b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract, (c) without reasonable excuse fails: <ul style="list-style-type: none"> i. to proceed with the Works in accordance with GC Clause 8 [Commencement, Delays and Suspension], or ii. to comply with a notice issued under GC Clause 7.5 [Rejection] or GC Clause 7.6 [Remedial Work], within 28 days after receiving it, (d) subcontracts the whole of the Works or assigns the Contract without the required agreement, (e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or (f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward: <ul style="list-style-type: none"> i. for doing or forbearing to do any action in relation to the Contract, or ii. for showing or forbearing to show favour or disfavour to any person in relation to the Contract, <p>or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this GC Clause 15.2.1(f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination.</p>
	<p>15.2.2 In any of these events or circumstances, the Employer may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of GC Clause 15.2.1(e) or (f), the Employer may by notice terminate the Contract immediately.</p>
	<p>15.2.3 The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.</p>

	15.2.4 The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.
	15.2.5 After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.
	15.2.6 The Employer shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.
15.3	Valuation at Date of Termination
	15.3.1 As soon as practicable after a notice of termination under GC Clause 15.2 [Termination by Employer] has taken effect, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.
15.4	Payment after Termination
	<p>15.4.1 After a notice of termination under GC Clause 15.2 [Termination by Employer] has taken effect, the Employer may:</p> <ul style="list-style-type: none"> a) proceed in accordance with GC Clause 2.5 [Employer's Claims], b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established, and/or c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under GC Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.

15.5	Employer's Entitlement to Termination for Convenience
	<p>15.5.1 The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this GC Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under GC Clause 16.2 [Termination by Contractor].</p>
	<p>15.5.2 After this termination, the Contractor shall proceed in accordance with GC Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with GC Clause 16.4 [Payment on Termination].</p>
15.6	Fraud and Corruption
	<p>15.6.1 If the Employer determines, based on reasonable evidence, that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of GC Clause 15 shall apply as if such expulsion had been made under GC Clause 15.2 [Termination by Employer].</p>
	<p>15.6.2 Should any employee of the Contractor be determined, based on reasonable evidence, to have engaged in corrupt, fraudulent, coercive or obstructive practice during the execution of the work then that employee shall be removed in accordance with GC Clause 6.9 [Contractor's Personnel].</p>

	<p>15.6.3 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank Financing), as well as bidders, suppliers, and contractors, and their agents (whether declared or not), subcontractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts¹. In pursuance of this policy, the Bank:</p> <p>a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <ul style="list-style-type: none"> 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 a 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; and 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 <ul style="list-style-type: none"> 1. deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation 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
	<ul style="list-style-type: none"> 2. acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under clause 1.15 [Inspections and Audits by the Bank]

¹ In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

	<p>b) will reject a proposal for award if it determines that the bidder recommended for award or 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;</p> <p>c) will declare misprocurement and cancel the portion of the Financing allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of such Financing engaged in Corrupt, Fraudulent, Collusive, Coercive or Obstructive Practices during the procurement or the implementation of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;</p> <p>d) will sanction a firm or individual, at any time, in accordance with the prevailing Bank's sanctions procedures², including by publicly declaring such firm or individual ineligible either indefinitely or for a stated period of time, (i) to be awarded Bank-financed contracts and (ii) to be a nominated³ sub-contractor, consultant, supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and</p> <p>e) will require that a clause be included in bidding documents and in contracts financed by the Bank, requiring bidders, suppliers and contractors and their sub-contractors, agents, personnel, consultants, service providers, or suppliers to permit the Bank to inspect all accounts and records and other documents relating to the submission of bids and contract performance and to have them audited by auditors appointed by the Bank.</p>
--	---

² A firm or an individual may be declared ineligible to be awarded a Bank financed contract: (i) upon completion of the Bank's sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, or otherwise decided by the Bank; and through the application of the Proposal for the Implementation of a Sanctions Process within the African Development Bank Group; and (ii) as a result of temporary suspension or early temporary suspension in connection with an on-going sanction proceeding. See footnote 18 and paragraph 9 of Appendix 1 of the Rules and Procedures for Procurement of Goods and Works.

³ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding documents) is one which has either been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirement for the particular bid; or (ii) appointed by the Borrower."

16	Suspension and Termination by Contractor
16.1	Contractor's Entitlement to Suspend Work
	16.1.1 If the Engineer fails to certify in accordance with GC Clause 14.6 [Issue of Interim Payment Certificates] or the Employer fails to comply with GC Clause 2.4 [Employer's Financial Arrangements] or GC Clause 14.7 [Payment], the Contractor may, after giving not less than 21 days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.
	16.1.2 Notwithstanding the above, if the Bank has suspended disbursements under the loan or credit from which payments to the Contractor are being made, in whole or in part, for the execution of the Works, and no alternative funds are available as provided for in GC Clause 2.4 [Employer's Financial Arrangements], the Contractor may by notice suspend work or reduce the rate of work at any time, but not less than 7 days after the Borrower having received the suspension notification from the Bank.
	16.1.3 The Contractor's action shall not prejudice his entitlements to financing charges under GC Clause 14.8 [Delayed Payment] and to termination under GC Clause 16.2 [Termination by Contractor].
	16.1.4 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant GC Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.
	16.1.5 If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this GC Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to: <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus profit, which shall be included in the Contract Price
	16.1.6 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.

16.2	Termination by Contractor
	<p>16.2.1 The Contractor shall be entitled to terminate the Contract if: the Contractor does not receive the reasonable evidence within 42 days after giving notice under GC Clause 16.1 [Contractor's Entitlement to Suspend Work] in respect of a failure to comply with GC Clause 2.4 [Employer's Financial Arrangements],</p>
	<ul style="list-style-type: none"> (a) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate, (b) the Contractor does not receive the amount due under an Interim Payment Certificate within 42 days after the expiry of the time stated in GC Clause 14.7 [Payment] within which payment is to be made (except for deductions in accordance with GC Clause 2.5 [Employer's Claims]), (c) the Employer substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract, (d) the Employer fails to comply with GC Clause 1.6 [Contract Agreement] or GC Clause 1.7 [Assignment], (e) a prolonged suspension affects the whole of the Works as described in GC Clause 8.11 [Prolonged Suspension], or (f) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events. (g) the Contractor does not receive the Engineer's instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under GC Clause 8.1 [Commencement of Works].
	<p>16.2.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Employer, terminate the Contract. However, in the case of GC Clause 16.2.1(f) or (g), the Contractor may by notice terminate the Contract immediately.</p>

	<p>16.2.3 In the event the Bank suspends the loan or credit from which part or whole of the payments to the Contractor are being made, if the Contractor has not received the sums due to him upon expiration of the 14 days referred to in GC Clause 14.7 [Payment] for payments under Interim Payment certificates, the Contractor may, without prejudice to the Contractor's entitlement to financing charges under GC Clause 14.8 [Delayed Payment], take one of the following actions, namely (i) suspend work or reduce the rate of work under GC Clause 16.1.3 above, or (ii) terminate his employment under the Contract by giving notice to the Employer, with a copy to the Engineer, such termination to take effect 14 days after the giving of the notice.</p>
	<p>16.2.4 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.</p>
16.3	Cessation of Work and Removal of Contractor's Equipment
	<p>16.3.1 After a notice of termination under GC Clause 15.5 [Employer's Entitlement to Termination for Convenience], GC Clause 16.2 [Termination by Contractor] or GC Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:</p> <ul style="list-style-type: none"> (a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works, (b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and (c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.
16.4	Payment on Termination
	<p>16.4.1 After a notice of termination under GC Clause 16.2 [Termination by Contractor] has taken effect, the Employer shall promptly:</p> <ul style="list-style-type: none"> (a) return the Performance Security to the Contractor, (b) pay the Contractor in accordance with GC Clause 19.6 [Optional Termination, Payment and Release], and (c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

17	Risk and Responsibility
17.1	Indemnities
	<p>17.1.1 The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:</p> <ul style="list-style-type: none"> (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and (b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.
	<p>17.1.2 The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in GC Clause 18.3.3(d)(i), (ii) and (iii) [Insurance Against Injury to Persons and Damage to Property].</p>
17.2	Contractor's Care of the Works
	<p>17.2.1 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under GC Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.</p>
	<p>17.2.2 After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.</p>

	<p>17.2.3 If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in GC Clause 17.3 [Employer's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.</p>
	<p>17.2.4 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.</p>
17.3	Employer's Risks
	<p>17.3.1 The risks referred to in GC Clause 17.4 [Consequences of Employer's Risks] below, insofar as they directly affect the execution of the Works in the Country, are:</p> <p>(a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,</p>
	<p>(b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war, within the Country,</p> <p>(c) riot, commotion or disorder within the Country by persons other than the Contractor's Personnel,</p> <p>(d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, within the Country, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity</p> <p>(e) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,</p> <p>(f) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract,</p> <p>(g) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract,</p> <p>any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventative precautions.</p>
17.4	Consequences of Employer's Risks
	<p>17.4.1 If and to the extent that any of the risks listed in GC Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.</p>

	<p>17.4.2 If the Contractor suffers delay and/or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost, which shall be included in the Contract Price. In the case of GC Clause 17.3.1(f) and (g) [Employer's Risks], Cost plus profit shall be payable.
	<p>17.4.3 After receiving this further notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.</p>
17.5	Intellectual and Industrial Property Rights
	<p>17.5.1 In this GC Clause, "infringement" means an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.</p>
	<p>17.5.2 Whenever a Party does not give notice to the other Party of any claim within 28 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this GC Clause.</p>
	<p>17.5.3 The Employer shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:</p> <ul style="list-style-type: none"> (a) an unavoidable result of the Contractor's compliance with the Contract, or (b) a result of any Works being used by the Employer: <ul style="list-style-type: none"> i. for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or ii. in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.
	<p>17.5.4 The Contractor shall indemnify and hold the Employer harmless against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.</p>

	<p>17.5.5 If a Party is entitled to be indemnified under this GC Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.</p>
17.6	Limitation of Liability
	<p>17.6.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in GC Clause 8.7 [Delay Damages]; GC Clause 11.2 [Cost of Remedying Defects]; GC Clause 15.4 [Payment after Termination]; GC Clause 16.4 [Payment on Termination]; GC Clause 17.1 [Indemnities]; GC Clause 17.4 (b) [Consequences of Employer's Risks] and GC Clause 17.5 [Intellectual and Industrial Property Rights].</p>
	<p>17.6.2 The total liability of the Contractor to the Employer, under or in connection with the Contract other than under GC Clause 4.19 [Electricity, Water and Gas], GC Clause 4.20 [Employer's Equipment and Free-Issue Material], GC Clause 17.1 [Indemnities] and GC Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in the Particular Conditions, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.</p>
	<p>17.6.3 This GC Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.</p>
17.7	Use of Employer's Accommodation/Facilities
	<p>17.7.1 The Contractor shall take full responsibility for the care of the Employer provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).</p>
	<p>17.7.2 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.</p>

18	Insurance
18.1	General Requirements for Insurances
	18.1.1 In this GC Clause, “insuring Party” means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant GC Clause.
	18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Employer. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this GC Clause
	18.1.3 Wherever the Employer is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this GC Clause.
	18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this GC Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Employer shall act for Employer’s Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
	18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.
	18.1.6 The relevant insuring Party shall, within the respective periods stated in the Particular Conditions (calculated from the Commencement Date), submit to the other Party: <ul style="list-style-type: none"> (a) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract. (b) copies of the policies for the insurances described in GC Clause 18.2 [Insurance for Works and Contractor’s Equipment] and GC Clause 18.3 [Insurance against Injury to Persons and Damage to Property].
	18.1.7 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.

	18.1.8 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this GC Clause.
	18.1.9 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.
	18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract, or fails to provide satisfactory evidence and copies of policies in accordance with this GC Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.
	18.1.11 Nothing in this GC Clause limits the obligations, liabilities or responsibilities of the Contractor or the Employer, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Employer in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.
	18.1.12 Payments by one Party to the other Party shall be subject to GC Clause 2.5 [Employer's Claims] or GC Clause 20.1 [Contractor's Claims], as applicable.
	18.1.13 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to GC Clause 18) with insurers from any eligible source country, in accordance with the Bank's Rules and Procedures for Procurement of Goods and Works.
18.2	Insurance for Works and Contractor's Equipment
	18.2.1 The insuring Party shall insure the Works, Plant, Materials and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under GC Clause 18.1.6(a) [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.

	<p>18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under GC Clause 11 [Defects Liability]).</p>
	<p>18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.</p>
	<p>18.2.4 Unless otherwise stated in the Particular Conditions, insurances under this GC Clause:</p> <ul style="list-style-type: none"> (a) shall be effected and maintained by the Contractor as insuring Party, (b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage, (c) shall cover all loss and damage from any cause not listed in GC Clause 17.3 [Employer's Risks], (d) shall also cover, to the extent specifically required in the bidding documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Employer of another part of the Works, and loss or damage from the risks listed in GC Clause 17.3.1(c), (g) and (h) [Employer's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated in the Particular Conditions (if an amount is not so stated, this GC Clause 18.2.4(d) shall not apply), and (e) may however exclude loss of, damage to, and reinstatement of: <ul style="list-style-type: none"> i. a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in GC Clause 18.2.4(e)(ii) below), ii. a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship, iii. a part of the Works which has been taken over by the Employer, except to the extent that the Contractor is liable for the loss or damage, and iv. Goods while they are not in the Country, subject to GC Clause 14.5 [Plant and Materials intended for the Works].

	<p>18.2.5 If, more than one year after the Base Date, the cover described in GC Clause 18.2.4(d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Employer, with supporting particulars. The Employer shall then (i) be entitled subject to GC Clause 2.5 [Employer's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under GC Clause 18.1 [General Requirements for Insurances].</p>
18.3	Insurance against Injury to Persons and Damage to Property
	<p>18.3.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under GC Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under GC Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.</p>
	<p>18.3.2 This insurance shall be for a limit per occurrence of not less than the amount stated in the Particular Conditions, with no limit on the number of occurrences. If an amount is not stated in the Particular Conditions, this GC Clause shall not apply.</p>
	<p>18.3.3 Unless otherwise stated in the Particular Conditions, the insurances specified in this GC Clause:</p> <ul style="list-style-type: none"> (a) shall be effected and maintained by the Contractor as insuring Party, (b) shall be in the joint names of the Parties, (c) shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under GC Clause 18.2) arising out of the Contractor's performance of the Contract, and (d) may however exclude liability to the extent that it arises from: <ul style="list-style-type: none"> i. the Employer's right to have the Permanent Works executed on, over, under, in or through any land, and to occupy this land for the Permanent Works, ii. damage which is an unavoidable result of the Contractor's obligations to execute the Works and remedy any defects, and iii. a cause listed in GC Clause 17.3 [Employer's Risks], except to the extent that cover is available at commercially reasonable terms.
18.4	Insurance for Contractor's Personnel
	<p>18.4.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.</p>

	18.4.2 The insurance shall cover the Employer and the Engineer against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.
	18.4.3 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this GC Clause.
19	Force Majeure
19.1	Definition of Force Majeure
	19.1.1 In this GC Clause, "Force Majeure" means an exceptional event or circumstance: <ul style="list-style-type: none"> a) which is beyond a Party's control, b) which such Party could not reasonably have provided against before entering into the Contract, c) which, having arisen, such Party could not reasonably have avoided or overcome, and d) which is not substantially attributable to the other Party.
	19.1.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied: <ul style="list-style-type: none"> a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies, b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war, c) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel, d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.
19.2	Notice of Force Majeure
	19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
	19.2.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.

	19.2.3 Notwithstanding any other provision of this GC Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract
19.3	Duty to Minimise Delay
	19.3.1 Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure.
	19.3.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
19.4	Consequences of Force Majeure
	<p>19.4.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GC Clause 19.2 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to GC Clause 20.1 [Contractor's Claims] to:</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GC Clause 8.4 [Extension of Time for Completion], and (b) if the event or circumstance is of the kind described in GC Clause 19.1.2(i) to (iv) [Definition of Force Majeure] and, in the case of GC Clause 19.1.2(ii) to (iv), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GC Clause 18.2 [Insurance for Works and Contractor's Equipment].
	19.4.2 After receiving this notice, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine these matters.
19.5	Force Majeure Affecting Subcontractor
	19.5.1 If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this GC Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this GC Clause.

19.6	Optional Termination, Payment and Release
	<p>19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under GC Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with GC Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].</p>
	<p>19.6.2 Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:</p> <ul style="list-style-type: none"> (a) the amounts payable for any work carried out for which a price is stated in the Contract; (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
	<ul style="list-style-type: none"> (c) other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works; (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and (e) the Cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

19.7	Release from Performance
	<p>19.7.1 Notwithstanding any other provision of this GC Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:</p> <ul style="list-style-type: none"> (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under GC Clause 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under GC Clause 19.6.
20	Claims, Disputes and Arbitration
20.1	Contractor's Claims
	<p>20.1.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.</p>
	<p>20.1.2 If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this GC Clause shall apply.</p>
	<p>20.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.</p>
	<p>20.1.4 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 Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this GC Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.</p>

	<p>20.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer 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:</p> <ul style="list-style-type: none"> (a) this fully detailed claim shall be considered as interim; (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.
	<p>20.1.6 Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.</p>
	<p>20.1.7 Within the above defined period of 42 days, the Engineer shall proceed in accordance with GC Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with GC 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.</p>
	<p>20.1.8 Each Payment Certificate shall include such additional payment for any claim as have 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.</p>
	<p>20.1.9 If the Engineer does not respond within the timeframe defined in this GC Clause, either Party may consider that the claim is rejected by the Engineer and any of the Parties may refer it to the Dispute Board in accordance with GC Clause 20.4 [Obtaining Dispute Board's Decision].</p>
	<p>20.1.10 The requirements of this GC Clause are in addition to those of any other GC Clause which may apply to a claim. If the Contractor fails to comply with this or another GC 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 GC Clause.</p>

20.2	Appointment of the Dispute Board
	20.2.1 Disputes shall be referred to a DB for decision in accordance with GC Clause 20.4 [Obtaining Dispute Board's Decision]. The Parties shall appoint a DB by the date stated in the Particular Conditions.
	20.2.2 The DB shall comprise, as stated in the Particular Conditions, either one or three suitably qualified persons ("the members"), each of whom shall be fluent in the language for communication defined in the Contract and shall be a professional experienced in the type of construction involved in the Works and with the interpretation of contractual documents. If the number is not so stated and the Parties do not agree otherwise, the DB shall comprise three persons.
	20.2.3 If the Parties have not jointly appointed the DB 21 days before the date stated in the Particular Conditions and the DB is to comprise three persons, each Party shall nominate one member for the approval of the other Party. The first two members shall recommend and the Parties shall agree upon the third member, who shall act as chairman.
	20.2.4 However, if a list of potential members has been agreed by the Parties and is included in the Contract, the members shall be selected from those on the list, other than anyone who is unable or unwilling to accept appointment to the DB.
	20.2.5 The agreement between the Parties and either the sole member or each of the three members shall incorporate by reference the General Conditions of Dispute Board Agreement contained in the Appendix to these General Conditions, with such amendments as are agreed between them.
	20.2.6 The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert whom the DB consults, shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.
	20.2.7 If at any time the Parties so agree, they may jointly refer a matter to the DB for it to give its opinion. Neither Party shall consult the DB on any matter without the agreement of the other Party.
	20.2.8 If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this GC Clause.
	20.2.9 The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DB (including each member) shall expire when the discharge referred to in GC Clause 14.12 [Discharge] shall have become effective.

20.3	Failure to Agree on the Composition of the Dispute Board
	<p>20.3.1 If any of the following conditions apply, namely:</p> <ul style="list-style-type: none"> (a) the Parties fail to agree upon the appointment of the sole member of the DB by the date stated in the first paragraph of GC Clause 20.2, [Appointment of the Dispute Board] (b) either Party fails to nominate a member (for approval by the other Party) or fails to approve a member nominated by the other Party, of a DB of three persons by such date, (c) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DB by such date, or
	<ul style="list-style-type: none"> (d) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, <p>then the appointing entity or official named in the Particular Conditions shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the DB. This appointment shall be final and conclusive. Each Party shall be responsible for paying one-half of the remuneration of the appointing entity or official.</p>
20.4	Obtaining Dispute Board's Decision
	<p>20.4.1 If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the DB for its decision, with copies to the other Party and the Engineer. Such reference shall state that it is given under this GC Clause.</p>
	<p>20.4.2 For a DB of three persons, the DB shall be deemed to have received such reference on the date when it is received by the chairman of the DB.</p>
	<p>20.4.3 Both Parties shall promptly make available to the DB all such additional information, further access to the Site, and appropriate facilities, as the DB may require for the purposes of making a decision on such dispute. The DB shall be deemed to be not acting as arbitrator(s).</p>
	<p>20.4.4 Within 84 days after receiving such reference, or within such other period as may be proposed by the DB and approved by both Parties, the DB shall give its decision, which shall be reasoned and shall state that it is given under this GC Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.</p>

	<p>20.4.5 If either Party is dissatisfied with the DB's decision, then either Party may, within 28 days after receiving the decision, give a Notice of Dissatisfaction to the other Party indicating its dissatisfaction and intention to commence arbitration. If the DB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference, then either Party may, within 28 days after this period has expired, give a Notice of Dissatisfaction to the other Party.</p>
	<p>20.4.6 In either event, this notice of dissatisfaction shall state that it is given under this GC Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in GC Clause 20.7 [Failure to Comply with Dispute Board's Decision] and GC Clause 20.8 [Expiry of Dispute Board's Appointment], neither Party shall be entitled to commence arbitration of a dispute unless a notice of dissatisfaction has been given in accordance with this GC Clause.</p>
	<p>20.4.7 If the DB has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 days after it received the DB's decision, then the decision shall become final and binding upon both Parties.</p>
20.5	Amicable Settlement
	<p>20.5.1 Where a notice of dissatisfaction has been given under GC Clause 20.4 above, 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 Dissatisfaction in accordance with GC Clause 20.4 above, should move to commence arbitration after the fifty-sixth (56) day from the day on which a notice of dissatisfaction was given, even if no attempt at amicable settlement has been made.</p>

20.6	Arbitration
	<p>20.6.1 Any dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with GC Clause 20.5 above, and in respect of which the DB's decision (if any) has not become final and binding, shall be finally settled by arbitration. Arbitration shall be conducted as follows:</p> <p>(a) for contracts with foreign contractors, international arbitration (i) with proceedings administered by the arbitration institution designated in the Particular Conditions, and conducted under the rules of arbitration of such institution; or, if so specified in the Particular Conditions, (ii) international arbitration in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or (iii) if neither an arbitration institution or UNCITRAL arbitration rules is specified in the Particular Conditions, with proceedings administered by the International Chamber of Commerce (ICC), and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with the said arbitration rules.</p> <p>The place of arbitration shall be the neutral location specified in the Particular Conditions, and the arbitration shall be conducted in the language for communications defined in GC Clause 1.4 [Law and Language].</p> <p>(b) for contracts with domestic contractors, arbitration with proceedings conducted in accordance with the laws of the Employer's country.</p>
	<p>20.6.2 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, and any decision of the DB, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Engineer from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.</p>
	<p>20.6.3 Neither Party shall be limited in the proceedings before the arbitrators to the evidence nor arguments previously put before the DB to obtain its decision, or to the reasons for dissatisfaction given in its notice of dissatisfaction. Any decision of the DB shall be admissible in evidence in the arbitration.</p>
	<p>20.6.4 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, the Engineer and the DB shall not be altered by reason of any arbitration being conducted during the progress of the Works.</p>

20.7	Failure to Comply with Dispute Board's Decision
	<p>20.7.1 In the event that a Party fails to comply with a final and binding DB decision, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under GC Clause 20.6 [Arbitration]. GC Clause 20.4 [Obtaining Dispute Board's Decision] and GC Clause 20.5 [Amicable Settlement] shall not apply to this reference.</p>
20.8	Expiry of Dispute Board's Appointment
	<p>20.8.1 If a dispute arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DB in place, whether by reason of the expiry of the DB's appointment or otherwise:</p> <ul style="list-style-type: none"> (a) GC Clause 20.4 [Obtaining Dispute Board's Decision] and GC Clause 20.5 [Amicable Settlement] shall not apply, and (b) the dispute may be referred directly to arbitration under GC Clause 20.6 [Arbitration].

Section X - Contract Forms

Table of Forms

Notification of Intention to Award	287
Beneficial Ownership Disclosure Form.....	290
Letter of Acceptance	292
Contract Agreement.....	293
Performance Security: Option 1: Demand Guarantee	294
Performance Security: Option 2: Performance Bond	295
Environmental and Social (ES) Performance Security	297
Advance Payment Security	298
Retention Money Security	300

Notification of Intention to Award

[This Notification of Intention to Award shall be sent to each Bidder that submitted a Bid.]
[Send this Notification to the Bidder's Authorized Representative named in the Bidder Information Form]

For the attention of Bidder's Authorized Representative

Name: *[insert Authorized Representative's name]*

Address: *[insert Authorized Representative's Address]*

Telephone/Fax numbers: *[insert Authorized Representative's telephone/fax numbers]*

Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Bidders. The Notification must be sent to all Bidders simultaneously. This means on the same date and as close to the same time as possible.]

DATE OF TRANSMISSION: This Notification is sent by: *[email/fax]* on *[date]* (local time)

Notification of Intention to Award

Employer: *[insert the name of the Employer]*

Project: *[insert name of project]*

Contract title: *[insert the name of the contract]*

Country: *[insert country where RFB is issued]*

Loan No. /Credit No. / Grant No.: *[insert reference number for loan/credit/grant]*

RFB No: *[insert RFB 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:

- a) request a debriefing in relation to the evaluation of your Bid, and/or
- b) submit a Procurement-related Complaint in relation to the decision to award the contract.

1. The successful Bidder

Name: *[insert name of successful Bidder]*

Address: *[insert address of the successful Bidder]*

Contract price: *[insert contract price of the successful Bid]*

2. Other Bidders *[INSTRUCTIONS: insert names of all Bidders that submitted a Bid. If the Bid's price was evaluated include the evaluated price as well as the Bid price as read out.]*

Name of Bidder	Bid price	Evaluated Bid price (if applicable)
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]

3. Reason/s why your Bid was unsuccessful

[INSTRUCTIONS: State the reason/s why this Bidder's Bid was unsuccessful. Do NOT include: (a) a point by point comparison with another Bidder's Bid or (b) information that is marked confidential by the Bidder in its Bid.]

4. How to request a debriefing

DEADLINE: The deadline to request a debriefing expires at midnight on [insert date] (local time).

You may request a debriefing in relation to the results of the evaluation of your Bid. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Bidder, contact details; and address the request for debriefing as follows:

Attention: [insert full name of person, if applicable]

Title/position: [insert title/position]

Agency: [insert name of Employer]

Email address: [insert email address]

Fax number: [insert fax number] *delete if not used*

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) 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 (5) Business 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.

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.

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) Business Days from the date of publication of the Contract Award Notice.

5. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [insert date] (local time).

Provide the contract name, reference number, name of the Bidder, contact details; and address the Procurement-related Complaint as follows:

Attention: [insert full name of person, if applicable]

Title/position: [insert title/position]

Agency: [insert name of Employer]

Email address: [insert email address]

Fax number: [insert fax number] *delete if not used*

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.

Further information:

For more information see Part B of the Operations Procurement Manual. In summary, there are four essential requirements:

1. You must be an ‘interested party’. In this case, that means a Bidder who submitted a Bid in this bidding process, and is the recipient of a Notification of Intention to Award.
2. The complaint can only challenge the decision to award the contract.
3. You must submit the complaint within the period stated above.
4. You must include, in your complaint, all necessary information

6. Standstill Period

DEADLINE: The Standstill Period is due to end at midnight on [insert date] (local time).

The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.

The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification, please do not hesitate to contact us.

On behalf of the Employer:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____

Beneficial Ownership Disclosure Form

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful Bidder¹. In case of joint venture, the Bidder 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 Bidder is any natural person who ultimately owns or controls the Bidder by meeting one or more of the following conditions:

- directly or indirectly holding 25% or more of the shares*
- directly or indirectly holding 25% or more of the voting rights*
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder*

RFB No.: [insert number of RFB process]

Request for Bid No.: [insert identification]

To: [insert complete name of Employer]

In response to your request in the Letter of Acceptance dated [insert date of letter of Acceptance] to furnish additional information on beneficial ownership: [select one option as applicable and delete the options that are not applicable]

(i) we hereby provide the following beneficial ownership information.

Details of beneficial ownership

Identity of Beneficial Owner	Directly or indirectly holding 25% or more of the shares (Yes / No)	Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Bidder (Yes / No)
[include full name (last, middle, first), nationality, country of residence]			

OR

(ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions:*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder

OR

(iii) *We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Bidder shall provide explanation on why it is unable to identify any Beneficial Owner]*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder]

Name of the Bidder: **[insert complete name of the Bidder]*

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

Title of the person signing the Bid: *[insert complete title of the person signing the Bid]*

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]*

* In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder. In the event that the Bidder is a joint venture, each reference to “Bidder” in the Beneficial Ownership Disclosure Form (including this Introduction thereto) shall be read to refer to the joint venture member.

** Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules.

Letter of Acceptance

[letterhead paper of the Employer]

[date]

To: *[name and address of the Contractor]*

This is to notify you that your Bid 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 Bidders, is hereby accepted by our Agency.

You are requested to furnish (i) the Performance Security and an Environmental and Social Performance Security ***[Delete ES Performance Security if it is not required under the contract]*** within 28 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms and the ES Performance Security Form, ***[Delete reference to the ES Performance Security Form if it is not required under the contract]*** and (ii) the additional information on beneficial ownership in accordance with BDS ITB 47.1, within eight (8) Business days using the Beneficial Ownership Disclosure Form, included in Section X, Contract Forms, of the bidding document.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made the _____ day of _____, _____, between _____ of _____ (hereinafter “the Employer”), of the one part, and _____ of _____ (hereinafter “the Contractor”), of the other part:

WHEREAS the Employer desires that the Works known as _____ should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer 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 Bid;
 - (c) the addenda Nos _____ (if any);
 - (d) the Particular Conditions;
 - (e) the General Conditions;
 - (f) the Specification;
 - (g) the Drawings; and
 - (h) the completed Schedules and any other documents forming part of the contract, including, but not limited to:
 - i. the ES Management Strategies and Implementation Plans; and
 - ii. Code of Conduct for Contractor’s Personnel (ES);
3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer 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 _____ on the day, month and year specified above.

Signed by _____ (for the Employer)

Signed by _____ (for the Contractor)

Performance Security: Option 1: Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Employer]*

Date: _____ *[Insert date of issue]*

Performance Guarantee No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract"). Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant to issue this guarantee, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (),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.

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 this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

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(cies) 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 Employer should note that in the event of an extension of this date for completion of the Contract, the Employer 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. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "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."

Performance Security: Option 2: Performance Bond

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 Employer") 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.

WHEREAS the Contractor has entered into a written Agreement with the Employer 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.

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 Employer to be, in default under the Contract, the Employer having performed the Employer'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 Bid or Bids from qualified Bidders for submission to the Employer for completing the Contract in accordance with its terms and conditions, and upon determination by the Employer and the Surety of the lowest responsive Bidder, arrange for a Contract between such Bidder and Employer 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 Employer to Contractor under the Contract, less the amount properly paid by Employer to Contractor; or
- (3) pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

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

Any suit under this Bond must be instituted before the expiration of one year from the date of 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 Employer named herein or the heirs, executors, administrators, successors, and assigns of the Employer.

In testimony whereof, the Contractor has hereunto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its legal representative, this _____ day of _____ 20____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

Environmental and Social (ES) Performance Security

ES Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Employer]*

Date: *[Insert date of issue]*

ES PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract"). Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant to issue this guarantee, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____),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 Environmental and/or Social (ES) obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

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 this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

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 (cies) 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 Employer should note that in the event of an extension of this date for completion of the Contract, the Employer 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. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "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."

Advance Payment Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[Insert name and Address of Employer]*

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]*

We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (_____) is to be made against an advance payment guarantee.

At the request of the Applicant to issue this guarantee, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____)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.

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 Applicant on its account number _____ at _____.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant 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.

¹ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

² Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer 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. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "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."

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

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

Retention Money Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[Insert name and Address of Employer]*

Date: _____ *[Insert date of issue]*

RETENTION MONEY GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

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 Applicant") 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").

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, payment of *[insert the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money]*, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and, if required, the ES Performance Security] is to be made against a Retention Money guarantee.

At the request of the Applicant to issue this guarantee, 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]* (_____) *[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 Applicant 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.

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 Applicant on its account number _____ at _____ *[insert name and address of Applicant's bank]*.

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.

¹ The Guarantor shall insert an amount representing the amount of the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and denominated either in the currency(ies) of the second half of the Retention Money as specified in the Contract, or in a freely convertible currency acceptable to the Beneficiary.

² Insert the same expiry date as set forth in the performance security, representing the date twenty-eight days after the completion date described in GC Clause 11.9. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer 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. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

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

to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."